

**Torres Rojas, Genara**

FOI#13417

**From:** philip.messing@nypost.com  
**Sent:** Wednesday, August 15, 2012 3:41 PM  
**To:** Duffy, Daniel  
**Cc:** Torres Rojas, Genara; Van Duyne, Sheree  
**Subject:** Freedom of Information Online Request Form

Information:

First Name: Philip  
Last Name: Messing  
Company: New York Post  
Mailing Address 1: 1211 Sixth Avenue  
Mailing Address 2:  
City: New York  
State: NY  
Zip Code: 10036  
Email Address: [philip.messing@nypost.com](mailto:philip.messing@nypost.com)  
Phone: 212-930-8633  
Required copies of the records: Yes

List of specific record(s):

To whom it may concern, I hereby request, under existing FOI statutes, all records documenting the PANYNJ monies paid to create and operate the Perimeter Intrusion Detection System PIDS program, the security fencing that abuts JFK Airport LaGuardia Airport and Teterboro Airport. Upon information and belief, this program was announced in 2009 and my request includes, but is not limited to, all invoices documenting PANYNJ monies paid to Raytheon, the Massachusetts-based defense contractor, from 2008 through August 2012, as well as said PANYNJ monies paid to OTHER PARTICIPATING VENDORS. I specifically request the Raytheon contracts detailing PANYNJ monies paid to Raytheon and other vendors and when future payments are due them I furthermore request data on any PANYNJ monies paid to, or due to be paid to, OTHER VENDORS for related CCTV television and/or security guards deployed as part of this PIDS project during the aforementioned time period. Thanks Sincerely, Philip Messing

**THE PORT AUTHORITY OF NY & NJ**

*FOI Administrator*

June 3, 2014

Mr. Philip Messing  
New York Post  
1211 Sixth Avenue  
New York, NY 10036

Re: Freedom of Information Reference No. 13417

Dear Mr. Messing:

This is in response to your August 15, 2012 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code", copy attached) for copies of all records documenting the Port Authority monies paid to create and operate the Perimeter Intrusion Detection System PIDS program, the security fencing that abuts John F. Kennedy International Airport, LaGuardia Airport and Teterboro Airport, all invoices documenting the Port Authority paid monies to Raytheon, the Massachusetts-based defense contractor, from 2008 through August 2012, as well as monies paid to other participating vendors, specifically request the Raytheon contracts detailing Port Authority monies paid to Raytheon and other vendors for related CCTV television and/or security guards deployed as part of this PIDS project during the aforementioned time period.

Material responsive to your request and available under the Code can be found on the Port Authority's website at <http://www.panynj.gov/corporate-information/foi/13417-C.pdf>. Paper copies of the available records are available upon request.

Certain material responsive to your request is exempt from disclosure pursuant to exemption (4) of the Code.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,



Daniel D. Duffy  
FOI Administrator

Attachment

*225 Park Avenue South, 17th Floor  
New York, NY 10003  
T: 212 435 3642  
F: 212 435 7555*



**THE PORT AUTHORITY OF NY & NJ**

# **CONFORMED**

**TITLE: MULTI-FACILITY AVIATION PERIMETER  
INTRUSION DETECTION SYSTEM (PIDS)  
SECURITY DESIGN, PURCHASE,  
CONSTRUCTION, INSTALLATION, AND  
INTEGRATION, MFA-134.308 AND ON-SITE  
MAINTENANCE, MFA-134.308M**

**CONTRACT #4600006166**

**PURCHASE ORDER #4500044655**



**THE PORT AUTHORITY** OF NY & NJ

January 20, 2006

**DHL**

Raytheon Company  
1001 Boston Post Road  
Marlborough, MA 01752-3789  
Attn: James M. Arena, Senior Contracts Manager

**Re: Contract for the Multi-Facility Aviation Perimeter Intrusion Detection System (PIDS) Security Design, Purchase, Construction, Installation, Integration MFA-134.308 and On-Site Maintenance MFA-134.308M – Contract No. 4600006166 and Purchase Order No. 4500044655**

Dear Mr. Arena:

The Port Authority of New York and New Jersey (“the Authority”) hereby accepts the proposal of Raytheon Company (“Raytheon”), for a contract (the “Contract”) for the Multi-Facility Aviation Perimeter Intrusion Detection System (PIDS) Security Design, Purchase, Construction, Installation, Integration, MFA-134.308; and On-Site Maintenance MFA-134.308M, with a term commencing at 12:01 AM on January 30, 2006 and, unless sooner terminated, expiring at 11:59 PM on/about January 29, 2011 with the Authority having the right to extend the Maintenance Contract for up to two additional two-year periods and one 120 day option.

The Total Estimated Contract Prices are:

MFA-134.308	\$83,174,835
MFA-134.308M:	
12 Month Warranty Period	\$7,127,871
First two year maintenance	\$11,772,046

The Contract between the parties shall consist of the following Items 1 through 5; in case of conflict between any of the Items, the earlier listed Item shall take precedence over the later listed Item:

1. This Letter of Acceptance including the following attached Schedules

MFA 134.308 – Design, Installation and Test Pricing Schedules 1 through 10, and 12  
MFA 134.308M – Warranty and Maintenance Pricing Schedules 1 through 6

*Procurement Department  
One Madison Avenue, 7th Floor  
New York, NY 10010  
T: 212 435 7000*



**THE PORT AUTHORITY OF NY & NJ**

2. The negotiated Book II and Book III, General Provisions including the attached Addenda; Book IV, "Attachments" and Raytheon's revised Plan View Facility Schematic/Drawing.
3. Raytheon Company's Letter (Response to Follow-up Request for Clarifications and Best and Final Offer) dated December 15, 2005.
4. Raytheon Company's Proposal (RFP Response) dated October 28, 2005 including Raytheon's Assumption List; Responses to Questions dated December 13, 2005; Responses to Evaluation Notices (En's) – dated December 1, 2005 and November 21, 2005; Raytheon's Oral Presentation dated November 16, 2005; Volume 1 "Proposal Overview"; Volume 2 – "Technical and Maintenance"; Volume 2 – Appendix E-1.C. Plan View Facility Schematic/Drawing; Volume 3 (1 of 2) and (2 of 2) "Cost"; Volume 4 – "Management"; Volume 5 – "Contractual Data.
5. The Authority's Request for Proposals for the Multi-Facility Aviation Perimeter Intrusion Detection System (PIDS) Security Design, Purchase, Construction, Installation, Integration MFA-134.308 and On-Site Maintenance MFA-134.308M issued August 2005, as amended by Addendum No. 1 dated August 19, 2005; Addendum No. 2 dated August 19, 2005; Addendum No. 3 dated September 6, 2005; Addendum No. 4 dated September 14, 2005; Addendum No. 5 dated September 20, 2005; Addendum No. 6 dated September 29, 2005; Addendum No. 7 dated October 7, 2005; Addendum No. 8 dated October 12, 2005; and Addendum No. 9 dated October 21, 2005.

In the negotiated contract MFA-134.308, in the blank space in clause 19, third and fourth subparagraph insert the following: The estimated total contract price of Ninety-five Million, One Hundred Ninety two Thousand, Three Hundred and Five Dollars and no Cents (\$95,192,305.00); PROVIDED, HOWEVER, since the Authority has not selected all of the options in the schedules 7 through 12 the estimated total contract price for the base contract work and the selected options is Eighty-three Million, One Hundred Seventy-four Thousand, Eight Hundred Thirty-five Dollars and no cents (\$83,174,835.00). The Authority selected options for Schedules 7 through 12 are provided in the Attachment of this Award Letter.

Your contract contact is Mr. Angel Martinez, who can be reached at (201) 595-4744. If you have any questions concerning the award of this contract, please contact Jeanette Santos at (212) 435-3930.

For invoicing and correspondence purposes, Purchase Order # 4500044655 has been assigned to this Contract. Any billing inquiries should be directed to Mr. Edward Hicks (718) 551 - 9221.

Security background screening is a requirement of this contract and must be proactively pursued as stated in Book II and Book III of this contract.

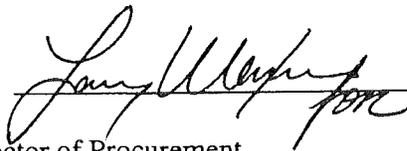


**THE PORT AUTHORITY OF NY & NJ**

If you are in agreement with the above, please indicate such agreement by signing both copies of this letter at the lower left and returning both signed copies to the attention of Ms. Jeanette Santos, Procurement Department, at the above address. One fully executed original of this letter will be returned to you following execution by the Port Authority. If you have any questions, Ms. Santos can be reached at (212) 435-3930.

Sincerely,

THE PORT AUTHORITY OF NEW  
YORK AND NEW JERSEY

By   
Director of Procurement

Date: January 20, 2006

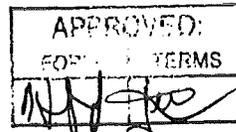
AGREED:

RAYTHEON COMPANY

By: 

Title: SR. CONTRACTS MGR

Date: 20 JAN 06.



## **SECTION 1**

**DESIGN INSTALLATION AND TEST PRICING SCHEDULES**  
**MFA 134.308**

<b>Schedule</b>	<b>Description</b>		<b>Schedule Total</b>
1	Base Scope of Work Summary Entire Project (Incorporates Schedules 2 through 6)	\$	78,589,525.00
7	LGA Optional Scope of Work Lump Sum Items	\$	454,680.00
8	JFK Optional Scope of Work Lump Sum Items	\$	416,567.00
9	EWR Optional Scope of Work Lump Sum Items	\$	416,566.00
10	TEB Optional Scope of Work Lump Sum Items	\$	454,680.00
12	Optional Scope of Work Unit Price Items	\$	2,842,817.00
	<b>Total</b>	<b>\$</b>	<b>83,174,835.00</b>

**DESIGN INSTALLATION AND TEST PRICING SCHEDULES**

**MFA 134.308**

Schedule 1 - Base Scope of Work Summary Entire Project

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
LGA.B0	LGA PIDS Base Scope of Work	LS	\$ <u>17,618,768</u>
JFK.B0	JFK PIDS Base Scope of Work	LS	\$ <u>21,524,517</u>
	JFK Communications Infrastructure	LS	\$ <u>2,326,880</u>
EWR.B0	EWR PIDS Base Scope of Work	LS	\$ <u>20,958,816</u>
TEB.B0	TEB PIDS Base Scope of Work	LS	\$ <u>14,877,647</u>
Ex. 4	Base Scope of Work	LS	\$ <u>1,282,898</u>
<b>Grand Total Contract Price Summary Schedule 1</b>		<b>LS</b>	<b>\$ <u>78,589,525</u></b>
(Incorporates detailed Schedules 2 through 6)			

**Schedule 2 – LGA Base Scope of Work Detail**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
LGA.B1	Intrusion Detection Subsystem		
	LGA.B1A Zones	LS	\$ <u>450,209</u>
	LGA.B1B Zones	LS	\$ <u>273,574</u>
	LGA.B1C Zones Ex. 4	LS	\$ <u>434,955</u>
	LGA.B1D Zones	LS	\$ <u>298,083</u>
	LGA.B1E Zones	LS	\$ <u>232,487</u>
	LGA.B1F Integration of CACS and other Systems	LS	\$ <u>12,812</u>
LGA.B2	Assessment Subsystem	LS	\$ <u>916,291</u>
LGA.B3	Control & Display Subsystem		
	LGA.B3A Primary CDS Ex. 4	LS	\$ <u>1,489,076</u>
	LGA.B3B Secondary CDS	LS	\$ <u>299,408</u>
	LGA.B3C CDW	LS	\$ <u>198,328</u>
	LGA.B3D CDW	LS	\$ <u>11,182</u>
LGA.B4	Facility Communications Subsystem		
	LGA.B4A Zones	LS	\$ <u>163,961</u>
	LGA.B4B Zones	LS	\$ <u>156,705</u>
	LGA.B4C Zones Ex. 4	LS	\$ <u>227,084</u>
	LGA.B4D Zones	LS	\$ <u>51,259</u>
	LGA.B4E Zones	LS	\$ <u>132,752</u>
	LGA.B4F Primary CDS	LS	\$ <u>320,625</u>
	LGA.B4G Secondary CDS	LS	\$ <u>444,190</u>
LGA.B5	Electrical Subsystem		
	LGA.B5A Zones	LS	\$ <u>254,317</u>
	LGA.B5B Zones	LS	\$ <u>531,639</u>
	LGA.B5C Zones	LS	\$ <u>455,533</u>
	LGA.B5D Zones	LS	\$ <u>561,473</u>
	LGA.B5E Zones	LS	\$ <u>1,860,059</u>
	LGA.B5F Primary CDS and CDW Location	LS	\$ <u>913,720</u>
	LGA.B5G Secondary CDS and CDW Location	LS	\$ <u>282,419</u>
LGA.B6	Communications and Electrical Infrastructure		
	LGA.B6A Zones	LS	\$ <u>162,213</u>
	LGA.B6B Zones Ex. 4	LS	\$ <u>309,493</u>

LGA.B6C Zones	LS	\$	<u>286,171</u>
LGA.B6D Zones Ex. 4	LS	\$	<u>480,076</u>
LGA.B6E Zones	LS	\$	<u>17,991</u>
LGA.B6F Primary CDS	LS	\$	<u>248,476</u>
LGA.B6G Secondary CDS	LS	\$	<u>111,326</u>
LGA.B7 Data Management & Reporting Subsystem	LS	\$	<u>73,798</u>
LGA.B8 PIDS Training	LS	\$	<u>106,791</u>
LGA.B9 System Engineering and Design	LS	\$	<u>4,850,290</u>

**Schedule 3 – JFK Base Scope of Work Detail**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
JFK.B1	Intrusion Detection Subsystem		
	JFK.B1A Ex. 4		\$ <u>1,075,375</u>
	JFK.B1B Zones	LS	\$ <u>291,860</u>
	JFK.B1C Zones	LS	\$ <u>110,184</u>
	JFK.B1D Zones Ex. 4	LS	\$ <u>161,551</u>
	JFK.B1E Zones	LS	\$ <u>512,740</u>
	JFK.B1F Zones	LS	\$ <u>37,078</u>
	JFK.B1G Zones	LS	\$ <u>505,433</u>
	JFK.B1H Integration of CACS Alarms and other S	LS	\$ <u>13,047</u>
JFK.B2	Assessment Subsystem		
	JKF.B2A Assessment Subsystem not including Iter	LS	\$ <u>1,093,269</u>
	JKF.B2B Deductive Item No. 3	LS	\$ <u>149,082</u>
JFK.B3	Control & Display Subsystem		
	JFK.B3A Primary CDS	LS	\$ <u>1,764,746</u>
	JFK.B3B Secondary CDS	LS	\$ <u>298,439</u>
	JFK.B3C CDW Ex. 4	LS	\$ <u>254,286</u>
	JFK.B3D CDW	LS	\$ <u>11,046</u>
	JFK.B3E CDW	LS	\$ <u>11,046</u>
JFK.B4	Facility Communications Subsystem		
	JFK.B4A		\$ <u>372,250</u>
	JFK.B4B Zones Ex. 4	LS	\$ <u>318,883</u>
	JFK.B4C Zones	LS	\$ <u>33,781</u>
	JFK.B4D Zones	LS	\$ <u>265,736</u>
	JFK.B4E Zones	LS	\$ <u>33,927</u>
	JFK.B4F Zones Ex. 4	LS	\$ <u>144,973</u>
	JFK.B4G Zones	LS	\$ <u>214,039</u>
	JFK.B4H Primary CDS	LS	\$ <u>175,733</u>
	JFK.B4I Secondary CDS	LS	\$ <u>360,267</u>
	JFK.B4J CDW	LS	\$ <u>25,225</u>

JFK.B5	Electrical Subsystem		
	JFK.B5A Zones	Ex. 4	\$ <u>1,025,551</u>
	JFK.B5B Zones		LS \$ <u>1,229,195</u>
	JFK.B5C Zones		LS \$ <u>142,668</u>
	JFK.B5D Zones		LS \$ <u>917,684</u>
	JFK.B5E Zones	Ex. 4	LS \$ <u>441,855</u>
	JFK.B5F Zones		LS \$ <u>636,440</u>
	JFK.B5G Zones		LS \$ <u>492,341</u>
	JFK.B5H Primary CDS and CDW location		LS \$ <u>383,446</u>
	JFK.B5I Secondary CDS and CDW location		LS \$ <u>196,645</u>
	JFK.B3J CDW		LS \$ <u>169,725</u>
JFK.B6	Communications and Electrical Infrastructure		
	JFK.B6A Zones		LS \$ <u>421,011</u>
	JFK.B6B Zones	Ex. 4	LS \$ <u>151,450</u>
	JFK.B6C Zones		LS \$ <u>12,058</u>
	JFK.B6D Zones		LS \$ <u>78,170</u>
	JFK.B6E Zones		LS \$ <u>25,118</u>
	JFK.B6F Zones		LS \$ <u>12,058</u>
	JFK.B6G Zones		LS \$ <u>277,532</u>
	JFK.B6H Primary CDS	Ex. 4	LS \$ <u>332,109</u>
	JFK.B6I Secondary CDS		LS \$ <u>213,948</u>
	JFK.B6J CDW		LS \$ <u>16,555</u>
JFK.B7	Data Management & Reporting Subsystem		LS \$ <u>82,662</u>
JFK.B8	PIDS Training		LS \$ <u>106,791</u>
JFK.B9	System Engineering and Design		LS \$ <u>5,925,508</u>
	JFK Communications Infrastructure		LS \$ <u>2,326,880</u>

**Schedule 4 – EWR Base Scope of Work Detail**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
EWR.B1	Intrusion Detection Subsystem		
	EWR.B1A Zones	LS	\$ <u>109,311</u>
	EWR.B1B Zones	LS	\$ <u>69,855</u>
	EWR.B1C Zones	LS	\$ <u>681,962</u>
	EWR.B1D Zones	LS	\$ <u>93,181</u>
	EWR.B1E Zones	LS	\$ <u>285,507</u>
	EWR.B1F Integration of CACS Alarms and other	LS	\$ <u>13,003</u>
EWR.B2	Assessment Subsystem		
	EWR.B2A Assessment Subsystem not including It	LS	\$ <u>908,355</u>
	EWR.B2B Deductive Item No. 3	LS	\$ <u>123,867</u>
EWR.B3	Control & Display Subsystem		
	EWR.B3A Primary CDS	LS	\$ <u>1,442,080</u>
	EWR.B3B Secondary CDS	LS	\$ <u>296,250</u>
	EWR.B3C CDW	LS	\$ <u>251,559</u>
	EWR.B3D CDW	LS	\$ <u>11,103</u>
	EWR.B3E CDW	LS	\$ <u>10,107</u>
EWR.B4	Facility Communications Subsystem		
	EWR.B4A Zones	LS	\$ <u>86,983</u>
	EWR.B4B Zones	LS	\$ <u>33,239</u>
	EWR.B4C Zones	LS	\$ <u>352,160</u>
	EWR.B4D Zones	LS	\$ <u>87,511</u>
	EWR.B4E Zones	LS	\$ <u>388,138</u>
	EWR.B4F Primary CDS	LS	\$ <u>164,436</u>
	EWR.B4G Secondary CDS	LS	\$ <u>163,410</u>
EWR.B5	Electrical Subsystem		
	EWR.B5A Zones	LS	\$ <u>436,904</u>
	EWR.B5B Zones	LS	\$ <u>354,563</u>
	EWR.B5C Zones	LS	\$ <u>1,127,936</u>
	EWR.B5D Zones	LS	\$ <u>288,679</u>
	EWR.B5E Zones		

	Ex. 4		LS	\$	<u>2,513,390</u>
	EWR.B5F Primary CDS and CDW locations		LS	\$	<u>562,225</u>
	EWR.B5G Secondary CDS and CDW locations		LS	\$	<u>159,568</u>
EWR.B6	Communications and Electrical Infrastructure				
	EWR.B6A Zones		LS	\$	<u>15,915</u>
	EWR.B6B Zones	Ex. 4	LS	\$	<u>15,915</u>
	EWR.B6C Zones		LS	\$	<u>3,621,449</u>
	EWR.B6D Zones		LS	\$	<u>139,650</u>
	EWR.B6E	Ex. 4			
			LS	\$	<u>15,915</u>
	EWR.B6F Primary CDS		LS	\$	<u>106,539</u>
	EWR.B6G Secondary CDS		LS	\$	<u>98,865</u>
EWR.B7	Data Management & Reporting Subsystem		LS	\$	<u>52,721</u>
EWR.B8	PIDS Training		LS	\$	<u>106,791</u>
EWR.B9	System Engineering and Design		LS	\$	<u>5,769,776</u>

**Schedule 5 – TEB Base Scope of Work Detail**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
TEB.B1	Intrusion Detection Subsystem		
	TEB.B1A Zones	LS	\$ <u>431,448</u>
	TEB.B1B Zones Ex. 4	LS	\$ <u>84,173</u>
	TEB.B1C Zones	LS	\$ <u>274,190</u>
	TEB.B1D Zones	LS	\$ <u>342,620</u>
	TEB.B1E Zone	LS	\$ <u>32,765</u>
	TEB.B1F Zone	LS	\$ <u>32,765</u>
	TEB.B1G Integration of CACS Alarms and other S	LS	\$ <u>12,801</u>
TEB.B2	Assessment Subsystem	LS	\$ <u>419,062</u>
TEB.B3	Control & Display Subsystem Ex. 4		
	TEB.B3A Primary CDS	LS	\$ <u>1,378,903</u>
	TEB.B3B Secondary	LS	\$ <u>254,092</u>
	TEB.B3C CDW	LS	\$ <u>90,862</u>
	TEB.B3D CDW,	LS	\$ <u>90,862</u>
TEB.B4	Facility Communications Subsystem		
	TEB.B4A Zones	LS	\$ <u>240,083</u>
	TEB.B4B Zones	LS	\$ <u>34,380</u>
	TEB.B4C Zones Ex. 4	LS	\$ <u>125,533</u>
	TEB.B4D Zones	LS	\$ <u>89,354</u>
	TEB.B4E Zone	LS	\$ <u>8,618</u>
	TEB.B4F Zone	LS	\$ <u>8,618</u>
	TEB.B4G Primary CDS	LS	\$ <u>146,487</u>
	TEB.B4H Secondary CDS Ex. 4	LS	\$ <u>146,487</u>
TEB.B5	Electrical Subsystem		
	TEB.B5A Zones	LS	\$ <u>434,859</u>
	TEB.B5B Zones	LS	\$ <u>22,439</u>
	TEB.B5C Zones Ex. 4	LS	\$ <u>543,123</u>
	TEB.B5D Zones	LS	\$ <u>337,345</u>
	TEB.B5E Zone	LS	\$ <u>13,873</u>
	TEB.B5F Zone	LS	\$ <u>13,873</u>
	TEB.B5G Primary CDS and CDW locations	LS	\$ <u>379,178</u>
	TEB.B5H Secondary CDS and CDW locations	LS	\$ <u>14,021</u>

TEB.B6	Communications and Electrical Infrastructure			
	TEB.B6A Zones		LS	\$ <u>1,210,928</u>
	TEB.B6B Zones		LS	\$ <u>24,254</u>
	TEB.B6C Zones	Ex. 4	LS	\$ <u>1,192,643</u>
	TEB.B6D Zones		LS	\$ <u>1,618,781</u>
	TEB.B6E Zone		LS	\$ <u>13,873</u>
	TEB.B6F Zone		LS	\$ <u>13,873</u>
	TEB.B6G Primary CDS		LS	\$ <u>531,616</u>
	TEB.B6H Secondary CDS		LS	\$ <u>13,671</u>
TEB.B7	Data Management & Reporting Subsystem		LS	\$ <u>52,721</u>
TEB.B8	PIDS Training		LS	\$ <u>106,791</u>
TEB.B9	System Engineering and Design		LS	\$ <u>4,095,684</u>

**Schedule 6 – Base Scope of Work Detail**

<u>Item No.</u>	<u>Description</u>		<u>Unit</u>	<u>Total Price</u>
B1	Control & Display Subsystem			
	B1A CDW		LS	\$ 215,939
Ex. 4	B1B CDW	Ex. 4	LS	\$ 33,037
.B2	Facility Communications Subsystem		LS	\$ 573,960
.B3	Electrical Subsystem		LS	\$ <u>No Additional Cost</u>
B4	PIDS Training		LS	\$ <u>106,791</u>
.B5	System Engineering and Design		LS	\$ <u>353,170</u>
<b>Total Price Schedule 6</b>			<b>LS</b>	<b>\$ <u>1,282,898</u></b>

**Schedule 7 – LGA Optional Scope of Work Lump Sum Items**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
LGA.O3	Audiovisual Subsystem		
	LGA.O3A Primary CDS	LS	\$ <u>227,515</u>
	LGA.O3B Secondary CDS	LS	\$ <u>227,165</u>
<b>Total Price Schedule 7</b>		<b>LS</b>	<b>\$ <u>454,680</u></b>

**Schedule 8 – JFK Optional Scope of Work Lump Sum Items**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
JFK.O3	Audiovisual Subsystem		
	JFK.O3A Primary CDS	LS	\$ <u>232,371</u>
	JFK.O3B Secondary CDS	LS	\$ <u>184,196</u>
<b>Total Price Schedule 8</b>		<b>LS</b>	<b>\$ <u>416,567</u></b>

**Schedule 9 – EWR Optional Scope of Work Lump Sum Items**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
EWR.O3	Audiovisual Subsystem		
	EWR.O3A Primary CDS	LS	\$ <u>226,092</u>
	EWR.O3B Secondary CDS	LS	\$ <u>190,474</u>
<b>Total Price Schedule 9</b>		<b>LS</b>	<b>\$ <u>416,566</u></b>

**Schedule 10 – TEB Optional Scope of Work Lump Sum Items**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
TEB.O3	Audiovisual Subsystem		
	TEB.O3A Primary CDS	LS	\$ <u>227,340</u>
	TEB.O3B Secondary CDS	LS	\$ <u>227,340</u>
<b>Total Price Schedule 10</b>		<b>LS</b>	<b>\$ <u>454,680</u></b>

**Schedule 12 – Optional Scope of Work Unit Price Items**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Qty.</u>	<u>Unit Price</u>	<u>Total Price</u>
RE.3A		EA	51	<u>4,159.55</u>	<u>\$ 212,137.05</u>
RE.6A	Ex. 4	EA	54	<u>8,486.78</u>	<u>\$ 458,285.95</u>
RE.12A		EA	40	<u>8,163.65</u>	<u>\$ 326,546.00</u>
RE.13	Wireless Network – LGA	EA	1	<u>\$ 387,947</u>	<u>\$ 387,947</u>
RE.14	Wireless Network – JFK	EA	1	<u>\$ 542,946</u>	<u>\$ 542,946</u>
RE.15	Wireless Network – EWR	EA	1	<u>\$ 542,946</u>	<u>\$ 542,946</u>
RE.16	Wireless Network – TEB	EA	1	<u>\$ 372,009</u>	<u>\$ 372,009</u>
<b>Schedule 12 Total</b>					<b>\$ 2,842,817.00</b>

**WARRANTY AND MAINTENANCE PRICING SCHEDULES**

**MFA 134.308M**

**A. TOTAL MONTHLY PRICE FOR CORRECTIVE AND SCHEDULED PREVENTIVE MAINTENANCE OF THE PIDS SYSTEM (INCLUDES LABOR, MATERIALS, EQUIPMENT) BASE SCOPE SYSTEM – WARRANTY PERIOD**

Item No.	Schedule	Facility	Total Price Per Month
LGA.BM0	I	LGA PIDS	\$ 87,960
JFK.BM0	II	JFK PIDS	\$ 84,297
EWR.BM0	III	EWR PIDS	\$ 81,666
TEB.BM0	IV	TEB PIDS	\$ 78,365
Ex. 4 .BM0	V	Ex. 4 PIDS	\$ 13,661
<b>TOTAL MONTHLY PRICE</b>			<b>\$ 345,950</b>

**B. EXTENDED PRICE for twelve (12) months of Warranty Period**

<i>12 x Total of A above</i>	\$ 4,151,397
<i>Total Extended Priced SPARES BOM</i>	\$ 1,413,510
<i>Schedule VI 12 Month Warranty Period</i>	\$ 1,562,965
<b>TOTAL PRICE for twelve (12) months of Warranty Period</b>	<b>\$ 7,127,871</b>

**C. TOTAL MONTHLY PRICE FOR CORRECTIVE AND SCHEDULED PREVENTIVE MAINTENANCE OF THE PIDS SYSTEM (INCLUDES LABOR, MATERIALS, EQUIPMENT) BASE SCOPE SYSTEM – POST WARRANTY**

Item No.	Schedule	Facility	Total Price Per Month
LGA.BM0	I	LGA PIDS	\$ 77,058
JFK.BM0	II	JFK PIDS	\$ 74,880
EWR.BM0	III	EWR PIDS	\$ 71,313
TEB.BM0	IV	TEB PIDS	\$ 67,852
Ex. 4 .BM0	V	Ex. 4 PIDS	\$ 11,967
<b>TOTAL MONTHLY PRICE</b>			<b>\$ 303,070</b>

**D. EXTENDED PRICE for first Two (2) years of Maintenance**

(Initial Term: Post Warranty – 24 months)

24 x Total of C above	\$ 7,273,685
Spares Replenishment (estimated at 25% per year)	\$ 706,755
Software Maintenance	\$ 473,684
Schedule VI 24 Months Period	\$ 3,317,922
<b>TOTAL PRICE for first Two (2) Years of Maintenance</b>	<b>\$ 11,772,046</b>

**SCHEDULE I**  
**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE**  
**MAINTENANCE COST (Includes Labor, Materials, Equipment)**

LGA

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
LGA.BM1	IDS Subsystem			
LGA.BM1A	Zones	LS	\$ 2,918	\$ 2,553
LGA.BM1B	Zones Ex. 4	LS	\$ 1,536	\$ 1,345
LGA.BM1C	Zones	LS	\$ 21,666	\$ 18,959
LGA.BM1D	Zones	LS	\$ 614	\$ 537
LGA.BM1E	Zones	LS	\$ 768	\$ 672
LGA.BM1F	Integration of CACS and other Systems	LS	\$ 4,126	\$ 3,611
LGA.BM2	Assessment Subsystem	LS	\$ 26,679	\$ 23,346
LGA.BM3	Control & Display Subsystem Ex. 4			
LGA.BM3A	Primary CDS	LS	\$ 2,804	\$ 2,454
LGA.BM3B	Secondary CDS	LS	\$ 2,804	\$ 2,454
LGA.BM3C	CDW Ex. 4	LS	\$ 935	\$ 819
LGA.BM3D	CDW	LS	\$ 2,235	\$ 1,956
LGA.BM4	Communications Subsystem – AOA Perimeter			
LGA.BM4A	Zones	LS	\$ 517	\$ 538
LGA.BM4B	Zones Ex. 4	LS	\$ 683	\$ 597
LGA.BM4C	Zones	LS	\$ 9,650	\$ 8,444

LGA.BM4D	Zones	Ex. 4	LS	\$ 273	\$ 239
LGA.BM4E	Zones		LS	\$ 341	\$ 298
LGA.BM4F	Primary CDS		LS	\$ 2,625	\$ 2,297
LGA.BM4G	Secondary CDS		LS	\$ 2,625	\$ 2,297
LGA.BM5	Electrical Infrastructure Subsystem – AOA Perimeter				
LGA.BM5A	Zones		LS	\$ 174	\$ 152
LGA.BM5B	Zones	Ex. 4	LS	\$ 90	\$ 80
LGA.BM5C	Zones		LS	\$ 1,297	\$ 1,134
LGA.BM5D	Zones		LS	\$ 35	\$ 32
LGA.BM5E	Zones		LS	\$ 45	\$ 40
LGA.BM5F	Primary CDS		LS	\$ 8	\$ 7
LGA.BM5G	Secondary CDS		LS	\$ 8	\$ 7
LGA.BM7	Data Management & Reporting Subsystem		LS	\$ 2,502	\$ 2,189
.BM0	LGA PIDS Maintenance Base Scope			\$ 87,960	\$ 77,058

**SCHEDULE II**  
**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE**  
**MAINTENANCE COST (Includes Labor, Materials, Equipment)**

JFK

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
JFK.BM1	IDS Subsystem			
JFK.BM1A	Zones Ex. 4	LS	\$ 2,232	\$ 3,060
JFK.BM1B	Zones	LS	\$ 1,265	\$ 1,107
JFK.BM1C	Zones	LS	\$ 1,338	\$ 1,172
JFK.BM1D	Zones	LS	\$ 447	\$ 391
JFK.BM1E	Zones Ex. 4	LS	\$ 1,785	\$ 1,562
JFK.BM1F	Zones	LS	\$ 15,844	\$ 13,865
JFK.BM1G	Zones	LS	\$ 519	\$ 454
JFK.BM1H	Integration of CACS Alarms and other Systems	LS	\$ 4,126	\$ 3,611
JFK.BM2	Assessment Subsystem			
JFK.BM2A	Assessment Subsystem not including Item JFK.BM2B	LS	\$ 23,476	\$ 20,545
JFK.BM2B	Deductive Item No. 3	LS	\$ 3,201	\$ 2,802
JFK.BM3	Control & Display Subsystem			
JFK.BM3A	Primary CDS	LS	\$ 2,804	\$ 2,454
JFK.BM3B	Secondary CDS	LS	\$ 2,804	\$ 2,454
JFK.BM3C	CDW Ex. 4	LS	\$ 935	\$ 819
JFK.BM3D	CDW	LS	\$ 935	\$ 819
MFJ.BM3E	CDW	LS	\$ 935	\$ 819
JFK.BM4	Communications Subsystem – AOA Perimeter			

JFK.BM4A	Zones		LS	\$ 1,168	\$ 1,022
JFK.BM4B	Zones	Ex. 4	LS	\$ 663	\$ 580
JFK.BM4C	Zones		LS	\$ 701	\$ 614
JFK.BM4D	Zones		LS	\$ 234	\$ 204
JFK.BM4E	Zones		LS	\$ 935	\$ 819
JFK.BM4F	Zones	Ex. 4	LS	\$ 8,298	\$ 7,262
JFK.BM4G	Zones		LS	\$ 273	\$ 239
JFK.BM4H	Primary CDS		LS	\$ 1,750	\$ 1,531
JFK.BM4I	Secondary CDS		LS	\$ 1,750	\$ 1,531
JFK.BM4J	CDW	Ex. 4	LS	\$ 1,750	\$ 1,531
JFK.BM5	Electrical Infrastructure Subsystem – AOA Perimeter				
JFK.BM5A	Zones		LS	\$ 154	\$ 135
JFK.BM5B	Zones	Ex. 4	LS	\$ 85	\$ 76
JFK.BM5C	Zones		LS	\$ 92	\$ 81
JFK.BM5D	Zones		LS	\$ 30	\$ 27
JFK.BM5E	Zones	Ex. 4	LS	\$ 124	\$ 108
JFK.BM5F	Zones		LS	\$ 1,094	\$ 958
JFK.BM5G	Zones		LS	\$ 35	\$ 32
JFK.BM5H	Primary CDS		LS	\$ 5	\$ 4
JFK.BM5I	Secondary CDS		LS	\$ 5	\$ 4
JFK.BM7	Data Management & Reporting Subsystem		LS	\$ 2,502	\$ 2,189
<b>JFK.BM0</b>	<b>JFK PIDS Maintenance Base Scope</b>			<b>\$ 84,297</b>	<b>\$ 74,880</b>

**SCHEDULE III**  
**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE**  
**MAINTENANCE COST (Includes Labor, Materials, Equipment)**

EWR

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
EWR.BM1	IDS Subsystem			
EWR.BM1A	Zones	LS	\$ 3,409	\$ 2,977
EWR.BM1B	Zones	LS	\$ 1,534	\$ 1,339
EWR.BM1C	Zones Ex. 4	LS	\$ 14,323	\$ 12,508
EWR.BM1D	Zones	LS	\$ 1,534	\$ 1,339
EWR.BM1E	Zones	LS	\$ 1,705	\$ 1,490
EWR.BM1F	Integration of CACS Alarms and other Systems	LS	\$ 4,034	\$ 3,523
EWR.BM2	Assessment Subsystem			
EWR.BM2A	Assessment Subsystem not including Item EWR.BM2B	LS	\$ 22,956	\$ 20,047
EWR.BM2B	Deductive Item No. 3	LS	\$ 3,130	\$ 2,734
EWR.BM3	Control & Display Subsystem - Primary CDS			
EWR.BM3A	Primary CDS Ex. 4	LS	\$ 0	\$ 0
EWR.BM3B	Secondary CDS	LS	\$ 5,621	\$ 4,908
EWR.BM3C	CDW	LS	\$ 937	\$ 819
EWR.BM3D	CDW Ex. 4	LS	\$ 937	\$ 819
EWR.BM3E	CDW	LS	\$ 937	\$ 819
EWR.BM4	Communications Subsystem – AOA Perimeter			
EWR.BM4A	Zones	LS	\$ 1,702	\$ 1,485
EWR.BM4B	Zones Ex. 4	LS	\$ 766	\$ 669
EWR.BM4C	Zones	LS	\$ 7,150	\$ 6,244

EWR.BM4D	Zones	Ex. 4	LS	\$ 766	\$ 669
EWR.BM4E	Zones		LS	\$ 850	\$ 742
EWR.BM4F	Primary CDS		LS	\$ 2,445	\$ 2,135
EWR.BM4G	Secondary CDS		LS	\$ 2,445	\$ 2,135
EWR.BM5	Electrical Subsystem – AOA Perimeter				
EWR.BM5A	Zones		LS	\$ 238	\$ 207
EWR.BM5B	Zones	Ex. 4	LS	\$ 107	\$ 94
EWR.BM5C	Zones		LS	\$ 1,003	\$ 875
EWR.BM5D	Zones		LS	\$ 107	\$ 94
EWR.BM5E	Zones		LS	\$ 119	\$ 104
EWR.BM5F	Primary CDS		LS	\$ 12	\$ 10
EWR.BM5G	Secondary CDS		LS	\$ 12	\$ 10
EWR.BM7	Data Management & Reporting Subsystem		LS	\$ 2,118	\$ 1,850
<b>BM0</b>	<b>EWR PIDS Maintenance Base Scope</b>			<b>\$ 81,666</b>	<b>\$ 71,313</b>

**SCHEDULE IV**  
**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE**  
**MAINTENANCE COST (Includes Labor, Materials, Equipment)**

TEB

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
TEB.BM1	IDS Subsystem			
TEB.BM1A	Zones	LS	\$ 4,005	\$ 3,467
TEB.BM1B	Zones	LS	\$ 8,583	\$ 7,431
TEB.BM1C	Zones Ex. 4	LS	\$ 1,717	\$ 1,485
TEB.BM1D	Zones	LS	\$ 10,871	\$ 9,413
TEB.BM1E	Zones	LS	\$ 256	\$ 222
TEB.BM1F	Zones	LS	\$ 256	\$ 222
TEB.BM1G	Integration of CACS Alarms and other Systems	LS	\$ 29	\$ 29
TEB.BM2	Assessment Subsystem	LS	\$ 24,918	\$ 21,573
TEB.BM3	Control & Display Subsystem			
TEB.BM3A	Primary CDS	LS	\$ 2,835	\$ 2,454
TEB.BM3B	Secondary Ex. 4	LS	\$ 2,835	\$ 2,454
TEB.BM3C	CDW	LS	\$ 945	\$ 819
TEB.BM3D	CDW	LS	\$ 945	\$ 819
TEB.BM4	Communications Subsystem – AOA Perimeter			
TEB.BM4A	Zones	LS	\$ 1,779	\$ 1,541
TEB.BM4B	Zones	LS	\$ 3,814	\$ 3,303
TEB.BM4C	Zones Ex. 4	LS	\$ 763	\$ 661
TEB.BM4D	Zones	LS	\$ 4,832	\$ 4,184
TEB.BM4E	Zones	LS	\$ 127	\$ 109
TEB.BM4F	Zones	LS	\$ 127	\$ 109
TEB.BM4G	Primary CDS	LS	\$ 2,452	\$ 2,124
TEB.BM4H	Secondary CDS	LS	\$ 2,452	\$ 2,124
TEB.BM5	Electrical Infrastructure Subsystem – AOA Perimeter			
TEB.BM5A	Zones Ex. 4	LS	\$ 235	\$ 203
TEB.BM5B	Zones	LS	\$ 504	\$ 436

TEB.BM5C	Zones		LS	\$ 100	\$ 87
TEB.BM5D	Zones	Ex. 4	LS	\$ 638	\$ 552
TEB.BM5E	Zones		LS	\$ 17	\$ 14
TEB.BM5F	Zones		LS	\$ 17	\$ 14
TEB.BM5G	Primary CDS		LS	\$ 17	\$ 14
TEB.BM5H	Secondary CDS		LS	\$ 17	\$ 14
TEB.BM7	Data Management & Reporting Subsystem		LS	\$ 2,282	\$ 1,975
<b>TEB.BM0</b>	<b>TEB PIDS Maintenance Base Scope</b>			<b>\$ 78,365</b>	<b>\$ 67,852</b>

**SCHEDULE V**  
**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE**  
**MAINTENANCE COST (Includes Labor, Materials, Equipment)**

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
BM1	Control & Display Subsystem			
Ex. 4	BM1A CDW Ex. 4	LS	\$ 4,891	\$ 4,284
	BM1B CDW	LS	\$ 4,891	\$ 4,284
BM2	Communications Subsystem	LS	\$ 3,179	\$ 2,785
BM3	Electrical Subsystem	LS	\$ 699	\$ 613
BM0	<b>Maintenance Base Scope</b>		<b>\$ 13,661</b>	<b>\$ 11,967</b>

**SCHEDULE VI**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE OPTIONAL MAINTENANCE COST  
(Includes Labor, Materials, Equipment)**

**Optional**

ITEM NO.	DESCRIPTION		WARRANTY PERIOD		MAINTENANCE YEARS 1 & 2		
			MONTHLY	12 MONTH PERIOD	MONTHLY	24 MONTH PERIOD	
LGA.OM3	Audio Visual Subsystem						
LGA.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
LGA.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
LGA.OM6	System Administration – Base Work	LS	\$ 26,765	\$ 321,180	\$ 27,895	\$ 669,476	
JFK.OM3	Audio Visual Subsystem						
JFK.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
JFK.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
JFK.OM6	System Administration – Base Work	LS	\$ 25,150	\$ 301,801	\$ 26,287	\$ 630,898	
JFK.OM3	Audio Visual Subsystem						
EWR.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
EWR.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
EWR.OM6	System Administration – Base Work	LS	\$ 26,458	\$ 317,499	\$ 27,589	\$ 662,129	
TEB.OM3	Audio Visual Subsystem						
TEB.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
TEB.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 48,890	
TEB.OM6	System Administration – Base Work	LS	\$ 24,924	\$ 299,090	\$ 26,058	\$ 625,386	
PATC.OM1	Enterprise Secondary CDS	LS	\$ 1,524	\$ 18,286	\$ 1,602	\$ 38,445	
RE.M1	Ex. 4	EA	\$ 172	\$ 2,062	\$ 215	\$ 5,149	
RE.M4		EA	\$ 172	\$ 2,062	\$ 215	\$ 5,149	
RE.M10		EA	\$ 172	\$ 2,062	\$ 215	\$ 5,149	
RE.M13		Wireless Network LGA	EA	\$ 2,302	\$ 27,619	\$ 2,298	\$ 55,157
RE.M14		Wireless Network – JFK	EA	\$ 3,673	\$ 44,073	\$ 3,667	\$ 88,013
RE.M15	Wireless Network – EWR	EA	\$ 3,673	\$ 44,073	\$ 3,667	\$ 88,013	
RE.M16	Wireless Network – TEB	EA	\$ 2,247	\$ 26,958	\$ 2,243	\$ 53,838	
	<b>Total</b>			\$ 1,562,965.00		\$ 3,317,922.00	

## **SECTION 2**



**THE PORT AUTHORITY OF NY & NJ**

# **CONFORMED**

**TITLE: MULTI-FACILITY AVIATION PERIMETER  
INTRUSION DETECTION SYSTEM (PIDS) SECURITY  
DESIGN, PURCHASE, CONSTRUCTION,  
INSTALLATION, AND INTEGRATION AND ON-SITE  
MAINTENANCE**

**CONTRACT# MFA-134.308**

**NUMBER: 8162**

**Book II – Information For Proposers/General Contract  
Provisions - Security Design, Purchase, Construction,  
Installation, and Integration**

**This proposal is not complete unless proposer's  
Signature appears on page 10**

Release Date: AUGUST 2005

**THE PORT AUTHORITY OF NY & NJ**

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**INFORMATION FOR PROPOSERS**

**1. FORM AND SUBMISSION OF PROPOSALS**

See PIDS RFP, Book I, Section 1.6.

**2. PAPERS ACCOMPANYING PROPOSALS**

See PIDS RFP, Book I, Section 5.0

**3. ACCEPTANCE OR REJECTION OF PROPOSAL**

See PIDS RFP, Book I, Section 1.8.

**4. DISPOSAL OF CONTRACT DOCUMENTS**

All recipients of Contract documents, including proposers and those who do not submit proposals and their prospective subcontractors and suppliers who may receive all or a part of the Contract documents or copies thereof, shall make every effort to ensure the secure and appropriate disposal of the Contract documents to prevent further disclosure of the information contained in the documents. Secure and appropriate disposal includes methods of document destruction such as shredding or arrangements with refuse handlers that ensure that third persons will not have access to the documents' contents either before, during, or after disposal. Documents may also be returned for disposal purposes to the Contract Desk on the 3rd Floor, 3 Gateway Center, Newark NJ 07102 or the office of the Director of Procurement, One Madison Avenue, 7th Floor, New York NY 10010.

**5. AVAILABLE DOCUMENTS**

See PIDS RFP, Book I, Section 1.10.

**6. INSPECTION OF SITE**

See PIDS RFP, Book I, Section 1.9.

**7. QUESTIONS BY PROPOSERS**

See PIDS RFP, Book I, Section 1.7.

**8. PORT AUTHORITY SECURITY REQUIREMENTS**

The Authority operates facilities and systems at which terrorism or other criminal acts may have a significant impact on life safety and key infrastructures. The Authority reserves the right to impose multiple layers of security requirements on the performance of the contract work, including on the Contractor, its staff and subcontractors and their staffs depending upon the level of security required, as determined by the Authority. The Contractor shall, and shall instruct its subcontractors, to cooperate with Authority staff in adopting security requirements. These security requirements may include but are not limited to the following.

**A. Identity Checks and Background Screening:**

Contractor/subcontractor identity checks and background screening shall include but shall not be limited to: (1) inspection of not less than two forms of valid and current government issued identification (at least one having an official photograph) to verify staff's name and residence; (2) screening federal, state and local criminal justice agency information databases and files; (3) screening of any terrorist identification files; (4) multi-year check of personal, employment and/or credit history; (5) access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning.

The Contractor may be required to have its staff, and any subcontractor's staff, authorize the Authority or its designee to perform background checks. Such authorization shall be in a form acceptable to the Authority. If the PA Project Manager directs the Contractor to have identity checks and background screening performed by a particular firm designated by the PA Project Manager, the Authority will compensate the Contractor for the cost of such screening at the Net Cost of such screening. "Net Cost" shall be computed in the same manner as is compensation for extra work, including any percentage addition to cost, as set forth in the clause of the contract providing compensation for extra work. Performance of such Net Cost work shall be as directed by the PA Project Manager and shall be subject to all provisions of the contract relating to performance of extra work. Compensation for said Net Cost work shall not be charged against the total amount of compensation authorized for extra work.

**B. Issuance of Photo Identification Badges:**

No person will be permitted on or about the construction site without a photo identification badge approved by the PA Project Manager. The Contractor shall provide such badges for employees, subcontractors and materialmen. All employees of the Contractor, subcontractors and materialmen shall wear identification badges in a conspicuous and clearly visible position whenever they are working at the construction site. Refer to section 27.H for complete badge requirements.

If the Authority requires facility-specific identification badges for the Contractor's and subcontractors' staffs, the Authority will supply such identification badges at no cost to the Contractor.

C. Construction Site Access Control:

- 1.) The Authority may provide for construction site access control, inspection and monitoring by Authority retained security guards. However, this provision shall not relieve the Contractor of its responsibility to secure its equipment and work at the construction site at its own expense.
- 2.) At the beginning of each work period the Contractor shall furnish to the security guards, if any, or to the PA Project Manager a memorandum showing for that work period:
  - a. The name and company affiliation of each employee of the Contractor or of a subcontractor who is expected to enter the site and,
  - b. The name of any firm anticipated to be delivering materials or servicing equipment that day and a description of such materials or services.

The Authority may impose, increase, and/or upgrade security requirements for the Contractor, subcontractors and their staffs during the term of this contract to address changing security conditions and/or new governmental regulations.

To the extent changes to the security requirements set forth above result in additional cost to the Contractor, such costs shall be compensable to the Contractor at the Contractor's net cost.

**9. PREVAILING RATE OF WAGE CERTIFICATION**

The proposers' attention is directed specifically to the clause of the Form of Contract entitled "Prevailing Rate of Wage" and to the fact that the Authority may require a certification in writing from the successful proposer, in such form as may be required pursuant to such clause, that he has paid and caused his subcontractors to pay at least the prevailing rate of wage and supplements required by such clause. This certification may be required prior to his receipt of any payment from the Authority hereunder as provided in the clauses of the Form of Contract entitled "Monthly Advances" and "Final Payment" or at any other time.

**10. CERTIFICATION OF NO INVESTIGATION (CRIMINAL OR CIVIL ANTI-TRUST), INDICTMENT, CONVICTION, SUSPENSION, DEBARMENT, DISQUALIFICATION, PREQUALIFICATION DENIAL OR TERMINATION, ETC; DISCLOSURE OF OTHER REQUIRED INFORMATION**

By submitting a proposal on this Contract, each proposer and each person signing on behalf of any proposer certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, that the proposer and each parent and/or affiliate of the proposer has not (a) been indicted or convicted in any jurisdiction; (b) been suspended, debarred, found not responsible or otherwise disqualified from entering into contracts with any governmental agency or been denied a government contract for failure to meet prequalification standards; (c) had a contract terminated by any governmental agency for breach of contract or for any cause related directly or indirectly to an indictment or conviction; (d) changed its name and/or Employer Identification Number (taxpayer identification number) following its having been indicted, convicted, suspended, debarred or otherwise disqualified, or had a contract terminated as more fully provided in (a), (b) and (c) above; (e) ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Proposal; (f) been denied a contract by any governmental agency for failure to provide the required security, including payment or performance bonds or any alternative security deemed acceptable by the agency letting the contract; (g) failed to file any required tax returns or failed to pay any applicable federal, state or local taxes; (h) had a lien imposed upon its property based on taxes owed and fines and penalties assessed by any agency of the federal, state or local government; (i) 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; (j) had any sanctions imposed as a result of a judicial or administrative proceeding with respect to any professional license held or with respect to any violation of a federal, state or local environmental law, rule or regulation; and (k) shared space, staff, or equipment with any business entity.

The foregoing certification as to "(a)" through "(k)" shall be deemed to have been made by the proposer as follows: if the proposer is a corporation, such certification shall be deemed to have been made not only with respect to the proposer itself, but also with respect to each director and officer, as well as, to the best of the certifier's knowledge and belief, each stockholder with an ownership interest in excess of 10%; if the proposer is a partnership, such certification shall be deemed to have been made not only with respect to the proposer itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate proposer, shall be deemed to have been authorized by the Board of Directors of the proposer, and such authorization shall be deemed to include the signing and submission of the proposal and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the proposer cannot make the foregoing certification, the proposer shall so state and shall furnish with the signed proposal a signed statement which sets forth in detail the reasons therefor. If the proposer is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its Proposal, setting forth an explanation for its uncertainty.

Notwithstanding that the certification may be an accurate representation of the proposer's status with respect to the enumerated circumstances provided for in this clause as requiring disclosure at the time that the proposal is submitted, the proposer agrees to immediately notify the Authority in writing of any change in circumstances during the period of irrevocability, or any extension thereof.

The foregoing certification or signed statement shall be deemed to have been made by the proposer with full knowledge that it would become a part of the records of the Authority and that the Authority will rely on its truth and accuracy in awarding this Contract. In the event that the Authority determines at any time prior or subsequent to the award of the Contract that the proposer has falsely certified as to any material item in the foregoing certification; willfully or fraudulently submitted any signed statement pursuant to this clause which is false in any material respect; or has not completely and accurately represented its status with respect to the circumstances provided for in this clause as requiring disclosure, the Authority may determine that the proposer is not a responsible proposer with respect to its proposal on this Contract or with respect to future bids and may, in addition to exercising any other rights or remedies available to it, exercise any of the rights or remedies set forth in the clause of the Form of Contract entitled "Rights and Remedies of Authority". In addition, proposers 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.). Proposers are also advised that the inability to make such certification will not in and of itself disqualify a proposer, and that in each instance the Authority will evaluate the reasons therefor provided by the proposer.

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

*Affiliate* - An entity in which the parent of the proposer owns more than fifty percent of the voting stock, or an entity in which a group of principal owners which owns more than fifty percent of the proposer also owns more than fifty percent of the voting stock.

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

*Employer Identification Number* - The tax identification number assigned to firms by the Federal government for tax purposes.

*Investigation* - Any inquiries made by any federal, state or local criminal prosecuting 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 proposer by whatever titles known.

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

*Space Sharing* - Space shall be considered to be shared when any part of the floor space utilized by the submitting business at any of its sites is also utilized on a regular or intermittent basis for any purpose by any other business or not-for-profit organization, and where there is no lease or sublease in effect between the submitting business and any other business or not-for-profit organization that is sharing space with the submitting business.

Staff Sharing - Staff shall be considered to be shared when any individual provides the services of an employee, whether paid or unpaid, to the proposer and also, on either a regular or irregular basis, provides the services of an employee, paid or unpaid, to one or more other business(es) and/or not-for-profit organization(s), if such services are provided during any part of the same hours the individual is providing services to the proposer or if such services are provided on an alternating or interchangeable basis between the proposer and the other business(es) or not-for-profit organization(s). "The services of an employee" should be understood to include services of any type or level, including managerial or supervisory. This type of sharing may include, but is not limited to, individuals who provide the following services: telephone answering, receptionist, delivery, custodial, and driving.

Equipment Sharing - Equipment shall be considered to be shared whenever the proposer shares the ownership and/or the use of any equipment with any other business or not-for-profit organization. Such equipment may include, but is not limited to, telephones or telephone systems, photocopiers, computers, motor vehicles, and construction equipment. Equipment shall not be considered to be shared under the following two circumstances: when, although the equipment is owned by another business or not-for-profit organization, the proposer has entered into a formal lease for the use of the equipment and exercises exclusive use of the equipment; or when the proposer owns equipment that it has formally leased to another business or not-for-profit organization, and for the duration of such lease the proposer has relinquished all right to the use of such leased equipment.

**11. NON-COLLUSIVE PROPOSING AND CODE OF ETHICS CERTIFICATION;  
CERTIFICATION OF NO SOLICITATION BASED ON COMMISSION, PERCENTAGE,  
BROKERAGE, CONTINGENT FEE OR OTHER FEE**

By Proposing on this Contract, each proposer and each person signing on behalf of any proposer certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, that: (a) the prices in its proposal 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 proposer or with any competitor; (b) the prices quoted in its proposal have not been and will not be knowingly disclosed, directly or indirectly, by the proposer prior to the official opening of such proposal to any other proposer or to any competitor; (c) no attempt has been made and none will be made by the proposer to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition; (d) this organization has not made any offers or agreements, or given or agreed to give anything of value (see definition of "anything of value" appearing in the clause of the Form of Contract entitled "No Gifts, Gratuities, Offers of Employment, etc.") 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 and Financial Disclosure dated as of April 11, 1996 (a copy of which is available upon request to the individual named in the clause hereof entitled "Questions by Proposers"), 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 proposer for the purpose of securing business, has been employed or retained by the proposer 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; the proposer 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.

The foregoing certification as to "(a)", "(b)", "(c)", "(d)" and "(e)" shall be deemed to have been made by the proposer as follows: if the proposer is a corporation, such certification shall be deemed to have been made not only with respect to the proposer itself, but also with respect to each parent, affiliate, director and officer of the proposer, as well as, to the best of the certifier's knowledge and belief, each stockholder of the proposer with an ownership interest in excess of 10%; if the proposer is a partnership, such certification shall be deemed to have been made not only with respect to the proposer itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate proposer, shall be deemed to have been authorized by the Board of Directors of the proposer, and such authorization shall be deemed to include the signing and submission of the proposal and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the proposer cannot make the foregoing certification, the proposer shall so state and shall furnish with the signed proposal a signed statement which sets forth in detail the reasons therefor. If the proposer is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its Proposal, setting forth in such statement the reasons for its uncertainty.

Notwithstanding that the proposer may be able to make the foregoing certification at the time the proposal is submitted, the proposer shall immediately notify the Authority in writing during the period of irrevocability of bids on this Contract or any extension of such period, of any change of circumstances which might under this clause make it unable to make the foregoing certification or required disclosure. The foregoing certification or signed statement shall be deemed to have been made by the proposer with full knowledge that it would become a part of the records of the Authority and that the Authority will rely on its truth and accuracy in awarding this Contract. In the event that the Authority should determine at any time prior or subsequent to the award of this Contract that the proposer has falsely certified as to any material item in the foregoing certification 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 certification required to be disclosed, the Authority may determine that the proposer is not a responsible proposer with respect to its proposal on this Contract or with respect to future bids on Authority contracts and may, in addition to exercising any other rights or remedies it may have, exercise any of the rights or remedies set forth in the clause of the Form of Contract entitled "Rights and Remedies of the Authority".

In addition, proposers 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.). Proposers are also advised that the inability to make such certification will not in and of itself disqualify a proposer, and that in each instance the Authority will evaluate the reasons therefor provided by the proposer.

**12. PROPOSER ELIGIBILITY FOR AWARD OF CONTRACTS - DETERMINATIONS BY AN AGENCY OF THE STATE OF NEW YORK OR NEW JERSEY CONCERNING ELIGIBILITY TO RECEIVE PUBLIC CONTRACTS**

Proposers 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 proposer is not eligible to submit a proposal on or be awarded public contracts because the proposer has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

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

**13. PROPOSAL**

To The Port Authority of New York and New Jersey:

The undersigned<sup>1</sup>

(hereinafter called "the Contractor") hereby offers to perform all the obligations and to assume all the duties and liabilities of the Contractor provided for in the annexed Contract, at the prices inserted by the undersigned in the clause of the Form of Contract entitled "General Agreement".

This offer shall be irrevocable for 180 days after the date on which The Port Authority of New York and New Jersey opens this Proposal.

To induce the acceptance of this Proposal, the undersigned hereby makes each and every certification, statement, assurance, representation and warranty made by the Contractor in said Contract. Moreover as a condition to receipt and consideration by the Authority of the Proposal whether or not it is accepted, the undersigned agrees that all information of any nature whatsoever, regardless of the form of the communication, received from the undersigned (including its officers, agents, or employees) by the Authority, its Commissioners, officers, agents or employees, and notwithstanding any statement therein to the contrary, has been given in confidence and may not be disclosed by or on behalf of the Authority without liability of any kind except as may arise under letters patent of the undersigned, if any, subject to the Port Authority's Freedom of Information Policy.

Unless expressly stated otherwise, the Information for Proposers, all papers required by it and submitted in connection herewith at any time, said Form of Contract, and all papers made part of the Contract by the terms of the Form of Contract are made part of this Proposal.

The undersigned hereby designates the following as the proposers office<sup>2</sup>:

\_\_\_\_\_

The telephone number of the proposer is:

\_\_\_\_\_

The fax number of the proposer is:

\_\_\_\_\_

The E-Mail address of the proposer is:

\_\_\_\_\_

<sup>1</sup> Insert proposer's name. If a corporation, give state of incorporation, using the phrase, "a corporation organized under the laws of the State of \_\_\_\_\_."

If a partnership, give full names of partners, using also the phrase, "co-partners doing business under the firm name of \_\_\_\_\_."

If an individual using a trade name, give individual name, using also the phrase, "an individual doing business under the trade name of \_\_\_\_\_."

If a joint venture, give the information required above for each participant in the joint venture.

Insert office address.

\_\_\_\_\_

**14. SIGNATURE AND CERTIFICATE OF AUTHORITY<sup>3</sup>**

Dated, \_\_\_\_\_, 20

(Signature of individual or name of corporation or partnership)

(Signature of agent, partner or corporate officer)

\_\_\_\_\_

By<sup>4 5</sup> \_\_\_\_\_

(Acknowledgment of signature to be taken on proper form on following page(s))

\_\_\_\_\_

**15. CERTIFICATE OF AUTHORITY, IF PROPOSER IS A CORPORATION**

I, the undersigned, as Secretary of the corporation submitting the foregoing Proposal, hereby certify that under and pursuant to the by-laws and resolutions of said corporation, each officer who has signed said Proposal on behalf of the corporation is fully and completely authorized so to do.

(Corporate Seal)

\_\_\_\_\_

---

<sup>3</sup> If proposer is a joint venture, insert signatures as appropriate for one participant of the joint venture on this page and attach and complete an additional signature sheet in the same form as appears on this page for each other participant as required.

<sup>4</sup> If Proposal is signed by an officer or agent, give title.

<sup>5</sup> **NOTE:** The foregoing signature shall be deemed to have been provided with full knowledge that the foregoing Proposal, the accompanying Contract booklet, as well as any certification, statement, assurance, representation, warranty, schedule or other document submitted by the proposer with the Proposal will become a part of the records of the Authority and that the Authority will rely in awarding the Contract on the truth and accuracy of such Proposal and each such certification, statement, assurance, representation, warranty and schedule made therein by the Contractor. Knowingly submitting a false statement in connection with any of the foregoing may be the basis for prosecution for offering a false instrument for filing (see, e.g., N.Y. Penal Law, Section 175.30 et seq.).

**16. ACKNOWLEDGMENT<sup>6</sup>**

**ACKNOWLEDGMENT OF PROPOSER, IF A CORPORATION**

State of \_\_\_\_\_

SS:

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came and appeared \_\_\_\_\_, to me known, who, being by me duly sworn, did depose and say that he resides at \_\_\_\_\_, that he is the \_\_\_\_\_ of \_\_\_\_\_, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation; and that he signed his name thereto by like order.

(Seal) \_\_\_\_\_

**ACKNOWLEDGMENT OF PROPOSER, IF A PARTNERSHIP**

State of \_\_\_\_\_

SS:

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came and appeared \_\_\_\_\_, to me known and known to me to be one of the members of the firm of \_\_\_\_\_, described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Seal) \_\_\_\_\_

**ACKNOWLEDGMENT OF PROPOSER, IF AN INDIVIDUAL**

State of \_\_\_\_\_

SS:

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came and appeared \_\_\_\_\_ to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Seal) \_\_\_\_\_

<sup>6</sup> If proposer is a joint venture, insert signature as appropriate for one participant of the joint venture on this page and attach and complete an additional Acknowledgment sheet in the same form as appears on this page for each other participant as required

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**17. STATEMENT ACCOMPANYING PROPOSAL<sup>7</sup>**

Names and Residences of Officers, If Proposer is a Corporation

Name	Title	Residence <sup>8</sup>
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Names and Residences of Partners, If Proposer is a Partnership

Name	General or Limited Partner	Residence <sup>9</sup>
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Proposer's Residence, If an Individual<sup>10</sup>

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<sup>7</sup> If proposer is a joint venture, insert signature as appropriate for one participant of the joint venture on this page and attach and complete an additional Statement Accompanying Proposal sheet in the same form as appears on this page for each other participant as required.

<sup>8</sup> Give Street and Number of Residence. Do not give business address.

<sup>9</sup> Give Street and Number of Residence. Do not give business address.

<sup>10</sup> Give Street and Number of Residence. Do not give business address.

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**FORM OF CONTRACT**

**CHAPTER I**

**GENERAL PROVISIONS**

**18. DEFINITIONS**

To avoid undue repetition, the following terms whenever they occur in this Form of Contract or any of the other papers forming a part of the Contract shall be construed as follows:

"Contract" shall mean, in addition to this Form of Contract, the various Books I, II, III and IV, the Information for Proposers, the Proposal, the Authority's acceptance, the Specifications and the Contract Drawings (including written addenda issued over the name of the Chief Engineer), all of which are made part hereof as though herein set forth in full. The Contract as so defined shall constitute the complete and exclusive statement of the terms of the agreement between the parties and the Contract may not be explained or supplemented by course of dealing, usage of trade or course of performance.

The term "days" or "calendar days" in reference to a period of time shall mean consecutive calendar days, Saturdays, Sundays and holidays, included.

The term "construction site" or words of similar import shall mean the Authority's New York Aviation facilities of John F. Kennedy International Airport and LaGuardia Airport and the Authority's New Jersey Aviation facilities of Newark Liberty International Airport and Teterboro Airport and the vicinities thereof in New York and New Jersey.

"Work" shall mean provision of all structures, equipment, plant, labor and materials, incorporation of materials and equipment, if any, furnished by the Authority and provision of all other facilities and things necessary or proper for or incidental to performing management, design, integration, construction, procurement, installation, testing of and training for an integrated Aviation Multi-Facility Perimeter Intrusion Detection System (PIDS) at JFK, LGA, EWR AND TEB Airports and This Contract will require new infrastructure necessary to implement the PIDS security system and may include, but will not be limited to, the installation of conduit, duct banks, field distribution cabinets, drainage and erosion control, grading, trenching, power and signal cabling, pedestal installation, software/hardware integration of equipment, devices, material and appurtenances, installation and upgrade of infrastructure to meet security system requirements, acquisition, integration and staging of security equipment and ancillary materials, design, procurement, installation and integration of a security sensor system, training in security system operation and maintenance, preparation and delivery of as-built drawings and all other PIDS design documentation in accordance with the requirements of this Contract, and performing or arranging for maintenance support of the installed security system. Please note that maintenance support requirements are identified in Book III in this Contract, all as directed by the PA Project Manager; and "performance of Work" and words of similar import shall mean the furnishing of such facilities and the doing of such things.

"Work required by the Contract Drawings and Specifications in their present form" or words of similar import shall include all Work required by the Specifications in their present form (whether or not shown upon the Contract Drawings), all Work shown upon the Contract Drawings in their present form (whether or not mentioned in the Specifications), and all Work involved in or incidental to the accomplishment of the results intended by the Specifications and Contract Drawings in their present form (whether or not mentioned therein or shown thereon)."

"Equipment" and "plant" shall include construction equipment and plant rented as agent for the Authority.

"Extra Work" shall mean Work required by the Chief Engineer, Assistant Chief Engineer - Construction or PA Project Manager of Construction pursuant to the clause hereof entitled "Extra Work Orders", other than Classified Work, which is in addition to that required by the Contract Drawings and Specifications in their present form.

"Lump Sum" shall mean the amount stipulated in the clause hereof entitled "General Agreement".

"Estimated Total Contract Price" shall mean the result obtained by adding together the Estimated Total for Classified Work and the Lump Sum, whether or not such result is correctly shown in the Contractor's Proposal.

"Specifications" shall mean:

1. The "Basic Specifications" – The specifications, Division 1 through 9, 15 and 16 contained in this Contract Booklet; and
2. The "Detailed Specifications" – The specifications prepared by the Contractor in accordance with this Contract in the form in which they are finally approved by the Chief Engineer in accordance with the provisions of this Contract.

"Contract Drawings" shall mean the drawings prepared by the Contractor in the form in which they are finally approved by the Chief Engineer as per the provisions of this Contract.

"Shop Drawings" shall mean all drawings, diagrams, illustrations, schedules, including supporting data, which are specifically prepared for this Contract and submitted by the Contractor pursuant to the requirements of the Specifications or the PA Project Manager to illustrate some portion of the Work. The terms "shop drawings", "placing drawings" and "working drawings" are used interchangeably in this Contract.

"Catalog Cuts" shall mean all standard drawings, diagrams, illustrations, brochures, schedules, performance charts and instructions submitted by the Contractor pursuant to the requirements of the Specifications or the PA Project Manager to illustrate some portion of the Work.

"Chief Engineer" shall mean the Chief Engineer of the Authority for the time being, or his successor in duties, acting personally.

"Director" shall mean the Director of Aviation of the Authority for the time being, or his successor in duties for the purpose of this Contract, acting personally or through his authorized representative for the purpose of this Contract, who is at present the Authority's Director of Aviation Operations.

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

"Assistant Chief Engineer - Construction" shall mean the Assistant Chief Engineer - Construction of the Authority for the time being, or his successor in duties, acting personally.

"Engineer of Construction" shall mean the designated Engineer of Construction for the facility at which the Work is being performed or his successor in duties, acting personally.

"Inspector" shall mean any representative of the Engineer designated by him as Inspector and acting within the scope of the particular authority vested in him.

The term "permanent construction" shall include all construction, installation, structures, equipment and materials (including materials and equipment, if any, furnished by the Authority to be constructed, installed or left by the Contractor at or about the construction site (or elsewhere in the possession of the Authority after the completion of the Work (whether or not they are yet delivered or installed), even though they are subsequently to be removed by others. The terms, "permanent installation", "permanent structure", "permanent materials", and words of similar import shall have the same meaning as the term "permanent construction".

"Subcontractor" shall mean anyone who performs Work (other than or in addition to the furnishing of materials, plant or equipment) at or about the construction site, 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 or who performs Work which consists only of the operation of construction equipment of which he is the lessor.

"Materialman" shall mean anyone who furnishes materials, plant or equipment to the Contractor or any subcontractor for use at or about the construction site in the performance of Work.

"Materialman" or "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 or 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 himself.

"Workingman" or "workman" shall mean any employee of the Contractor or of a subcontractor who performs personal labor or personal services at the construction site.

"Notice" shall mean a written notice.

Whenever they refer to the Work or its performance, "directed", "required", "permitted", "ordered", "designated", "prescribed" and words of similar import shall mean directed, required permitted, ordered, designated or prescribed by the PA Project Manager; and "approved", "acceptable", "satisfactory" and words of similar import shall mean approved by or acceptable or satisfactory to the PA Project Manager; and "necessary", "reasonable", "proper", "correct" and words of similar import shall mean necessary, reasonable, proper or correct in the judgment of the PA Project Manager.

Whenever "including", "such as" or words of similar import are used, the specific things thereafter enumerated shall not limit the generality of the things preceding such words.

"Indirect Costs" shall include; program management and subcontract management including allocation of work and budgets, development of and review of schedules, coordination of program reviews, design reviews, agendas and minutes. Data management including document security and electronic data interchange. Integrated schedule management including plan statusing, updates, and incorporation of workarounds as necessary. Cost management including collection, review and presentation of cost data. Risk management including identification, categorization (likelihood and severity) and action plans.

**19. GENERAL AGREEMENT**

The Contractor agrees to provide all structures, equipment, plant, labor and materials, to incorporate materials and equipment, if any, furnished by the Authority and to provide all other facilities and things necessary or proper for or incidental to performance of the management, design, integration, construction, procurement, installation, testing of and training for an integrated Aviation Multi-Facility Perimeter Intrusion Detection System (PIDS) at JFK, LGA, EWR and TEB Airports or as further described in Attachment B.

The Authority agrees to pay to the Contractor and the Contractor agrees to accept from the Authority, in full consideration for the performance by the Contractor of his duties and obligations under this Contract and the whole thereof, a compensation of:

\_\_\_\_\_ Dollars  
\_\_\_\_\_ Cents

(\$ \_\_\_\_\_) (throughout this Contract called the "Lump Sum"), and such compensation only, subject only to the express provisions of this Contract specifically setting forth actual, defined additions to or deductions from such compensation.

In the event that the Authority, at its sole and absolute discretion and at the time of awarding the Contract, also orders the Contractor, in writing to perform the Optional Scope of Work in Schedule 7-12, the Authority agrees to pay to the Contractor and the Contractor agrees to accept from the Authority in full consideration for the performance by the Contractor of his duties and obligations under this Contract in connection with the Optional Scope of Work and the whole thereof, a compensation in the amount of

\_\_\_\_\_ Dollars  
\_\_\_\_\_ Cents (\$ \_\_\_\_\_).

The enumeration in this Form of Contract and in the Specifications of particular things to be furnished or done at the Contractor's expense, or without cost or expense to the Authority, or without additional compensation to the Contractor shall not be deemed to imply that only things of a nature similar to those enumerated shall be so furnished and done; but the Contractor shall perform all Work as required without other compensation than that specifically provided, whatsoever changes may be made in the Contract Drawings and Specifications, whatsoever Work may be required in addition to that required by the Contract Drawings and Specifications in their present form, and whatsoever obstacles or unforeseen conditions may arise or be encountered.

**20. AUTHORITY ACCESS TO RECORDS**

The Contractor shall make available to the Port Authority within the Port of New York District for examination and audit by the Port Authority those records and books of account relating to the Authority's submitted accounts.

If any such records have been maintained outside of the Port District, but within the Continental United States, then the Port Authority in its sole discretion may (1) require such records to be produced within the Port District within thirty (30) days of written request for same or (2) if the Contractor fails to provide all of such books and records within the time period stated above (time being of the essence in connection with such time period and, in addition, such provided books and records being to the complete and total satisfaction of the Port Authority) the Port Authority may examine such records at the location at which they have been maintained and in such event the Contractor shall pay to the Port Authority for Port Authority auditors and other representatives, employees and officers in connection with such examination and audit.

The Contractor will provide, at no cost to the Authority, a workplace, reasonable environment, light, telephone and guidance as to where records are located for auditors from the Authority or the Authority's external auditors that may, from time to time, be designated to audit details records which support Contractor charges. The Authority shall have access to the detail records which support Contractor Charges. The Contractor shall obtain for the Port Authority similar access to similar records and documents of subcontractors. Such access shall be given or obtained both before and within a period of one year after Final Payment to Contractor; provided, however, that if within the aforesaid one year period the Port Authority has notified Contractor in writing of a pending claim under or in connection with this Contract to which any of the aforesaid records and documents of Contractor or its subcontractors relate either directly or indirectly, then the period of such right to access shall be extended to the expiration of three (3) year from the date of Final Payment with respect to the records and documents involved.

The Contractor will provide system access and reasonable assistance to the Authority's External and Internal Audit Staff or its consultants in the performance of financial, system, security and operational reviews including producing specific requested information, extraction of data and reports. The Contractor shall support requests related to audits of the service level agreement and administration tasks and functions covered by the contract.

Contractor shall provide continuous access to the Authority to electronic data relating to the Contractor's performance under this Agreement.

The Authority reserves the right to use and load security and system software to evaluate the level of security and vulnerabilities in all systems that control this system.

The Port Authority agrees to keep all information provided to it for the purposes of any audit as confidential and shall not share or disseminate any of the information provided outside of the Port Authority without prior written consent provided however that dissemination for the purposes of meeting legislative or other governmental oversight requirements, dissemination to law enforcement authorities and dissemination subject to the Port Authority's Freedom of Information Policy is permissible provided the disseminated material contains a legend indicating that the information is confidential to the Contractor and not to be further disseminated.

**21. AGENCY FOR RENTAL OF CONSTRUCTION EQUIPMENT**

With respect to the performance of Work in the State of New York:

A. General Provisions

The Contractor further agrees to act as the agent of the Authority, subject to the provisions of this numbered clause relating to such agency for the rental of all construction equipment necessary or desirable for or incidental to the performance of the Contract (other than construction equipment owned and also used by the Contractor or owned and also used by any subcontractor) and, in the exercise of such agency, to assume all the obligations and duties imposed upon him by this Contract. The Contractor may authorize any subcontractor to act as his subagent for rental of such equipment for use by such subcontractor, subject to all the provisions of this Contract. "Construction equipment" as used in this numbered clause shall include plant.

The Authority will pay the rental charges for said equipment directly to the lessors thereof, but the charges so paid shall be deducted from the compensation payable to the Contractor under the Contract; provided, however, that the Authority will pay such charges, and the Contractor is authorized by the Authority to act as such agent, to the extent only that the charges payable for such rental do not exceed the compensation payable to the Contractor under the Contract; and provided further that the Contractor performs all the obligations relating to said agency imposed upon him by this Contract.

The Authority will provide the Contractor with a statement to be furnished by him and the subcontractors to such lessors which will identify this Contract as the one under which the Contractor is authorized to rent said equipment and which will identify the site to which delivery must be made. The Contractor shall arrange for delivery of said equipment directly to the construction site. Payment of the rental charges therefore shall be made by the Authority on the basis of invoices made out to the Authority in which is contained the place of delivery and on which the Contractor has certified by endorsement that such construction equipment is being or has been used in the performance of the Contract, said invoices to be submitted through the Contractor to the Authority at the time said equipment is put into use at the construction site. In the event said invoices are not submitted promptly, at the time stated above, but are submitted at a time when, by reason of prior advances and payments to the Contractor or for his account, the amounts still payable to the Contractor in connection with the Contract are insufficient to pay said invoices, then the Authority shall not be liable to the lessors for any amounts in excess of said amounts still payable to the Contractor which remain in the possession of the Authority.

Notwithstanding the above agency arrangement, the Authority shall not be liable to lessors of construction equipment for any amounts except rental charges based on time of use of such equipment, and the Contractor's agency is limited accordingly. All obligations incurred by the Contractor or subcontractors for any other expenses, including repairs and damages for breach of the rental agreement, shall be obligations incurred by the Contractor or subcontractors as principal not as agent of the Authority. Moreover, as between the Authority and the Contractor, the Contractor shall be responsible for all amounts due to lessors of construction equipment notwithstanding the above agency arrangement.

The Contractor shall indemnify the Authority against any claim of any kind whatsoever made against the Authority by a lessor of construction equipment and the Contractor assumes the risk of all claims against him by any lessor of construction equipment, including in both cases, claims in connection with a subcontractor.

The agency provided for under this numbered clause shall not relieve the Contractor of any of his duties and obligations elsewhere provided for under this Contract.

B. Option Not to Act as Agent

Notwithstanding the provisions of A above, the Contractor shall have the right to elect not to act as the agent of the Authority for the rental of any particular item or items of said construction equipment, in which event, with regard to any such rentals by the Contractor as principal and not agent, the provisions of A of this numbered clause shall be inapplicable as well as those provisions of the clause of the Form of Contract entitled "Exemption From New York State and New York City Sales Taxes", which relate to rental of construction equipment.

**22. EXEMPTION FROM NEW JERSEY STATE SALES TAXES**

With respect to the performance of Work in the State of New Jersey, the attention of the Contractor is directed to the following provision of the New Jersey State Sales and Use Tax Act:

Receipts from sales made to contractors or repairmen of materials, supplies or services for exclusive use in erecting structures or building on, or otherwise improving, altering or repairing real property of:

(a) organizations described in subsections (a) and (b) of section 9 of the "Sales and Use Tax Act," P.L. 1966, c.30 (C. 54:32B-9);

\*\*\* are exempt from the tax imposed under the "Sales and Use Tax Act," provided any person seeking to qualify for the exemption shall do so pursuant to such rules and regulations and upon forms as shall be prescribed by the director. N.J.S.A. 54:32B-8:22.

The Authority is an exempt organization of the type described in subsection (a) of section 9 of the act.

In view of the foregoing, the Contractor should not include in his price(s) any amounts for New Jersey State sales and use taxes on such materials, supplies and services.<sup>11</sup>

If (i) any claim is made against the Contractor by the State of New Jersey for such sales or compensating use taxes, or (ii) any claim is made against the Contractor by a materialman or a subcontractor on account of a claim against such materialman or subcontractor by the State of New Jersey for such sales or compensating use taxes, then the Authority will reimburse the Contractor in an amount equal to the amount of such tax required to be paid in accordance with the requirements of law, provided that:

- A. the Contractor, or the Contractor and any such subcontractor, as the case may be, have complied with such rules and regulations as may have been promulgated relating to the claiming of the exemption from such taxes and have filed all the forms and certificates required by the applicable laws, rules and regulations in connection therewith; and
- B. the Authority is afforded the opportunity before any payment of tax is made, to contest said claim in the manner and to the extent that the Authority may choose and to settle or satisfy said claim, and such attorney as the Authority may designate is authorized to act for the purpose of contesting, settling and satisfying said claim; and

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<sup>11</sup> Note regarding equipment rentals: The attention of the Contractor is directed to the fact that the New Jersey State Sales Tax Bureau has ruled that the "rental of equipment is taxable whether or not the job is performed for an exempt organization." Therefore in the case of equipment rentals, if any, the Contractor should include in his prices an amount for taxes thereon.

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- C. the Contractor, or the Contractor and any such subcontractor, as the case may be, give immediate notice to the Authority of any such claim, cooperate with the Authority and its designated attorney in contesting said claim and furnish promptly to the Authority and said attorney all information and documents necessary or convenient for contesting said claim, said information and documents to be preserved for six years after the date of Final Payment or longer if such a claim is pending or threatened at the end of such six years.

If the Authority elects to contest any such claim, it will bear the expense of such contest.

### **23. EXEMPTION FROM NEW YORK STATE AND NEW YORK CITY SALES TAXES**

With respect to the performance of Work in the State of New York:

- A. Materials Incorporated in Permanent Construction

The attention of the Contractor is directed to the following provision of the New York State and New York City Sales and Compensating Use Tax Act:

S.1115. Exemptions from sales and use taxes. (a) Receipts from the following shall be exempt from the tax on retail sales imposed under subdivision (a) of section eleven hundred five and the compensating use tax imposed under section eleven hundred ten:

(15) Tangible personal property sold to a contractor, subcontractor or repairman for use in erecting a structure or building of an organization described in subdivision (a) of section eleven hundred sixteen, or adding to, altering or improving real property, property or land of such an organization, as the terms real property, property or land are defined in the real property tax law; provided, however, no exemption shall exist under this paragraph unless such tangible personal property is to become an integral component part of such structure, building or real property."

The Authority is an exempt organization of the type described in subdivision (a) of section eleven hundred sixteen.

In view of the foregoing, the Contractor should not include in his price(s) any amounts for New York State and New York City sales and compensating use taxes on such tangible personal property.

If (i) any claim is made against the Contractor by the State of New York or City of New York for such sales or compensating use taxes, or (ii) any claim is made against the Contractor by a materialman or a subcontractor on account of a claim against such materialman or subcontractor by the State of New York or City of New York for such sales or compensating use taxes, then the Authority will reimburse the Contractor in an amount equal to the amount of such tax required to be paid in accordance with the requirements of law, provided that:

- 1.) the Contractor, or the Contractor and any such subcontractor, as the case may be, have complied with such rules and regulations as may have been promulgated relating to the claiming of the exemption from such taxes and have filed all the forms and certificates required by the applicable laws, rules and regulations in connection therewith;

- 2.) and the Authority is afforded the opportunity before any payment of tax is made, to contest said claim in the manner and to the extent that the Authority may choose and to settle or satisfy said claim and such attorney as the Authority may designate is authorized to act for the purpose of contesting, settling and satisfying said claim; and
- 3.) the Contractor, or the Contractor and any such subcontractor, as the case may be, give immediate notice to the Authority of any such claim, cooperate with the Authority and its designated attorney in contesting said claim and furnish promptly to the Authority and said attorney all information and documents necessary or convenient for contesting said claim, said information and documents to be preserved for six years after the date of Final Payment or longer if such a claim is pending or threatened at the end of such six years.

If the Authority elects to contest any such claim, it will bear the expense of such contest.

**B. Rental of Construction Equipment**

The rental by the Contractor or subcontractor of construction equipment not owned by the Contractor or subcontractors for use in the performance of the Contract will also not be subject to New York State or New York City sales or compensating use taxes, provided that:

- 1.) the Contractor's and any subcontractor's use of construction equipment rented from others, and any agreement for such rental, is based upon the agency arrangement provided for in the clause hereof entitled "Agency for Rental of Construction Equipment" and the Contractor and subcontractors have performed all their obligations under said clause;
- 2.) delivery of said equipment is to the construction site;
- 3.) the Contractor or subcontractor has furnished to the lessor the statement from the Authority identifying this Contract as the one under which the Contractor or subcontractor has been authorized to rent said equipment and identifying the construction site to which delivery must be made;
- 4.) the invoice for said equipment is made out to the Authority and prescribes the place of delivery; and
- 5.) the amounts payable for rental of said equipment do not exceed the amount of compensation payable in connection with the Work.

In view of the above, the Contractor should not include in his price(s) any amounts for New York State and New York City sales and compensating use taxes on such rentals of equipment.

If (i) any claim is made against the Contractor by the State or City of New York for sales or compensating use taxes on such rental of construction equipment or (ii) any claim is made against the Contractor by a materialman, lessor or a subcontractor on account of a claim against such materialman, lessor or subcontractor by the State or City of New York for sales or compensating use taxes on rental of said equipment, then the Authority will reimburse the Contractor in an amount equal to the amount of such tax required to be paid in accordance with the requirements of law, provided that the provisos listed above in this numbered clause as A.1 through A.3 and B.1 through B.5 are complied with.

If the Authority elects to contest any such claim, it will bear the expense of such contest.

**24. PERFORMANCE AND PAYMENT BOND**

If the Authority shall in its sole discretion so elect at the time of accepting the Contractor's Proposal, the Contractor shall furnish a bond for the faithful performance of all obligations imposed upon him by the Contract and also for the payment of all lawful claims of subcontractors, materialmen and workmen arising out of the performance of the Contract. Such bond shall be in the form bound herewith entitled, "Performance and Payment Bond", shall be in a penal sum equal to the Lump Sum and such bond shall be signed by one or more sureties<sup>12</sup> satisfactory to the Authority. The bond may be executed on a separate copy of such form not physically attached to this Contract booklet. In any case, both the form of bond bound herewith and any unattached executed copy thereof shall form a part of this Form of Contract as though herein set forth in full.

At any time after the opening of Proposals, the Authority may give notice to one or more proposers to advise the Authority as to the names of their proposed sureties. Within forty-eight hours thereafter each proposer so notified shall so advise the Authority. The giving of such notice to a proposer shall not be construed as an acceptance of his Proposal, and omission to give such notice shall not be construed as an election by the Authority not to require a bond.

If the Authority elects to require the Contractor to furnish a bond, he shall deliver such bond to the Authority within seven days after receipt by him of the acceptance of his Proposal, and the sureties thereon shall be as proposed by him, provided, that if the Authority has theretofore given notice to him that his proposed sureties or any of them are not satisfactory, the bond shall be executed by other sureties satisfactory to the Authority.

The Authority shall give notice to the Contractor within ten (10) days after receipt of the Performance and Payment Bond as to whether or not such bond is satisfactory.

In the event of a default by the Contractor in his obligation to furnish a satisfactory bond within seven (7) days after he received an acceptance of his Proposal, such default shall entitle the Authority in its discretion to terminate this Contract at any time within forty-five (45) days after the acceptance of the Proposal, without any liability on the part of the Authority. Inasmuch as the damages to the Authority resulting from a termination by it upon the failure of the Contractor to furnish a satisfactory bond will include items whose accurate amount will be difficult or impossible to compute, such damages shall be liquidated in the sum of the following amounts:

- A. The excess, if any, of the Lump Sum in the Proposal finally accepted over that in the Proposal of the Contractor; and
- B. The expense of such new advertisement of the Contract, if any, as may be deemed necessary by the Authority; and

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<sup>12</sup> Sureties must be corporations (commonly known as "surety companies"), authorized to do business as sureties in the state(s) in which the construction site is located, whose names appear on the current list of the Treasury Department of the United States in effect at the time of submission of the Performance and Payment Bond to the Authority as acceptable as sureties to the Treasury Department. In addition, the aggregate underwriting limitations on any one risk as set forth in the aforementioned list of the Treasury Department of the sureties shall equal or exceed the penal sum of the Performance and Payment Bond.

- C. The sum of \$500 for each day after the receipt by the Contractor of the acceptance of his Proposal that the performance of the Contract is not commenced by reason of the failure of the Contractor to furnish the required bond.

In the recovery of the damages above specified, the Authority may proceed against the sum represented by the certified check deposited with it and take such other action as it may deem best in the public interest.

If the Contractor furnishes a bond in accordance with the requirements of the Authority under this numbered clause, the Authority shall reimburse the Contractor for the net amount actually paid by him to the surety or sureties as the premium on such bond. The Contractor shall deliver to the PA Project Manager receipts from the surety or sureties evidencing such payment and the amount thereof. Within fifteen days after receipt of such evidence satisfactory to the PA Project Manager, the Authority shall pay to the Contractor by check the amount provided in this numbered clause.

If at any time the Authority shall be or become dissatisfied with any surety or sureties then upon any bond furnished in accordance with the requirements of the Authority, or if for any other reason such bond shall cease to be adequate security to the Authority, the Contractor shall, within five days after notice from the Authority so to do, substitute a new bond in such form and sum and signed by such other sureties as may be necessary in the opinion of the Authority to constitute adequate security.

## **25. AIRPORT OPERATIONS AND CONDITIONS**

### **A. General:**

- 1.) Place "Water" identification signs on all water vehicles or water tanks, which are to be used for the transportation or storage of water during the course of the Work at the airport.
- 2.) At least 7 days but not more than 10 days prior to performing excavation, call 1-800-272-4480 and provide the information required for excavation(s) in New York and call 1-800-272-1000 and provide the information required for excavation(s) in New Jersey
- 3.) Do not place temporary structures or store materials or equipment required in the performance of the Work within any of the buildings on the airport without specific prior approval of the PA Project Manager.
- 4.) Do not store petroleum or combustible products, or any other flammable materials, within any buildings or in any part of the airport except as designated by the PA Project Manager.
- 5.) Do not burn or bury debris of any type on Authority property, or wash waste materials down sewers or into waterways.
- 6.) Maintain haul routes in a satisfactory condition, and repair damage to such routes, resulting from the Contractor's operations. Unless otherwise approved by the PA Project Manager, clean haul routes each work period and remove earth or other materials, which fall or are otherwise placed on such routes during the performance of Work.

- 7.) Do not park vehicles on any grass or unauthorized area. Free parking of vehicles in any of the airport parking lots will not be permitted.
  - 8.) Protect against damaging existing lights, pavement, curbs and other fixed items that are to remain. Such items, which are damaged, either directly or indirectly, by the Contractor during the performance of the Contract, whether negligently or not, shall be restored to the condition that existed prior to such damage.
  - 9.) Take all precautions necessary for protection of persons, traffic and property during dust or fragment generating operations, concrete mixing or placing, or other operations which may stain, soil or damage property or injure persons.
  - 10.) Provide sound suppression devices on gasoline and diesel powered construction equipment and pneumatic tools as required to maintain noise exposures below the limits specified in the Code of Federal Regulations (CFR) 29 CFR 1926 U.S. Occupational Health and Safety Administration (OSHA). Maintain such sound suppression devices in proper operating condition throughout the time of their use, and adjust and repair as required to maintain noise within exposure levels stipulated in 29 CFR 1926.52, Table D-2.
  - 11.) Remove on an on-going basis, and before the end of each work period, all paving materials left in the grass shoulder areas, in manholes, catch basins or handholes as a result of the cleaning of the Contractor's equipment.
  - 12.) Food or food related debris shall not to be left on or disposed of on the construction site.
  - 13.) Equipment, vehicles and materials, not being utilized in the current work period shall be removed and stored in the area designated by the PA Project Manager for such purpose, or if there is no such area designated then such items shall be removed from the airport.
- B. Construction Site Conditions at Air Operations Areas:
- 1.) "Air Operations Area" (AOA) means that portion of the airport designed and used for landing, takeoff, parking or surface maneuvering of aircraft, as well as the Restricted Service Roads (RSR).

- 2.) During the time that the Contractor is performing the Work, the Air Operations Areas will remain in use by aircraft. To the extent feasible and convenient in the opinion of the PA Project Manager, and to the extent permitted by the Federal Aviation Administration (FAA), the use by aircraft of aprons, runways and taxiways adjacent to areas where the Contractor is working will be so scheduled by the Authority as to reduce disturbance to the Contractor's operations. It is further anticipated but not guaranteed that certain aprons, runways, taxiways, and taxilanes will be shut down to aircraft operations for limited periods at times requested in advance by the Contractor. Notwithstanding the foregoing, aircraft operations shall always have priority over any and all of the Contractor's operations. No representation or guarantee is made that any disturbance can or will be reduced. During periods of reduced disturbance aircraft may nevertheless taxi through and around construction or maintenance work areas. In order to minimize interference between aircraft operations and construction or maintenance operations, the Contractor shall therefore proceed with performance of the Work in a safe manner and in accordance with the requirements hereinafter stipulated, at all times coordinating operations with the PA Project Manager.
  
- 3.) Should the Contractor be specifically directed to suspend operations or be directed as hereinafter described, and if solely because of such direction the Contractor is necessarily kept idle at the construction site, the Contractor will be compensated as stipulated in the provisions of the Contract concerning compensation for emergency delays.
  - a. Should aprons, runways, taxiways or taxilanes be required for the use of aircraft and should the PA Project Manager solely deem the Contractor to be too close to the portion used by aircraft, the Contractor may be directed to suspend operations, remove personnel, plant, equipment and materials to a safe distance and stand by until the aprons, runways, taxiways or taxilanes are no longer required for use by aircraft, at which time the Contractor shall immediately resume operations in the vacated areas when so directed by the PA Project Manager.
  
- 4.) The Contractor, subcontractors, materialmen, deliveryman or other persons over whom the Contractor has control shall not enter upon or allow any plant or material to be located upon any part of the Air Operations Areas without specific prior approval of the PA Project Manager.
  
- 5.) The Contractor, employees of the Contractor, subcontractors, materialmen and all other persons over whom the Contractor has control shall comply with the following:
  - a. Clearly display on their person an identification tag indicating their name and company before entry upon any Air Operations Area. The Contractor shall provide tags and holders for such identification.
  - b. Do not enter upon any Air Operations Area unless accompanied by a representative of the Authority designated by the PA Project Manager to escort the Contractor and equipment to and from the point or points of operation within the limits of such areas, and do not traverse back and forth between points within such areas unless accompanied by said Authority representative.

- c. Do not enter or remain upon or allow any plant or materials to be brought or to remain upon any part of the Air Operations Areas if in the opinion of the PA Project Manager they would create a hazard to aircraft or airport operations.
  - d. Smoking is not permitted in the Air Operations Area.
- 6.) No two adjacent taxiways shall be closed at the same time unless otherwise directed by the PA Project Manager.
- 7.) Materials tracked onto movement areas shall be removed continuously during each work period.
- a. "Movement Areas" means areas within the AOA comprised of the runways, taxiways and other areas of the airport that are used for taxiing or hover taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and aircraft parking area. The Air Traffic Control Tower or Ground Control typically controls these areas.
- 8.) At the end of each work period, remove plant, materials, equipment and any other obstructions away from the work area to a non-AOA site as designated by the PA Project Manager.
- 9.) Information on Visual Flight Rules (VFR) or Instrument Flight Rules (IFR) weather conditions or Category II operations at the airport is available to the Contractor at the Operations Supervisor's Office of the airport. Category II operations only apply at EWR and JFK.

At the following Air Operations Area locations, conform to the following requirements:

- a. Approach to Runways: When a runway is active, keep obstructions due to Work below or outside the VFR and IFR approach surfaces.
  - (i) "Obstruction" shall be defined as any obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C.
- b. Adjacent to Runways:
  - (i) When a runway is active, no construction activities shall be permitted within 250-feet from the runway centerline. Place barricades in accordance with the Section herein entitled "Barricades."
  - (ii) During VFR weather conditions, obstruction mark all construction equipment, material, or debris penetrating a surface originating along a line 250-feet from the runway centerline at runway elevation, and extending upward and away from the runway at a slope of one foot vertically for every seven feet horizontally, in accordance with the paragraph herein entitled "Obstruction Marking and Lighting". In addition, all penetrations above runway elevation between 200-feet and 250-feet from the runway centerline shall be obstruction lighted with omni-directional lenses

- (iii) During IFR weather conditions; in addition to obstruction marking, provide obstruction lights on fixed obstructions, construction equipment, materials, or debris penetrating a surface originating along a line 500-feet from the runway centerline at runway elevations, and extending upward and away from the runway at a slope of one foot vertically for every seven feet horizontally. For such lighting, provide, locate and operate in accordance with the paragraph herein entitled "Obstruction Marking and Lighting". In addition, all penetrations above runway elevation between 250-feet and 500-feet from the runway centerline shall be obstruction lighted with omni-directional lenses.
- (iv) When Category II landing operations are being conducted on runways during IFR weather conditions, as defined by Federal Aviation Administration United States Terminal Procedures, no construction operations, equipment, materials or debris shall be within the Category II Touchdown Area, the Missed Approach Area and Transitional Surfaces as hereinafter defined.
  - (a.) "Touchdown Area" means an area longitudinally centered on the runway centerline, extending from a point 200-feet in advance of the runway approach threshold (normal or displaced) for a distance of 3,200-feet in the direction of landing, and having a total width of 1,000-feet.
    - i. "Threshold" is defined as the beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.
    - ii. "Displaced Threshold" is the portion of pavement behind a threshold that may be available for takeoffs in either direction or landing from the opposite direction.
  - (b.) "Missed Approach Area" means an area, which begins at the end of the touchdown area at the height of the runway and extends upward at a slope of one foot vertically for each 40-feet horizontally. In plan view, it has the same width as the touchdown area at the point of beginning with the width increasing uniformly to 3,100-feet at 6,000-feet from the point of beginning.
  - (c.) "Transitional Surfaces" means surfaces sloped at 7:1 extending outward and upward from the edges of the touchdown area or the missed approach area to a height of 150-feet above the elevation of the runway centerline or the end of the Touchdown Area.
- (v) Perform Work so that when the runway is being made available for aircraft operations, the maximum grade difference in any paved surface within the Safety Area shall not exceed 1 inch on runway surface and 3 inches within any part of the Safety Area.
  - (a.) "Runway Safety Area" means surfaces within 250-feet measured from and parallel to the centerline of the runway, and extending 1,000-feet beyond and parallel to the end of the runway. It is a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway, in accordance with AC 150/5300-13.
- (vi) On active runways, open excavations, debris, construction equipment, personnel or materials are not permitted within the Safety Area.

- (a.) "Open Excavation" means any trench in unpaved areas exceeding 6" in width or 3" in depth; and in paved areas, a drop of 3" or greater within a 6" horizontal measure.
- (vii) Do not permit material capable of being dislodged by aircraft blast within 250-feet from the runway centerline. Remove or stabilize such loose materials in this area as approved by the PA Project Manager.
- c. Adjacent to Taxiways (T/W) or Taxilanes (T/L):
  - (i) Neither construction activity nor personnel are permitted within the Object Free Area (OFA),
    - (a.) "Object Free Area" means an area on the ground centered on the runway, taxiway, or taxilane centerline provided to enhance safety of aircraft operations by having the area free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.
    - (ii) Perform Work within the specified limits shown in Table I below only when the taxiway/taxilane is closed to air operations.
    - (iii) Open excavations as close as the edge of the taxiway are permitted provided they are delineated by placing obstruction marked and lighted collapsible barricades, in accordance with "Barricades" hereof, along the edge of the taxiway.
    - (iv) Do not permit loose material capable of being dislodged by aircraft blast and becoming a hazard within the Taxiway Safety Area (TSA), shown in Table 1 when the T/W or T/L is active. Remove or stabilize such loose materials in this area as approved by the PA Project Manager.
      - (a.) "Taxiway Safety Area" means a surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.
    - (v) Waste and loose material shall not be placed in active movement areas.

Table 1				
	EWR	TEB	JFK	LGA
T/W OFA	320-feet	152-feet	320-feet	259-feet
(From centerline)	(160-feet)	(76-feet)	(160-feet)	(129.5-feet)
T SA	214-feet	94-feet	214-feet	171-feet
(From centerline)	(107-feet)	(47-feet)	(107-feet)	(85.5-feet)
T/L OFA	276-feet	132-feet	276-feet	225-feet
(From centerline)	(138-feet)	(66-feet)	(138-feet)	(112.5-feet)

C. Construction Site Conditions Outside Airport Operations Areas:

- 1.) During the time the Contractor is performing the Work, it may at times be necessary because of emergency or abnormal traffic conditions to suspend the Contractor's operations, or to postpone the time at which traffic lanes, parking or other areas become available for performance of Work. Should the Contractor be specifically directed to suspend operations in traffic lanes, parking or other areas, and remove personnel, and obstructing plant, equipment and materials from such lanes or areas, or should such lanes or areas not be available by the times specified, and if solely because of such suspension of operations or late availability of traffic lanes, parking, or other areas the Contractor is necessarily kept idle at the construction site, the Contractor will be compensated as stipulated in the provisions of the Contract concerning compensation for emergency delays.
  - 2.) Limit the maximum height of construction equipment to 25-feet unless otherwise shown on the Contract Drawings or expressly approved by the PA Project Manager, obstruction light in accordance with the paragraph herein entitled "Obstruction Marking and Lighting" and obstruction mark and light that portion of equipment which exceeds 25-feet in height in accordance with FAA Advisory Circular 70/7460-1K Change 1.
  - 3.) Perform such duties as the PA Project Manager may direct and as may be necessary in the opinion of the PA Project Manager for the rerouting of traffic in the performance of the Work.
  - 4.) Restrict smoking to areas designated by the PA Project Manager for this purpose.
- D. Obstruction Marking and Lighting:
- 1.) Material, temporary construction and facilities for obstruction marking and lighting constitute temporary facilities that are and shall remain the property of the Contractor unless otherwise shown on the Contract Drawings or specifically directed by the PA Project Manager to be turned over to the Port Authority.
  - 2.) Provide new materials, or undamaged previously used materials in serviceable condition conforming to the requirements specified herein.
  - 3.) In Air Operations Areas or airport areas where obstructions occur within navigable airspace provide obstruction lights, Model UF-60-7-75A-PE-BI as manufactured by Julian A. McDermott Corp., Ridgewood, N.Y., or approved equal.
    - a. Unless otherwise shown on the Contract Drawings, mount an obstruction light on the highest point of construction equipment or obstruction.
    - b. Ensure that obstruction lights are maintained in proper operating condition throughout Work of this Contract, and operate at night seven (7) days a week and during IFR weather conditions.
      - (i) "Night" means the time between the end of evening civil twilight, and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.
- E. Paving and Surfacing in Air Operations Areas:

- 1.) Paving and Surfacing in Air Operations Areas are designed to meet stringent requirements for aircraft operations. Exercise extreme care in machine and hand placing material to achieve the finished elevations shown on the Contract Drawings within the tolerances specified elsewhere herein.
- 2.) When applying tack coat, sealcoat, or pavement marking paint near or around edge lights and any in-pavement lights, provide temporary covers to protect glass fixtures. Remove covers prior to resuming air operations.
- 3.) Deactivate and adjust elevation of all existing edge lights and all in-pavement lights prior to paving operations in any given area and reactivate them prior to resuming air operations.
- 4.) Prior to reactivating a runway or a taxiway, any portion of a raised manhole, catch basin hand hole, edge light, or subsurface structure, located within 250 feet of a runway centerline or within the Taxiway Safety Area (TSA) shown in Table 1, protruding by more than three inches shall be ramped in accordance with details shown on the Contract Drawings or, if not shown, as directed by the PA Project Manager.
- 5.) In areas that are to be opened to aircraft prior to completion of paving top course, ramp all lifts which exceed a maximum of one inch in depth. Ramp in accordance with details shown on the Contract Drawings or, if not shown, as directed by the PA Project Manager. When paving operations are resumed, cut and trim ramp to expose unsealed or granular surface for a depth of one inch, paint the edge of the lift with a thin coat of hot asphalt cement and place fresh asphalt against the edge of the lift and compact.
- 6.) Remove sand and other debris from the taxiway, runway, apron, taxilanes, and restricted service road surfaces crossing air traffic lanes. Completely sweep with a power driven sweeper and flush with water on an ongoing basis so that such surfaces are ready for use by aircraft as required.

F. Night Illumination of Paving and Surfacing Operations:

- 1.) Paving and surfacing operations conducted at Night shall, in addition to the requirements of the paragraph entitled "Obstruction Marking and Lighting" hereof, conform to the following requirements:
  - a. In Air Operations Areas, locate and shield night illumination to prevent interference with air traffic control or impairment of safe aeronautical operations.
  - b. Outside Air Operations Areas, locate and shield night illumination to prevent interference with motorists and pedestrians or impairment of traffic and pedestrian movement.
- 2.) Illumination of Area of Work: Provide and operate portable floodlight units similar and equal to "Maxi-Lite 695" as manufactured by Allmand Brothers Inc., Holdredge, NE.
- 3.) Equipment Illumination: Provide and operate electric beam lights with a capacity of not less than 3,000 watts affixed to paving machines, rollers, distribution trucks and other vehicles to provide not less than twenty foot candles of illumination on the following horizontal surfaces:

- a. During operation of paving machines, an area 12-feet by 12-feet immediately behind the machine;
- b. During operation of rolling equipment, an area 12-feet wide by 30-feet long immediately in front of and behind the machine; and
- c. During application of tack coat, an area 12-feet by 12-feet on the area being coated.

G. Existing Airport Lights in Air Operations Areas:

- 1.) Various types of lights are installed in the areas in which the Work is to be performed. Prior to the commencement of operations, note the exact number and location of lights in such areas and provide adequate protection therefor. Any light fixture which is damaged by the Contractor, whether negligently or not, during the performance of the Work shall be repaired or replaced in an approved manner before the end of each work period. Should the Contractor not repair or replace any such damaged lights by the end of each work period, the Authority will undertake such restoration and the cost thereof, as determined by the PA Project Manager, will be deducted from the Contractor's compensation hereunder. The number and locations of lights shown on the Contract Drawings are approximate only and the Authority does not guarantee their accuracy.

H. Subsurface Structures:

- 1.) Attention is called to the fact that some of the manholes, chambers or other subsurface structures, in which Work is to be performed under this Contract, contain energized high and low voltage cables, and that various insects, snakes, spiders and rodents may be present.
- 2.) Apply to the PA Project Manager in writing at least 24-hours in advance of the time of:
  - a. entry into existing manholes, handholes, or other subsurface structure or,
  - b. interruption or disruption of utility services. Perform interruptions of electrical services, and entry into subsurface structures in accordance with the provisions of the Section hereof entitled "PERMIT AND REQUIREMENTS FOR ELECTRICAL DISTRIBUTION WORK". Service shall not be cut off on existing installations until all operations have been completed except for connections or reconnections to power source of wiring to be installed under this Contract. Notice to the PA Project Manager shall specifically state which utilities will be affected and the time and the duration of such interruption. Keep all such interruptions to a minimum. No interruption of utility services shall be made without approval of the PA Project Manager whose decision in all cases shall be final.
- 3.) Test each subsurface structure for combustible, toxic or otherwise harmful, gases or vapors in accordance with NFPA No. 328 "Recommended Practice for the Control of Flammable and Combustible Liquids and Gases in Manholes, Sewers and Similar Underground Structures" before permitting personnel to enter. If such gases or vapors are detected, ventilate the subsurface structure until the gases have dissipated to an acceptable level as determined by the OSHA Air Quality regulations prior to entry.

- 4.) Manholes and other subsurface structures in which Work is to be performed under this Contract may contain water. Remove water encountered in such locations and keep the floors of such locations free of standing water at all times workers are in such locations.
  - 5.) Verify the exact locations of underground utilities and subsurface structures in the field, and assume all risks of whatever nature, if any, as to the locations of such utilities and structures.
- I. No requirement of or omission to require any precautions under this Contract shall be deemed to limit or impair any responsibility or obligation assumed by the Contractor under or in connection with this Contract and the Contractor shall at all times maintain adequate protection to safeguard the public and all persons engaged in the Work and shall take such precautions as will accomplish such end, without undue interference with the public or the operations of the Authority.

**26. PERMIT AND REQUIREMENTS FOR ELECTRICAL DISTRIBUTION WORK**

- A. Notify the PA Project Manager at least 24 hours prior to the commencement of operations at the construction site which in any way may affect existing electrical circuits or require entry into any electrical manhole at the airport, and obtain from the PA Project Manager, Authority Form PA 2497A entitled, "Electrical Work Permit". Execute such form in triplicate each morning prior to commencement of Work on existing electrical circuits or entry into manholes. The Authority will issue this form to the Contractor without payment of a fee.
- B. Allow sufficient time for loads to be transferred to other circuits from the circuits upon which Work is to be performed and for lock out of circuits which are within existing load centers. Comply with other requirements contained on the back of the "Electrical Work Permit" insofar as they are applicable to the Work to be performed under this Contract. In any event, reconnect and place back in operation electrical circuits activating parking field, roadway, runway operations, apron and taxiway lights prior to the close of operations on each day, and in any event before sunset of each day. Overtime operations or premium time required to be paid by the Contractor for or in connection with this numbered Section shall be borne by the Contractor without separate or additional compensation therefor.

**27. AIRPORT CONSTRUCTION SAFETY REQUIREMENTS**

- A. General Safety Requirements:
- 1.) The Contractor shall adhere to all safety precautions described in the current edition of the U. S. Department, Federal Aviation Administration Advisory Circular AC 150/5370-2, Operational Safety on Airports During Construction. The Contractor is to strictly conduct all activities as not to violate safety standards contained in said Advisory Circular.
  - 2.) Throughout the construction period, the following safety and operational practices shall be followed:

- a. Operational safety shall be a standing agenda item during work progress meetings throughout the duration of the Contract.
- b. The Contractor shall perform onsite inspections of the construction site throughout the duration of the Contract, with immediate remedy of any safety deficiencies.
- c. The Contractor, employees of the Contractor, subcontractors, materialmen or any other support workers over whom the Contractor has control, who are required to enter the Aircraft Operations Area will be required to wear a reflective safety vest, day or night.
- d. Construction that is within the safety area of an active runway, taxiway, or apron must be performed when the runway, taxiway, or apron is closed or use-restricted and initiated only with prior permission from the PA Project Manager.
- e. The PA Project Manager may order the Contractor to suspend operations and move personnel, equipment, and materials to a safe location at any time he deems it necessary.

**B. Maintenance of Construction Site:**

- 1.) Inspect all construction and storage areas as often as necessary to be aware of conditions.
- 2.) Promptly take all actions necessary to prevent or remedy any unsafe or potentially unsafe conditions as soon as they are discovered.
- 3.) Provide continuous clean-up operations including a mechanical sweeper for all haul operations or other related traffic to and from the construction site.
- 4.) The Contractor, at the direction of the PA Project Manager, may be required to provide and maintain an emergency response route through the work area, for Airport Emergency Vehicles. Construction vehicles accessing this road will give way to emergency vehicles at all times. Parking or staging of any construction equipment or stockpiling of materials blocking the road or access to the road will not be permitted.

**C. Approach Clearance to Runways:**

- 1.) Runway thresholds must provide an unobstructed approach surface over equipment and materials. (Refer to Contract Drawings for construction clearance surfaces.)
- 2.) Ensure all personnel, materials, and/or equipment are clear of the applicable runway end slope criteria (Refer to Contract Drawings for construction clearance surfaces.)

**D. Runway and Taxiway Safety Area (RSA and TSA):**

- 1.) Limit construction to outside of the approved RSA and TSA, as defined elsewhere in this section—unless the runway is closed or restricted to aircraft operations, requiring a lesser standard RSA that is equal to the RSA available during construction.
- 2.) Procedures for Protecting Runway Edges:
  - a. Limit construction to no closer than 250 feet from the runway centerline—unless the runway is closed to aircraft operations.

- b. Personnel, material, and/or equipment shall not penetrate the Obstacle Free Zone (OFZ) as defined in the U. S. Department, Federal Aviation Administration Advisory Circular AC 150/5300-13 Airport Design, Paragraph 306, "Obstacle Free Zone"
- 3.) Procedures for Protecting Runway Ends.
  - a. Maintain the RSA as it existed before construction activity—unless the runway is closed to aircraft operations.
  - b. Prevent personnel, material, and/or equipment, from penetrating the OFZ.
- E. Closed Runways:
  - 1.) For work that necessitates the closure of a runway or runways, the Contractor shall furnish and install and subsequently remove or relocate a lighted "X" as per FAA Advisory Circular 150/5345-55 "Lighted Visual Aid to Indicate Temporary Runway Closure", at each end of the closed runway on or near each of the runway designation numbers as directed by the PA Project Manager. The Contractor shall be responsible for the storage, mobilization, and demobilization of the lighted "X's" for each runway closure period and they remain the property of the Contractor unless otherwise noted on the Contract Drawings.
  - 2.) The lighted "X's" shall be the Sweepster Lighted Runway Closure Marker Model LXD06, or approved equal conforming to NTSB Safety Recommendation A-03-05 and 06.
- F. Barricades
  - 1.) Use barricades to indicate construction locations in non-movement areas, which no part of an aircraft may enter. Barricades may be of different shapes and made from various materials, including railroad ties, sawhorses, jersey barriers, or barrels and shall be marked with diagonal, alternating orange and white stripes. During reduced visibility or night hours, supplement the barricades with red lights, flashing or steady burning, meeting the luminance requirements of the State Highway Department.
    - a. "Non-movement areas" are areas within the AOA not controlled by the Air Traffic Control Tower or Ground Control. These areas are typically aircraft ramp and parking areas as well as vehicular service roads.
  - 2.) Indicate construction locations in movement areas in which aircraft may enter with orange traffic cones, red lights (either flashing or steady burning), and collapsible barricades marked with diagonal, alternating orange and white stripes. All barricades, temporary markers, and other objects left in the safety area associated with the open runway, taxiway, and taxi lanes must be as low as possible to the ground, of low mass and easily collapsible upon contact with an aircraft or any of its components. The barricade shall be properly weighted or attached to the surface to prevent displacement by prop wash, jet blast, wing vortex or other surface wind currents. If affixed to the surface, they must be frangible at grade level or as low as possible, not to exceed 3-inches in height. Barricades shall be either Neubert Aero Corp., Model NACPC2410 or Model NACPVC2310, or Multi-Barrier Safety Barricade Corp., Model AR-10X96 or an approved equal.
  - 3.) Barricades shall be spaced no greater than 10' apart.

G. Temporary Lighting and Markings

- 1.) The Contractor will be required to provide and maintain temporary pavement markings, remove existing markings and remove temporary markings, all in accordance with the Contract Drawings and Specifications.

H. Airport Air Operations Area Access and Control

- 1.) The Contractor, staff, employees, sub-contractors, delivery and haul operators, or anyone required to enter the Air Operations Area related to the contract work, is required to produce valid government issued photo identification.
- 2.) The Contractor is required to supply daily lists of all workers as well as list of all planned or anticipated deliveries. All vehicle operators must have, in their possession and produce on request, a valid drivers license.
- 3.) Individual Contractor Identification is required for each worker. Identification badges are to be displayed on their outermost garment at all times. The Contractor Identification Badge shall be a minimum of 2" x 2" in size and include the following:
  - a. Minimum 1" x 1" current color photo of the individual
  - b. Laminated
  - c. Company name (and/or subcontractor where applicable)
  - d. Person's name
  - e. Unique badge number
  - f. Expiration date in accordance with the Contract

I. Vehicle Operation Marking and Control

- 1.) All Contractor vehicles (including equipment, sub-contractors, delivery vehicles, etc) that must enter the Air Operations Area for the required work of the Contract, must be escorted and properly identified. To operate during daylight hours, construction equipment must have a 3' x 3' orange and white "Airfield Vehicle" identification flag (ANNIN & Co. NYL-GLO #319733 or approved equivalent) or flashing beacon. Any vehicle operating on the movement areas during hours of darkness or reduced visibility must be equipped with a flashing amber beacon light. In addition, vehicles must display permanently affixed company identification media acceptable to the Authority.
- 2.) Neither the Contractor nor any construction support personnel will be permitted access to the AOA or work site in a private or personal vehicle. There is no employee parking on the Air Operations Areas.
- 3.) At Air Operations Areas provide obstruction marking flags equipped with approved stiffeners as follows:

- a. For Marking of Equipment, Material and Debris: 3-feet by 3-feet colored orange and white in a checkerboard pattern, mounted on a staff of not less than 8-feet in length. Maintain flag in a vertical position at all times and display on each fixed obstruction, truck or other piece of equipment, and at each separate group of workers and material or debris stack.

J. Navigational Aids

- 1.) The Contractor shall not conduct any construction activity within navigational aid critical areas or affect the visual signal, transmitted signal or power supply of any navigational aid. Navigational aid restricted areas affected by the area of work are depicted on Contract Drawings. Work in these restricted areas is subject to availability based on runway configuration and weather conditions at the time, and may be cancelled by the PA Project Manager without advance warning based on the aforementioned conditions. If the Contractor is specifically directed by the PA Project Manager to suspend his operations in these areas, the Contractor will be compensated as stipulated in the provisions of the Contract concerning compensation for emergency delays.
- 2.) Navigational aids include instrument landing system components and very high-frequency omni-directional range, airport surveillance radar.
- 3.) Do not operate ultrasonic, X-ray, radio-type transmitter, magnetic or similar electromagnetic devices, which affect or may affect the operation of airport navigational aids, unless the PA Project Manager has granted specific prior approval for their operation or use.

K. Limitations on Construction

- 1.) The Contractor shall obtain Authority permits for open-flame welding or torch cutting operations and electrical power shut-downs prior to start of the work.
- 2.) All site storage of supplies and equipment requires approval by the PA Project Manager. All site storage must be in containers and must have company name and 24 hour contact telephone number clearly displayed.

L. Radio Communications

- 1.) The Contractor is not required to have two-way radio communications with the PA Project Manager.
- 2.) The Contractor is prohibited from having any communications, including two-way radio, with the Airport Air Traffic Control Tower. All movements within the AOA shall be escorted by the Facility Staff.

**28. ACCESS TO CUSTOMS SECURITY AREAS**

- A. The Contractor shall at his own cost provide to each of his employees and cause to be provided to each employee of his subcontractors, materialmen and others performing services for or on behalf of the Contractor hereunder and who are required to enter a Customs Security Area, a customs identification security card, strip or seal meeting the requirements of the U.S. Customs Service. See 19 Code of Federal Regulations Section 122.14.
- B. The Contractor shall also at his own cost post a bond with U.S. Customs in an amount determined by the U.S. Customs Security Area Director assuring compliance with Customs Regulations applicable to Customs Security Areas. See 19 Code of Federal Regulations Part 113, Appendix A.
- C. Under U.S. Customs Regulations, each violation of a Customs Security Area Regulation subjects the Contractor to liquidated damages of \$1,000 per violation, which may be assessed by U.S. Customs against the bond posted by the Contractor with U.S. Customs.
- D. The Contractor shall advise each of his employees, and cause to be advised each of the employees of subcontractors, materialmen, and others performing services for or on behalf of the Contractor hereunder, of the provisions of the U.S. Customs Regulations with regard to Security Areas and shall require them to comply therewith. Violations of U.S. Customs Regulations giving rise to the imposition of liquidated damages by U.S. Customs include, but are not limited to:
  - 1.) Failure to advise employees of provisions of Customs Regulations relative to Security Areas or to require them to familiarize themselves with said provisions or to comply therewith;
  - 2.) Failure to perform background checks;
  - 3.) Failure to return Customs approved identification card, strip, or seal;
  - 4.) Failure to notify Customs that employee(s) no longer require access to the Customs Security Area;
  - 5.) Entry into Customs Security Area without Customs approved identification card, strip, or seal;
  - 6.) Failure to openly display or produce, upon demand, Customs approved identification card, strip, or seal;
  - 7.) Entry into a Customs security area for a purpose other than to perform duties authorized by Customs;
  - 8.) All other violations that in the judgment of the Area Director endanger the revenue or the security of the area.
- E. Further information concerning U.S. Customs Security Area Requirements shall be obtained from the Customs Hologram and Security Enforcement Team, at 718-553-1653 for New York facilities, and at 973-645-2236 for New Jersey facilities.

**29. HOURS OF WORK AND CONSTRUCTION STAGING**

A. Hours of Work

- 1.) Subject to all requirements stated elsewhere herein, the Work shall be performed in accordance with the following restricted hours of Work.
- 2.) Contractor will be required to schedule and perform the work during the hours specified herein in such a manner as not to delay, endanger, or interfere with the Authority operations. Work shall be performed between the hours of 7:00 AM to 4:30 PM, Monday through Friday, excluding legal holidays of the Authority, and the states of New York and New Jersey. All installation activities that interfere with airport use by the general public will be restricted to the hours of 7:00 PM through 5:00 AM, Monday through Friday, unless the Authority approves additional hours. The Authority reserves the right to limit Contractor access to areas experiencing high demand due to special events or otherwise. Minor construction activities which do not interfere with normal airport operations may be permitted at other times at the discretion of the Authority. All activities which require closing entrances to the general public, obstruction of more than 50% of operating gates at an entrance or closing of runways/taxiways will be restricted to between the hours of 1:00 AM and 5:00 AM, unless additional hours are approved in advance by the Authority. This shall include activities in adjacent areas which create objectionable dust, noise, or fumes in those areas. Any work within airport vehicle normal operating areas, or which requires scaffolding or equipment replacement within five (5) feet of airport vehicle normal operating areas shall require Authority flagging protection. The cost of required protection shall be borne by the Contractor. Flagging protection shall be arranged through the Authority.
- 3.) The Contractor shall submit to the PA Project Manager, at least one week in advance, his scheduled hours of Work for each week.
- 4.) Do not perform Work at the construction site outside of these time periods or on a Federal legal holiday or a holiday of the State(s) in which the Work is being performed, unless otherwise permitted by the PA Project Manager. The following legal holidays will be observed at Authority offices and facilities:

New Year's Day	Columbus Day
Martin Luther King, Jr. Day	Veteran's Day
President's Day	Thanksgiving Day
Memorial Day	Day after Thanksgiving
Independence Day	Christmas Day
Labor Day	
- 5.) Because of the arrivals and departures of aircraft, the Authority makes no representation as to the periods of time when conditions at or near the runways or elsewhere at the airport will be such as to permit the Work to be performed without interruption, or as to when any work can be performed or completed. Arrivals and departures of aircraft are under the control of the FAA Control Tower operator and emergencies and operating conditions may necessitate sudden changes, both in airport operations and in the operations of the Contractor.

**30. INTEGRITY**

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

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

- 1.) Been indicted or convicted in any jurisdiction;
- 2.) 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 Contractor;
- 3.) 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;
- 4.) Ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Proposal;
- 5.) Had any business or professional license suspended or revoked or, within the five years prior to proposal 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;
- 6.) Had any sanction imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, Proposal rigging, embezzlement, misrepresentation or anti-trust regardless of the dollar amount of the sanctions or the date of their imposition; and
- 7.) 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.

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

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

- 1.) The prices in its proposal 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 Contractor or with any competitor;
- 2.) The prices quoted in its proposal have not been and will not be knowingly disclosed directly or indirectly by the Contractor prior to the official opening of such proposal to any other Contractor or to any competitor;

- 3.) No attempt has been made and none will be made by the Contractor to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition;
- 4.) This organization has not made any offers or agreements or taken any other action with respect to any Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics dated April 11, 1996 (a copy of which is available upon request to the individual named in the clause hereof entitled "Contractor's Questions"), 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; and
- 5.) No person or selling agency other than a bona fide employee or bona fide established commercial or selling agency maintained by the Contractor for the purpose of securing business has been employed or retained by the Contractor 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.
- 6.) The Contractor 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.
- 7.) The foregoing certifications shall be deemed to be made by the Contractor as follows:
  - a. If the Contractor is a corporation, such certification shall be deemed to have been made
  - b. Not only with respect to the Contractor itself, but also with respect to each parent, affiliate, director, and officer of the Contractor, as well as, to the best of the certifier's knowledge and belief, each stockholder of the Contractor with an ownership interest in excess of ten percent (10%);
  - c. If the Contractor is a partnership, such certification shall be deemed to have been made not only with respect to the Contractor itself, but also with respect to each partner.

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

In any case where the Contractor cannot make the foregoing certifications, the Contractor shall so state and shall furnish with the signed proposal a signed statement which sets forth in detail the reasons therefor. If the Contractor is uncertain as to whether it can make the foregoing certifications, it shall so indicate in a signed statement furnished with its Proposal, setting forth in such statement the reasons for its uncertainty.

Notwithstanding that the Contractor may be able to make the foregoing certifications at the time the Proposal is submitted, the Contractor shall immediately notify the Authority in writing during the period in which its Proposal is under consideration of any change of circumstances which might under this clause make it unable to make the foregoing certifications or require disclosure. The foregoing certifications or signed statement shall be deemed to have been made by the Contractor 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 this Contract. In the event that the Authority should determine at any time prior or subsequent to the award of this Contract that the Contractor has falsely certified as to any material item in the foregoing certifications 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 Contractor is not a responsible Contractor with respect to its proposal 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, Contractors 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.). Contractors are also advised that the inability to make such certification will not in and of itself disqualify a Contractor, and that in each instance the Authority will evaluate the reasons therefor provided by the Contractor.

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

Contractors 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 Contractor is not eligible to Propose on or be awarded public contracts because the Contractor has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

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

**31. CONFLICTS OF INTEREST**

During the term of this Agreement, Contractor shall not participate in any way in the preparation, negotiation or award of any contract (other than a Contract for his own services to the Authority) to which it is contemplated the 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 Contractor has a substantial financial interest in the

contractor or potential contractor of the Authority or if Contractor has an arrangement for future employment or for any other business relationship with said contractor or potential contractor, nor shall Contractor at any time take any other action which might be viewed as or give the appearance of a conflict of interest on Contractor's 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 Contractor has reason to believe such an arrangement may be the subject of future discussion, or if Contractor has any financial interest, substantial or not, in a contractor or potential contractor of the Authority, and 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 Contractor has reason to believe that any other situation exists which might be viewed as or give the appearance of a conflict of interest, Contractor shall immediately inform the Director in writing of such situation giving the full details thereof. Unless Contractor receives the specific written approval of the Director, Contractor shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. In the event the Director shall determine that the performance by Contractor of a portion of Contractor's services under this Agreement is precluded by the provisions of this numbered paragraph, or a portion of Contractor's said service is determined by the Director to be no longer appropriate because of such preclusion, then the Director shall have full authority on behalf of both parties to order that such portion of Contractor's services not be performed by Contractor, reserving the right, however, to have the services performed by others and reserving the right to reduce compensation as he/she may deem reasonable in his/her sole discretion. Contractor's execution of this Agreement shall constitute a representation by Contractor that at the time of such execution 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 Contractor's part. 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.

## **32. CONFIDENTIAL INFORMATION**

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

material, equipment or other matter related to this Contract or coming to the Contractor's attention in connection with this Contract.

The Contractor shall adhere to the Authority's information security policies and procedures as published in the Authority's *Technology Standards and Guidelines* and *Handbook for Protecting Security Information*.

### **33. CONTRACT REVIEW AND COMPLIANCE AUDITS**

#### [ADDENDUM 5]

The Contractor, and any subcontractors, shall provide system access and reasonable assistance to the Authority's External and Internal Audit staff or its consultants in their performance of financial, system, security and operational reviews including producing specific requested information, extraction of data and reports. The Contractor, and any subcontractors, shall support requests related to audits of the service level agreement and administration tasks and functions covered by this Contract.<sup>^</sup>

**CHAPTER II**

**ADJUSTMENTS AND PAYMENTS**

**34. ADJUSTMENT TO LUMP SUM**

If any Work required by the Contract Drawings and Specifications in their present form shall be countermanded or reduced, the Engineer shall have full authority on behalf of both parties to make such adjustment by way of reduction in the Lump Sum as he may in his sole discretion deem equitable and reasonable, and in making such adjustment, no allowance to the Contractor shall be made for anticipated profits. This provision shall not prohibit the redistribution of indirect costs of the Contractor in determining the amount of the reduction.

The Chief Engineer shall have authority to agree in writing with the Contractor for adjustments by way of reduction in the Lump Sum in lieu of those for which provision is heretofore made in this numbered clause.

Schedule 1 - Base Scope of Work Summary Entire Project

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
LGA.B0	LGA PIDS Base Scope of Work	LS \$	<u>17,618,768</u>
JFK.B0	JFK PIDS Base Scope of Work	LS \$	<u>21,524,517</u>
	JFK Communications Infrastructure	LS \$	<u>2,326,880</u>
EWR.B0	EWR PIDS Base Scope of Work	LS \$	<u>20,958,816</u>
TEB.B0	TEB PIDS Base Scope of Work	LS \$	<u>14,877,647</u>
Ex. 4	Base Scope of Work	LS \$	<u>1,282,898</u>
<b>Grand Total Contract Price Summary Schedule 1A</b>		<b>LS \$</b>	<b><u>78,589,525</u></b>

Schedule 2 – LGA Base Scope of Work Detail

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
LGA.B1	Intrusion Detection Subsystem		
	LGA.B1A Zones	LS \$	450,209
	LGA.B1B Zones Ex. 4	LS \$	273,574
	LGA.B1C Zones	LS \$	434,955
	LGA.B1D Zones	LS \$	298,083
	LGA.B1E Zones	LS \$	232,487
	LGA.B1F Integration of CACS and other Systems	LS \$	12,812
LGA.B2	Assessment Subsystem	LS \$	916,291
LGA.B3	Control & Display Subsystem		
	LGA.B3A Primary CDS	LS \$	1,489,076
	LGA.B3B Secondary CDS Ex. 4	LS \$	299,408
	LGA.B3C CDW	LS \$	198,328
	LGA.B3D CDW	LS \$	11,182
LGA.B4	Facility Communications Subsystem		
	LGA.B4A Zones	LS \$	163,961
	LGA.B4B Zones	LS \$	156,705
	LGA.B4C Zones Ex. 4	LS \$	227,084
	LGA.B4D Zones	LS \$	51,259
	LGA.B4E Zones	LS \$	132,752
	LGA.B4F Primary CDS	LS \$	320,625
	LGA.B4G Secondary CDS	LS \$	444,190
LGA.B5	Electrical Subsystem		
	LGA.B5A Zones	LS \$	254,317
	LGA.B5B Zones Ex. 4	LS \$	531,639
	LGA.B5C Zones	LS \$	455,533
	LGA.B5D Zones	LS \$	561,473
	LGA.B5E Zones	LS \$	1,860,059
	LGA.B5F Primary CDS and CDW Location	LS \$	913,720
	LGA.B5G Secondary CDS and CDW Location	LS \$	282,419
LGA.B6	Communications and Electrical Infrastructure		

**THE PORT AUTHORITY OF NY & NJ**

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	LGA.B6A Zones		LS \$	<u>162,213</u>
	LGA.B6B Zones		LS \$	<u>309,493</u>
	LGA.B6C Zones	Ex. 4	LS \$	<u>286,171</u>
	LGA.B6D Zones		LS \$	<u>480,076</u>
	LGA.B6E Zones		LS \$	<u>17,991</u>
	LGA.B6F Primary CDS		LS \$	<u>248,476</u>
	LGA.B6G Secondary CDS		LS \$	<u>111,326</u>
LGA.B7	Data Management & Reporting Subsystem		LS \$	<u>73,798</u>
LGA.B8	PIDS Training		LS \$	<u>106,791</u>
LGA.B9	System Engineering and Design		LS \$	<u>4,850,290</u>

Schedule 3 – JFK Base Scope of Work Detail

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
JFK.B1	Intrusion Detection Subsystem		
	JFK.B1A Zones		
	Ex. 4	LS	\$ <u>1,075,375</u>
	JFK.B1B Zones	LS	\$ <u>291,860</u>
	JFK.B1C Zones	LS	\$ <u>110,184</u>
	JFK.B1D Zones	LS	\$ <u>161,551</u>
	JFK.B1E Zones	LS	\$ <u>512,740</u>
	Ex. 4	LS	\$ <u>37,078</u>
	JFK.B1F Zones	LS	\$ <u>505,433</u>
	JFK.B1G Zones	LS	\$ <u>13,047</u>
	JFK.B1H Integration of CACS Alarms and other Systems	LS	\$ <u>13,047</u>
JFK.B2	Assessment Subsystem		
	JKF.B2A Assessment Subsystem not including Item JFK.B2B	LS	\$ <u>1,093,269</u>
	JKF.B2B Deductive Item No. 3	LS	\$ <u>149,082</u>
JFK.B3	Control & Display Subsystem		
	JFK.B3A Primary CDS	LS	\$ <u>1,764,746</u>
	JFK.B3B Secondary CDS	LS	\$ <u>298,439</u>
	Ex. 4	LS	\$ <u>254,286</u>
	JFK.B3C CDW	LS	\$ <u>11,046</u>
	JFK.B3D CDW	LS	\$ <u>11,046</u>
	JFK.B3E CDW	LS	\$ <u>11,046</u>
JFK.B4	Facility Communications Subsystem		
	JFK.B4A Zones		
	Ex. 4	LS	\$ <u>372,250</u>
	JFK.B4B Zones	LS	\$ <u>318,883</u>
	JFK.B4C Zones	LS	\$ <u>33,781</u>
	JFK.B4D Zones	LS	\$ <u>265,736</u>
	JFK.B4E Zones	LS	\$ <u>33,927</u>
	Ex. 4	LS	\$ <u>144,973</u>
	JFK.B4F Zones	LS	\$ <u>214,039</u>
	JFK.B4G Zones	LS	\$ <u>214,039</u>

	JFK.B4H Primary CDS		LS	\$	175,733
	JFK.B4I Secondary CDS		LS	\$	360,267
	JFK.B4J CDW	Ex. 4	LS	\$	25,225
JFK.B5	Electrical Subsystem				
	JFK.B5A Zones				
		Ex. 4	LS	\$	1,025,551
	JFK.B5B Zones				
			LS	\$	1,229,195
	JFK.B5C Zones		LS	\$	142,668
	JFK.B5D Zones		LS	\$	917,684
	JFK.B5E Zones	Ex. 4	LS	\$	441,855
	JFK.B5F Zones		LS	\$	636,440
	JFK.B5G Zones		LS	\$	492,341
	JFK.B5H Primary CDS and CDW location		LS	\$	383,446
	JFK.B5I Secondary CDS and CDW location		LS	\$	196,645
	JFK.B3J CDW	Ex. 4	LS	\$	169,725
JFK.B6	Communications and Electrical Infrastructure				
	JFK.B6A Zones				
			LS	\$	421,011
	JFK.B6B Zones				
		Ex. 4	LS	\$	151,450
	JFK.B6C Zones		LS	\$	12,058
	JFK.B6D Zones		LS	\$	78,170
	JFK.B6E Zones		LS	\$	25,118
	JFK.B6F Zones		LS	\$	12,058
	JFK.B6G Zones		LS	\$	277,532
	JFK.B6H Primary CDS		LS	\$	332,109
	JFK.B6I Secondary CDS		LS	\$	213,948
	JFK.B6J CDW		LS	\$	16,555
JFK.B7	Data Management & Reporting Subsystem		LS	\$	82,662
JFK.B8	PIDS Training		LS	\$	106,791
JFK.B9	System Engineering and Design		LS	\$	5,925,508
	JFK Communications Infrastructure		LS	\$	2,326,880

Schedule 4 – EWR Base Scope of Work Detail

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
EWR.B1	Intrusion Detection Subsystem		
	EWR.B1A Zones	LS	\$ 109,311
	EWR.B1B Zones	LS	\$ 69,855
	EWR.B1C Zones	LS	\$ 681,962
	EWR.B1D Zones	LS	\$ 93,181
	EWR.B1E Zones	LS	\$ 285,507
	EWR.B1F Integration of CACS Alarms and other Systems	LS	\$ 13,003
EWR.B2	Assessment Subsystem		
	EWR.B2A Assessment Subsystem not including Item EWR.B2B	LS	\$ 908,355
	EWR.B2B Deductive Item No. 3	LS	\$ 123,867
EWR.B3	Control & Display Subsystem		
	EWR.B3A Primary CDS	LS	\$ 1,442,080
	EWR.B3B Secondary CDS	LS	\$ 296,250
	EWR.B3C CDW	LS	\$ 251,559
	EWR.B3D CDW	LS	\$ 11,103
	EWR.B3E CDW	LS	\$ 10,107
EWR.B4	Facility Communications Subsystem		
	EWR.B4A	LS	\$ 86,983
	EWR.B4B	LS	\$ 33,239
	EWR.B4C	LS	\$ 352,160
	EWR.B4D Zones	LS	\$ 87,511
	EWR.B4E Zones	LS	\$ 388,138
	EWR.B4F Primary CDS	LS	\$ 164,436
	EWR.B4G Secondary CDS	LS	\$ 163,410
EWR.B5	Electrical Subsystem		
	EWR.B5A	LS	\$ 436,904

EWR.B5B Zones		LS	\$ 354,563
EWR.B5C Zones	Ex. 4	LS	\$ 1,127,936
EWR.B5D Zones		LS	\$ 288,679
EWR.B5E Zones			
		LS	\$ 2,513,390
EWR.B5F Primary CDS and CDW locations		LS	\$ 562,225
EWR.B5G Secondary CDS and CDW locations		LS	\$ 159,568
EWR.B6 Communications and Electrical Infrastructure			
EWR.B6A Zones		LS	\$ 15,915
EWR.B6B Zones		LS	\$ 15,915
EWR.B6C Zones	Ex. 4	LS	\$ 3,621,449
EWR.B6D Zones		LS	\$ 139,650
EWR.B6E			
		LS	\$ 15,915
EWR.B6F Primary CDS		LS	\$ 106,539
EWR.B6G Secondary CDS		LS	\$ 98,865
EWR.B7 Data Management & Reporting Subsystem		LS	\$ 52,721
EWR.B8 PIDS Training		LS	\$ 106,791
EWR.B9 System Engineering and Design		LS	\$ 5,769,776

Schedule 5 – TEB Base Scope of Work Detail

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
TEB.B1	Intrusion Detection Subsystem		
	TEB.B1A Zones	LS	\$ 431,448
	TEB.B1B Zones	LS	\$ 84,173
	TEB.B1C Zones Ex. 4	LS	\$ 274,190
	TEB.B1D Zones	LS	\$ 342,620
	TEB.B1E Zone	LS	\$ 32,765
	TEB.B1F Zone	LS	\$ 32,765
	TEB.B1G Integration of CACS Alarms and other Systems	LS	\$ 12,801
TEB.B2	Assessment Subsystem	LS	\$ 419,062
TEB.B3	Control & Display Subsystem		
	TEB.B3A Primary CDS	LS	\$ 1,378,903
	TEB.B3B Secondary Ex. 4	LS	\$ 254,092
	TEB.B3C CDW	LS	\$ 90,862
	TEB.B3D CDW	LS	\$ 90,862
TEB.B4	Facility Communications Subsystem		
	TEB.B4A Zones	LS	\$ 240,083
	TEB.B4B Zones	LS	\$ 34,380
	TEB.B4C Zones	LS	\$ 125,533
	TEB.B4D Zones Ex. 4	LS	\$ 89,354
	TEB.B4E Zone	LS	\$ 8,618
	TEB.B4F Zone	LS	\$ 8,618
	TEB.B4G Primary CDS	LS	\$ 146,487
	TEB.B4H Secondary CDS	LS	\$ 146,487
TEB.B5	Electrical Subsystem		
	TEB.B5A Zones	LS	\$ 434,859
	TEB.B5B Zones Ex. 4	LS	\$ 22,439
	TEB.B5C Zones	LS	\$ 543,123
	TEB.B5D Zones	LS	\$ 337,345

	TEB.B5E Zone	Ex. 4	LS	\$	13,873
	TEB.B5F Zone		LS	\$	13,873
	TEB.B5G Primary CDS and CDW locations		LS	\$	379,178
	TEB.B5H Secondary CDS and CDW locations		LS	\$	14,021
TEB.B6	Communications and Electrical Infrastructure				
	TEB.B6A Zones		LS	\$	1,210,928
	TEB.B6B Zones		LS	\$	24,254
	TEB.B6C Zones	Ex. 4	LS	\$	1,192,643
	TEB.B6D Zones		LS	\$	1,618,781
	TEB.B6E Zone		LS	\$	13,873
	TEB.B6F Zone		LS	\$	13,873
	TEB.B6G Primary CDS		LS	\$	531,616
	TEB.B6H Secondary CDS		LS	\$	13,671
TEB.B7	Data Management & Reporting Subsystem		LS	\$	52,721
TEB.B8	PIDS Training		LS	\$	106,791
TEB.B9	System Engineering and Design		LS	\$	4,095,684

Schedule 6 – Ex. 4 Base Scope of Work Detail

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
Ex. 4	.B1 Control & Display Subsystem		
	.B1A CDW	LS \$	215,939
	Ex. 4		
	.B1B CDW	LS \$	33,037
Ex. 4	B2 Facility Communications Subsystem	LS \$	573,960
	.B3 Electrical Subsystem	LS \$	<u>No Additional Cost</u>
	B4 PIDS Training	LS \$	<u>106,791</u>
	B5 System Engineering and Design	LS \$	<u>353,170</u>
	Total Price Schedule 6	LS \$	<u>1,282,898</u>

Schedule 7 – LGA Optional Scope of Work Lump Sum Items

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
LGA.O1	Intrusion Detection Subsystem - Non-Building Perimeter Areas	LS	\$ <u>          *</u>
LGA.O2	Assessment Subsystem - Purple Hatch Areas	LS	\$ <u>  130,305</u>
LGA.O3	Audiovisual Subsystem		
	LGA.O3A Primary CDS	LS	\$ <u>  227,515</u>
	LGA.O3B Secondary CDS	LS	\$ <u>  227,165</u>
LGA.O4	Facility Communications Subsystem - Non-Building Perimeter Areas	LS	\$ <u>  117,779</u>
LGA.O5	Electrical Subsystem - Non-Building Perimeter Areas	LS	\$ <u>  371,263</u>
LGA.O6	Communications and Electrical Infrastructure - Non-Building Perimeter Areas	LS	\$ <u>  328,277</u>
	* deleted per direction of PANYNJ		
	Total Price Schedule 7	LS	\$ <u> 1,402,304</u>

Schedule 8 – JFK Optional Scope of Work Lump Sum Items

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
JFK.O1	Intrusion Detection Subsystem - Leasehold Areas	LS	\$ <u>227,515</u>
JFK.O2	Assessment Subsystem - Leasehold Areas	LS	\$ <u>572,710</u>
JFK.O3	Audiovisual Subsystem		
	JFK.O3A Primary CDS	LS	\$ <u>232,371</u>
	JFK.O3B Secondary CDS	LS	\$ <u>184,196</u>
JFK.O4	Facility Communications Subsystem – Leasehold Areas	LS	\$ <u>693,224</u>
JFK.O5	Electrical Subsystem – Leasehold Areas	LS	\$ <u>1,875,457</u>
JFK.O6	Communications and Electrical Infrastructure – Leasehold Areas	LS	\$ <u>425,344</u>
	Total Price Schedule 8	LS	\$ <u>4,210,817</u>

Schedule 9 – EWR Optional Scope of Work Lump Sum Items

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
EWR.01	Intrusion Detection Subsystem - Leasehold Areas	LS	\$ <u>434,498</u>
EWR.02	Assessment Subsystem - Leasehold Areas	LS	\$ <u>246,132</u>
EWR.03	Audiovisual Subsystem		
	EWR.03A Primary CDS	LS	\$ <u>226,092</u>
	EWR.03B Secondary CDS	LS	\$ <u>190,474</u>
EWR.04	Facility Communications Subsystem – Leasehold Areas	LS	\$ <u>496,853</u>
EWR.05	Electrical Subsystem – Leasehold Areas	LS	\$ <u>1,975,042</u>
EWR.06	Communications and Electrical Infrastructure – Leasehold Areas	LS	\$ <u>1,258,875</u>
	Total Price Schedule 9	LS	\$ <u>4,827,966</u>

Schedule 10 – TEB Optional Scope of Work Lump Sum Items

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Price</u>
TEB.O1	Intrusion Detection Subsystem - Leasehold Areas	LS	\$ <u>229,374</u>
TEB.O2	Assessment Subsystem - Leasehold Areas	LS	\$ <u>275,302</u>
TEB.O3	Audiovisual Subsystem		
	TEB.O3A Primary CDS	LS	\$ <u>227,340</u>
	TEB.O3B Secondary CDS	LS	\$ <u>227,340</u>
TEB.O4	Facility Communications Subsystem – Leasehold Areas	LS	\$ <u>159,052</u>
TEB.O5	Electrical Subsystem – Leasehold Areas	LS	\$ <u>390,575</u>
TEB.O6	Communications and Electrical Infrastructure – Leasehold Areas	LS	\$ <u>1,333,280</u>
	Total Price Schedule 10	LS	\$ <u>2,842,263</u>



Schedule 12 – Optional Scope of Work Unit Price Items

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Qty.</u>	<u>Unit Price</u>	<u>Total Price</u>
RE.1		EA	1 to 5	\$ 4,383.73	\$ quantity dependent
RE.2	Ex. 4	EA	6 to 10	\$ 4,324.49	\$ quantity dependent
RE.3		EA	11 to 20	\$ 4,265.25	\$ quantity dependent
<b>RE.3A</b>		<b>EA</b>	<b>51</b>	<b>4,159.55</b>	<b>212,137.05</b>
RE.4		EA	1 to 5	\$ 9,429.88	\$ quantity dependent
RE.5		EA	6 to 10	\$ 8,958.33	\$ quantity dependent
RE.6		EA	11 to 20	\$ 8,486.78	\$ quantity dependent
RE.6A		EA	54	8,486.78	458,285.95
RE.7		EA	1 to 5	\$ 773.68	\$ quantity dependent
RE.8	Ex. 4	EA	6 to 10	\$ 773.68	\$ quantity dependent
RE.9		EA	11 to 20	\$ 773.68	\$ quantity dependent
RE.10		EA	1 to 5	\$ 8,536.54	\$ quantity dependent
RE.11		EA	6 to 10	\$ 8,536.54	\$ quantity dependent
RE.12		EA	11 to 20	\$ 8,293.65	\$ quantity dependent
<b>RE.12A</b>		<b>EA</b>	<b>40</b>	<b>8,163.65</b>	<b>326,546.00</b>
RE.13	Wireless Network – LGA	EA	1	\$ 387,947	387,947
RE.14	Wireless Network – JFK	EA	1	\$ 542,946	542,946
RE.15	Wireless Network – EWR	EA	1	\$ 542,946	542,946
RE.16	Wireless Network – TEB	EA	1	\$ 372,009	372,009

**35. PRICING ITEM DESCRIPTIONS**

Schedule 1 - Base Scope of Work Summary Entire Project

Item LGA.B0 – LGA PIDS Base Scope of Work: this lump sum price includes all labor, materials, equipment, shipping, handling, warehousing, engineering, drawings, software development, documentation, project management and incidentals to design, install, program and test the LaGuardia Airport PIDS, including all electrical, communications, architectural and mechanical infrastructure components and systems as well as any and all ancillary or incidental items necessary to provide a fully functional PIDS and achieve the functional and performance requirements in accordance with the Contract. This item includes the aggregate costs of all sub breakout prices as indicated on Schedule 2.

Item JFK.B0 – JFK PIDS Base Scope of Work: this lump sum price includes all labor, materials, equipment, shipping, handling, warehousing, engineering, drawings, software development, documentation, project management and incidentals to design, install, program and test the John F. Kennedy International Airport PIDS, including all electrical, communications, architectural and mechanical infrastructure components and systems as well as any and all ancillary or incidental items necessary to provide a fully functional PIDS and achieve the functional and performance requirements in accordance with the Contract. This item includes the aggregate costs of all sub breakout prices as indicated on Schedule 3.

Item EWR.B0 – EWR PIDS Base Scope of Work: this lump sum price includes all labor, materials, equipment, shipping, handling, warehousing, engineering, drawings, software development, documentation, project management and incidentals to design, install, program and test the Newark Liberty International Airport PIDS, including all electrical, communications, architectural and mechanical infrastructure components and systems as well as any and all ancillary or incidental items necessary to provide a fully functional PIDS and achieve the functional and performance requirements in accordance with the Contract. This item includes the aggregate costs of all sub breakout prices as indicated on Schedule 4.

Item TEB.B0 – TEB PIDS Base Scope of Work: this lump sum price includes all labor, materials, equipment, shipping, handling, warehousing, engineering, drawings, software development, documentation, project management and incidentals to design, install, program and test the Teterboro Airport PIDS, including all electrical, communications, architectural and mechanical infrastructure components and systems as well as any and all ancillary or incidental items necessary to provide a fully functional PIDS and achieve the functional and performance requirements in accordance with the Contract. This item includes the aggregate costs of all sub breakout prices as indicated on Schedule 5.

Item Ex. 4 .B0 – Ex. 4 PIDS Base Scope of Work: this lump sum price includes all labor, materials, equipment, shipping, handling, warehousing, engineering, drawings, software development, documentation, project management and incidentals to design, install, program and test the Ex. 4 PIDS, including all electrical, communications, architectural and mechanical infrastructure components and systems as well as any and all ancillary or incidental items necessary to provide a fully functional PIDS and achieve the functional and performance requirements in accordance with the Contract. This item includes the aggregate costs of all sub breakout prices as indicated on Schedule 6.

## **Schedule 2 - LGA Base Scope of Work Detail**

Items LGA.B1A through LGA.B1E – Intrusion Detection Subsystem: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the specified zones around the AOA perimeter to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B1F – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals, including all software, programming and systems as well as any and all ancillary or incidental items, necessary to provide full integration of the CACS and other required systems into the LGA PIDS to support and achieve the functional and performance requirements as specified in the Contract. Required systems include: existing surveillance camera Ex. 4

LGA.B2 - Assessment Subsystem: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract

Item LGA.B3A through B –Primary/Secondary Control and Display System (CDS): that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDS display and processing equipment and racks, including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional primary and secondary CDS locations at LGA to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B3 C through D –Control and Display Workstation (CDW): that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional CDW locations at LGA to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B4A through LGA.B4E – Facility Communications Subsystem: those parts of the LGA.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B4F – Facility Communications Subsystem – Primary CDS: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B4G – Facility Communications Subsystem – Secondary CDS: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B5A through LGA.B5E – Electrical Subsystem: those parts of the LGA.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B5F – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the LGA.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B5G – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the LGA.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B6A through LGA.B6G – Communications and Electrical Infrastructure: those parts of the LGA.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the specified zones and the Primary and Secondary CDS, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B7 - Data Management & Reporting Subsystem: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test the software, firmware, printers, display and processing equipment, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B8 - PIDS Training: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test, and present the training sessions and documentation thereof, including all components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.B9 – System Engineering and Design: that part of the LGA.B0 lump sum price that includes all professional design and engineering services including, but not limited to, programming, design, engineering, program and project management, estimating, construction and installation management, testing, and commissioning to generate PIDS construction documents and specifications as required to build, support, and achieve the functional and performance requirements as specified in the Contract

### **Schedule 3 - JFK Base Scope of Work Detail**

Items JFK.B1A through JFK.B1G – Intrusion Detection Subsystem: that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the specified zones around the AOA perimeter to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B1H – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the LGA.B0 lump sum price that includes all labor, materials, equipment and incidentals, including all software, programming and systems as well as any and all ancillary or incidental items, necessary to provide full integration of the CACS and other required systems into the JFK PIDS to support and achieve the functional and performance requirements as specified in the Contract. Required systems include: VMS ITS.

JFK.B2 - Assessment Subsystem: that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract

Item JFK.B3A through B –Primary/Secondary Control and Display System (CDS): that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDS display and processing equipment and racks, including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional primary and secondary CDS locations at LGA to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B3 C through E –Control and Display Workstation (CDW): that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional CDW locations at LGA to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B4A through JFK.B4G – Facility Communications Subsystem: those parts of the JFK.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zone, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B4H – Facility Communications Subsystem – Primary CDS: that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B4I – Facility Communications Subsystem – Secondary CDS: that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B4J – Facility Communications Subsystem – CDW Ex. 4 that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed for the CDW Ex. 4 including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B5A through JFK.B5G – Electrical Subsystem: those parts of the JFK.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B5H – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the JFK.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B5I – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the JFK.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B5J – Electrical Subsystem – Ex. 4 those parts of the JFK.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in Ex. 4 CDW, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B6A through JFK.B6J – Communications and Electrical Infrastructure: those parts of the JFK.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the specified zones, the Primary and Secondary CDS, and Ex. 4 including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B7 - Data Management & Reporting Subsystem: that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test the software, firmware, printers, display and processing equipment, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B8 - PIDS Training: that part of the JFK.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test, and present the training sessions and documentation thereof, including all components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.B9 – System Engineering and Design: that part of the JFK.B0 lump sum price that includes all professional design and engineering services including, but not limited to, programming, design, engineering, program and project management, estimating, construction and installation management, testing, and commissioning to generate PIDS construction documents and specifications as required to build, support, and achieve the functional and performance requirements as specified in the Contract

#### **Schedule 4 - EWR Base Scope of Work Detail**

Items EWR.B1A through EWR.B1E – Intrusion Detection Subsystem: that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the specified zones around the AOA perimeter to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B1F – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals, including all software, programming and systems as well as any and all ancillary or incidental items, necessary to provide full integration of the CACS and other required systems into the EWR PIDS to support and achieve the functional and performance requirements as specified in the Contract. Required systems include:

Item EWR.B2 - Assessment Subsystem: that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B3A through B –Primary/Secondary Control and Display System (CDS): that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDS display and processing equipment and racks, including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional primary and secondary CDS locations at EWR to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B3 C through E –Control and Display Workstation (CDW): that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional CDW locations at EWR to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B4A through EWR.B4E – Facility Communications Subsystem: those parts of the EWR.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zone, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B4F – Facility Communications Subsystem – Primary CDS: that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B4G – Facility Communications Subsystem – Secondary CDS: that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B5A through EWR.B5E – Electrical Subsystem: those parts of the EWR.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B5F – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the EWR.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B5G – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the EWR.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B6A through EWR.B6G – Communications and Electrical Infrastructure: those parts of the EWR.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the specified zones and the Primary and Secondary CDS, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B7 - Data Management & Reporting Subsystem: that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test the software, firmware, printers, display and processing equipment, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B8 - PIDS Training: that part of the EWR.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test, and present the training sessions and documentation thereof, including all components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.B9 – System Engineering and Design: that part of the EWR.B0 lump sum price that includes all professional design and engineering services including, but not limited to, programming, design, engineering, program and project management, estimating, construction and installation management, testing, and commissioning to generate PIDS construction documents and specifications as required to build, support, and achieve the functional and performance requirements as specified in the Contract

**Schedule 5 - TEB Base Scope of Work Detail**

Items TEB.B1A through TEB.B1F – Intrusion Detection Subsystem: that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the specified zones around the AOA perimeter to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B1G – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals, including all software, programming and systems as well as any and all ancillary or incidental items, necessary to provide full integration of the CACS and other required systems into the TEB PIDS to support and achieve the functional and performance requirements as specified in the Contract. Required systems include:

Item TEB.B2 - Assessment Subsystem: that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B3A through B – Primary/Secondary Control and Display System (CDS): that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDS display and processing equipment and racks, including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional primary CDS at \_\_\_\_\_ to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B3 C through D –Control and Display Workstation (CDW): that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional CDW locations \_\_\_\_\_ to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B4A through TEB.B4F – Facility Communications Subsystem: those parts of the TEB.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zone, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B4G – Facility Communications Subsystem – Primary CDS: that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B4H – Facility Communications Subsystem – Secondary CDS: that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B5A through TEB.B5F – Electrical Subsystem: those parts of the TEB.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B5G – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the TEB.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B5H – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the TEB.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B6A through TEB.B6H – Communications and Electrical Infrastructure: those parts of the TEB.B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the specified zones and the Primary and Secondary CDS, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B7 - Data Management & Reporting Subsystem: that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test the software, firmware, printers, display and processing equipment, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.B8 - PIDS Training: that part of the TEB.B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test, and present the training sessions and documentation thereof, including all components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

TEB.B9 – System Engineering and Design: that part of the TEB.B0 lump sum price that includes all professional design and engineering services including, but not limited to, programming, design, engineering, program and project management, estimating, construction and installation management, testing, and commissioning to generate PIDS construction documents and specifications as required to build, support, and achieve the functional and performance requirements as specified in the Contract

**Schedule 6 - Ex. 4 Base Scope of Work Detail**

Item Ex. 4 .B1 – Control and Display Workstation (CDW): that part of the Ex. 4 .B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all CDW display and processing equipment, consoles, cable extenders, etc., including all electrical, communications, mechanical and architectural infrastructure components and any ancillary or incidental items, necessary to provide fully functional CDW locations Ex. 4 to support and achieve the functional and performance requirements as specified in the Contract.

Item Ex. 4 .B2 – Facility Communications Subsystem: that part of the Ex. 4 B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item Ex. 4 .B3 – Electrical Subsystem: those parts of the Ex. 4 .B0 lump sum price that include all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the CDW locations, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item Ex. 4 .B4 - PIDS Training: that part of the Ex. 4 .B0 lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test, and present the training sessions and documentation thereof, including all components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item Ex. 4.B5 – System Engineering and Design: that part of the Ex. 4 .B5 lump sum price that includes all professional design and engineering services including, but not limited to, programming, design, engineering, program and project management, estimating, construction and installation management, testing, and commissioning to generate PIDS construction documents and specifications as required to build, support, and achieve the functional and performance requirements as specified in the Contract

#### **Schedule 7 - LGA Optional Scope of Work Lump Sum Items**

Item LGA.O1 – Intrusion Detection Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the Non-Building Perimeter Areas as defined in the LGA Perimeter Security Upgrade Plans, to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.O2 - Assessment Subsystem - Purple Hatch Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items installed in the Purple Hatch Areas as defined in the LGA Perimeter Security Upgrade Plans, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract

Item LGA.O3A through LGA.O3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc. installed in the Primary and Secondary CDS, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.O4 Facility Communications Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the Non-Building Perimeter Areas as defined in the LGA Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.O5 Electrical Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, innerduct, transformers, receptacles, termination hardware, enclosures, etc. installed in the Non-Building Perimeter areas as defined in the LGA Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item LGA.O6 Communications and Electrical Infrastructure - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the Non-Building Perimeter Areas as defined in the LGA Perimeter Security Upgrade Plans, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

**Schedule 8 - JFK Optional Scope of Work Lump Sum Items**

Item JFK.O1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans, to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.O2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract

Item JFK.O3A through JFK.O3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc. installed in the Primary and Secondary CDS, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.O4 Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.O5 Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item JFK.O6 Communications and Electrical Infrastructure - Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the Leasehold areas as defined in the JFK Perimeter Security Upgrade Plans, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

**Schedule 9 - EWR Optional Scope of Work Lump Sum Items**

Item EWR.O1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans, to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.O2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract

Item EWR.O3A through EWR.O3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc. installed in the Primary and Secondary CDS, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.O4 Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.O5 Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item EWR.O6 Communications and Electrical Infrastructure - Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the Leasehold areas as defined in the EWR Perimeter Security Upgrade Plans, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

#### **Schedule 10 - TEB Optional Scope of Work Lump Sum Items**

Item TEB.O1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals necessary to design, install, program and test all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces, including any and all ancillary or incidental items, necessary to provide a fully functional IDS for the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans, to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.O2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment and any and all ancillary or incidental items installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans, including all mechanical and architectural infrastructure components, necessary to support and achieve the functional and performance requirements as specified in the Contract

Item TEB.O3A through TEB.O3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc. installed in the Primary and Secondary CDS, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.O4 Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.O5 Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans, including all communications, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

Item TEB.O6 Communications and Electrical Infrastructure - Leasehold Areas: this lump sum price includes all labor, materials, equipment and incidentals to design, install, program and test all required electrical and communication ductbank, manholes, handholes, civil foundations, etc. installed in the Leasehold areas as defined in the TEB Perimeter Security Upgrade Plans, including all communications, electrical, mechanical, architectural infrastructure components and any ancillary or incidental items, necessary to support and achieve the functional and performance requirements as specified in the Contract.

**Schedule 11 - Ex. 4 Optional Scope of Work Lump Sum Items**

Item Ex. 4 Enterprise Secondary CDS: A lump sum price that includes all labor, materials, equipment and incidentals to design, install, program and test all Secondary CDS display and processing equipment and racks, including all electrical, communications, mechanical, and architectural infrastructure components and any ancillary or incidental items, necessary to provide a fully redundant secondary CDS location Ex. 4 that is capable of supporting PIDS functions at all airports to achieve the functional and performance requirements as specified in the Contract.

Excluded from the lump sum price are all wide area network (WAN) communications from Ex. 4 to all airports. Provision for these WAN communications will be coordinated with PANYNJ during the design phase of this task.

**Schedule 12 - Optional Scope of Work Unit Price Items [ADDENDUM 7]**

Items RE.1 through RE.12 – Ex. 4 s: these lump sum line item prices include all labor, materials, equipment, incidentals, for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the Ex. 4 in accordance with the Functional and Performance Requirements of the Contract.

Items RE.13 through RE.16: A lump sum price for each line item that includes all labor, materials, equipment and incidentals to design, install, program and test all wireless network communications equipment and racks, including all electrical, mechanical, and architectural infrastructure components and any ancillary or incidental items necessary, to provide secure Ex. 4 identified in Items RE.1 through RE.12, and both the primary and secondary CDS at each airport with full coverage within the Alarm/Detection Secure and Alert/Observation Areas identified on the PCSUP drawings and that are capable of supporting PIDS functions at all airports to achieve the functional and performance requirements as specified in the Contract.

Excluded from the lump sum price are all wide area network (WAN) communications from Ex. 4 to all airports. Provision for these WAN communications will be coordinated with PANYNJ during the design phase of this task.

**^ 36. COMPENSATION FOR EXTRA WORK [ADDENDUM 6]**

The Chief Engineer shall have authority to agree in writing with the Contractor on behalf of the Authority upon lump sum or other compensation for Extra Work in lieu of the compensation for which provision is hereinafter made in this numbered clause.

If such agreement on compensation is not made, and Extra Work be performed, the Contractor's compensation shall be increased by the following amounts and such amounts only:

- 1.) For Extra Work consisting of design services, an amount equal to the salaries paid to technical employees for time actually spent in performing such services, plus 100% of the portion of such salaries representing "straight time" payments.
- 2.) For Extra Work consisting of performance of construction at the construction site, an amount determined as follows:
  - a. In the case of Extra Work performed by the Contractor personally, an amount equal to the actual net cost in money of the labor and materials required for such Extra Work, plus twenty per cent (20%) of such net cost, plus such rental for equipment (other than small tools) required for such Extra Work as the PA Project Manager deems reasonable.
  - b. In the case of Extra Work performed by a subcontractor, an amount equal to the actual net cost in money of the labor and materials required for such Extra Work, plus twenty per cent (20%) of such net cost plus such rental for equipment (other than small tools) required for such Extra Work as the PA Project Manager deems reasonable, plus seven per cent (7%) of the sum of the foregoing cost, percentage of cost, and rental.

As used in this numbered clause (and in this clause only):

"Design Services" means the preparation of Detailed Contract Drawings and Detailed Specifications for approval of the PA Project Manager in accordance with the clause hereof entitled "Design" but shall not include the preparation of working or shop drawings.

"Salaries paid to technical employees" means salaries actually paid (excluding payments and factors for holidays, vacations, sick time, bonuses, profit participations and other similar payments) to architects, engineers, designers, draftsmen and other technical employees of the Contractor or of the subcontractor performing such design services, excluding however, any partners, corporate officers and clerical or administrative personnel.

"Labor" means foremen, surveyors, laborers, mechanics and other employees below the rank of superintendent, exclusive of timekeepers, directly employed at the construction site, whether employed by the Contractor or by the subcontractors, subject to the PA Project Manager's authority to determine what employees of any category are "required for Extra Work" and as to the portion of their time allotted to Extra Work; and "cost of labor" means the wages actually paid to and received by such employees plus a proper proportion of (a) premiums, if any, actually paid by the employer for Workers' Compensation Insurance upon the basis of such wages, (b) vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligation upon the basis of such wages, and (c) taxes actually paid by the employer pursuant to law upon the basis of such wages.

"Employees" as used above means only the employees of one employer.

"Materials" means temporary and consumable materials as well as permanent materials; and "cost of materials" means the price (including taxes actually paid by the Contractor pursuant to law upon the basis of such materials) for which such materials are sold for cash by the manufacturers or producers thereof, or by regular dealers therein, whether or not such materials are purchased directly from the manufacturer, producer or dealer (or if the Contractor is the manufacturer or producer thereof, the reasonable cost to the Contractor of the manufacture and production), plus the reasonable cost of delivering such materials to the construction site in the event that the price paid to the manufacturer, producer or dealer does not include delivery and in case of temporary materials, less their salvage value, if any.

"Work day" in reference to an item of equipment means a day other than a Saturday, Sunday or legal holiday except that if the particular item of equipment is actually utilized at the construction site by the Contractor or subcontractors under this or any other Contract with the Authority on a Saturday, Sunday or legal holiday said day shall be deemed a work day.

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B. The rental for equipment, whether owned by the Contractor or subcontractors or rented from others and notwithstanding the actual price of any rental or actual costs associated with such equipment, shall be computed by the PA Project Manager on the basis of the following

1.) Hourly rental for those items of equipment listed in the "Rental Rate Blue Book" (published by Machinery Information Division, K-III Directory Corporation, 1735 Technology Drive, Suite 410, San Jose, California 95131-2398), (hereinafter called "the Blue Book") shall be 100% of the applicable rates as listed in said book, reduced to an hourly basis (see formula below) except that such applicable rates shall be reduced by 50% for all hours of rental payable hereunder in excess of 8 hours each day. The edition of this publication to be used shall be the one in effect on the date of the actual rental of the equipment. The "Estimated Operating Cost per Hour" as set forth for such item of equipment in the Blue Book shall be added to the hourly rental for each hour that such equipment is actually engaged in performing Extra Work. No amount for operating cost will be allowed during periods when such equipment is not actually engaged in performing Extra Work (i.e. standby rental time). None of the provisions of the Blue Book shall be deemed referred to or included in this Contract except as specifically set forth in this Section.

1.) If no listing of rental rate and/or hourly operating cost for the item of equipment is in the Blue Book, the PA Project Manager shall determine the reasonable rate of rental and/or hourly operating cost of the particular item of equipment by such other means as he finds appropriate.

C. When utilizing the rental rates appearing in the Blue Book, the Engineer shall determine the applicable rate and the hourly rental determined therefrom by applying the following criteria:

1.) The rate to be applied for an item of equipment used on a particular Extra Work order shall be the daily, weekly or monthly rates from the foregoing publication based on the total number of work days or portions thereof that a particular item of equipment or substitute item of equipment is at the construction site for use by the Contractor or subcontractors whether under this Contract or any other contract with the Authority. Included within this period will be (i) work days of idleness of the equipment at the construction site whether such idleness results from acts or omissions of the Contractor, Authority or third persons, breakdowns in the equipment or any other cause, (ii) work days on which the equipment is removed from the construction site solely to enable the performance of repairs thereon, and (iii) work days intervening between the removal of equipment from the construction site for repairs and the delivery to the construction site of the same or substitute equipment. The number of work days in the period for each rate shall be as indicated below:

<u>Three work days or less.</u>	<u>Daily Rate</u>
<u>More than three work days but not more than fifteen work days.</u>	<u>Weekly Rate</u>
<u>More than fifteen work days.</u>	<u>Monthly Rate</u>

The pro rata portion which one hour bears to the applicable rate shall be determined in accordance with the following formula:

<u>Hourly rate based on daily rental.</u>	<u>1/8 of daily rental from Blue Book</u>
<u>Hourly rate based on weekly rental.</u>	<u>1/40 of weekly rental from Blue Book</u>
<u>Hourly rate based on monthly rental.</u>	<u>1/176 of monthly rental from Blue Book</u>

2.) The rental rate shall be multiplied by the applicable regional adjustment factor shown for such item of equipment in the Blue Book. The adjustment factor shall not apply to the hourly operating cost.

3.) If the Engineer should determine that the nature or size of the equipment used by the Contractor in connection with Extra Work is larger or more elaborate, as the case may be, than the size or nature of the minimum equipment determined by the Engineer to be suitable for the Extra Work, the reasonable rental will not be based upon the equipment used by the Contractor but will be based on the smallest or least elaborate equipment determined by the Engineer to have been suitable for the performance of the Extra Work.

- D. In the case of equipment utilized only for Extra Work: (a) in addition to amounts determined as provided in subparagraphs A and B above, there will be added to the rental as computed above the taxes on the rental actually paid by the Contractor or subcontractor and the reasonable cost of transporting such equipment to and from the construction site, and (b) notwithstanding the number of hours during which such equipment is utilized, the minimum rental therefor will be for a period of eight hours.

In computing the Contractor's compensation insofar as it is based upon Extra Work, and notwithstanding any provision to the contrary appearing in the Blue Book, no consideration shall be given to any items of cost or expense not expressly set forth above, it being expressly agreed that the costs and percentage additions hereinbefore provided cover items of cost and expense to the Contractor of any type whatsoever, including administration, overhead, taxes (other than those enumerated above), clean-up, consumables including gas and oil, drafting (including printing or other reproduction), coordination, field measurements, maintenance, repairs, insurance, profit to the Contractor and small tools.

Whenever any Extra Work is performed (whether by the Contractor directly or through a subcontractor), the Contractor shall, at the end of each day, submit to the Engineer (a) daily time slips showing the name and number of each workman employed on such Work, the number of hours which he is employed thereon, the character of his duties, and the wages to be paid to him, (b) a memorandum showing the rates and amounts of Workers' Compensation Insurance premiums, if any, and state and federal taxes based on such wages, and vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligation upon the basis of such wages (c) a memorandum showing the amount and character of the materials furnished for such Work, from whom they were purchased and the amount to be paid therefor, and (d) a memorandum of equipment used in the performance of such Work, together with the rental claimed therefor. Such memoranda and time slips are for the purpose of enabling the Engineer to determine the amounts to be paid by the Authority under this numbered clause; and accordingly, they shall constitute a condition precedent to such payment and the failure of the Contractor to furnish them with respect to any Work shall constitute a conclusive and binding determination on his part that such Work is not Extra Work and shall constitute a waiver by the Contractor of claims for payment for such Work. In the event that the Chief Engineer and the Contractor shall agree in writing upon a lump sum or other compensation for Extra Work in lieu of compensation as provided in the second paragraph of this clause, the daily time slips and memoranda required by this paragraph shall not be required subsequent to the date on which such agreement has been reached.

### **37. MONTHLY ADVANCES**

On or about the first day of each month, the PA Project Manager shall (upon receipt from the Contractor of such information as he may require, including a certification in writing, in such form as may be required pursuant to the clause hereunder entitled "Prevailing Rate of Wage", that he has paid and caused his subcontractors to pay at least the prevailing rate of wage and supplements required by such clause) estimate and certify to the Authority the approximate amount of Work performed and compensation earned by the Contractor up to that time showing separately:

- A. The amount of Work (other than Extra Work) performed by the Contractor up to that time and a sum bearing the same proportion to the Lump Sum as the Work performed (other than Extra Work) bears to the Work performed and to be performed (other than Extra Work).

- B. The increases, if any, in the Contractor's compensation for which provision is specifically made elsewhere in this Contract.

As an aid to the Contractor and to facilitate his performance, the Authority shall, within fifteen days after the receipt of each such monthly certificate, advance to the Contractor by check the sums so certified, minus, however, either ten per cent (10%) of the sum certified pursuant to subparagraph A of this numbered clause or five percent (5%) of the Lump Sum, whichever is less, and minus all prior advances and payments to the Contractor or for his account and minus payments by the Authority to lessors of construction equipment.

Within seven days of receipt of any sum attributable to Work performed by a subcontractor or materialman or within such later period as is provided in the subcontract or purchase agreement, the Contractor shall advance to the subcontractor or materialman said sum, less such amount, if any, as the Contractor is authorized to retain under the subcontract or purchase agreement.

Notwithstanding the above, the Authority shall have the right, at its sole discretion, to directly pay the subcontractors and material suppliers who perform Work for or furnish materials to the Contractor in connection with the Work of this Contract.

Prior to certifying any amount for payment hereunder, the PA Project Manager may require that the Contractor submit a certification accurately and fully setting forth the total amount due and payable to each subcontractor and supplier for Work performed or materials provided by such subcontractor or supplier in connection with the Work of this Contract. Any payment made by the Authority to a subcontractor or supplier pursuant to the provisions of this numbered clause shall be made in reliance upon such certification and all such payments shall be considered as advances to the Contractor of the compensation payable hereunder. No such payment shall relieve the Contractor of any of its obligations hereunder.

Furthermore, within fifteen (15) days of the Contractor's receipt of the Authority acceptance of the Contractor's Proposal, the Contractor shall submit to the PA Project Manager a listing of all subcontract and material supply agreements entered into by the Contractor for the performance of Work required by this Contract. Such listing shall include the names and addresses of each such subcontractor and supplier and the amounts payable under each such agreement. As and when any modifications are made to such agreements or any additional subcontracts or supply agreements are entered into, the Contractor shall inform the PA Project Manager of such and shall indicate the amounts payable thereunder.

Nothing contained herein shall be deemed to create any additional rights in such subcontractors or suppliers or to alter the rights of the Authority as such are set forth in the clause hereof entitled "Withholding of Payments"

### **38. FINAL PAYMENT**

After the rendition of the Certificate of Final Completion and upon receipt from the Contractor of such information as may be required, the PA Project Manager shall certify in writing to the Authority and to the Contractor the total compensation earned by the Contractor.

See the Form of Contract clause entitled "Certificate of Final Completion" which requires as a prerequisite for the issuance of such certificate the submission of a "Summary of Asbestos Removal and Disposal Costs".

If so required, the Contractor shall thereupon (i) certify to the Authority in writing, in such form as may be required pursuant to the clause hereunder entitled "Prevailing Rate of Wage", that he has paid and caused his subcontractors to pay at least the prevailing rate of wage and supplements required by such clause and (ii) furnish to the Authority a detailed sworn statement of all claims, just and unjust, of subcontractors, materialmen and other third persons then outstanding and which he has reason to believe may thereafter be made on account of the Work.

Within thirty days after issuance of such certificate of total compensation earned (or within thirty days after receipt of the documents provided for in the immediately preceding paragraph, if required), the Authority shall pay to the Contractor by check the amount stated in said certificate, less all other payments and advances whatsoever to or for the account of the Contractor. All prior estimates and payments shall be subject to correction in this payment, which is throughout this Contract called the Final Payment.

The acceptance by the Contractor, or by anyone claiming by or through him, of Final Payment shall be and shall operate as a release to the Authority of all claims and of all liability to the Contractor for all things done or furnished in connection with the Contract and for every act and neglect of the Authority and others relating to or arising out of the Contract, including claims arising out of breach of contract and claims based on claims of third persons, excepting only his claims for reimbursement for certain sales taxes as hereinbefore provided. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations in connection with this Contract or the Performance and Payment Bond.

The Contractor's agreement as provided in the immediately preceding paragraph above shall be deemed to be based upon the consideration forming part of this Contract as a whole and not to be gratuitous; but in any event even if deemed gratuitous and without consideration, such agreement as provided in the immediately preceding paragraph above shall nevertheless be effective. Such release shall include all claims, whether or not in litigation and even though still under consideration by the Authority or the PA Project Manager. Such release shall be effective notwithstanding any purported reservation of right by the Contractor to preserve such claim. The acceptance of any check designated as "Final Payment" or bearing any similar designation shall be conclusively presumed to demonstrate the intent of the Contractor that such payment was intended to be accepted as final, with the consequences provided in this numbered clause, notwithstanding any purported reservation of rights.

The Contractor agrees that he shall not be entitled to, and hereby waives any right he might otherwise have to, and shall not seek any judgment whether under this Contract or otherwise for any such Final Payment or for an amount equivalent thereto or based thereon, or for any part thereof, if such judgment would have the effect of varying, setting aside, disregarding or making inapplicable the terms of this numbered clause or have the effect in any way of entitling the Contractor to accept such Final Payment or an amount equivalent thereto or based thereon or any part thereof other than in the same fashion as a voluntary acceptance of a Final Payment subject to all the terms of this Contract including this numbered clause, unless and until the Contractor should obtain a judgment on any claim arising out of or in connection with this Contract (including a claim based on breach of contract) for an amount not included in said Final Payment. In any case in which interest is allowable on the amount of the Final Payment, such interest shall be at the rate of 6% per annum for the period, if any, in which such interest is due.

**39. WITHHOLDING OF PAYMENTS**

If (1) the Contractor fails to perform any of his obligations under this Contract or any other agreement between the Authority and the Contractor (including his obligation to the Authority to pay any claim lawfully made against him by any materialman, subcontractor or workman or other person which arises out of or in connection with the performance of this Contract or any other agreement with the Authority) or (2) any claim (just or unjust) which arises out of or in connection with this Contract or any other agreement between the Authority and the Contractor is made against the Authority or (3) any subcontractor under this Contract or any other agreement between the Authority and the Contractor fails to pay any claims lawfully made against him by any materialman, subcontractor, workman or other third person which arises out of or in connection with this Contract or any other agreement between the Authority and the Contractor or if in the opinion of the Chief Engineer any of the aforesaid contingencies is likely to arise, then the Authority shall have the right, in its discretion, to withhold out of any payment (final or otherwise and even though such payment has already been certified as due) such sums as the Chief Engineer may deem ample to protect it against delay or loss or to assure the payment of just claims of third persons, and to apply such sums in such manner as the Chief Engineer may deem proper to secure such protection or satisfy such claims. All sums so applied shall be deducted from the Contractor's compensation. Omission by the Authority to withhold out of any payment, final or otherwise, a sum for any of the above contingencies, even though such contingency has occurred at the time of such payment, shall not be deemed to indicate that the Authority does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of the Authority to withhold and apply monies nor any exercise or attempted exercise of, or omission to exercise, such rights by the Authority shall create any obligation of any kind to such materialmen, subcontractors, workmen or other third persons.

Until actual payment to the Contractor, his right to any amount to be paid under this Contract (even though such amount has already been certified as due) shall be subordinate to the rights of the Authority under this numbered clause.

If, however, the payment of any amount due to the Contractor shall be improperly delayed by the fault of the Authority, the Authority shall pay the Contractor interest thereon at the rate of six percent (6%) per annum for the period of 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.

**CHAPTER III**

**PROVISIONS RELATING TO TIME**

**40. TIME FOR COMPLETION AND DAMAGES FOR DELAY**

The Contractor shall complete the performance of all Work under this Contract within 730 calendar days after receipt by him of the acceptance of his Proposal.

The Contractor shall not commence the performance of the Work until the later of the following dates:

- A. If a Performance and Payment Bond is required, the date of receipt by him of notice from the Authority that the Performance and Payment Bond furnished by him is satisfactory;
- B. If Chapter V of the "Form of Contract" contains a clause entitled "Insurance Procured by Contractor", the date of receipt by him of notice from the Authority that the insurance procured by him pursuant to said clause is satisfactory, as evidenced by the certificate to be furnished in accordance with said clause.

The time for completion shall not be extended on account of the time required to furnish the documents referred to in subparagraphs A and B above, but the Authority shall give notice to the Contractor within ten days after receipt of the Performance and Payment Bond or certificate of insurance as to whether or not such bond or insurance is satisfactory.

The Contractor's obligations for the performance and completion of the Work within the time or times provided for in this Contract are of the essence of this Contract. The Contractor guarantees that he can and will complete the performance of the Work within the time hereinbefore stipulated or within the time as extended in accordance with the clause hereof entitled "Extensions of Time". Inasmuch as the damage and loss to the Authority which will result from delay in completing the performance of the Work within the time herein stipulated will include items of loss whose amount will be incapable or very difficult of accurate estimation, the damages to the Authority for each calendar day by which the Contractor does not complete performance of the Work within the time or times above stipulated or within such time or times as extended in accordance with the clause hereof entitled "Extensions of Time", shall be liquidated in the sum of Five Hundred Dollars (\$500) per calendar day.

The Authority will seek no damages above the stated liquidated damages for delay, except in the case where the Contractor is held in breach of contract.

**41. EXTENSIONS OF TIME**

The time above provided for completion of any part of the Contract shall be extended (subject, however, to the provisions of this numbered clause) only if in the opinion of the PA Project Manager the Contractor is necessarily delayed in completing such part by such time solely and directly by a cause which meets all the following conditions:

- A. Such cause is beyond the Contractor's control and arises without his fault;
- B. Such cause comes into existence after the opening of Proposals on this Contract and neither was nor could have been anticipated by investigation before such opening.

Variations in temperature and precipitation shall be conclusively deemed to have been anticipated before opening of such Proposals on this Contract except to the extent that the actual monthly average temperature varies from a temperature which is 10 per cent (10%) above or below the monthly normal temperature and except to the extent that the actual number of days of precipitation (of 0.1 inch or more) per month exceeds a number equal to two plus the normal number of days of precipitation per month.

In any case, the variations in temperature and precipitation described in the immediately preceding sentence will be cause for an extension of time only if occurring between the actual time of commencement of the Work at the construction site and the time for completion stipulated in the clause hereof entitled "Time for Completion and Damages for Delay" (or such time as extended as provided for herein). In the case of portions of months the number of days will be pro-rated by the PA Project Manager. Temperature and precipitation shall be as recorded by the U. S. Weather Bureau in its publications, including that entitled "Local Climatological Data with Comparative Data", which is applicable to the area in which the Work is to be performed, and in the case of precipitation, the normal number of days of precipitation (of 0.1 inch or more) per month as abstracted from the aforementioned publications are as follows:

Month	Normal number of days per month on which precipitation exceeds 0.1 inch
January	7
February	7
March	8
April	7
May	6
June	6
July	5
August	7
September	6
October	6
November	7
December	7

In any event, even though a cause of delay meets all the above conditions, an extension shall be granted only to the extent that (i) the performance of the Work is actually and necessarily delayed and (ii) the effect of such cause cannot be anticipated and avoided or mitigated by the exercise of all reasonable precautions, efforts and measures (including planning, scheduling and rescheduling), whether before or after the occurrence of the cause of delay, and an extension shall not be granted for a cause of delay which would not have affected the performance of the Contract were it not for the fault of the Contractor or for other delay for which the Contractor is not entitled to an extension of time.

Any reference herein to the Contractor shall be deemed to include subcontractors and materialmen, whether or not in privity of contract with the Contractor, and employees and others performing any part of the Contract and all the foregoing shall be considered as agents of the Contractor.

The period of any extension of time shall be that necessary to make up the time actually lost as well as any further time lost in the schedule as a result of the initial delay, subject to the provisions of this numbered clause, and shall be only for the portion of the Contract actually delayed. The PA Project Manager may defer all or part of his decision on an extension and any extension may be rescinded or shortened if it subsequently is found that the delays can be overcome or reduced by the exercise of reasonable precautions, efforts and measures.

As a condition precedent to an extension of time, the Contractor shall give written notice to the PA Project Manager within 48 hours after the time when he knows or should know of any cause which might under any circumstances result in delay for which he claims or may claim an extension of time (including those causes which the Authority is responsible for or has knowledge of), specifically stating that an extension is or may be claimed, identifying such cause and describing, as fully as practicable at the time, the nature and expected duration of the delay and its effect on the various portions of the Contract. Since the possible necessity for an extension of time may materially alter the scheduling, plans and other actions of the Authority, and since, with sufficient opportunity, the Authority might if it so elects attempt to mitigate the effect of a delay for which an extension of time might be claimed, and since merely oral notice may cause disputes as to the existence or substance thereof, the giving of written notice as above required shall be of the essence of the Contractor's obligations and failure of the Contractor to give written notice as above required shall be a conclusive waiver of an extension of time.

It shall in all cases be presumed that no extension, or further extension, of time is due unless the Contractor shall affirmatively demonstrate to the satisfaction of the PA Project Manager that it is. To this end the Contractor shall maintain adequate records supporting any claim for an extension of time, and in the absence of such records, the foregoing presumption shall be deemed conclusive.

#### **42. IDLE SALARIED MEN AND EQUIPMENT**

If any salaried men or equipment of the Contractor or any sub-contractor are necessarily kept continuously idle and wholly unoccupied at the construction site for a full day on each of two or more full days on which they would be engaged in the performance of the Work but for causes due solely to acts or omissions of the Authority or the PA Project Manager occurring after the opening of Proposals on this Contract, and if such idleness is not due to any cause within the control of the Contractor or of any of his subcontractors or materialmen or his or their employees, then the Authority shall pay to the Contractor and the Contractor shall accept (in addition to any sums otherwise payable under this Contract, and in full satisfaction of and in liquidation of all claims for damages because of such act or omission of the Authority or the PA Project Manager) an amount equal to that which the employer actually pays such salaried employees during such full days of idleness, plus a proper proportion of vacation allowances and union dues and assessments actually paid by the employer pursuant to contractual obligations on the basis of such salaries, and a proper proportion of the taxes actually paid by the employer pursuant to law upon the basis of such salaries and plus such rental for such idle equipment as the PA Project Manager deems reasonable. The rental for idle equipment shall be computed by the PA Project Manager in accordance with the provisions of the clause of the Form of Contract entitled "Compensation for Extra Work"; provided, however, that the seven per cent (7%) of the rental to be paid in accordance with said clause in the case of equipment utilized by subcontractors shall not be payable in connection with such idle equipment; and provided further that the provisions of subparagraph C of said clause shall not be applicable to such idle equipment.

The Contractor shall give written notice to the PA Project Manager before the end of the second of the above mentioned 2 or more full days (whether or not the Authority is aware of the existence of any circumstances which might constitute a basis for payment under this numbered clause), specifically stating that salaried men or equipment have been kept idle under circumstances which might result in payment under this numbered clause; and he shall furnish with such notice, for all the days that have occurred, and shall in addition furnish at the end of each additional day of the above mentioned 2 or more full days, (a) a memorandum showing the name, payroll title, salary rate and employer of each of the salaried men claimed to have been kept idle at the construction site, and taxes based upon their salaries and the holiday and vacation allowances and union dues and assessments which the employer must actually pay pursuant to contractual obligations based on their salaries, and (b) a memorandum of the equipment claimed to be kept idle, together with the amount claimed as rental therefor. Said notice and memoranda are for the purpose of enabling the PA Project Manager to verify the Contractor's claim at the time, and of enabling him to take such steps as may be necessary to remedy the conditions upon which the claim is based. The furnishing of such notice and memoranda shall be a condition precedent to payment under this numbered clause, so that the day on which notice is given shall be counted as not later than the second of the above mentioned 2 or more full days and no subsequent day shall be counted for which the above memoranda are not furnished at the end of such day.

**43. DELAYS TO CONTRACTOR**

As between the Contractor and the Authority, the Contractor assumes the risk of all suspensions of or delays in performance of the Contract, from those events that are clearly within the Contractor's control. In the event the Contractor is delayed by any action or inaction on the part of the Port Authority, the Contractor will be entitled to an appropriate schedule adjustment. Nothing in this clause shall preclude the Contractor from claiming for additional costs due to Port Authority delay. Notwithstanding any provisions of this Contract, whether relating to time of performance or otherwise, the Authority makes no representation or guaranty as to when the construction site or any part thereof will be available for the performance of the Contract or as to whether conditions at the construction site will be such as to permit the Contract to be performed thereon without interruption or by any particular sequence or method or as to whether the performance of the Contract can be completed by the time required under this Contract or by any other time.

Wherever in connection with this Contract it is required, expressly or otherwise, that the Authority shall perform any act relating to the Contract, including making available or furnishing any real property, materials, or other things, no guaranty is made by the Authority as to the time of such performance and the delay of the Authority in fulfilling such requirement shall not result in liability of any kind on the part of the Authority except only to the extent, if any, that an extension of time or compensation may be due as expressly provided for elsewhere in this Contract.

**44. CANCELLATION FOR DELAY**

If the performance of the Contract or any portion of it shall, in the opinion of the Chief Engineer, be materially delayed, whether or not through the fault of the Contractor, by any cause which affects the Contractor's ability to perform the Contract without affecting to the same degree the Authority's own ability to perform it, either directly or through others, the Authority shall have the right at any time during the existence of such delay to cancel this Contract as to any portion not yet performed, without prejudice to the rights, liabilities and obligations of the parties under this Contract arising out of portions already performed, provided, however, that such right of cancellation shall not exist if the delay be due to any wrongful act or omission of the Authority. In the event of such cancellation, no allowance shall be made for anticipated profits. This provision shall not prohibit the redistribution of indirect costs of the Contractor in determining the amount of the reduction.

**CHAPTER IV**

**CONDUCT OF CONTRACT**

**45. AUTHORITY OF DIRECTOR**

If at any time it shall be, from the viewpoint of the Authority, impracticable or undesirable in the judgment of the Director to proceed with or continue the performance of the Contract or any part thereof, whether or not for reasons beyond the control of the Authority, he shall have authority to suspend performance of any part or all of the Contract until such time as he may deem it practicable or desirable to proceed. Moreover, if at any time it shall be, from the viewpoint of the Authority impracticable or undesirable in the judgment of the Director to proceed with or continue the performance of the Contract or any part thereof for reasons beyond the control of the Authority, he shall have authority to cancel this Contract as to any or all portions not yet performed and as to any materials not yet installed even though delivered. 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. This provision shall not prohibit the redistribution of indirect costs of the Contractor in determining the amount of the reduction.

**46. AUTHORITY OF CHIEF ENGINEER**

Inasmuch as the public interest requires that the project to which this Contract relates shall be performed in the manner which the Authority, acting through the Chief Engineer, deems best, the Chief Engineer shall have absolute authority to determine what is or is not necessary or proper for or incidental to the portion thereof specified in the clause hereof entitled "General Agreement" and the Contract Drawings and Specifications shall be deemed merely his present determination on this point. In the exercise of this authority, he shall have power to alter the Contract Drawings and Specifications; to require the performance of Work not required by them in their present form, even though of a totally different character from that now required; and to vary, increase and diminish the character, quantity and quality of, or to countermand, any Work now or hereafter required. Such variation, increase, diminution or countermanding need not be based on necessity but may be based on convenience.

To resolve all disputes and to prevent litigation the parties to this Contract authorize the Chief Engineer to decide in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Contract (including claims in the nature of breach of Contract or fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal and claims of a type which are barred by the provisions of this Contract). His decision may be based on such assistance as he may find desirable. The effect of his decision shall not be impaired or waived by any negotiations or settlement offers in connection with the question decided, whether or not he participated therein himself, or by any prior decision of the Engineer or others, which prior decisions shall be deemed subject to review, or by any termination or cancellation of this Contract provided, however, that notwithstanding the decision reached by the Chief Engineer in a review of determinations by the Assistant Chief Engineer for Construction or Engineer of Construction that a particular item of Work is not Extra Work the Contractor shall be compensated therefor as provided in written orders of the Assistant Chief Engineer for Construction or Engineer of Construction expressly and unmistakably indicating his intention to treat Work described therein as Extra Work issued in accordance with the provisions of the clause hereof entitled "Extra Work Orders" for amounts not in excess of \$25,000 and subject to the aggregate limit specified in said clause.

All such questions shall be submitted in writing by the Contractor to the Chief Engineer for his decision, together with all evidence and other pertinent information in regard to such questions, in order that a fair and impartial decision may be made. In any action against the Authority relating to any such question the Contractor must allege in his complaint and prove such submission, which shall be a condition precedent to any such action. No evidence or information shall be introduced or relied upon in such an action that has not been so presented to the Chief Engineer.

This numbered clause shall be governed by and construed in accordance with the law of the State of New York, without giving effect to its choice of law provisions.

#### **47. AUTHORITY AND DUTIES OF PA PROJECT MANAGER**

In the performance of the Contract, the Contractor shall conform to all orders, directions and requirements of the PA Project Manager and shall perform the Contract to the satisfaction of the PA Project Manager at such times and places, by such methods and in such manner and sequence as he may require, and the Contract shall at all stages be subject to his inspection. The PA Project Manager shall determine the amount, quality, acceptability and fitness of all parts of the Work and shall interpret the Contract Drawings, Specifications and any orders for Extra Work. The Contractor shall employ no equipment, materials, methods or men to which the PA Project Manager objects, and shall remove no materials, equipment or other facilities from the construction site without permission. Upon request, the PA Project Manager shall confirm in writing any oral order, direction, requirements or determination.

The Contractor is requested to orally advise the PA Project Manager of questions as they arise. Although such advice will not substitute for the written notice and information for which requirements are set forth elsewhere herein, it is anticipated that it will facilitate prompt decisions on the part of the PA Project Manager and others.

The enumeration herein or in the Specifications of particular instances in which the opinion, judgment, discretion or determination of the PA Project Manager shall control or in which the Contract shall be performed to his satisfaction or subject to his inspection, shall not imply that only the matters of a nature similar to those enumerated shall be so governed and performed, but without exception the entire Contract shall be so governed and so performed.

#### **48. NOTICE REQUIREMENTS**

No claim against the Authority shall be made or asserted in any action or proceeding at law or in equity, and the Contractor shall not be entitled to allowance of such claim, unless the Contractor shall have complied with all requirements relating to the giving of written notice of the information with respect to such claim as provided in this numbered clause. The failure of the Contractor to give such written notice and information as to any claim shall be conclusively deemed to be a waiver by the Contractor of such claim, such written notice and information being conditions precedent to such claim. As used herein "claim" shall include any claim arising out of, under, or in connection with, or in any way related to or on account of, this Contract (including claims in the nature of breach of Contract or fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal and claims of a type which are barred by the provisions of this Contract) for damages, payment or compensation of any nature or for extension of any time for performance of any part of this Contract.

The requirements as to the giving of written notice and information with respect to claims shall be as follows:

- A. In the case of any claims for Extra Work, extension of time for completion, idle salaried men and equipment, or any other matter for which requirements are set forth elsewhere in this Contract as to notice and information, such requirements shall apply.

- B. In the case of all other types of claim, notice shall have been given to the PA Project Manager, personally, as soon as practicable, and in any case, within 48 hours, after occurrence of the act, omission, or other circumstance upon which the claim is or will be based, stating as fully as practicable at the time all information relating thereto. Such information shall be supplemented with any further information as soon as practicable after it becomes or should become known to the Contractor, including daily records showing all costs which the Contractor may be incurring or all other circumstances which will affect any claim to be made, which records shall be submitted to the PA Project Manager, personally.

The above requirements for notices and information are for the purpose of enabling the Authority to avoid waste of public funds by affording it promptly the opportunity to cancel or revise any order, change its plans, mitigate or remedy the effects of circumstances giving rise to a claim or take such other action as may seem desirable and to verify any claimed expense or circumstances as they occur, and the requirements herein for such notice and information are essential to this Contract and are in addition to any notice required by statute with respect to suits against the Authority.

The above referred to notices and information are required whether or not the Authority is aware of the existence of any circumstances which might constitute a basis for a claim and whether or not the Authority has indicated it will consider a claim.

No act, omission, or statement of any kind shall be regarded as a waiver of any of the provisions of this numbered clause or may be relied upon as such waiver except only either a written statement signed by the Executive Director of the Authority or a resolution of the Commissioners of the Authority expressly stating that a waiver is intended as to any particular provision of this numbered clause, and more particularly no discussion, negotiations, consideration, correspondence, or requests for information with respect to a claim by any Commissioner, officer, employee or agent of the Authority shall be construed as a waiver of any provision of this numbered clause or as authority or apparent authority to effect such a waiver.

Since merely oral notice or information may cause disputes as to the existence or substance thereof, and since notice, even if written, to other than the Authority representative above designated to receive it may not be sufficient to come to the attention of the representative of the Authority with the knowledge and responsibility of dealing with the situation only notice and information complying with the express provisions of this numbered clause shall be deemed to fulfill the Contractor's obligation under this Contract.

#### **49. EQUAL EMPLOYMENT OPPORTUNITY - NEW YORK**

During the performance of this Contract, within the State of New York the Contractor agrees as follows:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, sex, color or national origin, and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, creed, sex, color or national origin. Such action shall be taken with reference, but not be limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on-the-job training.

- B. The Contractor shall send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the State Commission for Human Rights, advising such labor union or representative of the Contractor's agreement under clauses A through H (hereinafter called "non-discrimination clauses"). If the Contractor was directed to do so by the Authority as part of the proposal or negotiation of this Contract, the Contractor shall request such labor union or representative to furnish him with a written statement that such labor union or representative will not discriminate because of race, creed, sex, color or national origin and that such labor union or representative either will affirmatively cooperate, within the limits of its legal and contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under this Contract, shall be in accordance with the purposes and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the Contractor shall promptly notify the State Commission for Human Rights of such failure or refusal.
  
- C. The Contractor shall post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Commission for Human Rights setting forth the substance of the provisions of clauses A and B and such provisions of the State's laws against discrimination as the State Commission for Human Rights shall determine.
  
- D. The Contractor shall state, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, sex, color or national origin.
  
- E. The Contractor shall comply with the provisions of Sections 291-299 of the Executive Law and the Civil Rights Law, shall furnish all information and reports deemed necessary by the State Commission for Human Rights under these non-discrimination clauses and such sections of the Executive Law, and shall permit access to his books, records and accounts by the State Commission for Human Rights, the Attorney General and the Industrial Commissioner for the purposes of investigation to ascertain compliance with these non-discrimination clauses and such sections of the Executive Law and Civil Rights Law.

- F. This Contract may be forthwith canceled, terminated or suspended, in whole or in part, by the Authority upon the basis of a finding made by the State Commission for Human Rights that the Contractor has not complied with these non-discrimination clauses, and the Contractor may be declared ineligible for future contracts made by or on behalf of the State, the Authority or other public authority or agency of the State, until he has satisfied the State Commission for Human Rights that he has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such finding shall be made by the State Commission for Human Rights after conciliation efforts by the Commission have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the Commission, notice thereof has been given to the Contractor by the Commission and an opportunity has been afforded him to be heard publicly before the State Commissioner of Human Rights or his designee. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided by law.
- G. The Contractor shall include the provisions of clauses A through F in every subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to operations to be performed within the State of New York. The Contractor shall take such action in enforcing such provisions of such subcontract or purchase order as the Authority may direct, including sanctions or remedies for non-compliance. If the Contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the Authority, the Contractor shall promptly so notify the General Counsel to the Authority, requesting him to intervene and protect the interests of the Authority.
- H. The provisions of this numbered clause which refer to the State Commission for Human Rights, the Attorney General and the Industrial Commissioner are inserted in this Contract for the benefit of such parties, as well as for the benefit of the Authority, and said Commission, Commissioner and the Attorney General shall have a direct right of action against the Contractor to effectuate the intent of this clause.

**50. EQUAL EMPLOYMENT OPPORTUNITY - NEW JERSEY**

With respect to the performance of Work in the State of New Jersey and in order to conform with the policy of the Authority the Contractor agrees that the provisions of N.J.S.A. 10:2-1 through 10:2-4, dealing with discrimination in employment on public contracts, and the Rules and Regulations promulgated pursuant thereto, are hereby made a part of this Contract and are binding upon him and that it shall not be a defense to the Contractor in any action arising directly or indirectly out of such legislation and Rules and Regulations that the Authority may not be subject thereto.

The provisions of this numbered clause are for the benefit of the Attorney General of the State of New Jersey, Division on Civil Rights in the Department of Law and Public Safety of the State of New Jersey, and the Director thereof, as well as for the benefit of the Authority, and said Division and Director shall have a right of action against the Contractor to effectuate the intent of this clause.

**51. NO DISCRIMINATION IN EMPLOYMENT**

During the performance of this Contract within the State of New Jersey, the Contractor agrees as follows:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, religion, national origin, ancestry, age, sex or liability for military service. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, religion, national origin, ancestry, age, liability for military service, or sex. Such action shall include but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and the selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- B. The Contractor will, in all solicitations or advertisements for employee's placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, religion, national origin, ancestry, sex or liability for military service.
- C. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding a notice advising the said labor union or workers' representative of the Contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The Contractor will submit to the Authority every two weeks a report indicating the number of men employed at the construction site as of the 1st and 15th days of each month and the projected number of men to be so employed during the following month. This report shall also indicate the trade in which such men are employed and, with respect to current employment (but not projected employment), shall indicate the number of such men who are members of the following groups:
  - 1.) Black
  - 2.) Oriental
  - 3.) American Indian
  - 4.) Puerto Rican, Mexican-American or Cuban

With respect to the number of men in the four categories mentioned in 1 through 4 in the immediately preceding sentence, the report shall also list the name and address and the trade of each such man.

- E. The Contractor will include the provisions of Par. A through D of this Section in every contract, and will require the inclusion of these provisions in every subcontract entered into by any of its subcontractors, so that such provisions will be binding upon each such subcontractor, as the case may be. For the purpose of including such provisions in any construction contract or subcontract, as required hereby, the term "Contractor" and the term "Subcontractor" may be changed to reflect appropriately the name or designation of the parties of such contract or subcontract.
- F. The Contractor agrees that he will fully cooperate with the office of the Attorney General of the State of New Jersey and with the Authority which seeks to deal with the problem of unlawful or invidious discrimination and with all other State efforts to guarantee fair employment practices under this contract, and said Contractor will comply promptly with all requests and directions from the Attorney General of the State of New Jersey and the Authority in this connection, both before and during construction.
- G. Full cooperation as expressed in clause F foregoing shall include, but not be limited to, being a witness or complainant in any proceeding involving questions of unlawful or invidious discrimination if such is deemed necessary by the Attorney General of the State of New Jersey, permitting employees of said Contractor to be witnesses or complainants in any proceeding involving questions of unlawful or invidious discrimination, if such is deemed necessary by the Attorney General of the State of New Jersey, signing any and all documents involved in any proceeding involving questions of unlawful or invidious discrimination, the execution of which are deemed necessary by the Attorney General of the State of New Jersey, participating in meetings, submitting periodic reports on the racial aspects of present and future employment, assisting in inspection at the construction site, and promptly complying with all State directives deemed essential by the Attorney General of the State of New Jersey to insure compliance with all Federal and State laws, regulations and policies against racial or other unlawful or invidious discrimination.
- H. Upon the basis of a finding by the Attorney General of the State of New Jersey that the Contractor has not complied with these nondiscrimination clauses and that by reason thereof there has been a material breach of this contract, the Executive Director of the Authority shall have the sole discretion and power to declare this contract null and void upon 10 days' notice to the Contractor. In such event the Contractor shall become liable for any and all damages which shall accrue to the Authority including, but not limited to, the difference between the total cost of completion and the contract price under this agreement.
- I. The provisions of this numbered clause which refer to the Attorney General are inserted in this contract for the benefit of the Attorney General of the State of New Jersey as well as for the benefit of the Authority, and said Attorney General shall have a direct right of action against the Contractor to effectuate the intent of this clause.

**52. AFFIRMATIVE ACTION REQUIREMENTS - EQUAL EMPLOYMENT OPPORTUNITY**

The Contractor shall comply with the provisions set forth hereinafter. These provisions are modeled on the conditions for proposing on federal government contracts adopted by the Office of Federal Contract Compliance in 1978.

Each proposer, contractor or subcontractor (hereinafter called the Contractor) must fully comply with the clauses entitled 'Equal Employment Opportunity - New York' and 'Equal Employment Opportunity - New Jersey' and these proposal conditions. The Contractor commits itself to the goals for minority and female utilization set forth below and all other requirements, terms and conditions of these proposal conditions by submitting a properly signed Proposal.

The Contractor shall appoint a company executive to assume the responsibility for the implementation of the requirements, terms and conditions of these proposal conditions.

- 1.) The goals for minority and female participation, expressed in percentage terms, for the Contractor's workforce at the construction site under this Contract are as follows:

Minority, except laborers	30%
Minority, laborers	40%
Female, except laborers	6.9%
Female, laborers	6.9%

These goals are applicable to all construction Work performed at the construction site under the Contract.

The Contractor's compliance with this Section shall be based on its implementation of the clauses entitled 'Equal Employment Opportunity - New York' and 'Equal Employment Opportunity - New Jersey', and specific affirmative action obligations required herein of minority and female employment and training must be substantially uniform throughout the length of the Contract and in each trade. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract. Compliance with the goals will be measured against the total work hours performed.

- 2.) The Contractor shall provide written notification to the General Manager, Business and Job Opportunity, Office of Regional and Economic Development of the Port Authority of New York and New Jersey, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under this Contract. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
- 3.) The Contractor shall submit a Workforce Projection Schedule, which shall be correlated to the progress schedule, within thirty days after acceptance of the proposal, for the approval of the PA Project Manager. The Contractor shall maintain and periodically update it at intervals as required by the PA Project Manager. The Workforce Projection Schedule shall include the time period in which each trade shall be utilized, the average number of workers required per trade on a weekly basis, the peak period for each trade, and the number of workers required per trade for the peak period on a weekly basis.
- 4.) As used in these specifications:
  - a. Omitted
  - b. "Manager" means General Manager, Business and Job Opportunity, Office of Regional and Economic Development of the Authority;

- c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;
- d. "Minority" includes:
  - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
  - (ii) Hispanic persons of Puerto Rican, Mexican, Dominican, Cuban, Central or South American culture or origin, regardless of race;
  - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
  - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- 5.) Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the Work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 such provisions as are necessary for the Contractor to achieve the aggregate goals set forth above.
- 6.) Omitted.
- 7.) The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p hereof. The goals set forth above are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in the total workforce at the construction site under the Contract including employees of the Contractor and the subcontractors. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified. These goals may be achieved through utilization of journeyworkers and apprentices. In the event they are not achieved through the utilization of journeyworkers, the maximum number of apprentices provided for in the applicable collective bargaining agreement may be utilized to achieve said goals.
- 8.) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations hereunder.
- 9.) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

- 10.) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these provisions shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
- a. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
  - b. Develop maximum job opportunities for apprentices appropriate to the conditions of the Work and subject to the applicable collective bargaining agreement, in conjunction with training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7a above.
  - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Manager when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
  - e. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations hereunder with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth.
- k. Tests and other selection requirements shall comply with 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations hereunder are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

- 11.) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p hereof provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's non-compliance.
- 12.) Goals for minorities and for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation hereof if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation hereof if a specific minority group of women is under-utilized).
- 13.) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 14.) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 15.) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the clause entitled "Equal Employment Opportunity", including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered by the Authority. Any Contractor who fails to carry out such sanctions and penalties shall be in violation hereof.
- 16.) The Contractor, in fulfilling its obligations hereunder shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 hereof so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of these provisions, the Authority shall proceed accordingly.

- 17.) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports, including the Monthly Employment Utilization Report, relating to the provisions hereof as may be required and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g. mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- 18.) Nothing herein provided shall be construed as a limitation upon the application of any laws which establish standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**53. AFFIRMATIVE ACTION PROGRAMS**

The Contractor assures that it will undertake an affirmative action program as required by 14 CFR Part 152, Subpart E, to insure that no person shall on the grounds of race, creed, color, national origin, or sex be excluded from participating in any employment activities covered in 14 CFR Part 152, Subpart E. The Contractor assures that no person shall be excluded on these grounds from participating in or receiving the services or benefits of any program or activity covered by this subpart. The Contractor assures that it will require that its covered suborganizations provide assurances to the Contractor that they similarly will undertake affirmative action programs and that they will require assurances from their suborganizations, as required by 14 CFR Part 152, Subpart E, to the same effect.

**54. PREVAILING RATE OF WAGE**

The Contractor shall pay or provide (and shall cause all subcontractors to pay or provide) to his or their workmen, laborers and mechanics (who are employed by him or them to work on an hourly or daily basis at any trade or occupation at or about the construction site) at least the prevailing rate of wage and supplements for others engaged in the same trade or occupation in the locality in which the Work is being performed as determined by the PA Project Manager.

For purposes of this Contract, the PA Project Manager has determined that the prevailing rates of wage and supplements are those established by the Secretary of Labor of the United States pursuant to the Davis-Bacon Act (40 U.S.C.A. 276a) for the locality in which the Work is to be performed. The schedule of wages and supplemental benefits which are currently in effect is attached hereto. However, the applicable rates shall be those which are in effect on the date of opening of Proposals.

The provisions of this numbered clause are inserted in this Contract for the benefit of such workmen, laborers and mechanics as well as for the benefit of the Authority; and if the Contractor or any subcontractor shall pay or provide any such workman, laborer or mechanic less than the rates of wages and supplements above described, such workman, laborer or mechanic shall have a direct right of action against the Contractor or such subcontractor for the difference between the wages and supplements actually paid or provided and those to which he is entitled under this clause. If such workman, laborer or mechanic is employed by any subcontractor whose subcontract does not contain a provision substantially similar to the provisions of this clause (requiring the payment or provision of at least the above minimum, and providing for a cause of action in the event of the subcontractor's failure to pay or provide such wages and supplements) such workman, laborer or mechanic shall have a direct right of action against the Contractor. The Authority shall not be a necessary party to any action brought by any workman, laborer or mechanic to obtain a money judgment against the Contractor or any subcontractor pursuant to this numbered clause.

Nothing herein contained shall be construed to prevent the Contractor or any subcontractor from paying higher rates of wages or providing higher supplements than the minimum hereinbefore prescribed; and nothing herein contained shall be construed to constitute a representation or guarantee that the Contractor or any subcontractor can obtain workmen, laborers and mechanics for the minimum herein before prescribed.

In an area of his office at the Site of the Work which is accessible to his employees, the Contractor shall display such printed material as may be provided by the PA Project Manager setting forth information for the employees of the Contractor and his subcontractors concerning the wage and supplemental benefit requirements set forth in this numbered clause. The Contractor shall also cause each of his subcontractors to display such material in a similarly accessible place in any office which the subcontractor maintains at the Site of the Work.

The PA Project Manager may at any time request that the Contractor certify in writing that he has paid or provided (and has caused all subcontractors to pay or provide) at least the prevailing rates of wage and supplements required by this numbered clause and the Contractor shall comply with any such request within ten (10) calendar days of his receipt thereof. The Contractor shall include in his certification such detail as the PA Project Manager may require with respect to hourly wages and supplements actually paid or provided by the Contractor or any subcontractor to each of his or their laborers, workmen and mechanics employed as described in this numbered clause, records of which shall be prepared by the Contractor and maintained as required by the clause of the Form of Contract entitled "Access to Records" (and the Contractor shall cause such records to be prepared and maintained in the same manner by subcontractors). The Contractor's certification shall be executed by a corporate officer, if the Contractor is a corporation; a partner, if the Contractor is a partnership; or the owner if the Contractor is a sole proprietorship.

The Contractor's failure to comply with any provision of this numbered clause shall be deemed a substantial breach of this Contract.

**55. EXTRA WORK ORDERS**

No Extra Work of a cost in excess of \$25,000 shall be performed except pursuant to written orders of the Chief Engineer expressly and unmistakably indicating his intention to treat the Work described therein as Extra Work; and, no Extra Work of a cost of \$25,000 or less shall be performed except pursuant to written orders of the Chief Engineer, Assistant Chief Engineer - Construction or the Engineer of Construction expressly and unmistakably indicating his intention to treat the Work described therein as Extra Work; and, exclusive of Extra Work expressly authorized by or pursuant to a resolution of the Commissioners of the Authority or its Committee on Construction, the Chief Engineer and, subject to the foregoing limitation, the Assistant Chief Engineer - Construction and the Engineer of Construction, shall have authority to order any item of Extra Work, if the cost thereof to the Authority together with the cost of all other Extra Work previously ordered and not expressly authorized as aforesaid will not in the aggregate be in excess of the sum specified in the letter of acceptance of the Contractor's Proposal as the limit on such authority to order Extra Work; provided, however, that Extra Work in excess of such aggregate amount may be ordered as above provided to the extent expressly authorized in a writing signed by the Executive Director of the Authority delegating authority vested in him pursuant to the By-Laws or a resolution of the Commissioners of the Authority or its Committee on Construction and in the case of Extra Work ordered by the Assistant Chief Engineer - Construction or Engineer of Construction to the extent expressly authorized in a writing signed by the Chief Engineer delegating authority vested in the Executive Director as aforesaid, which in turn was vested in him by the Executive Director.

In the absence of such an order signed by the Chief Engineer in the case of Extra Work of a cost in excess of \$25,000 and by the Chief Engineer or Assistant Chief Engineer - Construction or Engineer of Construction in the case of Extra Work of a cost of \$25,000 or less, if the PA Project Manager shall direct, order or require any Work, whether orally or in writing, which the Contractor deems to be Extra Work, the Contractor shall nevertheless comply therewith, but shall within twenty-four hours give written notice thereof to the Chief Engineer and the PA Project Manager, stating why he deems it to be Extra Work, and shall moreover furnish to the PA Project Manager time slips and memoranda as required by the clause hereof entitled "Compensation for Extra Work". Said notice, time slips and memoranda are for the purpose of affording to the Chief PA Project Manager an opportunity to verify the Contractor's claim at the time and (if he desires so to do) to cancel promptly such order, direction or requirement of the PA Project Manager, of affording to the PA Project Manager an opportunity of keeping an accurate record of the materials, labor and other items involved, and generally of affording to the Authority an opportunity to take such action as it may deem desirable in light of the Contractor's claims. Accordingly, the failure of the Contractor to serve such notice or to furnish such time slips and memoranda shall be deemed to be a conclusive and binding determination on his part that the direction, order or requirement of the PA Project Manager does not involve the performance of Extra Work, and shall be deemed to be a waiver by the Contractor of all claims for additional compensation or damages by reason thereof, such written notice, time slips and memoranda being a condition precedent to such claims.

**56. PERFORMANCE OF EXTRA WORK**

The provisions of this Form of Contract relating generally to Work and its performance shall apply without exception to any Extra Work required and to the performance thereof. Moreover, the provisions of the Specifications relating generally to the Work and its performance shall also apply to any Extra Work required and to the performance thereof, except to the extent that a written order in connection with any particular item of Extra Work may expressly provide otherwise.

**57. TITLE TO MATERIALS**

All materials to become part of the permanent construction shall be and become the property of the Authority upon delivery at the construction site or upon being especially adapted for use in or as a part of the permanent construction, whichever may first occur, subject however to the Contractor's assumption of risk under the clause hereof entitled "Risks Assumed by the Contractor", subparagraph A.

The Contractor shall promptly furnish to the Authority such bills of sale and other instruments as may be required by it, properly executed, acknowledged and delivered, assuring to it title to such materials, free of encumbrances and shall mark or otherwise identify all such materials as the property of the Authority.

**58. ASSIGNMENTS AND SUBCONTRACTS**

Any assignment or other transfer by the Contractor of this Contract or any part hereof or of any of his rights hereunder or of any monies due or to become due hereunder and any delegation of any of his duties hereunder without the express consent in writing of the Authority shall be void and of no effect as to the Authority, provided, however, that the Contractor may subcontract portions of the Work to such persons as the PA Project Manager may, from time to time, expressly approve in writing. For each individual, partnership or corporation proposed by the Contractor as a subcontractor, the Contractor shall submit to the Authority a certification or, if a certification cannot be made, a statement by such person, partnership or corporation to the same effect as the certification or statement required from the Contractor pursuant to the clauses of the "Information For Proposers" entitled "Certification of No Investigation (Criminal or Civil Anti-Trust), Indictment, Conviction, Suspension, Debarment, Disqualification, Prequalification Denial or Termination, Etc; Disclosure of Other Required Information" and "Non-Collusive Proposing and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent Fee or Other Fee". All further subcontracting by any subcontractor shall also be subject to such approval of the PA Project Manager. Approval of a subcontractor may be conditioned on (among other things) the furnishing, without expense to the Authority, of a surety bond guaranteeing payment by the subcontractor of claims of materialmen, subcontractors, workmen and other third persons arising out of the subcontractor's performance of any part of the Work.

No consent to any assignment or other transfer, and no approval of any subcontractor, shall under any circumstances operate to relieve the Contractor of any of his obligations; no subcontract, no approval of any subcontractor and no act or omission of the Authority or the PA Project Manager shall create any rights in favor of such subcontractor and against the Authority; and as between the Authority and the Contractor, all assignees, subcontractors, and other transferees shall for all purposes be deemed to be agents of the Contractor. Moreover, all subcontracts and all approvals of subcontractors shall be and, regardless of their form, shall be deemed to be conditioned upon performance by the subcontractor in accordance with this Contract; and if any subcontractor shall fail to perform the Contract to the satisfaction of the PA Project Manager, the PA Project Manager shall have the absolute right to rescind his approval forthwith and to require the performance of the Contract by the Contractor personally or through other approved subcontractors.

**59. CLAIMS OF THIRD PERSONS**

The Contractor undertakes to pay all finally adjudicated claims lawfully made against him by subcontractors, materialmen, workmen and other third parties arising out of or in connection with or because of the performance of this Contract and to cause all subcontractors to pay such claims.

**60. CERTIFICATES OF PARTIAL COMPLETION**

If at any time prior to the rendition of the Certificate of Final Completion, any portion of the permanent construction has been satisfactorily completed, and if in the judgment of the PA Project Manager such portion of the permanent construction is not necessary for the operations of the Contractor but will be immediately useful to and is needed by the Authority for other purposes, the PA Project Manager may render to the Authority and to the Contractor a certificate in writing to that effect (herein called a Certificate of Partial Completion), and thereupon or at any time thereafter the Authority may take over and use the portion of the permanent construction described in such Certificate and exclude the Contractor therefrom.

The rendition of a Certificate of Partial Completion shall not be construed to constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates in the event that he has failed to complete the same in accordance with the terms of this Contract. Moreover, the acceptance of a Certificate of Partial Completion by the Authority shall not operate to release the Contractor or his sureties from any obligations under or upon this Contract or the Performance and Payment Bond.

**61. CERTIFICATE OF FINAL COMPLETION**

After the satisfactory completion of all Work whatsoever required and the making of such tests and inspections as may be necessary or desirable, the PA Project Manager shall render to the Authority and to the Contractor a certificate in writing (herein called the Certificate of Final Completion) certifying that in his opinion all Work under this Contract, including Extra Work, has been completed in accordance with the Contract Drawings and Specifications and the requirements of the PA Project Manager, and certifying the date as of which it was so completed.

The rendition of the Certificate of Final Completion shall not be construed to constitute an extension of the Contractor's time for performance in the event that he has failed to complete the Work in accordance with the terms of this Contract. Moreover, the acceptance of the Certificate of Final Completion by the Authority shall not operate to release the Contractor or his sureties from any obligations under or upon this Contract or the Performance and Payment Bond.

As a condition precedent to rendition of the Certificate of Final Completion, the Contractor shall submit the "Summary of Asbestos Removal and Disposal Costs" in accordance with the Section of Division 1 - GENERAL PROVISIONS entitled "Asbestos Cost Summary Submittal".

**62. NO GIFTS, GRATUITIES, OFFERS OF EMPLOYMENT, ETC.**

During the term of this Contract, the Contractor shall not offer, give or agree to give anything of value either to an Authority employee, agent, job shopper, consultant, construction manager or other person or firm representing the 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 Authority of duties involving transactions with the Contractor on behalf of the Authority, whether or not such duties are related to this Contract or any other 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 Authority contract), etc., which might tend to obligate the 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 Authority contract.

Where used in this clause, the term "Authority" shall be deemed to include all subsidiaries of the Authority. Currently, those subsidiaries are the Port Authority Trans-Hudson Corporation (PATH), the Newark Legal and Communications Center and the New York and New Jersey Railroad Corporation.

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 as of April 11, 1996 (a copy of which is available upon request to the Office of the Secretary of the Authority).

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

**CHAPTER V**

**WARRANTIES MADE AND LIABILITY ASSUMED BY THE CONTRACTOR**

**63. CONTRACTOR'S WARRANTIES**

The Contractor represents and warrants:

- A. That he is financially solvent, that he is experienced in and competent to perform the type of services contemplated by this Contract, that the facts stated or shown in any papers submitted or referred to in connection with his Proposal are true, and, if the Contractor be a corporation, that it is authorized to perform this Contract;
  
- B. That he has carefully examined and analyzed the provisions and requirements of this Contract and inspected the construction site, that from his own investigations he has satisfied himself 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 him for such examination, analysis, inspection and investigations was adequate, provided that this warranty is based on the following assumptions:
  - 1.) The power and communications infrastructure defined by the drawing package provide by PANYNJ forms the basis of our infrastructure design set forth in our offer for PIDS. The information provided by PANYNJ was supplemented with on-site knowledge of the members of the Contractor team. The connection points to the existing power and communications infrastructure nodes has been identified in the facility drawings included as a part of our offer for PIDS. The location of each of the sensors is also included in the aforementioned drawing package.
  - 2.) Raytheon has assumed the use of Ex. 4 as shown in Figure 1 of Book 2, Attachment C of the RFP.
  - 3.) Raytheon has included an allowance for each airport to build-out the power, communications and life and safety systems for the primary and secondary CDS and CDW locations.
  - 4.) Raytheon has assumed the use of Ex. 4 to support the secondary CDS. We have bid the setup, acquisition, and integration of subsystems in our proposal, but not the cost of the on-going communications.
  - 5.) Raytheon has assumed the use of and integration of legacy display cubes at JFK and Newark as part of our Audiovisual Subsystem option.
  - 6.) Any additional assumptions regarding the JFK airport fiber layout are set forth in the amended drawing, Figure 1;

- C. That the Contract is feasible of performance in accordance with all its provisions and requirements and that he can and will perform it in strict accordance with such provisions and requirements;
- D. That no Commissioner, officer, agent or employee of the Authority is personally interested directly or indirectly in this Contract or the compensation to be paid hereunder; and
- 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 Authority, its Commissioners, officers, agents, employees or consultants has induced the Contractor to enter into this Contract or has been relied upon by the Contractor, including any with reference to: (1) the meaning, correctness, suitability, or completeness of any provisions or requirements of this Contract; (2) the nature, existence or location of materials, structures, obstructions, utilities or conditions, surface or subsurface, which may be encountered at the construction site; (3) the nature, quantity, quality or size of the materials, equipment, labor and other facilities needed for the performance of this Contract; (4) the general or local conditions which may in any way affect this Contract or its performance; (5) the price of the Contract; or (6) any other matters, whether similar to or different from those referred to in (1) through (5) immediately above, affecting or having any connection with this Contract, the proposing thereon, any discussions thereof, the performance thereof or those employed therein or connected or concerned therewith.

Moreover, the Contractor accepts the conditions at the construction site as they may eventually be found to exist and warrants and represents that he 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 his own cost and expense, anything in this Contract to the contrary notwithstanding; provided that this acceptance is based upon the foregoing assumptions in B above.

Nothing in the Contract Drawings or Specifications or any other part of the Contract is intended as or shall constitute a representation by the Authority as to the feasibility of performance of this Contract or any part thereof. Moreover, the Authority does not warrant or represent either by issuance of the Contract Drawings and Specifications or by any provision of this Contract as to time for performance or completion or otherwise that the Contract may be performed or completed by the times required herein or by any other times.

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

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

**64. RISKS ASSUMED BY THE CONTRACTOR**

The Contractor assumes the following distinct and several risks, whether they arise from acts or omissions (whether negligent or not) of the Contractor, of the Authority, or of third persons, or from any other cause, and whether such risks are within or beyond the control of the Contractor, excepting only risks which arise solely from affirmative acts done by the Authority subsequent to the opening of Proposals on this Contract with actual and willful intent to cause the loss, damage and injuries described in subparagraphs A through C below:

- A. The risk of loss or damage to the permanent construction prior to the rendition of the Certificate of Final Completion (other than loss or damage to the portions of the permanent construction with respect to which Certificates of Partial Completion have been issued), and the Contractor shall forthwith repair, replace and make good any such loss or damage to the permanent construction without cost to the Authority;
- B. The risk of claims, fines or penalties, just or unjust, made by third persons or assessed by courts or governmental agencies or entities against the Contractor or the Authority on account of injuries (including wrongful death), loss, damage or liability of any kind whatsoever arising or alleged to arise out of or in connection with the performance of the Work (whether or not actually caused by or resulting from the performance of the Work) or out of or in connection with the Contractor's operations or presence at or in the vicinity of the construction site or Authority premises, including claims against the Contractor or the Authority for the payment of workers' compensation, whether such claims, fines or penalties are made or assessed and whether such injuries, damage, loss and liability are sustained at any time both before and after the rendition of the Certificate of Final Completion;
- C. The risk of loss or damage to any property of the Contractor, and of claims made against the Contractor or the Authority for loss or damage to any property of subcontractors, materialmen, workmen and others performing the Work, occurring at any time prior to completion of removal of such property from the construction site or Authority premises or the vicinity thereof.

The Contractor shall indemnify the Authority against all claims described in subparagraphs B and C above and for all expense incurred by it in the defense, settlement or satisfaction thereof, including expenses of attorneys, except where indemnity would be precluded by New York State General Obligations Law, Section 5-322.1 or by other applicable law. If so directed, the Contractor shall defend against any claim described in subparagraphs B and C above, in which event he shall not without obtaining express advance permission from the General Counsel of the Authority raise any defense involving in any way jurisdiction of the tribunal, immunity of the Authority, governmental nature of the Authority or the provisions of any statutes respecting suits against the Authority. Unless a claim is one which the Contractor is not required to indemnify the Authority against as described in the first sentence of this paragraph, such defense shall be at the Contractor's cost.

The provisions of this numbered clause shall also be for the benefit of the Commissioners, officers, agents and employees of the Authority, so that they shall have all the rights which they would have under this numbered clause if they were named at each place above at which the Authority is named, including a direct right of action against the Contractor to enforce the foregoing indemnity, except, however, that the Authority by action of its Board of Commissioners may at any time in its sole discretion and without liability on its part cancel the benefit conferred on any of them by this numbered clause, whether or not the occasion for invoking such benefit has already arisen at the time of such cancellation.

Neither the issuance of a Certificate of Completion nor the making of Final Payment shall release the Contractor from his obligations under this numbered clause. Moreover, neither the enumeration in this numbered clause nor the enumeration elsewhere in this Contract of particular risks assumed by the Contractor or of particular claims for which he is responsible shall be deemed (a) to limit the effect of the provisions of this numbered clause or of any other clause of this Contract relating to such risks or claims, (b) to imply that he assumes or is responsible for risks or claims only of the type enumerated in this numbered clause or in any other clause of this Contract, or (c) to limit the risks which he would assume or the claims for which he would be responsible in the absence of such enumerations.

The provisions of this numbered clause shall not be impaired by any rights the Contractor might otherwise have to limitation or apportionment of damages under the law of admiralty or to limitation of liability under 33 U.S.C.A. Chapter 9 (Protection of Navigable Waters and of Harbor and River Improvements), 46 U.S.C.A. Chapter 8 (Limitation of Vessel Owner's Liability), and any other similar statutes, and as between the Contractor and the Authority, the Contractor hereby waives any such rights. Moreover, the Contractor also waives any rights to limitation of liability under such law or statutes in connection with damage which may occur to property of the Authority arising out of or in connection with performance of the Contract whether the right to recover for such damage arises under this Contract or otherwise.

The parties agree that this contract may give rise to significant liabilities for third party injuries or death and economic losses arising out of an act of terrorism, other criminal acts, and other circumstances that may derive from or relate to contract performance. The parties further recognize that such liabilities may not be fully covered by the Contractor's (or its subcontractors') or the Port Authority's insurance provided in this contract at this time. The parties recognize that the SAFETY Act provides significant tort protection to the Contractor as the seller of PIDS, and to the Port Authority, as the customer of the PIDS, should lawsuits arise against either or both parties after an act of Terrorism covered under the SAFETY Act. As such, this clause mitigates those risks. Consistent with risk mitigation, the following efforts are undertaken:

- A. The parties agree to cooperate with each other in the event that litigation results from any activity surrounding this contract to include providing access to pertinent documents and witnesses and supporting the Contractor's assertion of key defenses including the Government Contractor Defense.
- B. The Contractor agrees to diligently pursue and the Port Authority agrees to support, via communications with DHS, application(s) for SAFETY Act coverage for PIDS, including using best efforts to assist the Contractor and DHS in obtaining SAFETY Act coverage prior to the signing of the contract. As such, the Port Authority agrees to:
  - 1.) Not require the Contractor to carry any more terrorism insurance coverage under the PIDS program than that required by the DHS SAFETY Act Office should SAFETY Act coverage be award to the Contractor.

## **65. 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".

**66. INSURANCE PROCURED BY CONTRACTOR**

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

Commercial General Liability Insurance - \$ 10 million combined single limit per occurrence for bodily injury and property damage liability.

Automobile Liability Insurance - \$ 10 million combined single limit per accident for bodily injury and property damage liability.

If watercraft is to be used, the Contractor shall take out, maintain and pay the premiums on a policy of Marine Protection and Indemnity Insurance (that will "pay on behalf of" basis) and Chartered Legal Liability, where applicable, or similar watercraft coverage, relating to the operation, maintenance or use of any vessel (whether self-propelled or being towed) in connection with work to be performed under this Contract, in a limit of liability of not less than \$5 million for any one occurrence.

In addition, the liability policy (ies) shall name The Port Authority of NY and NJ as additional insured, including but not limited to premise-operations, products-completed operations on the Commercial General Liability Policy. Moreover, the Commercial General Liability Policy shall not contain any provisions for exclusions from liability other than provisions for exclusion from liability forming part of the most up to date ISO form or its equivalent unendorsed Commercial General Liability Policy. The liability policy (ies) and certificate of insurance shall contain cross-liability language providing severability of interests so that coverage will respond as if separate policies were in force for each insured. Furthermore, the Contractor's insurance shall be primary insurance as respects to the above additional insured (s), its representatives, officials, and employees. Any insurance or self insurance maintained by the above additional insured (s) shall not contribute to any loss or claim. These insurance requirements shall be in effect for the duration of the contract to include any warrantee/guarantee period.

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

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

The Contractor shall also take out, maintain, and pay premiums on Workers' Compensation Insurance in accordance with the requirements of law in the state(s) where work will take place, and Employer's Liability Insurance with limits of not less than \$1 million each accident. And if watercraft is to be used, Coverage B Endorsement for Maritime (Masters or Members of the Crew of Vessels) in limits of not less than \$1 million per occurrence.

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

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

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

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

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

The requirements for insurance procured by the Contractor shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Contractor under this contract. The insurance requirements are not a representation by the Authority as to the

adequacy of the insurance to protect the Contractor against the obligations imposed on them by law or by this or any other Contract.

Notwithstanding anything to the contrary in this clause, the Contractor shall cause the Authority to be named as additional insured under the insurance policies listed above, for those matters for which the Contractor may be liable either under this Agreement or at common law and arising out of this Agreement.

**CHAPTER VI**

**RIGHTS AND REMEDIES**

**67. RIGHTS AND REMEDIES OF AUTHORITY**

The Authority shall have the following rights in the event the Chief Engineer shall with reasonable cause deem the Contractor 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 other contractors.
- 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 other appropriate equitable remedy.
- D. The right to money damages.

For the purpose of this Contract, breach shall include but not be limited to the Contractor's failure to procure insurance satisfactory to the Authority within the time limit specified in the Clause hereof entitled "Insurance Procured By The Contractor" and the following, whether or not the time has yet arrived for performance of an obligation under this Contract: a statement by the Contractor to any representative of the Authority indicating that he cannot or will not perform any one or more of his obligations under this Contract; any act or omission of the Contractor or any other occurrence which makes it improbable at the time that he will be able to perform any one or more of his obligations under this 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 he will be able to perform any one or more of his obligations under this Contract; any false certification at any time by the Contractor as to any material item certified pursuant to the clauses of the Information For Proposers entitled "Certification of No Investigation (Criminal or Civil Anti-Trust), Indictment, Conviction, Suspension, Debarment, Disqualification, Prequalification Denial or Termination, Etc; Disclosure of Other Required Information" and "Non-Collusive Proposing and Code of Ethics Certification; Certification of No Solicitation Based on Commission, Percentage, Brokerage, Contingent Fee or Other Fee", or the willful or fraudulent submission of any signed statement pursuant to such clauses which is false in any material respect; or the Contractor's incomplete or inaccurate representation of its status with respect to the circumstances provided for in such clauses.

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

**68. RIGHTS AND REMEDIES OF CONTRACTOR**

Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract which may be committed by the Authority, the Contractor expressly agrees that no default, act or omission of the Authority shall constitute a material breach of this Contract, entitling him to cancel or rescind it or (unless the PA Project Manager shall so direct) to suspend or abandon performance.

**69. PERFORMANCE OF WORK AS AGENT FOR CONTRACTOR**

In the exercise of its right to take over and complete Work as agent for the Contractor, for which provision is made in the clause hereof entitled "Rights and Remedies of Authority", the Authority shall have the right to take possession of and use or permit the use of any and all plant, materials, equipment and other facilities provided by the Contractor for the purpose of the Work and the Contractor shall not remove any of the same from the site of the Work without express permission. Unless expressly directed to discontinue the performance of all Work, the Contractor shall continue to perform the remainder thereof in such manner as in no way will hinder or interfere with the portions taken over by the Authority.

In the certificate of total compensation earned, for which provision is made in the clause hereof entitled "Final Payment", the PA Project Manager will separately state the amount of Work performed by the Authority as agent for the Contractor, credit to the Authority the cost thereof, and credit to the Contractor the compensation earned thereby; and the difference between them shall be payable by the Contractor to the Authority, or vice versa as the case may be. If such difference is in its favor, the Authority may deduct it from any moneys due the Contractor, and if such moneys be insufficient, the balance thereof shall be payable to it on demand; if in the Contractor's favor, it shall constitute part of the Final Payment.

The exercise by the Authority of its right to take over the Work shall not release the Contractor or his sureties from any of his or their obligations or liabilities under this Contract or the Performance and Payment Bond.

**70. NO ESTOPPEL OR WAIVER**

The Authority shall not be precluded or estopped by any acceptance, certificate or payment, final or otherwise, issued or made under this Contract or otherwise issued or made by it, the PA Project Manager, or any officer, agent or employee of the Authority, from showing at any time the true amount and character of Work performed, or from showing that any such acceptance, certificate or payment is incorrect or was improperly issued or made; and the Authority shall not be precluded or estopped, notwithstanding any such acceptance, certificate or payment, from recovering from the Contractor any damages which it may sustain by reason of any failure on his part to comply strictly with this Contract, and any moneys which may be paid to him or for his account in excess of those to which he is lawfully entitled.

Neither the acceptance of the Work or any part thereof, nor any payment therefor, nor any order or certificate issued under this Contract or otherwise issued by the Authority, the PA Project Manager, or any officer, agent or employee of the Authority, nor any permission or direction to continue with the performance of Work, nor any performance by the Authority of any of the Contractor's duties or obligations, nor any aid lent to the Contractor by the Authority in his performance of such duties or obligations, nor any other thing done or omitted to be done by the Authority, its Commissioners, officers, agents or employees shall be deemed to be a waiver of any provision of this Contract or of any rights or remedies to which the Authority may be entitled because of any breach thereof, excepting only a resolution of its Commissioners, providing expressly for such waiver. No cancellation, rescission or annulment hereof, in whole or as to any part of the Work, because of any breach hereof, shall be deemed a waiver of any money damages to which the Authority may be entitled because of such breach. Moreover, no waiver by the Authority of any breach of this Contract shall be deemed to be a waiver of any other or any subsequent breach.

Notwithstanding the foregoing, if the Authority provides a duly authorized expressed waiver in writing, such waiver shall be effective and enforceable.

**CHAPTER VII**

**MISCELLANEOUS**

**71. SUBMISSION TO JURISDICTION**

The Contractor hereby irrevocably submits himself to the jurisdiction of the Courts of the State of New York and to the jurisdiction of the Courts of the State of New Jersey in regard to any controversy arising out of, connected with, or in any way concerning the Proposal or this Contract. The Contractor agrees that service of process on the Contractor in relation to such jurisdiction may be made, at the option of the Authority, either by registered or certified mail addressed to the applicable office as provided for in the clause hereof entitled "Service of Notices on the Contractor", by registered or certified mail addressed to any office actually maintained by the Contractor or by actual personal delivery to the Contractor if the Contractor be an individual, to any partner if the Contractor be a partnership or to an 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.

**72. 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.

**73. 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.

**74. NON-LIABILITY OF THE AUTHORITY REPRESENTATIVES**

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

**75. SERVICE OF NOTICES ON THE CONTRACTOR**

Whenever provision is made in this Contract for the giving of any notice to the Contractor, its deposit in any post office or post office box, enclosed in a postpaid wrapper addressed to the Contractor at his office, or its delivery to his office, shall be sufficient service thereof as of the date of such deposit or delivery, except to the extent, if any, otherwise provided in the clause entitled "Submission to Jurisdiction". Until further notice to the Authority the Contractor's office will be that stated in his Proposal. Notices may also be served personally upon the Contractor; or if a corporation, upon any officer, director, or managing or general agent; or if a partnership upon any partner.

**76. MODIFICATION OF CONTRACT**

No change in or modification, termination or discharge of this Contract, in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith or his duly authorized representative, provided, however, that any change in or modification, termination or discharge of this Contract expressly provided for in this Contract shall be effective as so provided.

The authority of any person to order Extra Work or to alter the Contract Drawings and Specifications does not include the power to cancel, modify or waive any provision of the Form of Contract, and no officer or other representative of the Authority shall have the power so to do unless and until hereafter so authorized by or pursuant to a resolution of the Commissioners of the Authority or by or pursuant to a resolution of their appropriate Committee.

**77. SOFTWARE & ESCROW AGREEMENT**

**SOFTWARE LICENSE AND AGREEMENT**

This Software License and Agreement is incorporated in and forms a part of the Contract in which it is bound and requires no separate execution. Exhibit A shall be completed by the Contractor within ten calendar days after Contract award and submitted to the Authority. It shall be updated by the Contractor and submitted to the Authority within ten calendar days after successful completion of Final Acceptance Testing. The Escrow Agreement described in the License and incorporated in the Contract shall be executed by the Contractor and submitted to the Authority at the same time as the Exhibit A revision is submitted or at the time the Authority makes beneficial use of any of the programs to be furnished by the Contractor, whichever event occurs first. The Contractor shall bear all Escrow Account costs until issuance of the Certificate of Final Completion.

The Authority hereby accepts and Contractor hereby provides to the Authority, a non-exclusive and non-transferable perpetual license to the below identified software products and documentation delivered pursuant to Contract MFA-134.308 between the Authority and Contractor for the supply and implementation of a Perimeter Intrusion Detection System (PIDS or the "System"). The License Terms and Conditions contained herein are part of this Software License. This license pertains to the material identified by the Contractor in Exhibit A bound herein.

**A. Definitions.**

The following definitions apply to terms used within this Software License and Agreement:

- a) **"Contract"** shall mean the Contract MFA-134.308 between Contractor and the Authority by which Contractor agrees to design, furnish, install, and test and the Authority agrees to purchase the System.
- b) **"Licensed Program(s)"** shall mean the identified computer programs furnished to the Authority by Contractor pursuant to the terms and conditions of this Contract. (Provide list in Exhibit A bound herein).

- c) **“Licensed Material(s)”** shall mean the supportive documentation and materials required to be furnished under this Contract with respect to the Licensed Programs. (Provide list in Exhibit A bound herein).
- d) **“License Agreement”** shall mean this License Agreement between Contractor and the Authority granting the Authority the right to use the Licensed Programs and Licensed Materials as listed in Exhibit A bound herein.
- e) **“Purchased Hardware Products”** shall mean all computer hardware delivered pursuant to the Contract or other future Authority contracts being intended for use in connection with any Licensed Programs. (Provide list in Exhibit A bound herein).
- f) **“Designated Site”** shall mean the physical location or locations at or in the vicinity of the facility of one or more workstation(s), remote devices or the Central Host, which form a part of the Purchased Hardware Products, and which for the purpose of this Agreement means the PIDS operation at the above listed Authority facility, including all present and any future sites at all buildings at the above listed facility. Said term shall also include the location of the backup site for PIDS operation designated in accordance with the terms of this Contract.
- g) **“Updates”** shall mean any periodic releases of a Licensed Program encompassing any improvements, updates and other changes which are logical improvements of said Licensed Program. Updates shall include releases which are generally made available at no additional cost to Contractor’s licensees who have a current maintenance agreement with Contractor in effect. Once delivered to the Authority, Updates shall become part of the Licensed Programs and documentation concerning Updates shall become part of the Licensed Materials.
- h) **“Use”** shall mean the copying of any portion of the source or object code of a Licensed Program into the Central Host or workstation(s) for processing of the instructions or statements contained in such Licensed Program. Use as stated hereinafter shall also mean the use of any Licensed Materials. Use of the source code shall be permitted only following release from escrow unless software is proprietary to the Licensee.
- i) **“Proprietary Software”** shall mean any software shell, firmware and programs that are Contractor owned. Custom programs, data files or routines, which operate within but are not part of Proprietary Software, are defined separately under subparagraph 14, “Custom Software”.
- j) **“Third Party Software”** shall mean computer programs, including all operating systems, compilers, database management systems, development tools, utilities and other programs owned by persons or entities other than Contractor and which form any part of programs licensed hereunder or are required for proper processing. Contractor warrants that it has or will have the full right and authority to license to the Authority any Third Party software which forms a part of the Licensed Programs, and that the license terms between the Authority and any said third party owners permit or will permit Contractor to grant to the Authority the right of use given herein. Any right of Use granted to Contractor by any third party and consistent with, but not in excess of, any rights granted herein shall inure to the

benefit of the Authority as a third party beneficiary. Contractor agrees to include this language in its third party contracts and shall provide proof of same upon request.

- k) **“Third Party Software Vendors”** shall mean owners, other than Contractor, of any of the Licensed Programs or Licensed Materials which have ownership, trade secret, copyright, patent or other rights in any of the Licensed Programs or Licensed Materials.
- l) **“Source Code Programs”** shall mean the Licensed Programs as written by programmers or otherwise created so that they are intelligible to humans and which can also be compiled, assembled, interpreted or otherwise converted by standard utilities directly into executable form for processing on a computer system.
- m) **“Confidential Materials”** shall mean those parts of the Licensed Materials that are claimed by the Contractor or any of its Third Party Software Vendors to constitute or contain trade secret, confidential or other proprietary data that is or might be of competitive advantage in the marketplace.
- n) **“Custom Software”** shall mean any new programs written by the Contractor or any Third Party Software vendors which operate within the software environment of the Proprietary Software, or Third Party Software, including all software, firmware or programs developed during the term of this Agreement or the companion Maintenance Agreement (Contract MFA 134.308) which result in direct enhancements to the Contractor owned products based upon the Authority’s specification and utilizing the Authority’s design and/or proprietary information such as attributes, objects, algorithms or programs, and configurations that are specific to the Authority’s PIDS System.

**B. Applicability.**

The software license herein applies to all software and software documentation (including firmware) which has been, is being or will be developed and furnished to the Authority pursuant to the terms of this Contract for use in and on equipment furnished and installed for the benefit of the Authority’s PIDS System, including any and all present and any future Designated Sites. The Contractor shall provide Third-party Software Licenses for the number of workstations as set forth in the Functional and Performance Requirements, provided however, if the license procured permits Use of the third-party software on a greater number of workstations, the Authority shall have the right to use the third-party software on no more than such greater number.

**C. Term.**

The term of the within license shall commence upon the effective date of the Contract and shall be perpetual, unless terminated as provided below:

**1. Failure to Perform.**

If the Authority defaults in the performance of any of its material obligations under this Software License Agreement and such default is not corrected within sixty (60)

days after written notification of such default from Contractor, the within license may be terminated by Contractor upon ten (10) days additional written notice of termination to the Authority. To be effective, the initial sixty (60)- day notice must:

- a) Have attached thereto a copy of this Software License Agreement;
- b) Specify the particular section or sections hereof which are believed to have been breached and the specific nature of each claimed breach, and
- c) Specify the corrective action which will be acceptable to effect a cure of the claimed violation or violations.

In the event the claimed default or defaults cannot be cured within sixty (60) days, then it shall be sufficient if the Authority commences action within said sixty (60)-day period which is reasonably designed to effect a cure and thereafter diligently pursues said cure until it is accomplished.

**2. Termination by The Authority.**

The Authority may terminate this Software License Agreement, at its option, with a thirty (30)-day advance written notice served to the Contractor.

**D. System Use.**

**1. Custom Software.**

All Custom Software including source code and associated supportive materials provided by the Contractor and any third party subcontractor for the Work under this Contract shall become the property of the Authority. The Authority shall have possession and unlimited use of the source programs which includes the right to copy, modify, compile and otherwise utilize the software.

**2. Proprietary and Third Party Software.**

Contractor hereby grants the Authority a personal, non-transferable, non-exclusive and royalty free license to use the object code (machine readable) and executable form of all Licensed Programs on the Purchased Hardware Products or other compatible hardware as may be required to enable utilization of the Licensed Programs for their intended purpose, provided that the total number of Uses is not exceeded. Licensed Programs shall include all Proprietary Software and Third Party Software that are required for the proper and complete functioning of the PIDS System and all of its components as stipulated in the Basic Design Criteria section of the Contract and in the detailed software and system designs submitted by the Contractor and approved by the Authority. Use is limited to the Authority's internal business purposes only. Contractor further grants to the Authority a perpetual, non- exclusive, irrevocable license for the Authority to use all Licensed Materials in connection with the use and operation of the Licensed Programs. The

foregoing licenses shall exist in perpetuity, subject to the rights of termination set forth elsewhere herein. All charges and fees for use of the Licensed Programs and Licensed Materials are included in the price under the Contract, and there shall be no further fees or royalties of any description for such use.

It is expressly understood that normal software maintenance, including the right to receive updates without additional charge, after issuance of the Certificate of Final Completion under Contract MFA-134.308 and after completion of the contract warranty period, is not included; however, software maintenance and updates after issuance of such Certificate of Final Completion shall be included under the separate Maintenance Agreement, Contract MFA-134.308M.

### **3. Licensed Materials**

The Licensed Material to be delivered by the Contractor and utilized by the Authority under the term of the Contract shall include but not be limited to complete installation, maintenance, operation, and trouble-shooting documentation for the Licensed Programs.

#### **E. Contractor's responsibility**

The Contractor shall provide to the Authority as part of this Contract all necessary software to enable the PIDS System to operate as specified in the Preliminary System Design and in the Final Systems Design documents submitted by the Contractor and approved by the Authority. This includes all operating system, utility, applications, and other software which are not developed by the Contractor but which are necessary for the full and proper functioning of the System. The Contractor is also responsible for the performance and support of all software acquired and/or licensed under this Agreement until issuance of the Certificate of Final Completion for Contract MFA-134.308, and is solely responsible to the Authority that such software complies with its published specifications and meets all of this specific requirements of this Contract.

For all software not developed by the Contractor (Third Party Software), the Contractor shall provide to the Authority: fully paid-up, executed, proper and legal licenses for said software issued to the Authority for the term of this Contract and for the warranty period for all Authority use on the PIDS System, full rights and access to all upgrades, enhancements, revisions, and changes by the developer/owner for the term of the license agreements, full documentation for the software which includes complete installation, maintenance, operation, and trouble-shooting documentation for the software. Contractor shall supply documentation provided with Third Party Software.

#### **Third Party Software.**

Source Code Programs and Confidential Materials - Contractor shall ensure that the Authority is provided with the latest release/revision of the software with all appropriate and current documentation and customer support agreements included in the paid-up license stipulated above.

#### **Custom Software**

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Custom Software shall be furnished in a high level language, and the Contractor shall demonstrate the ability of the software to compile and execute on the Purchased Hardware Products. Source code for Custom Software shall be fully commented. The Authority shall retain all rights and ownership of the Custom Software for all legitimate business purposes of the Authority.

Source Code Programs and Confidential Materials.

A. Delivery of Source Code Programs and Confidential Materials.

The Source Code Programs for all Proprietary Software and Custom Software and all Confidential Materials shall be delivered to an escrow agent by Contractor pursuant to the terms of a separate Software Escrow Agreement between the Contractor and the Authority within ten (10) days following issuance of the Certificate of Final Completion for Work under this Contract.

B. Confidential Relationship.

With respect to all Source Code Programs and Confidential Materials delivered to the Authority by Contractor, or any Third Party Software Vendors, or obtained by the Authority, from escrow under the separate Software Escrow Agreement contemplated herein, the Authority states that it intends to and will accept the same in relationship and status of trust and confidentiality.

C. Security.

Proprietary Software and Confidential Materials which may come into the possession of the Authority, whether pursuant to a separate Software Escrow Agreement or otherwise, shall be maintained under strict confidentiality so as to insure that it is not disclosed to any third parties. Nothing contained in this numbered clause shall be construed to grant to the Authority the right to make derivative works or obtain or use any of the Proprietary Software or Confidential Materials and such rights, if any, shall exist only where and to the extent granted elsewhere herein, or in a separate Software Escrow Agreement (It is the Authority's intention that such an Agreement be agreed simultaneously with execution of this Agreement). However, nothing herein shall preclude the Authority from disclosing any licensed software or licensed materials or materials released from escrow for the purpose of operating the PIDS System, to the Authority supplemental staff or consultants provided they execute a non-disclosure agreement.

D. Relocation.

If any workstation(s) or the Central Host should become inoperative due to a malfunction, any license granted hereunder for said Designated Site shall be temporarily extended to authorize the Authority to Use the Licensed Programs at any other site until the Designated Site is returned to operation. If Designated Site is relocated for any

reason, any license granted hereunder for that Site shall be extended to authorize the Authority to Use the Licensed Programs at said relocated site without written notification to Vendor. The Authority may not relocate a Designated Site to any location that is not owned or controlled by the Authority without the express written notification to Vendor. However, the Authority will make every reasonable effort to notify the Contractor of said change within thirty (30) calendar days.

E. Replacement Hardware.

If the Authority should replace any workstation or the Central Host which is as a part of the Purchased Hardware Products with another workstation or Central Host then this License may be transferred to such units following which the Use of the Licensed programs on the old units shall be discontinued. The Licensed Programs may be used on both Central Computer Units for a reasonable time as necessary during the process of changing from one workstation or Central Host to the other. The Authority shall make every reasonable effort to notify Contractor in writing of any such transfer prior to commencing operations on the hardware.

F. Copies.

The Authority shall not copy the Licensed Programs in whole or in part, except as expressly provided in this numbered clause. The Authority shall have the right to make such number of backup and archival copies of the Licensed Programs, either complete or partial, for use by the Authority at the Designated Site as its business needs shall reasonably require for backup, archive or emergency restart purposes, to replace a worn copy, to understand the contents of such machine-readable materials, or to store backup copies at the off-premises location which the Authority uses for security storage purposes.

G. Proprietary Markings.

The Authority agrees not to remove or destroy any proprietary markings or proprietary legends, including copyright notices, appearing on or contained within any Licensed Programs, Licensed Materials and Confidential Materials.

**F. Limited Warranties.**

1. Contractor warrants that the Licensed Programs as installed on the Purchased Hardware Products will perform in accordance with the Basic Design Criteria Technical Parameters which form a part of Contract MFA 134.308, as well as with Authority approved design documents.
2. **Malicious Software.** The Contractor hereby warrants that the Licensed Programs furnished under this Agreement are free of so-called viruses, Trojan Horses or other devices which could be manually or automatically activated to damage or render inoperable the furnished software and programs or databases used by the Authority.

**G. Assignment.**

Without the prior express written consent of Contractor, the Authority's rights to any Licensed Programs or Licensed Materials shall not be assigned, licensed, or otherwise transferred, voluntarily or otherwise, by the Authority, provided that such consent shall not be unreasonably withheld. Any such assignee must agree in writing to be bound by all of the terms and conditions of this Agreement before any such assignment is effected.

**H. Force Majeure.**

Neither party shall be liable for any failure or delay in performance of its obligations under this Agreement by reason of or as a result of fires, strikes, floods, water, wind, earthquakes, tornado, hurricane, lightning, explosions, governmental regulations, court order or decrees, or other cause beyond the reasonable control of the affected party.

**I. Governing Law.**

This Agreement shall be deemed to have been entered into, and shall be interpreted, in accordance with the laws of the State of New York.

**J. Headings.**

The paragraph headings contained in this Agreement are for reference only and shall not affect the interpretation or meaning of this Agreement.

**EXHIBIT A**

License Number: \_\_\_\_\_

Licensed Programs: \_\_\_\_\_

Program Name	Function	Version
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Purchased Hardware Products:

Quantity	Model	Description
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Licensed Materials:

Quantity	Type	Description
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**ESCROW AGREEMENT**

This agreement ("Agreement") made and entered into by and among escrow Agent full name, having a principal place of business at Agent address ("Agent"), Contractor full name, having a principal place of business at Contractor address ("Contractor"), and the Authority of New York and New Jersey, having a principal place of business at Authority address ("Authority or Licensee"). Contractor full name is referred to, in this agreement, as "Contractor".

This Agreement is made pursuant to Contract X calling for the establishment of an Escrow Agreement between the Authority and the Contractor.

Whereas Contractor and Licensee have entered into a Software License and Agreement dated ("License Agreement") pursuant to which Contractor has agreed to grant Licensee a license to use certain computer software programs and related documentation upon specified terms and conditions; and

Whereas, pursuant to the Software License and Agreement, the programs will be installed and accepted by Licensee upon issuance of the Certificate of Final Completion under Contract X; and

Whereas, pursuant to the License Agreement, Contractor acknowledges that Licensee's ability to adequately utilize programs received under the License Agreement would be seriously jeopardized in the event of Contractor's failure to maintain and support such programs; and

Whereas, Contractor has agreed to establish and maintain in escrow the source code and documentation relating to the programs.

Now, therefore, in consideration of the premises and the mutual covenants contained herein, the parties agree as follows:

**A. Deposit In Escrow**

**1. Initial Deposit.**

Within ten (10) days after execution of this Agreement, Contractor shall deposit into escrow with the Agent, Licensed Programs and Materials as defined in the Software License and Agreement, for the then-current version of the Software. Source code programs shall be submitted both on industry standard media and in printed, human-readable form, the same being collectively referred to hereinafter as the "Source Material." Contractor shall identify each item being delivered and certify the completeness and accuracy of the Source Material in an accompanying letter to the designated Agent and

will transmit a copy to Licensee. Within five (5) days after receipt of the Source Material, Agent shall notify Licensee of such receipt. (Exhibit A hereof describes the procedure for initial and subsequent escrow deposits and Exhibits B and C hereof set forth a description of the Source Material to be deposited by Contractor.)

**2. Revision Deposits.**

Contractor shall deliver revisions of the Source Material to Agent as and when corresponding revisions of the object code for the programs either become publicly available or available to Licensee under the License Agreement. At such time as any revisions to the Source Material are deposited, Agent shall give written notice of such deposits to Licensee which shall include Contractor's certification of their completeness and accuracy.

**3. Deposit Procedure.**

The procedure defined in Table A-1 of Exhibit A is to be completed for the initial deposit and each annual or other major deposit. Its completion and the readiness of material to be put in escrow shall be signified in writing by the Licensee and the Contractor prior to turning the material over to the escrow Agent for storage. Table A-2 of Exhibit A defines the procedure and requirements for verification of the escrow deposit by the Licensee and the Contractor.

The initial and subsequent deposits are comprehensive replacements of all changed materials. If Licensee and Contractor agree, intermediate updates resulting from system changes may be accomplished by adding changed documents and program changes (including "makefiles" instructions, etc. required to install the changes) to the escrow package. If Licensee and Contractor are unable to agree to this abbreviated deposit procedure for a given update, the procedure described in Exhibit A shall be followed.

**4. Warranties.**

The Contractor represents and warrants that the machine readable source code among the escrow materials shall be accurate, current, fully commented, complete, and compilable copies of all licensed software with release and version numbers specified and software required to compile, edit, and execute the programs; all of which are free of so-called computer viruses, Trojan Horses or other devices that would damage or render inoperable or unreadable any of the escrowed materials. Contractor further warrants that all documentation and other material necessary to maintain and modify each software component is included in the escrow package.

**5. Storage Conditions.**

Agent shall hold the Source Material in a climate-controlled facility and shall release the same upon the terms and conditions hereinafter provided. Agent shall identify, in a written report, the escrow location to Licensee and Contractor.

**K. Release From Escrow**

1. Delivery by Agent to Licensee. Agent agrees that the Source Material shall be held by it for release and delivery to Licensee, under the terms and conditions hereinafter set forth, but only in the event that:
  - a) Contractor notifies Agent in writing to effect delivery to Licensee at a specific address, the notification being accompanied by a certified or cashier's check plus any amounts outstanding to Agent under this Agreement; or
  - b) Agent has received from Licensee all of the following:
    - (i) written notification that Contractor has failed to support the programs as required by the license agreement or has otherwise defaulted under the license agreement or any other agreement wherein Contractor has agreed to maintain the programs for Licensee ("Contractor default") (Contractor default shall also include Contractor's cessation of business operations or transfer of all or substantially all of its assets or obligations set forth in the license agreement to a third party which has not assumed all of Contractor's obligations under the license agreement and any companion maintenance agreement or Contractor has decided to stop supporting the programs);
    - (ii) evidence satisfactory to Agent that Licensee has previously notified Contractor of such Contractor default in writing and that more than sixty (60) days have elapsed since said notice with no cure by Contractor;
    - (iii) written demand that the material be released and delivered to Licensee;
    - (iv) a written undertaking from the Licensee that the material being supplied to the Licensee will be used only as permitted under the terms of the license agreement;
    - (v) specific instructions from the Licensee for this delivery; and
    - (vi) a certified or cashier's check payable to Agent in an amount equal \$ plus any amounts outstanding to Agent under this agreement.

- c) In the event that the provisions of paragraph b above are met, Agent shall, within five (5) days of receipt of all of the items specified above, send by certified mail, a copy of all such documents received by it to Contractor. Contractor shall have ten (10) days from the date Agent shall have sent the documents to Contractor to send to Agent written notice of its objection to the release of a copy of the Source Material. If, within ten (10) days after mailing the items specified in paragraph b above to Contractor, Agent has not received written notice of Contractor's objection to the release of the Source Material and its request for arbitration, then Agent shall release the Source Material and its request for arbitration to the Licensee in accord with the instructions specified in paragraph b (v) above.
2. Delivery by Agent to Contractor. Agent shall release and deliver the Source Material to Contractor upon the occurrence of any of the following.

- a) **Mutual Termination.**

The presentation to Agent of a written notice of termination, executed by authorized representatives of Contractor and the Licensee, stating that this Agreement has been terminated by the mutual agreement of Contractor and the Licensee and directing Agent to release and deliver the Source Material together with title thereto to Contractor by a specified method within ten (10) days of a specified date; or

- b) **Non-Payment.**

Upon non-payment of any fees or charges invoiced by Agent, Agent shall give notice of non-payment of any fee due and payable hereunder to both the Licensee and Contractor and, in such event, both the Licensee and Contractor shall have the right to pay the unpaid fee within thirty (30) days from the date of receipt of notice from Agent and upon timely payment of the unpaid fee by either the Licensee or Contractor, this Agreement shall continue in force and effect.

## **L. Ownership Of Source Material**

1. **Tangible Media.**

The tangible medium comprising the Source Material, but not the source code nor documentation and other information embodied in such tangible medium, shall belong to Agent at all times until the Source Material is returned to Contractor or turned over to the Licensee.

2. **Intellectual Property.**

Agent, Contractor and Licensee recognize and acknowledge that ownership of the source code itself and any documentation (together with all copyrights,

patent, trade secret, trademark and any other proprietary rights therein) shall remain with Contractor at all times. Agent shall have license to possess material deposited with it and Licensee when given possession shall possess license for use solely in compliance with this Agreement.

**3. Confidentiality.**

The Contractor and Agent acknowledge that information stored and maintained under this Agreement, including those materials listed in Exhibits B and C to this agreement, is "Confidential and Proprietary Information" and they agree that they will not, during or after the term of this and successor agreements permit the duplication, use, or disclosure of any Confidential and Proprietary Information to any person or entity (other than their own employees, Agents, or representatives who must have such information) unless such duplication, use, or disclosure is specifically authorized by both the Authority and the Contractor.

**M. Fees, Term, Renewal, And Termination**

**1. Agent Compensation.**

Agent shall be entitled to compensation described in Exhibit E for performance of its duties hereunder, to be borne by Licensee. Agent's fee shall be paid by the Contractor until final acceptance as defined in Contract MFA 134.308 and the Authority shall pay the fee subsequent thereto.

**2. Term of Agreement.**

The initial term of this agreement shall extend until twenty years following completion of the applicable contract calling for the establishment of escrow material with Agent.

**3. Renewal of Agreement.**

This agreement shall be automatically renewed for successive one (1) year terms unless otherwise terminated.

**4. Termination of Agreement.**

This Agreement shall terminate upon (i) mutual termination as provided herein, or (ii) non-payment as provided herein, or (iii) termination of the license agreement, or (iv) bankruptcy, receivership, or failure to fulfill responsibilities under this agreement as determined by the Port Authority of NY & NJ

**N. Source Material Accuracy**

Agent shall have no responsibility with respect to the accuracy or completeness of the Source Material or any revisions thereto.

**O. Bankruptcy**

Contractor and Licensee acknowledge that this Agreement is an "agreement supplementary to" the License Agreement as provided in Section 365(n) of Title 11, United States Code (the "Bankruptcy Code"). Contractor acknowledges that if Contractor as a debtor in possession or a trustee in Bankruptcy in a case under the Bankruptcy Code rejects the License Agreement or this Agreement, Licensee may elect to retain its rights under the license and this Agreement as provided in Section 365(n) of the Bankruptcy Code. Upon written request of Licensee to Contractor or the Bankruptcy Trustee, Contractor or such Bankruptcy Trustee shall not interfere with the rights of Licensee as provided in the License Agreement and this Agreement, including the right to obtain the Source Material from Agent.

**P. Liability**

Except for actual fraud, gross negligence or intentional misconduct, Agent shall not be liable to Contractor or to any party claiming beneficiary status under this Agreement for any act, or failure to act, by Agent in connection with this Agreement. Any liability of Agent regardless of the cause shall be limited to the actual cost of new blank magnetic media or documentation of the same type and quality of any lost or destroyed source code copy. Agent will not be liable for special, indirect, incidental or consequential damages hereunder.

**Q. Indemnity**

Contractor, Licensee, and any party claiming beneficiary status under this Agreement hereby agree to indemnify and hold harmless the Agent and each of its directors, officers, and stockholders, absolutely and forever, and from and against any and all claims, actions, damages, suits, liabilities, obligations, costs, fees, charges, and any other expenses whatsoever, including reasonable legal fees, that may be asserted against Agent or any of its directors, officers, or stockholders with respect to the performance of its duties under this Agreement, except as otherwise provided above.

**R. Disputes And Interpleader**

In the event of any dispute between Contractor and Licensee or any third party claiming beneficiary status under this Agreement, Agent may submit this matter to any court of competent jurisdiction in an interpleader or similar action. Any and all reasonable costs incurred by Agent in connection therewith shall be borne by the third party seeking a copy of the Source Material. Without limiting the generality of the foregoing, if Agent shall be uncertain as to its duties or rights hereunder or shall receive any notice, advice, schedule, report, certificate, direction or other document from any person or entity with respect to the Source Material, that, in the opinion of the management of Agent is in

conflict with any of the provisions of this Agreement, or shall be advised that a dispute has arisen with respect to the ownership or right of possession of the Source Material or any part thereof, Agent shall be entitled, without liability to anyone, to refrain from taking any action other than to exercise best efforts to keep safely the Source Material until Agent shall be directed otherwise in writing by an order, decree, or judgment of a court of competent jurisdiction that is then finally affirmed on appeal or that by the lapse of time or otherwise is no longer subject to appeal; but Agent shall be under no duty to institute or defend any such proceeding.

**S. Governing Law**

This agreement shall be construed and enforced in accord with the laws of the State of New York.

**T. Verification**

Upon receipt of a written request from Licensee or the Contractor, Agent is hereby authorized to inspect the Source Material to verify its relevance, completeness, currency, accuracy, and functionality. Upon request from Licensee or Contractor, Agent will issue a copy of the written technical verification report to Contractor.

Contractor hereby agrees to cooperate with Agent by providing its facilities, computer systems, and technical and support personnel for technical verification whenever necessary. If requested by Licensee, Contractor agrees to permit one employee of Licensee to be present at Contractor's facility during verification of Source Material.

The fee for this verification is specified in Exhibit E. It shall be paid by the requester.

**U. Notices**

All notices and other communications hereunder or in connection herewith shall be deemed to have been given if delivered personally or sent by registered or certified mail in writing, return receipt requested and first class postage prepaid.

- A. If to Contractor: Insert name and full address
- B. If to Licensee: Insert name and full address
- C. If to Escrow Agent: Insert name and full address

**V. Binding Nature And Assignment**

This Agreement shall be binding on the parties hereto and their respective successors and assigns, but no party may, or shall have the power to, assign this Agreement without the prior written consent, which shall not be unreasonably withheld, of the other parties. Contractor, however, shall have the right, without consent of any other party, to assign to

a successor entity that portion of Contractor's business which is the subject of this Agreement.

**W. Entire Agreement**

This Agreement including any Exhibits or documents referred to in this Agreement, each of which is incorporated herein, constitutes the entire and exclusive statement of the agreement between and among the parties with respect to its subject matter and there are no oral or written representations, understandings or agreements relating to this Agreement which are not fully expressed herein.

**X. Miscellaneous**

1. Section Headings. The Section headings used in this Agreement are for reference and convenience only and shall not enter into the interpretation hereof.
2. Separability. If any provision of this Agreement is declared or found to be illegal, unenforceable or void, then obligations arising under such provision shall be null and void and each provision not so affected shall be enforced to the full extent permitted by law.
3. Waivers and Discharges. No delay or omission by any party hereto to exercise any right or power hereunder shall impair such right or power or be construed to be a waiver thereof. No change, waiver or discharge hereof shall be valid unless in writing and signed by an authorized representative of the party against which such change, waiver or discharge is sought to be enforced.
4. Responsibilities, Liabilities, Obligations upon Termination. Termination or expiration of this Agreement for any reason shall not release any party from any liabilities or obligations set forth in this Agreement which (i) the parties have expressly agreed shall survive any such termination or expiration, or (ii) remain to be performed or by their nature would be intended to be applicable following any such termination or expiration.
5. Personal Liability of Individuals. No commissioner, Agent, officer, or employee of any of the parties shall be personally liable hereunder.
6. Restrictions on Licensee's use of Source Material. During any period of time in which the Source Material is in the possession of the Licensee, it is agreed that the Source Material shall be used only by the Licensee at the locations set forth in the license agreement and shall not be duplicated, sold, or licensed to others or marketed in any manner. In addition, during this time Contractor shall have unrestricted use and title to the Source Material and any associated object code for its own internal use or for marketing to third parties.



**EXHIBIT A - INITIAL, MAJOR UPDATE, AND ANNUAL ESCROW DEPOSIT PROCEDURES**

**Table A-1 Primary Deposit Procedure**

	<b>PROCEDURE</b>	<b>RESPONSIBLE</b>
1	Contractor prepares escrow material, defined in Exhibit B, below, representing the current application as installed, accepted, and in production use.	Contractor
2	Authority staff witness compilation and verification, conducted by Contractor under the conditions defined in Table A-2, below, to ensure that software matches current production modules, verifies that all software needed to convert the source programs to executable modules are licensed to the Authority, installed on Authority computers, and fully operational.	Authority
3	Representatives of Authority and the Contractor inspect the escrow package and verify that it represents the current production package.	Authority, Contractor
4	Representatives witness package sealing and transmit to the escrow Agent.	Authority, Contractor
5	Each time there is a revision and/or upgrade of the Source Material of the Production System, or if not changed or modified at least once each year, the three parties open the package, update its contents to reflect the current production system and document the activity to reflect the current installed version.	Authority, Contractor, Agent

**Table A-2 Deposit Verification Procedure**

	<b>PROCEDURE</b>	<b>RESPONSIBLE</b>
1	Contractor prepares escrow material and notifies the Authority that the complete deposit, computer platforms for verification, and software tools for verification are ready.	Contractor
2	<p>Authority and Contractor staff meet at an Authority or Contractor site agreed to and Contractor conducts compilation and verification, to the Authority's satisfaction, of all software and firmware to be put in escrow to ensure that the Source Material in the deposit matches current production modules (through the use of tools or utilities that use an industry standard CRC (cyclic redundancy check) checksum or other process acceptable to the Authority that separately authenticates all files and modules, absent file names, dates, times, and other header and identification information that might prevent comparison, and lists all file names with their validating information).</p> <p>The process must include the compilation/assembly and linking of all modules required on appropriately configured platforms.</p>	Authority, Contractor
3	Contractor and Authority staff conduct such operations as are needed to verify the completeness and functionality of the tools (compilers, assemblers, linkers, editors, etc.) complete with documentation; procedures and makefiles; operating system, communications, and environment software; and any other materials.	Contractor, Authority
4	Contractor and Authority staff examine all documents included to ensure that they are complete and correctly reflect the production system.	Contractor, Authority
5	Authority and Contractor staff examine all software literature and licenses and verify that all software needed to convert the source programs to executable modules are properly licensed to the Contractor, installed on Authority computers, and fully operational.	Contractor, Authority

**EXHIBIT B MATERIAL TO BE DEPOSITED BY CONTRACTOR**

- Human readable Source Code for all Contractor Proprietary and Custom Software in an industry standard electronic medium (e.g. diskette or CD-ROM).
- Human readable and printed program, system, user documentation either in printed form or in an industry standard electronic medium (e.g. diskette or CD-ROM)
- Tools (compilers, assemblers, linkers, etc.) with documentation.
- Procedures and make files.
- Other documentation which includes: a listing of all program and module inputs and their sources, outputs and their destinations, and other relevant program and module documentation.
- Operating system, communications, and environment software.

**NOTE:** Where actual copies of licensed software are accepted by the Authority as being prohibited under the provisions of the license, the Contractor shall include complete identification of each software product including manufacturer/publisher, version, release, and all information required for acquisition and use.

**EXHIBIT C MATERIAL TO BE DEPOSITED BY SUBCONTRACTORS  
AND/OR SUPPLIERS RELATED TO SOFTWARE AND EQUIPMENT  
SUPPLIED BY THEM**

- Human readable Source Code for all Sub-Contractor Proprietary and Custom Software (as defined in the License Agreement) in an industry standard electronic medium (e.g. diskette or CD-ROM).
- Human readable program, system, and user documentation either in printed form or in an industry standard electronic medium (e.g. diskette or CD-ROM).
- Tools (compilers, assemblers, linkers, etc.) with documentation.
- Procedures and make files.
- Other documentation listing program and module inputs and their sources, outputs and their destinations, and other relevant program and module documentation.
- Operating system, communications, and environment software.
- All other material as agreed to by Contractor and the Authority.

**NOTE:** Where actual copies of licensed software are accepted by the Authority as being prohibited under the provisions of the license, the Contractor shall include complete identification of each software product including manufacturer/publisher, version, release, and all information required for acquisition and use.



**EXHIBIT E FEES TO BE PAID**

Initialization fee (one time only)	\$ _____
Annual maintenance / storage fee (includes one deposit material update per year)	\$ _____
Additional updates	\$ _____
Due upon request for release of material	\$ _____
Agent inspection at Licensee / Contractor request	\$ _____
Additional work at Licensee / Contractor request	\$ _____

After expiration of the initial term of this Agreement, this Agreement shall be automatically renewed for successive years unless otherwise terminated.

**78. PUBLIC RELEASE OF INFORMATION**

The Contractor and all his subcontractors shall not issue or permit to be issued any press release, advertisement, or literature of any kind, which refers to the Authority or the services performed in connection with this Contract, without first obtaining the written approval of the Chief Engineer. Such approval may be withheld if for any reason the Chief Engineer believes that the publication of such information would be harmful to the public interest or is in any way undesirable. This provision shall survive termination or expiration of this Contract.

**79. PERFORMANCE AND PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS that we, the undersigned<sup>13</sup> Contractor and surety company (or companies), as principal and surety (or sureties), respectively,

**Contractor**

**Surety**

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<sup>13</sup> Insert names of the Contractor and surety company (or companies) in the appropriate columns. If space is insufficient add rider.

If the Contractor is a corporation, give the state of incorporation, using also the phrase "a corporation organized under the laws of \_\_\_\_\_".

If the Contractor is a partnership, give full names of partners, using the phrase "co-partners doing business under the firm name of \_\_\_\_\_".

If the Contractor is an individual using a trade name, give individual name, using also the phrase "an individual doing business under the trade name of \_\_\_\_\_".

are hereby held and firmly bound unto The Port Authority of New York and New Jersey (herein called the "Authority") in the penal sum of \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents (\$ \_\_\_\_\_), for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, representatives, executors, administrators, successors and assigns. Each surety, however, if there is more than one, shall be jointly and severally liable for said penal sum.

Signed this \_\_\_\_\_ day of \_\_\_\_\_ 20

The condition of the above obligation is that

WHEREAS, the above named principal has entered into a Contract in writing with the Authority, a copy of which is hereby made a part of this bond as though herein set forth in full and which is designated Contract MFA-134.308 - "Aviation Multi-Facility - Perimeter Intrusion Detection System (PIDS)", and

WHEREAS, the Authority has required this bond for the faithful performance of all obligations imposed by said Contract and also for the payment of all lawful claims of subcontractors, materialmen and workmen arising out of the performance of said Contract;

NOW, if the said principal shall well and faithfully do and perform the things agreed by him to be done and performed according to the terms and true intent and meaning of said Contract and if all lawful claims of subcontractors, materialmen and workmen arising out of the performance of said Contract are paid, then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that, provided the sureties shall comply with the provisions hereof, the aggregate liability of all sureties for any and all claims hereunder shall in no event exceed the penal amount of this obligation as hereinbefore stated.

This undertaking is for the benefit the Authority and all subcontractors, materialmen and workmen having lawful claims arising out of the performance of said Contract, and all such subcontractors, materialmen and workmen (as well as the Authority itself) shall have a direct right of action upon this bond; but the rights and equities of such subcontractors, materialmen and workmen shall be subject and subordinate to those of the Authority.

The sureties, for value received, hereby stipulate and agree that the obligations of said sureties and their bond shall be in no way impaired or affected by any extensions of time, modification, omission, addition or change in or to the said Contract or the construction to be performed thereunder, or by any supervision or inspection or omission to supervise or inspect the construction, or by any payment thereunder before the time required therein, or by any waiver of any provision or condition thereof (whether precedent or subsequent), or by any assignment, subletting or other transfer thereof or of any part thereof or of any construction to be performed or any moneys due or to become due thereunder; and said sureties do hereby waive notice of any and all of such extensions, modifications, omissions, additions, changes, payments, waivers, assignments, subcontracts and transfers, and hereby expressly stipulate and agree that any and all things done and omitted to be done by and in relation to assignees, subcontractors and other transferees shall have the same effect as to said sureties as though done by or in relation to said principal.

The sureties shall give the General Counsel of the Authority the following notices:

- A. Written notice of an intent to pay any claim of a subcontractor, materialman or workman hereunder;
- B. Written notice within five days of the institution of an action by a subcontractor, materialman or workman hereunder.

The sureties shall not pay the claim of any subcontractor, materialman or workman hereunder until the expiration of thirty days after receipt by said General Counsel of notice under either subparagraph A or B above, describing the claim to be paid.

IN WITNESS WHEREOF, the principal and the sureties have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

(Seal)

\_\_\_\_\_  
Principal  
By <sup>14</sup> \_\_\_\_\_

\_\_\_\_\_  
Surety  
By <sup>15</sup> \_\_\_\_\_

APPROVED AS TO ACCEPTABILITY OF SURETIES:

\_\_\_\_\_  
Credit Manager  
\_\_\_\_\_ 20

**80. ACKNOWLEDGMENT OF PRINCIPAL, IF A CORPORATION**

State of \_\_\_\_\_

SS:

County of \_\_\_\_\_

\_\_\_\_\_

<sup>14</sup> If bond is signed by an officer or agent, give title; if signed by a corporation, affix corporate seal.

<sup>15</sup> Add signatures of additional sureties, if any.

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came and appeared \_\_\_\_\_, to me known, who being by me duly sworn, did depose and say that he resides at \_\_\_\_\_; that he is the \_\_\_\_\_ of \_\_\_\_\_ the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the directors of said corporation, and that he signed his name thereto by like order.

(Seal) \_\_\_\_\_

**ACKNOWLEDGMENT OF PRINCIPAL, IF A PARTNERSHIP**

State of \_\_\_\_\_

SS:

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came and appeared \_\_\_\_\_, to me known, and known to me to be one of the members of the firm of \_\_\_\_\_ described in and who executed the foregoing instrument and he acknowledged to me that he executed the same as and for the act and deed of said firm.

(Seal) \_\_\_\_\_

**ACKNOWLEDGMENT OF PRINCIPAL, IF AN INDIVIDUAL**

State of \_\_\_\_\_

SS:

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came and appeared \_\_\_\_\_, to me known and known to me to be the person described in and who executed the foregoing instrument and he acknowledged to me that he executed the same.

(Seal) \_\_\_\_\_

**AFFIX ACKNOWLEDGMENT AND JUSTIFICATION OF SURETY**

SPECIFICATIONS

**DIVISION 1 – GENERAL PROVISIONS**

**81. CONSTRUCTION REQUIRED BY THE SPECIFICATIONS**

The Contractor agrees to provide all structures, equipment, plant, labor and materials, to incorporate materials and equipment, if any, furnished by the Authority and to provide all other facilities and things necessary or proper for or incidental to performance of the management, design, integration, construction, procurement, installation, testing of and training for an integrated Aviation Multi-Facility Perimeter Intrusion Detection System (PIDS) at JFK, LGA, EWR and TEB Airports or as further described in Attachment B and C of this Book.

These Specifications require the doing of all things necessary or proper for or incidental to the matter referred to in the immediately preceding paragraph, as shown on the Contract Drawings in their present form. In addition, all things shown on the Contract Drawings even though not expressly mentioned in these Specifications, all things mentioned in these Specifications even though not shown on the Contract Drawings, and all things not specified either on the Contract Drawings, or in the Specifications but involved in carrying out their intent and in the complete and proper execution of the matter referred to in the immediately preceding paragraph are required by these Specifications; and the Contractor shall perform the same as though they were specifically delineated, described and mentioned.

In case of a conflict between a requirement of the Contract Drawings and a requirement in Division 1 of the Specifications, the requirement of Division 1 shall control. In case of a conflict between a requirement contained in other Divisions of the Specifications and a requirement of the Contract Drawings, the requirement of the Contract Drawings shall control.

Some Sections of the Specifications make cross references to construction specified in other Sections of the Specifications, including cross references intended to avoid duplication by the proposers in quoting prices and to point out some of the necessity for coordination. Such cross references are not intended to be complete or all inclusive, and the Contractor shall ascertain for himself both the nature and the extent of all construction which may be related to that under each Section of the Specifications whether or not expressly referred to.

Some Sections of the Specifications contain a general description of the construction under such Sections. Such description is merely a very general one and is not intended to outline the construction required by the Specifications and Contract Drawings. Accordingly, such description shall be construed as in aid of and supplemental to, but in no case limiting, impairing or decreasing, the requirements elsewhere set forth with respect to the construction to be performed.

The Contractor's compensation for all construction whatsoever referred to in the Specifications and Contract Drawings in their present form, even though the need for certain items of such construction may be contingent upon future occurrences or determinations or upon other circumstances, shall be deemed to be included in the price(s) quoted by the Contractor in the Form of Contract unless the Specifications or Contract Drawings expressly state that compensation in addition to such price shall be payable for such items of construction. The express statement in some cases to the effect that certain construction shall be without additional cost to the Authority shall not impair the application of this paragraph in other cases.

The distribution of various parts of the construction among the Divisions and Sections of the Specifications or among the Contract Drawings is not intended as a representation of the most effective or logical method of organizing, scheduling, or subcontracting the construction, and the Contractor shall ascertain for himself how to do so unless otherwise expressly prescribed in this Contract.

In all cases the provisions of the second paragraph of this numbered Section shall control.

## **82. AVAILABLE PROPERTY**

Subject to the conditions elsewhere stated herein, those areas to be occupied by the permanent construction will be made available to the Contractor upon the commencement of his first operations at the construction site.

Any additional property which the Contractor desires for his operations shall be obtained by him at his own expense.

The Contractor will be permitted to use only so much of the aforesaid areas as is necessary for the performance of the Contract, and he must at all times so conduct his operations as not to encroach upon or block the portions used by others. The PA Project Manager may at any time make joint or exclusive assignments of particular portions thereof, either to the Contractor or to others, and may take over and use for other purposes any portions which, in the opinion of PA Project Manager, are not required for the performance of the Contract.

The Contractor shall daily clean up the areas made available to him so that they are free at all times of refuse, rubbish, scrap material or debris.

## **83. OPERATIONS OF OTHERS**

During the time that the Contractor is performing the Contract, other persons will be engaged in other operations on or about the construction site including facility operations and maintenance, tenant operations, other Authority construction contracts, pedestrian and vehicular traffic all of which shall remain uninterrupted.

The Contractor shall so plan and conduct his operations as to work in harmony with others engaged at the construction site and not to delay, endanger or interfere with the operations of others (whether or not specifically mentioned above), all to the best interests of the Authority and the public and as may be directed by the PA Project Manager.

## **84. LABOR ACTIONS**

Whenever any labor strike, slowdown, work stoppage, picketing or other labor action which might interfere with the performance of the Contract, or of other Authority or PATH contracts or the operation of any Authority or PATH facility occurs at the construction site or at any other Authority or PATH facility as a result of the Contractor's (or its subcontractor's) utilization of particular means, methods or manpower to perform the Work required by the Contract, the Contractor shall pursue all remedies which are appropriate and available to him to avoid such interference.

**85. CONTRACTOR'S MEETINGS**

The Contractor shall conduct job progress and coordination meetings with subcontractors in his field office every two weeks, or as frequently as job conditions require or the PA Project Manager may request. The PA Project Manager shall be notified and, at his option, may attend these meetings. The Contractor shall prepare and distribute minutes to the PA Project Manager and the subcontractors within forty-eight (48) hours of the day following the meetings.

The Contractor shall attend separate job progress and coordination meetings with the PA Project Manager every two weeks, or at times otherwise requested by the PA Project Manager.

**86. REFERENCE DRAWINGS**

The following drawings, called Reference Drawings, were not prepared by the Authority or by others for use in connection with this Contract such as for other contracts or for design purposes for this or other contracts, and are furnished to the Contractor to give him such information as may be in the possession of the Authority. Said drawings are as follows:

An indication on the Reference Drawings of the existence, nature or location of any utilities, structures, obstructions, conditions or materials does not constitute a representation as to the conclusions to be drawn there from nor a representation that no others exist in addition to those shown, even in the same location; nor does the absence of any indication on said drawings of the existence, nature or location of any utilities, structures, obstructions, conditions or materials constitute a representation that none exist.

None at this Time

**87. SHOP DRAWINGS, CATALOG CUTS AND SAMPLES**

The Contractor shall specifically prepare for this Contract all Shop Drawings which may be required in addition to the Contract Drawings or in addition to any other drawings which the PA Project Manager may issue in supplementing the Contract Drawings.

The specific requirements elsewhere set forth in the Specifications for furnishing Shop Drawings, Catalog Cuts and samples for any particular portion of the Contract shall not limit the obligation of the Contractor to furnish Shop Drawings, Catalog Cuts and samples for any other portion when so required by the PA Project Manager.

The Contractor shall submit a general "Submittal Schedule" for the PA Project Manager's review and approval listing the planned transmittal date and estimated number in each specification section category of Shop Drawings, Catalog Cuts, pages of calculations and samples within 30 days after receipt by the Contractor of the acceptance of the Proposal. A more detailed schedule shall be submitted no less than 30 calendar days prior to the actual date of any submittal.

After checking and verifying all field measurements and after complying with applicable procedures specified hereunder, the Contractor shall submit to the PA Project Manager for review and approval, in accordance with the approved schedule of Shop Drawing submissions, or for other action if so indicated by the PA Project Manager, four copies and two reproduces, unless otherwise requested, of all Shop Drawings which will bear a specific written indication that the Contractor has reviewed the submission for conformance to the requirements of the Contract Drawings and Specifications.

The Port Authority uses Primavera Expedition software to track the status of Submittals provided by the Contractor. In order to facilitate this electronic tracking, the Contractor shall use the transmittal form that is provided at the pre-construction meeting, and shall forward it to the PA Project Manager via a MAPI compliant e-mail system (e.g. Microsoft Outlook, CC mail, Lotus notes, etc.).

The Contractor's transmittals of Submittal data shall fully comply with the numbering and naming conventions and other procedures that will be provided by the PA Project Manager to the Contractor at the pre-construction meeting.

All submissions shall be identified as the PA Project Manager may require. The data shown on the Shop Drawings shall be complete with respect to quantities, dimensions, conformance to the specified performance and design criteria, materials, test results and similar information to enable the PA Project Manager to review the submittal as required.

The Contractor shall also submit nine copies to the PA Project Manager for review and approval pursuant to the approved submittal schedule, of all Catalog Cuts and samples for conformance to the requirements of the Contract Drawings and Specifications. All Catalog Cuts and samples shall have been reviewed by the Contractor and shall be accompanied by a specific written indication that the Contractor has reviewed the submittal for conformance with the Contract Drawings and Specifications and shall be identified clearly as to material, supplier, manufacturer's procedures and pertinent data such as catalog numbers and the use for which intended.

Before submission of each Shop Drawing, Catalog Cut and sample, the Contractor shall have determined and verified all quantities, dimensions, conformance to the specified performance and design criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed and coordinated each Shop Drawing or Catalog Cut with other Shop Drawings and Catalog Cuts and with other requirements of the Work.

At the time of each submission, the Contractor shall give the PA Project Manager specific written notice of each variation in any Shop Drawing, Catalog Cut and sample from the requirements of the Contract Drawings or Specifications and, in addition, shall cause a specific notation of each such variation to be made on each submittal to the PA Project Manager, for review and approval of each such variation.

The PA Project Manager's review and approval of Shop Drawings, Catalog Cuts or samples shall not relieve the Contractor from responsibility for any variation from the requirements of the Contract Drawings or Specifications unless the Contractor has in writing called the PA Project Manager's attention to each such variation at the time of submission as required hereunder and the Chief Engineer has given written approval of each by an express specific written notation thereof incorporated in or accompanying the Shop Drawing, Catalog Cut or sample approval. Approval of Shop Drawings, Catalog Cuts and samples which are inconsistent with the requirements of the Contract Drawings and Specifications shall not be deemed to waive or change such requirements or to relieve the Contractor of his obligations to perform such requirements unless the Chief Engineer shall expressly and specifically state that he is waiving or changing such requirements, as stated above.

Where a Shop Drawing, Catalog Cut or sample is required no related Work shall be performed prior to the PA Project Manager's review and approval of the submission.

In preparing the Shop Drawings, the Contractor may adopt a sheet of any reasonable size which best suits his needs, but having adopted such size, all sheets thereafter of a similar nature shall be of the same size as that adopted. Each drawing shall have a margin on the top, bottom and right-hand side of one-half inch and on the left hand side a margin of one and one-half inches.

Upon receipt of the submittal, the PA Project Manager will review the Shop Drawing, Catalog Cut or sample for conformance to the design information and materials shown on the Contract Drawings and contained in the Specifications. Approval by the PA Project Manager shall not constitute a complete review or approval of the means, methods, techniques, sequences or procedures of construction, except where a specific means, method, technique, sequence or procedure of construction is specifically delineated in or required by the Contract Drawings or Specifications, and the approval shall not constitute a review and approval in regard to safety precautions or programs incident thereto. The review and approval of a separate item will not in itself indicate approval of the assembly in which the item functions. Any design shown on the Shop Drawings and prepared by the Contractor, his subcontractors, their detailers, or their professional engineers is the complete responsibility of the Contractor.

Within the number of working days hereinafter specified after receipt of the Shop Drawing prints, the PA Project Manager shall approve or not approve the same or require corrections or additions to be made thereon. When a shop drawing is not approved or if additions or corrections are required, the PA Project Manager shall return within this period one of the four copies submitted and the Contractor shall make the revisions, corrections or additions shown thereon to be made. He shall resubmit four prints and one brownline (reproducible) showing the drawing corrected as required. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the PA Project Manager on the previous submittal. Each drawing shall be corrected as required until the approval of the PA Project Manager is obtained. After each resubmission, the PA Project Manager shall have the number of working days hereinafter specified in which to approve revisions or corrections.

The number of working days within which the PA Project Manager shall advise the Contractor as to whether the Shop Drawings are approved, not approved, or require corrections or additions to be made thereto shall be as follows, except that 20 working days shall be required for the PA Project Manager to review shop drawings submitted with design calculations.

No. of Dwgs. Submitted Within 5 Consecutive Working Days for Each Discipline(*)	No. of Working Days for Engineer To Review Shop Drawings
Up to 50	10
51 to 75	15
More than 75	20
* Disciplines shall be defined as follows: Structural, Architectural, Civil, Geotechnical, Mechanical, Electrical, Traffic and Environmental.	

Failure of the Contractor to provide 30 calendar days advance notice to the PA Project Manager of any submittal shall result in a five (5) working day extension of the number of working days stated in the chart above. In no event shall an extension of the PA Project Manager's review time provided for in this section relieve the Contractor from its duty to meet all contractual Milestone dates.

As soon as approval has been given to any Shop Drawing or Catalog Cut, the Contractor shall within five days send to the PA Project Manager six prints, except that when the PA Project Manager specifically so directs, nine prints shall be sent. After approval thereof, no change will be permitted thereon unless approved in writing by the PA Project Manager.

Before final payment for the Work is made, the Contractor shall furnish to the PA Project Manager one set of Shop Drawings, which have previously been prepared by the Contractor in accordance with requirements elsewhere specified in these Specifications, all clearly revised, completed and brought up to date showing the permanent construction as actually made. These drawings shall be in the form of Mylar reproducibles, from which clear prints can be made.

All drawings, data, calculations and other papers of any type whatsoever, whether in the form of writing, figures or delineations, which are prepared in connection with this Contract and submitted to the Authority shall become the property of the Authority. The Authority shall have the non-exclusive right to use or permit the use of all such drawings, data and other papers and any ideas or methods represented thereby for any purpose and at any time without additional compensation. No such papers shall be deemed to have been given in confidence. Any statement or legend to the contrary in connection with such drawings, data or other papers and in conflict with the provisions of this paragraph shall be void and of no effect.

#### **88. SUBSTITUTION**

Where a proprietary item or make is specified or mentioned herein or called for or mentioned on the Contract Drawings and the phrases "similar and equal to" or "approved equal" are used in connection therewith, the utilization of any other item or make will be deemed a substitution. Substitution for the proprietary item or make specifically named may be made only in accordance with the Section hereof entitled "Workmanship and Materials" and in accordance with the following.

Whenever materials or equipment are specified or described in the Contract Drawings or Specifications by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of another supplier or manufacturer may be accepted by the PA Project Manager if sufficient information and proof is submitted by the Contractor to permit the PA Project Manager to determine that the material or equipment proposed is equivalent or equal to that named and the PA Project Manager approves the substitution. The procedure for review by the Engineer will include the following. Requests for review of substitute items of material and equipment will not be accepted by the PA Project Manager from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall make a timely written application to the PA Project Manager for approval thereof, certifying that the proposed substitution will perform at least the identical functions and achieve at least the identical results called for by the specified product and otherwise be equal to the specified product with regard to, but not limited to, durability, maintenance, strength, energy costs and record of proven performance. The application shall state that the evaluation and approval of the proposed substitution shall not delay the Contractor's completion of the Work as required by the Contract, whether or not approval of the substitution will require a change in the construction and, in no event will the Contractor be granted an extension of time for completion of any portion of the Work for reasons related directly or indirectly to the evaluation of the proposed substitution or to the proposed substitution itself. Any variations of the proposed substitution from that specified shall be identified in the application, and maintenance, repair and replacement services for the substitution shall be indicated. The PA Project Manager may require the Contractor to furnish at the Contractor's expense additional laboratory test data concerning the proposed substitution.

Such submission to the PA Project Manager shall be made only by including the requested substitution in the list of materials required to be submitted to the PA Project Manager in accordance with the Section hereof entitled "Inspections and Rejections" within forty-five calendar days after the receipt of the acceptance of the Contractor's Proposal. After the approval of said list, no substitutions will be permitted, except that a brand or make named in the Specifications may be submitted for approval in lieu of a brand or make on said list. Any such submission shall not imply, or impose on the PA Project Manager, any obligation whatsoever to discuss, disclose or justify the reasons for his opinion, approval, acceptance or rejection.

The PA Project Manager shall be the sole judge of as to whether a proposed substitution will be approved, and no substitution shall be ordered or utilized without the PA Project Manager's prior written approval. The PA Project Manager may require Contractor to furnish at Contractor's expense a special performance guarantee or other assurance with respect to any approved substitution. Furthermore, the approval of any substitute proprietary item or make shall not in any way entitle the Contractor to additional compensation therefor.

Notwithstanding such approval, however, the Contractor assumes the risk that such approved substitute item or make is not equal to that shown or specified and if at any time the substitution shall appear not to be so equal he shall replace the substitution with that originally shown on the Contract Drawings or called for in the Specifications at his own cost and reimburse the Authority for any loss occurring on account of the substitution failing to be equal, notwithstanding that it had been previously approved for use by the PA Project Manager.

The construction called for by the Contract Drawings and Specifications may be adapted for a particular proprietary item or make of material or equipment. Therefore, if any construction not required by the Contract Drawings or Specifications in their present form is necessary or desirable because of the use of substitute item or make of material or equipment (even though such other item or make is approved by the PA Project Manager), such construction shall be furnished or performed by the Contractor at his expense and subject to the approval of the PA Project Manager.

## **89. WORKMANSHIP AND MATERIALS**

Workmanship and materials shall in every respect be free from defects of any kind and shall be in accordance with the best modern practice and whenever the Contract Drawings, Specifications or directions of the PA Project Manager admit of a doubt as to what is permissible or fail to note the quality of any construction the interpretation which calls for the best quality is to be followed. Workmanship shall conform to applicable Specifications, manufacturer's instructions and recommendations for installation of products for the applications shown on the Contract Drawings, all of which shall be subject to the provisions of the Section of Division 1 GENERAL PROVISIONS entitled "Inspections and Rejections".

All items provided in this contract that use dates in the recording, storing or processing of information shall use such dates correctly at all times including using such dates correctly in the recording, storing or processing of information after January 1, 2000 (Year 2000 Compliant).

Materials and Equipment incorporated into the Work shall be new except as may be otherwise herein specifically required, and shall comply with make, size, type and quality specified, or as specifically approved in writing by the Chief Engineer in accordance with the Section of Division 1 GENERAL PROVISIONS entitled "Substitution".

Reference to standards of any society, institution, association, or governmental authority in the Specifications or on the Contract Drawings, whether specific or by implication, shall mean for such standards which are part of the building code in effect for Work of this Contract the edition date published in such code; and such references which are not part of the building code, shall mean the latest edition date in effect at the time of opening of Proposals upon the present Contract unless specifically stated otherwise.

If required by the PA Project Manager, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment to be employed by the Contractor in performing the Work. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the approved instructions of the applicable supplier except as otherwise provided in the Contract Drawings or Specifications.

In case of a discrepancy between a description or requirement in the Contract Drawings and Specifications for any material or equipment and a catalog number or other designation for the same material or equipment (even though stated to be acceptable), the description or requirements shall control.

In various paragraphs of these Specifications, references may be made to certain standard or tentative specifications or requirements of various organizations. Unless otherwise stated, these references are to be construed as referring to the specifications and requirements in effect on the date set for opening proposals upon the present Contract.

All inventions, ideas, designs and methods contained in the Specifications and Contract Drawings in which the Authority has or may acquire patent, copyright or other property rights are hereby expressly reserved for the exclusive use of the Authority. The Contract Drawings as they may eventually exist may contain confidential information which is disclosed only to enable this Contract to be performed. Said Specifications and Drawings must not be used for any purpose detrimental to the interest of the Authority and must not be produced or copied in whole or in part or used for furnishing information to others without the written consent of the Authority, provided, however, that the Contractor may, when the performance of the Contract so requires, furnish said information to others for the purpose of engaging or informing subcontractors and materialmen.

If, in accordance with this Contract, the Contractor furnishes research, development or consultative services in connection with the performance of the Contract and if in the course of such research, development or consultation patentable subject matter is produced by the Contractor, its officers, agents, employees, subcontractors or materialmen, the Authority shall have, without cost or expense to it, an irrevocable, non-exclusive, royalty-free license to make, have made, and use, either itself or by anyone on its behalf, such subject matter in connection with any activity now or hereafter engaged in or permitted by the Authority. Promptly upon request by the Authority, the Contractor shall furnish or obtain from the appropriate person a form of license satisfactory to the Authority, but as between the Contractor and the Authority the license herein provided for shall nevertheless arise for the benefit of the Authority immediately upon the production of said subject matter and shall not await formal exemplification in a written license agreement as provided for above. Such license may be transferred by the Authority to its successors, immediate or otherwise, in the operation or ownership of any real or personal property now or hereafter owned or operated by the Authority, but such license shall not be otherwise transferable.

The right to use all material, software, firmware, compositions of matter, manufactures, apparatus, appliances, processes of manufacture or types of construction required in connection with this Contract and to which a patent, copyright or other intellectual property right applies or may apply shall be obtained by the Contractor without separate or additional compensation whether the same is patented, copyrighted or otherwise protected as an intellectual property right before, during or after the performance of the Contract.

The Contractor shall indemnify the Authority against and save it harmless from all loss and expense incurred in the defense, settlement or satisfaction of any claims in the nature of patent, copyright or other intellectual property right infringement arising out of or in connection with the Authority use, in accordance with the preceding two paragraphs of this numbered clause, of such subject matter or material, software, firmware, compositions of matter, manufactures, apparatus, appliances, processes of manufacture or types of construction to which a patent, copyright or other intellectual property right applies or may apply. If requested by the Authority and if notified promptly in writing of any such claim, the Contractor shall conduct all negotiations with respect to and defend such claim without expense to the Authority. If the Authority be enjoined from using any of the facilities which form the subject matter of this Contract and as to which the Contractor is to indemnify the Authority against patent, copyright or other intellectual property right claims, the Authority may, at its option and without thereby limiting any other right it may have hereunder or at law or in equity, require the Contractor to supply, temporarily or permanently, facilities not subject to such injunction and not infringing any patent, copyright or other intellectual property right or to remove all such facilities and refund the cost thereof to the Authority or to take such steps as may be necessary to ensure compliance by the Authority with such injunction, all to the satisfaction of the Authority and all without cost or expense to the Authority.

## **90. INSPECTIONS AND REJECTIONS**

All Work and all construction, processes of manufacture and methods of construction involved in or related to the performance of the Work shall be at all times and places subject to the inspection of the PA Project Manager, acting personally or through his Inspectors, and the enumeration in these Specifications of particular portions of such Work, construction, processes of manufacture or methods of construction which will or may be inspected by the PA Project Manager or such Inspectors shall not be deemed to imply that only such Work, construction, processes of manufacture and methods of construction will or may be so inspected. The PA Project Manager shall be the judge of the quality and suitability of the Work, construction, processes of manufacture and methods of construction for the purposes for which they are used or to be used. Should they fail to meet his approval they shall be forthwith reconstructed, made good, replaced or corrected, as the case may be, by the Contractor at his own expense. Rejected material shall be removed immediately from the site. The fact that the Inspectors have approved the materials and workmanship shall not relieve the Contractor from his obligation to supply other material and workmanship when so ordered by the PA Project Manager.

The Contractor, at his own expense, shall furnish such facilities and give such assistance for inspection as the PA Project Manager may direct. In the case of materials required by the Specifications to be inspected in the factory or plant, and in the case of any other items which the PA Project Manager may designate, the Contractor shall secure for the PA Project Manager and his Inspectors free access to all parts of such factories or plants and shall furnish to the PA Project Manager three copies of purchase orders, two copies of mill shipping statements and four copies of shipping statements. Moreover, in the case of such materials to be factory or plant inspected, the Contractor shall give at least ten days' notice to the PA Project Manager of his intention to commence the manufacture or preparation of such materials.

Other than the materials and equipment specifically required to be inspected at the manufacturer's factory or plant, all materials will be inspected at the construction site and any portions thereof which are rejected by the PA Project Manager shall be immediately removed from the construction site by the Contractor and shall be replaced with new materials by the Contractor at his own expense.

In the case of materials to be inspected at the construction site, the Contractor shall submit a list of all such materials in triplicate to the PA Project Manager for his approval prior to ordering same. The list shall be submitted within forty-five calendar days after receipt of the notice of acceptance and shall contain the following information:

- A. Classification of submittal in accordance with the following:
- Class I - A submittal for record of an expressly specified item.
- Class II - A submittal of an item which conforms to an express generic specification or a submittal which is deemed by the Contractor to be identical to an expressly specified item.
- Class III - A submittal which is deemed by the Contractor to be functionally equivalent but not identical to a specified item.
- B. In the case of Class II and Class III, the Contractor shall supply adequate information to the PA Project Manager to enable the PA Project Manager to compare the specified item and the proposed substitution. Information shall include, but need not be limited to, technical specifications, Catalog Cuts, drawings, references to existing installations and test data, or any other data required by the PA Project Manager.
- C. In the case of fabricated materials for which Shop Drawings are to be prepared, a brief description of the material and the statement "see Shop Drawings".
- D. In the case of materials or equipment listed in manufacturer's catalogs, the list shall contain the vendor's name, the manufacturer's name, brand name, style designation, catalog number and, where the Specifications require catalog cuts, the statement "see catalog cut".
- E. In the case of materials or equipment for which Shop Drawings are not to be prepared, and which are not listed in any catalog, the list shall contain a complete description of the material or equipment, which shall be in sufficient detail to describe completely the materials or equipment and quality thereof.

The PA Project Manager shall advise the Contractor whether said list is approved or requires corrections or additions within the number of working days indicated in the chart below:

Type of Submittal	No. of Working Days for Engineer to Approve/Disapprove Items
Class I Material submittals	10
Portland Cement mix designs that require confirmation of the 28-day properties	35
Changes in asphalt mix designs that need to be confirmed with a batch mix at the plant	35
Class II Material submittals	20
Class III Material submittals	30

Failure of the Contractor to provide 30 calendar days advance notice to the PA Project Manager of any submittal shall result in a five (5) working day extension of the number of days stated in the chart above. In no event shall an extension of the PA Project Manager's review time provided for in this section relieve the Contractor from its duty to meet all contractual Milestone dates.

Within ten working days after receipt of said list, the PA Project Manager shall notify the Contractor of which items are approved and which disapproved. Within two working days thereafter, the Contractor shall resubmit a new list covering those items which were disapproved. After each such re-submission the PA Project Manager shall have a similar period of ten days in which to approve or disapprove.

Should materials or equipment be delivered to the construction site without having been placed on the aforementioned list and approved, it shall be immediately removed from the construction site by the Contractor at his own expense.

#### **91. MANUFACTURERS' MATERIAL INVOICES**

In addition to requirements specified elsewhere, where products of GAF Corporation or of its subsidiaries including U.S. Intec, Inc. (USI), Tri Ply, and GAF Materials Corporation (GAF MC) are used in this Contract and where products of Armstrong World Industries, Inc., are used in this Contract, prior to issuance of the Certificate of Final Completion submit copies of material invoices with costs for all such products to the PA Project Manager.

#### **92. MANUFACTURERS' CERTIFICATION**

Where materials and equipment are required by the Specifications as they may eventually exist to conform to certain standard or tentative specifications or requirements of any organizations, including American Society for Testing and Materials, American National Standards Institute, Association Rules for Grading Lumber, Federal Specifications, National Electrical Manufacturers Association, American Association of State Highway and Transportation Officials, American Water Works Association and the International Municipal Signal Association, the Contractor shall furnish to the PA Project Manager the manufacturer's written certification that each of the materials or equipment conforms to the foregoing standard or tentative specifications. The certification shall be delivered to the PA Project Manager prior to installation of the materials to which it refers. Such certifications shall not be binding or conclusive on the Authority and may be rejected at any time by the PA Project Manager if incorrect, improper or otherwise unsatisfactory in his opinion.

#### **93. NO RELEASE OF CONTRACTOR**

Any provision of this Contract for testing, inspection or approval, and any actual testing, inspection or approval, of any materials, workmanship, plant, equipment, drawings, program, methods of procedure, or of any other thing done or furnished or proposed by the Contractor to be done or furnished in connection with the Contract is for the benefit of the Authority not the Contractor. Any approval of such things shall be construed merely to mean that at that time the PA Project Manager knows of no good reason for objecting thereto. No such provision for testing or inspection, no omission of testing or inspection, and no such approval shall release the Contractor from his full responsibility for the accurate and complete performance of the Contract in accordance with the Contract Drawings and Specifications or from any duty, obligation or liability imposed upon him by the Contract or from responsibility for injuries to persons or damage to property.

#### **94. ERRORS AND DISCREPANCIES**

If, in the performance of the Contract, the Contractor discovers any errors or omissions in the Contract Drawings, or in the marks, lines and elevations furnished by the Authority in the construction undertaken and executed by him, he shall immediately notify the PA Project Manager and the PA Project Manager shall promptly verify the same.

If with the knowledge of such error or omission and prior to the correction thereof, the Contractor proceeds with any construction affected thereby, he shall do so at his own risk and the construction so done shall not be considered as construction done under and in performance of this Contract unless and until approved and accepted.

**95. ACCIDENTS AND FIRST AID PROVISIONS**

The Contractor shall promptly report in writing to the PA Project Manager and to the Authority Manager, Claims Administration all accidents whatsoever arising out of or in connection with the performance of the Contract, whether on or adjacent to the construction site, which result in death, injuries or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damage is caused, the accident shall be reported immediately by telephone to both of the said representatives of the Authority.

The Contractor shall provide at the construction site such equipment and medical facilities as are necessary to supply first aid service, in case of accident, to any who may be injured in the progress of the Contract. He shall have standing arrangements for the removal and hospital treatment of any person who may be injured while engaged in the performance of the Contract.

If any claim is made by any third person against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the fact in writing to the aforementioned representatives of the Authority, giving full details of the claim.

**96. SAFETY PROVISIONS**

In the performance of the Contract, the Contractor shall exercise every precaution to prevent injury to workers and the public or damage to property.

He shall, at his own expense, provide temporary structures, place such watchmen, design and erect such barricades, fences and railings, give such warnings, display such lights, signals and signs, exercise such precaution against fire, adopt and enforce such rules and regulations, and take such other precautions as may be necessary, desirable or proper, or as may be directed.

The Contractor shall employ for Work of the Contract a competent person conforming to the requirements of the Code of Federal Regulations 29 CFR 1926.32(f) who shall be designated by the Contractor as authorized to perform the duties required by 29 CFR 1926 et seq. as applicable for Work of this Contract.

Obtain and submit to the PA Project Manager one copy of material safety data sheet (MSDS) conforming to the requirements of 29 CFR 1910.1200(g) for each hazardous chemical utilized for permanent and consumable materials employed for Work of this Contract.

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss, including but not limited to:

- A. All employees on the Work, the public, and other persons and entities who may be affected thereby;
- B. All the Work, materials and equipment to be incorporated therein, whether in storage on or off the site; and

- C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

The Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and the Contractor has removed all workers, material and equipment from the construction site, or the issuance of the Certificate of Final Completion, whichever shall occur last.

Until fire protection needs are supplied by permanent facilities under this Contract, install and maintain temporary fire protection facilities. Comply with requirements of National Fire Protection Association NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alteration and Demolition Operations".

The Contractor shall employ only such men as are physically fit and are free from contagious or communicable diseases.

He shall use only machinery and equipment adapted to operate with the least possible noise, and shall so conduct his operations that annoyance to occupants of nearby property and the general public will be reduced to a minimum.

The bringing of intoxicating substances onto the construction site and the use or consumption of intoxicating substances at the construction site are prohibited. It shall be the responsibility of the Contractor to insure that all employees of the Contractor and of all subcontractors, materialmen and any other persons under contract to or under the control of the Contractor shall comply with the provisions of this paragraph.

The Contractor shall daily clean up all refuse, rubbish, scrap materials and debris caused by his operations, to the end that at all times the construction site shall present a neat, orderly and workmanlike appearance. Before the Certificate of Final Completion of Work will be issued, the Contractor shall remove all surplus materials, falsework, temporary fences and other temporary structures, including foundations thereof, plant of any description and debris of every nature resulting from his operations and shall put the construction site in a neat, orderly condition.

In the event the Contractor encounters at the construction site, material reasonably believed to be asbestos, polychlorinated biphenyl (PCB) or any other hazardous material, the Contractor shall immediately stop Work in the area affected and report the condition in writing to the PA Project 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 PA Project Manager.

Within 15 days of the acceptance of his Proposal, the Contractor shall submit to the PA Project Manager, for his review and approval, the Contractor's Safety Program which shall comply with all applicable federal, state, municipal and local and departmental laws and shall include, among other things, the designation by the Contractor of a qualified individual to administer such Safety Program.

Should any vessel, equipment, plant, material, object or debris of any kind used in connection with the Contract or located at or in transit to or from the construction site be sunk, lost, dumped or go adrift under any circumstances, whether or not in navigable water, which in the opinion of the PA Project Manager may, at the time or potentially, be dangerous to or obstruct any navigation or interfere in any way with other work by or for the Authority or with the use of the Authority facilities, the Contractor shall recover and remove the same immediately. The Contractor shall give immediate notice with description and location of such items to the PA Project Manager and when required shall mark or buoy such items until they are removed. The foregoing obligations under this numbered Section shall not be impaired by any right which the Contractor might otherwise have to abandon such vessel, equipment, plant, material, object or debris of any kind without further obligation on his part, and the Contractor waives any such right.

**97. DAILY PROGRESS, EQUIPMENT AND LABOR REPORTS**

The Contractor shall furnish to the PA Project Manager at the end of each day Work is performed at the construction site, a memorandum showing for that day (a) the construction performed, (b) the type of equipment used identifying each piece of equipment as owned by the Contractor or rented from others; (c) a statement of any unusual happening that occurred, and (d) the names and number of workers in each trade classification that were employed. Such memorandum shall not be deemed to be a substitute for the notices, time slips, memoranda or other data required under the clauses of the Form of Contract relating to compensation for Extra Work, nor shall such a memorandum be deemed to be a substitute for the daily log required by the sections(s) of the Specifications pertaining to asbestos removal.

**98. LAWS AND ORDINANCES**

In order to effectuate the policy of the Authority, the Contractor shall comply with all provisions of federal, state, municipal, local and departmental laws, ordinances, rules, regulations and orders which would affect the Contract and the performance thereof and those engaged therein if said Contract were being performed for a private corporation, except where stricter requirements are contained in the Specifications or Contract Drawings, in which event the latter requirements shall apply. However, the Contractor shall not apply for any permits, licenses or variances in the name of or on behalf of the Authority, but shall do so in his own name where required by law, regulation or order or by the immediately preceding sentence. Nor shall the Contractor apply for any variance in his own name without first obtaining the approval of the Authority.

**99. U.S. COAST GUARD SECURITY REQUIREMENTS**

The Contractor is advised that in conjunction with Port Security Provisions for the Port of New York and New Jersey a 25 yard security or exclusionary area has been established by the United States Coast Guard around all bridges, piers and other facilities on the waterfront in the Greater New York/New Jersey area. No person or vessel may enter these security areas without the approval of the Coast Guard Captain of the Port and Vessel Traffic Service Activities New York as well as the Commander, First Coast Guard District Bridge Branch.

All requests to enter into these security zones shall be made in writing to Captain of the Port of New York not less than 30 days prior to the intended date of entry into the zone. Requests must be submitted to the U.S. Coast Guard Waterways Oversight Branch at Commanding Officer, U.S. Coast Guard Activities New York (WOB), 212 Coast Guard Drive, Staten Island, NY 10305; (718) 354-4193 or 4355 and must contain a complete list of all personnel that will enter into the security zones, complete vessel information and, if appropriate, a copy of Coast Guard Bridge Branch construction approval.

The following information is required:

- A. Employee's name, social security number and date of birth.
- B. Contractor's supervisor name and telephone number.
- C. Name, type, size of barge/vessel/boat.
- D. Project start and end dates, working hours and days.

After background checks of all personnel have been completed, Coast Guard Captain of the Port will issue a letter specifying personnel and vessels authorized to enter the security zone.

After initial written approval for entry has been received, the Contractor shall notify the Coast Guard (Vessel Traffic Service 718-354-4088) daily prior to entering and upon securing for the day or leaving the site.

If additional, or changes in existing personnel, are required said information identified above shall be transmitted as above, as early as possible, but not less than 96 hours in advance of the expected change.

Failure to comply with the above Security Zone Requirements and Conditions is punishable under Federal Law by arrest, prosecution, and or civil penalties.

#### **100. IDENTIFICATION**

No person will be permitted on or about the construction site without a pass, permit or identification badge approved by the PA Project Manager. The Contractor shall provide such passes, permits or identification badges for his employees, subcontractors and materialmen whenever necessary. Identification badges shall be worn in a conspicuous and clearly visible position by all employees of the Contractor whenever they are working at the construction site.

All persons entering the "Work Area" of asbestos removal shall, in addition to the above, conform to the requirements concerning entry into the "Work Area" contained in the Section(s) of the Specifications pertaining to asbestos removal.

#### **101. SIGNS**

No advertisement or sign, other than the name and address of the Contractor, will be permitted on any fences, temporary structures or elsewhere on the construction site and such advertisement will be permitted only upon the condition that it is first approved by the PA Project Manager. In any event, the advertisement shall not exceed six feet by eight feet in overall dimensions.

#### **102. CONTRACTOR'S FIELD OFFICE AND REPRESENTATIVE**

At a readily accessible point on or near the construction site, the Contractor shall maintain a field office provided with a telephone.

During the performance of any Work at the construction site, the Contractor shall have a representative thereat who shall be authorized by the Contractor to receive and put into effect promptly all orders, directions and instructions from the PA Project Manager. The Contractor's representative shall be provided, at all times, with a conformed copy of this Contract and a set of the Contract Drawings.

Orders and directions may be given orally by the PA Project Manager and shall be received and promptly obeyed by the Contractor or his representative or any superintendent, foreman or other employee of the Contractor who may have charge of the particular part of the Work in relation to which the orders or directions are given. A confirmation in writing of such orders or directions will be given by the PA Project Manager when so requested by the Contractor.

### **103. SURVEYS**

The PA Project Manager will establish a bench mark and a base line at or adjacent to the location of the Contractor's operations. The Contractor shall perform all surveys which may be required for the performance of the Contract. He shall carefully preserve any base line and bench mark which may be established by the PA Project Manager.

The Contractor shall, in addition, furnish to the PA Project Manager, without additional compensation therefor, any or all information and data regarding points, lines, grades, elevations and other survey information established by the Contractor during the performance of the Contract.

Surveys and measurements of quantities for purposes of computing Contractor's compensation shall be made by the Contractor as directed by and in the presence of, or jointly with, the PA Project Manager, at the PA Project Manager's option. Computations of quantities for payment shall be made by the Contractor and shall be subject to the approval of the PA Project Manager.

### **104. TEMPORARY STRUCTURES**

Unless otherwise provided in this Contract, the Contractor shall determine the need for and shall design, furnish and construct all barricades, fences, staging, falsework, formwork, shoring, scaffolding and other temporary structures required in the performance of the Contract, whether or not of the type enumerated in the Specifications or on the Contract Drawings, including those which would be required by law or regulation if this Contract were being performed for a private corporation. All such temporary structures shall be of adequate strength for the purposes for which they are constructed and shall be provided with graphics, warning signs and warning lights as required to inform personnel and the public of the hazards being protected against, and the Contractor shall maintain them in satisfactory condition. The design and drawings for such structures are to be prepared by the Contractor, and when requested by the PA Project Manager they shall be submitted for his review before being used. Neither such approval, however, nor any requirements of the PA Project Manager, the Specifications or the Contract Drawings shall relieve the Contractor of his responsibility for the design, construction and use of the temporary structures or from any obligations and risks imposed on him under this Contract, and any such approval or requirements shall be deemed merely to relate to minimum standards and not to indicate that the temporary structures are adequate or that they meet the Contractor's obligations under this Contract.

Temporary structures shall be painted with an approved dark color paint and shall be repainted whenever necessary during the period that the Contract is being performed. Upon completion of all Work under this Contract, the temporary structures shall be removed from the construction site.

**105. PERMIT AND REQUIREMENTS FOR WELDING**

Prior to the commencement of any cutting or welding operations at the construction site, the Contractor shall notify the PA Project Manager and obtain an Authority cutting and welding permit. The Authority will issue this permit without payment of a fee, and application forms may be obtained from any Resident Engineer of the Authority, at his office at the facility. Unless otherwise approved by the PA Project Manager, all cutting and welding operations shall be performed in accordance with the conditions which form a part of said permit. The permit application must be filled out and submitted in duplicate to the PA Project Manager at least forty-eight hours prior to commencing welding or cutting operations at the construction site.

**106. FINAL INSPECTION**

When, in the opinion of the Contractor, the construction is completed and ready for final inspection, he shall so notify the PA Project Manager in writing and the PA Project Manager will give said construction (including any portions with respect to which Certificates of Partial Completion have been issued) a minute and thorough inspection. Before any Certificate of Final Completion will be issued, any defects or omissions noted on this inspection must be corrected by the Contractor.

**107. WARRANTIES**

The Specifications may provide for certain warranties of portions of the permanent construction. These warranties are intended for the greater assurance of the Authority and not as a substitute for rights which the Authority might otherwise have. Although such warranties shall be enforceable as provided, neither any requirement of this Contract with respect to warranties by the Contractor nor any guarantee or warranty given to the Contractor or the Authority by any manufacturer shall be deemed to be a limitation upon any rights which the Authority would have, either expressed or implied, in the absence of such guarantees or warranties.

Until the Authority issues the Certificate of Final Completion, the Contractor shall maintain the installation, conduct equipment repairs, and furnish and install any necessary replacements at no additional cost to the Authority for the Warranty period (See Book III Section 13, Warranty)

**108. UTILITY RECORD DRAWINGS**

Prepare, on mylar sheets 22" x 34" or other size approved by the PA Project Manager, drawings showing the exact locations and elevations of underground utility construction including manholes, catch basins, inlets, pipe lines and structures for carrying gases (including air) and fluids including water, storm drainage, sewage, oil, chemicals, electrical duct runs, cables and conduits, for new construction or extension of existing utilities installed underground under this Contract.

Submit to the PA Project Manager, for verification and approval, tabulation of the data to be used in the preparation of the utility record drawings. Do not build-in, backfill or fill over or around or in any way cover underground structures, piping, conduit, cable or duct banks until such submitted data has been verified and approved by the PA Project Manager.

Indicate the exact locations, including changes of direction and curves, by the use of offset distances from nearby permanent structures and, in addition, by the use of coordinates which shall be based on the system of coordinates used at the construction site, the origin of which is shown on the Contract Drawings. Base elevations on the datum used at the construction site as is shown on the Contract Drawings.

Submit prints of these drawings to the PA Project Manager for verification, check of the accuracy, and for approval. Make indicated corrections and additions to the drawings, until the approval of the PA Project Manager has been obtained. After these drawings have been approved by the PA Project Manager, the original corrected mylar sheets shall be turned over to the PA Project Manager before issuance of the Certificate of Final Completion, and such original drawings shall become the property of the Authority.

**109. TEMPORARY UTILITY SERVICES**

Operate and maintain temporary services and facilities in a safe and efficient manner. Modify as required throughout progress of the Contract, and remove from Authority property when no longer required, or replaced by the use of completed permanent facilities as approved by the PA Project Manager.

Make arrangements for securing, and pay all costs for heat, light, power, water, and other services which may be required for the performance of the Contract.

**110. TEMPORARY SANITARY FACILITIES**

Make arrangements for securing and pay all costs for temporary toilets, wash facilities and drinking water including toilet tissue, paper towels, paper cups and similar disposable materials for use by the Contractor, subcontractors, materialmen or other persons over whom the Contractor has control. Comply with regulations and health codes, which would be applicable if the Authority were a private corporation, for the type, number, location, operation and maintenance of fixtures and facilities. Install facilities where directed by the PA Project Manager, and remove from Authority property when no longer required.

**111. PROGRESS SCHEDULE**

A. Schedule Requirements

- 1.) The Contractor shall, at its own expense, prepare, maintain and update detailed electronic progress schedules for the PA Project Manager's review and approval. All submittals required herein shall be in the form and content stipulated in this Section. Each progress schedule shall bear the signature of the Contractor's authorized representative. The progress schedules/graphics required by this Contract shall be produced using Primavera Project Planner (P3 or P3e), or Primavera Suretrak.

- 2.) The IMP shall include an integrated schedule utilizing critical path methodology. This schedule must include detailed activities for design, integration, fabrication, procurement, construction, installation, training, testing, facility commissioning, providing submittals, indicating major milestones that correspond to contract dates, and description of the overall critical path. The information provided in the schedule shall also include, but will not be limited to, the interactions between the Contractor's activities and all other activities required for the successful completion of the contract, e.g. those to be performed by utility companies, by the Authority's forces, or by other entities. Moreover, schedules shall include time allowances for obtaining permits; preparation of shop drawings, designs, and other submittals; and obtaining approvals. The activities and schedule should demonstrate Contractor's understanding of contract objectives and indicate the Contractor's ability to complete the work on or before the contractual due date. A high-level summary schedule must also be available. The Contractor shall use Primavera P3 or electronic scheduling software that is compatible with Primavera P3. The integrated schedule shall be submitted as part of the proposal response and shall be updated monthly and as part of the 30%, 60%, 90%, and 100% design submittals. Schedules should also be made available as requested by the Authority throughout the period of performance of this contract.
- 3.) Progress schedules shall be sufficiently detailed to accurately depict all the Work (including any design, key submittals, procurement and construction activities performed by the Contractor) and shall graphically represent the logical sequence and duration of activities, all in accordance with the requirements of the Contract. The information provided in progress schedules shall also include, but not be limited to, the interdependencies between the Contractors' Activities and all other Activities required for the successful completion of the Contract, e.g., those to be performed by utility companies or by other entities. All Milestone dates specified in the Contract shall be represented in the schedule by Milestone activities that are logically interrelated to the work that must be accomplished in order to achieve the Milestone.
- 4.) The Contractor's schedule shall incorporate the Activity Code Structure shown in Attachment A, and such other coding as may be required by the PA Project Manager.
- 5.) To assist the Contractor in preparing its progress schedule, a sample Network Diagram is shown in Figure 1. The sample is intended merely for the Contractor's guidance. The types of data shown are the types of data expected to be shown on the Contractor's Network Diagram. However, the information presented in the sample Network Diagram should not be misinterpreted as either representing a plan for the Contractor's Network Diagram or a depiction of the level of detail which will be required in such diagram.
- 6.) The submittal of Progress Schedules under this section shall not be deemed to be a substitute for the reporting requirements of the Section of Division 1 entitled "Daily Progress, Equipment and Labor Reports."

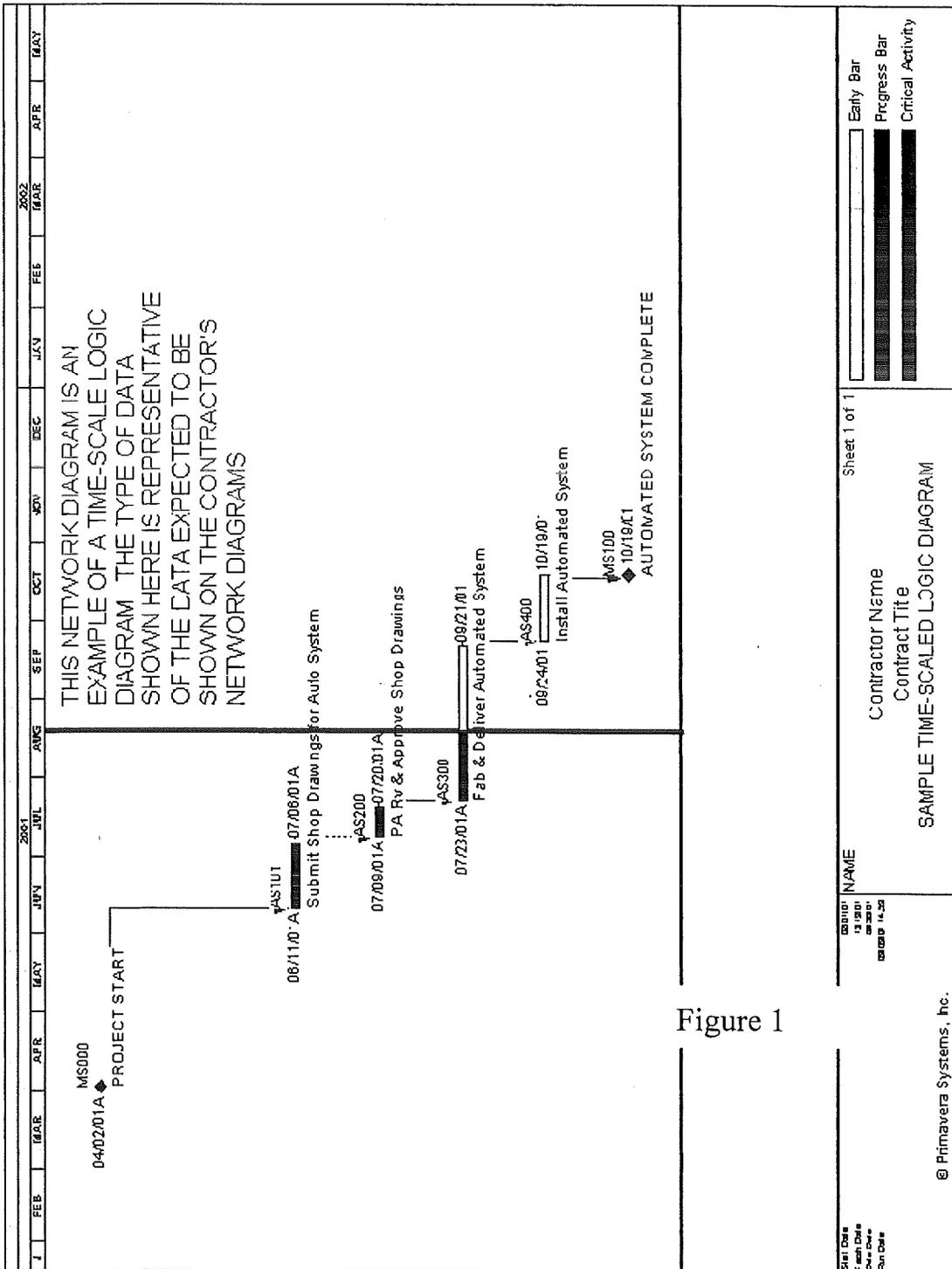


Figure 1

B. Schedule Terminology

Schedule terminology used in this Contract shall have the meaning described below:

- 1.) **Activity:** A discrete item of Work with a Duration that can be clearly defined; a synonym for task. Unless otherwise permitted in writing by the PA Project Manager, an activity's duration shall be not more than 30 calendar days
- 2.) **Activity Codes:** Activity Codes allow each activity in a project to be grouped into specific classifications such as area, responsibility, phase, system, or location. The codes consist of specific values and descriptive titles that are entered into the data dictionary of the scheduling software. Activities are assigned specific Activity Codes as appropriate.
- 3.) **Alternative Solutions:** An analysis of the various options for dealing with encountered or anticipated Contract problems. An alternative solution is developed to assist in determining the best method(s) of preventing or correcting any impediments to the progress of the Work. Alternative Solutions analysis shall indicate impacts on scheduling and resources.
- 4.) **Analysis Report:** A report that displays the impacts of all variances reported in the Current Progress Schedule. The Analysis Report focuses attention on the impacts of variances between planned and actual performance, so as to support an assessment of such impacts. The Analysis Report shall include Alternative Solutions.
- 5.) **Bar Chart:** A schedule display designed to complement the Network Diagram. The Bar Chart is a traditional Gantt chart, to which the Early Start Dates, Early Finish Dates, Late Start Dates, Late Finish Dates, and Critical Path have been added.
- 6.) **Calendar:** A calendar defines when work on an activity can occur (i.e. Mon – Fri for a standard work week). Activities shall be assigned to a Calendar that represents the planned work days.
- 7.) **Constraint:** A constraint is a restriction imposed on the start or finish of an activity or project. An example of the use of constraints is the imposition of a “finish no later than” constraint<sup>16</sup> on the project completion Milestone that is equal to the Contract Completion date. This constraint facilitates the identification of activities that control or do not support the completion date. Constraints shall be limited to start and finish constraints on Milestone activities that represent critical Contract dates, unless otherwise approved by the PA Project Manager in writing.
- 8.) **Critical Path:** The longest path through the network in estimated total elapsed time from the start of the first Activity through the completion of the last Activity. The Critical Path consists of a series of Activities which must be completed on their scheduled completion dates in order for the Contract to be completed on schedule.

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A late finish or “finish no later than” constraint limits the latest time an activity can complete

- 9.) **Current Progress Schedule:** The most recent progress schedule which has been approved by the PA Project Manager. The Baseline Schedule shall be referred to as "Revision 0". Each time a different Current Progress Schedule is accepted by the PA Project Manager, the revision number must be increased by 1, and the old schedule must be electronically archived, so as to permit an audit trail.
- 10.) **Duration:** The estimated and/or actual length of time required to fully perform a specific Activity. The Duration is expressed in work days.
- 11.) **Early Finish Date:** The date upon which an Activity can be completed if it is begun on the Early Start Date.
- 12.) **Early Start Date:** The earliest date upon which an Activity can begin.
- 13.) **Hammock:** A hammock activity summarizing the early and late dates of a set of activities is used for reporting durations of groups of important activities. An activity shall be designated as a hammock by selecting Hammock as the activity type in the Primavera activity form.
- 14.) **Lag:** The interval between the completion of a Predecessor Activity and the start of a Successor Activity. For example, ten days of positive Lag will cause the Successor Activity to begin ten days after the Predecessor Activity has been completed. Negative Lag will cause the Activities to overlap. The amount of Lag between each Activity shall be clearly represented on the Network Diagram.
- 15.) **Late Finish Date:** The latest date by which an Activity must be completed if the succeeding Activity is to be started on schedule.
- 16.) **Late Start Date:** The latest date by which an Activity must be started to allow completion by the Late Finish Date.
- 17.) **Milestone:** A significant point in the performance of the Work. A milestone has no Duration, and represents the start of a portion of the Work or the completion of a portion of the Work. A milestone may also represent either the beginning or the completion of a task or action being performed by entities other than the Contractor (e.g., obtaining a permit, notification to proceed with certain Work, etc.).
- 18.) **Negative Float:** The amount of time that the planned completion date of an Activity is later than its required (Late Finish) date. An Activity with Negative Float must be completed ahead of schedule if the Work is to be completed on time. Negative Float usually indicates the need for corrective and/or preventive action to complete the Work on schedule.
- 19.) **Network Diagram:** A logic diagram prepared according to the Precedence Diagram Method, which displays each Activity required for the performance of the Contract in the sequence in which it is to be performed with appropriate logic ties between activities displayed.
- 20.) **Baseline Schedule:** The detailed progress schedule first approved by the PA Project Manager as provided for in the Contract.

- 21.) **Precedence Diagram Method (PDM):** A particular type of graphic representation of all Activities and Constraints. The Activities are represented by nodes; the Constraints are represented by lines between nodes. A sample PDM Network Diagram appears in this Section.
  - 22.) **Predecessor Activity:** An Activity which is a prerequisite to commencement of another Activity.
  - 23.) **Preliminary Progress Schedule:** A detailed progress schedule for Work to be performed within one hundred days after the acceptance of the Contractor's Proposal.
  - 24.) **Relationship:** a logic tie between two activities representing restrictions on the start or completion of the subsequent activity. Relationships may cause either positive or negative lag. The four basic types of relationships are finish to start, start to start, finish to finish, and start to finish.
  - 25.) **Successor Activity:** An Activity which cannot be started or completed without the prior completion or partial completion of a Predecessor Activity.
  - 26.) **Total Float:** The amount of time by which an Activity or series of Activities may be delayed without affecting the date of completion of the Work.
- C. Schedule Submittal, Review & Approval Process
- 1.) Preliminary Progress Schedule
    - a. Within twenty (20) calendar days of the acceptance of the Contractor's Proposal for contracts under \$20M, twenty-five (25) calendar days for contracts between \$20M to \$50M and thirty (30) calendar days for contracts over \$50M, the Contractor shall submit a Preliminary Progress Schedule containing the Contractor's detailed proposed plan for the first hundred days of Work, with summary detail for the remaining duration of the project. The first hundred days of the Preliminary Progress Schedule shall be prepared with the same level of detail and in the same format required for the Baseline Schedule. The submittal shall consist of one computer diskette and three printed reports
    - b. The PA Project Manager will review the Preliminary Progress Schedule and provide the Contractor with comments or accept it as the official Preliminary Schedule, within fifteen (15) calendar days.
    - c. If it is not accepted, the Contractor shall revise the Preliminary Progress Schedule in accordance with the PA Project Manager's comments, and resubmit three printed reports and one diskette for the PA Project Manager's approval, within seven (7) calendar days of the receipt by the Contractor of the PA Project Manager's comments. Until such time as the PA Project Manager accepts it, the Contractor shall resubmit the Preliminary Progress Schedule as required by the PA Project Manager within the same time frames and in the same format as required in this paragraph for the initial resubmission.
    - d. The Preliminary Progress Schedule, all reports and network diagrams required by this section shall be updated and submitted monthly during the first ninety days.

2.) Baseline Schedule

- a. Within ninety (90) calendar days of the acceptance of the Contractor's Proposal, the Contractor shall submit a proposed Baseline Schedule containing the Contractor's projected plan and schedule to complete all Work required by the Contract within the time(s) for completion required by the Contract. A schedule showing time(s) for completion other than those required by the Contract will not be accepted.
- b. The PA Project Manager will review the proposed Baseline Schedule and return it to the Contractor with comments, or accept it as the official Baseline Schedule, within fifteen (15) calendar days. The Contractor shall participate in any meetings called to resolve issues with the schedule.
- c. If it is not accepted, the Contractor shall revise the Baseline Schedule in accordance with the PA Project Manager's comments and resubmit three printed reports and one diskette for the PA Project Manager's approval, within fifteen (15) calendar days of the receipt by the Contractor of the PA Project Manager's comments. Until such time as the PA Project Manager accepts it, the Contractor shall resubmit his proposed Baseline Schedule as requested by the PA Project Manager within the same time frame and in the same format as required by this paragraph for the initial resubmission.
- d. After the approval of any progress schedule required by this Section no changes shall be made therein without the written approval of the PA Project Manager. No other act or omission on the part of the PA Project Manager shall be deemed to constitute such approval. The Contractor shall not be entitled to any damages by reason of the failure of the PA Project Manager to give timely approval or comments on any progress schedule submitted hereunder.

3.) Progress Schedule Updates

- a. The Contractor shall submit to the PA Project Manager not less frequently than once a month, on a date specified by the PA Project Manager, an update of the Current Progress Schedule. Schedule updates shall status the actual performance and progress of the Work and depict any changes.
- b. Within seven (7) calendar days after receipt by the PA Project Manager of a updated progress schedule, the Contractor shall meet with the PA Project Manager for the purpose of reviewing and obtaining the PA Project Manager's approval of it.
- c. The PA Project Manager may require the Contractor to furnish a revised update which shall include any other information he may request to assist him in evaluating the Contractor's progress, including but not limited to manpower loading charts and equipment schedules; "what-if" analysis performed in a copy of the current progress schedule, etc.
- d. In the event that the PA Project Manager requests the Contractor to revise the updated schedule submitted, and/or to submit such additional information, the Contractor shall make the requested revisions and/or submit the updated schedule to the PA Project Manager for approval along with the additional information requested within seven (7) calendar days of the PA Project Manager's request.

D. Schedule Reporting Requirements

- 1.) The preliminary schedule submittal shall include one computer diskette and three copies of the following output reports:
  - a. A time-scale logic diagram in PDM format containing all activities displaying Activity ID, Activity Description, Calendar, original and remaining durations, percent complete, Early and Late Dates, and Total Float, and sorted by:
    - (i) Early Start, Early Finish, Total Float
    - (ii) Total Float, Early Start (Critical path report)
    - (iii) Late Start, Late Finish (if required by the PA Project Manager)
  - b. A tabular Predecessor and Successor standard report showing the relationships between all activities in the schedule and sorted by ES, TF (if required by the PA Project Manager)
  - c. Any other information which may be requested by the PA Project Manager to assist him in the evaluation
- 2.) The baseline schedule submittal shall include one computer diskette and six copies of the following output reports:
  - a. A Schedule narrative that generally describes the Contractor's approach to meeting the project goals, lists the Critical Path Activities and compares Early and Late Dates with Contract Times and Milestone Dates. The basis for any constrained dates shall be explained.
  - b. A one-page time scaled Summary Schedule consisting of 20-40 Hammock activities or summary bars that show the entire project broken down into major portions of work, as agreed to by the Contractor and PA Project Manager.
  - c. A time-scale logic diagram in PDM format containing all activities displaying Activity ID, Activity Description, Calendar, original and remaining durations, percent complete, Early and Late Dates, and Total Float, and sorted by:
    - (i) Early Start, Early Finish, Total Float
    - (ii) Total Float, Early Start (Critical path report)
    - (iii) Late Start, Late Finish (if required by the PA Project Manager)
  - d. A tabular Predecessor and Successor standard report showing the relationships between all activities in the schedule and sorted by ES, TF (if required by the PA Project Manager), as shown in figure 2.
  - e. Supporting data showing all activities with their associated cost, budgets or estimates

- f. Any other information that may be requested by the PA Project Manager to assist him in evaluation of the Contractor's progress. Such information may include, but not be limited to, the following:
    - (i) Cost Loading
    - (ii) Manpower loading charts
    - (iii) Equipment schedules
  - g. The Contractor shall electronically archive all accepted schedules
- 3.) Within seven (7) calendar days after the Baseline Schedule is first accepted by the PA Project Manager, submit a reproducible transparency and six (6) Network Diagrams printed on "C" size (17" x 22") or "D" size (22"x34") sheets as directed by the PA Project Manager. Each sheet shall have match lines indicating the interface between sheets if required.



- 4.) In addition to the reports required for the Baseline Schedule submittal, all Progress Schedule Update Reports shall include the following:
- a. A narrative comparing the current Dates to the respective Milestone Dates, describing the physical progress during the current report period, explaining plans for continuing the work during the next report period and describing and explaining changes in crewing and construction equipment. The narrative shall also explain changes in Activity durations, logic ties and Activity Values and the reason why the change was made.
  - b. Whenever there is any delay or negative float prediction in the schedule, the Contractor shall submit an alternative solutions report that describes the delay, explains when it started and finished or is expected to finish and the basis for those dates, lists the affected schedule activities by activity ID, and discuss who the contractor feels is responsible. Any revisions to durations or the logical sequence of Activities made to reflect these delays must be explained. The report shall propose appropriate schedule recovery such as multiple shifts or overtime to mitigate any potential delay to the overall project completion date, or request an extension of time, as appropriate.
  - c. A revised Network Diagram sorted by Early Start and Early Finish indicating actual start and finish dates and the remaining duration and percent complete of activities in progress. The critical path of the project shall be clearly shown.
  - d. An Analysis Report indicating Activities and/or Milestones which are behind schedule by at least 30 calendar days (commonly evidenced by Negative Float).
  - e. A report that compares the Current Progress Schedule update with the Baseline and prior month's accepted schedule update and lists all changes made to the schedule.

E. General Schedule Provisions

- 1.) Should the Contractor fail to comply with any provision of this Section, The PA Project Manager shall have the right in its discretion to withhold out of any payment (final or otherwise and even though such payment has already been certified as due) such sums as it deems necessary or desirable, all as more fully provided in the clause of the Form of Contract entitled "Withholding of Payments".
- 2.) Neither the acceptance, review or approval of any progress schedule or other data submitted by the Contractor pursuant to this Section, nor any other action on the part of the PA Project Manager under this Section shall in any way be deemed as a representation by the PA Project Manager that the Contractor can or will be permitted to follow a particular schedule or sequence of operations or that by following any such schedule or sequence he can or will complete the Work by the time(s) required by the Contract or by any other time(s). Nor shall the approval of any progress schedule or other such data relieve the Contractor of his obligation to complete the Contract by the time(s) required in the Contract, even though the schedule may be inconsistent with such completion.

- 3.) Any approval under this Section shall be construed merely to mean that the PA Project Manager knew of no good reason at that time to object thereto. No acceptance, review or approval or any other action under this Section shall limit, affect or impair the Contractor's obligation to perform all Work by time(s) required by the Contract and in accordance with all other provisions of the Contract.
- 4.) The performance of the Work by the time(s) required in the Contract, after taking into account extensions to which the Contractor may be entitled under the clause "Extensions of Time", may require the use by the Contractor of overtime labor, additional shifts or additional plant and equipment and/or other measures at no additional cost to the Owner. The Contractor shall anticipate, avoid and mitigate the effects of all delays.
- 5.) The PA Project Manager shall have the right at any time when in his judgment the Work is not proceeding in accordance with the approved progress schedule or at any time when it is likely that the Work might not be completed by the time(s) required in the Form of Contract even though the Contractor is proceeding in accordance with the approved progress schedule, to order the Contractor without additional compensation, to employ additional shifts to increase the number of men employed, to use additional plant or equipment, or to take such other steps as may be necessary or required to assure the completion within the time(s) shown in the accepted schedule.
- 6.) No action on the part of the Contractor pursuant to this Section shall be construed as a request by him for an extension of the time(s) for completion required by the Contract. A request for an extension of time shall be deemed made only if it complies with the requirements of the clause of the Form of Contract entitled "Extensions of Time". No extension of the time(s) for completion shall be inferred because of any action, omission to act, or statement on behalf of the PA Project Manager pursuant to this Section. Extension of time, if any, shall be granted only pursuant to the clause of the Form of Contract entitled "Extensions of Time".
- 7.) The Contractor acknowledges and agrees that he is not entitled to an extension of time for impacts that do not extend the contractual end date of the project.
- 8.) Schedule float time disclosed or implied is not for exclusive use or benefit of the owner or contractor but is available to all parties as needed to meet contract milestones and the contract completion dates.
- 9.) Techniques such as preferential sequencing, special lead/lag logic restraints, extended activity times or imposed dates that tend to sequester float shall be cause for rejection of the Detailed Project Schedule and any revisions or updates.

**112. ASBESTOS COST SUMMARY SUBMITTAL**

Upon satisfactory completion of asbestos removal Work under this Contract, submit a Summary of Asbestos Removal and Disposal Costs on the form bound herewith, with all spaces filled in without exception. Such summary shall include costs associated with the Work computed in accordance with the stipulations of the clauses contained in CHAPTER II of the Form of

**THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY  
SUMMARY OF ASBESTOS REMOVAL AND DISPOSAL COSTS**

CONTRACTOR \_\_\_\_\_ ONTRACT NO. MFA-100.308

DATE \_\_\_\_\_

FACILITY TITLE OUTERBRIDGE CROSSING

SPECIFIC LOCATION OF REMOVAL \_\_\_\_\_

ITEM DESCRIPTION	ASBESTOS CONTAINING MATERIALS <sup>17</sup>		
	Sprayed on <sup>18</sup>	Pipe and Boiler Insulation <sup>19</sup>	Miscellaneous <sup>20</sup>
Removal <sup>21</sup>			
Encapsulation <sup>22</sup>			

<sup>17</sup> Where a particular type of asbestos containing material (ACM) is not present in the specific removal location described above, cross out ACM description and fill in NA (Not Applicable) for the associated description items.

<sup>18</sup> Sprayed-on and trowelled-on fireproofing, acoustical plasters, simulated acoustical plasters, textures and other ACM such as those found on ceiling systems, fireproofing systems and structural steel.

<sup>19</sup> Insulation or treatment on pipes, fittings, elbows, boilers, breachings, ducts, tanks or other mechanical equipment.

<sup>20</sup> Specify as to type of material, i.e.; surface treatments such as floor and ceiling tiles, roofing materials, refractory insulation and structural insulation, electrical cable, asbestos cloth, "Transite" board, exterior siding/shingles, tape, roll board, brake shoes, or other asbestos containing items.

<sup>21</sup> Include actual labor costs for removal of asbestos containing material.

Enclosures <sup>23</sup>			
Insurance <sup>24</sup>			
Replacement of Removed ACM <sup>25</sup>			
Clean up <sup>26</sup>			
On-site Monitoring of Abatement <sup>27</sup>			
*			
Purchase of Capital Equipment <sup>28</sup>			
Purchase of Protective Equipment <sup>29</sup>			
TOTALS:			

<sup>22</sup> Include actual labor costs for encapsulation of asbestos containing material.

<sup>23</sup> Include actual labor costs for enclosure of asbestos containing material.

<sup>24</sup> Include all premiums directly related to Work of this Contract only.

<sup>25</sup> Include actual labor costs for re-insulating, re-wrapping with substitute material and actual material cost.

<sup>26</sup> Include actual labor costs for, e.g., hepa vacuuming, assembly of discarded materials and abated asbestos at Work site and preparation of materials for disposal.

<sup>27</sup> Include actual costs of air monitoring and analysis.

\* Include actual costs for hauling and disposal in accordance with applicable Specification Sections.

<sup>28</sup> Include actual costs for purchase of capital equipment, e.g., negative air pumps and tools, if directly related to this Contract.

<sup>29</sup> Include actual costs for purchase of protective equipment, e.g., "Tyvek" suits, masks, hepa filters, amended water, and plastic sheeting if directly related to this Contract.

113. NET COST WORK [ADDENDUM 9]

When and as directed by the Engineer, the Contractor shall perform the following items of Work and will be compensated at the "Net Cost" of the Work.

- 1.) Relocation of underground utilities.
- 2.) Maintenance of traffic and work area protection.
- 3.) Premium Time due to after hours or weekend  
Work.
- 4.) Removal and disposal of contaminated and  
unsuitable soil.
- 5.) Construction staging and schedule changes.

"Net Cost" shall be computed in the same manner as is compensation for Extra Work, including any percentage addition to cost, as set forth in the clause of the Contract entitled "Compensation for Extra Work". Performance of such Net Cost Work shall be as directed by the Engineer and subject to all the provisions of the Contract relating to the performance of Extra Work. Compensation for said Net Cost Work shall not be charged against the total amount of compensation authorized for Extra Work.

^ (NOTE: PLEASE SEE ELECTRONIC FILES FOR THE DIVISION SPECIFICATIONS LOCATED IN BOOK IV FOLDERS )

<b>DIVISION 2 – SITEWORK</b>		
CIVIL	02073	CUTTING, PATCHING AND REMOVAL
ARCHITECTURAL	02076	SELECTIVE DEMOLITION FOR INTERIORS
GEOTECHNICAL	02221	EXCAVATION, BACKFILLING AND FILLING
CIVIL	02231	AGGREGATE BASE COURSE
CIVIL	02274	GEOTEXTILES
CIVIL	02501	SILANE SEALER
CIVIL	02551	ASPHALT CONCRETE PAVING
TRAFFIC	02580	THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS
CIVIL	02720	MANHOLES AND DRAINAGE STRUCTURES
CIVIL	02832	METALLIC – COATED STEEL CHAIN LINK FENCE AND GATES
TRAFFIC	02844	TEMPORARY CONCRETE BARRIER
TRAFFIC	02846	TEMPORARY WATER FILLED BARRIER
TRAFFIC	02850	PLYWOOD SIGN PANELS AND WOOD SIGN POSTS
TRAFFIC	02851	ALUMINUM SIGN PANELS
LANDSCAPING	02920	SCREENED TOPSOIL
LANDSCAPING	02930	SEEDING
<b>DIVISION 3 – CONCRETE</b>		
STRUCTURAL	03100	CONCRETE FORMWORK
STRUCTURAL	03300	PLACEMENT OF PORTLAND CEMENT CONCRETE
STRUCTURAL	03200	CONCRETE REINFORCEMENT
STRUCTURAL	03302	CONCRETE (SHORT FORM)
CIVIL	03602	GROUT (NON-METALLIC)
<b>DIVISION 4 – MASONRY</b>		
STRUCTURAL	04110	MASONRY GROUT
STRUCTURAL	04170	JOINT REINFORCEMENT AND STEEL REINFORCING
STRUCTURAL	04220	CONCRETE MASONRY UNITS
<b>DIVISION 5 – METALS</b>		
ARCHITECTURAL	05120	STRUCTURAL STEEL

ARCHITECTURAL	05311	STEEL DECK
ARCHITECTURAL	05506	MISCELLANEOUS STEEL
ARCHITECTURAL	05522	STAINLESS STEEL PIPE AND TUBE RAILINGS
ARCHITECTURAL	05523	STEEL PIPE AND TUBE RAILINGS
ARCHITECTURAL	05530	GRATING
<b>DIVISION 6 – WOOD AND PLASTICS</b>		
ARCHITECTURAL	06100	ROUGH CARPENTRY
<b>DIVISION 7 – THERMAL AND MOISTURE PROTECTION</b>		
ARCHITECTURAL	07259	SPRAYED ON CEMENTITIOUS FIRE PROOFING (SHORT FORM)
ARCHITECTURAL	07270	FIRE STOPPING
ARCHITECTURAL	07925	SEALANTS
<b>DIVISION 8 – DOORS AND WINDOWS</b>		
ARCHITECTURAL	08110	CUSTOM HOLLOW METAL
ARCHITECTURAL	08715	FINISH HARDWARE
<b>DIVISION 9 – FINISHES</b>		
ARCHITECTURAL	09250	GYPSUM DRYWALL
ARCHITECTURAL	09270	DRY WALL SHAFT SYSTEM
ARCHITECTURAL	09910	PAINTING
<b>DIVISION 15 - MECHANICAL</b>		
CIVIL	15310	SPRINKLER FIRE PROTECTION PIPING AND APPURTENANCES.
<b>DIVISION 16 - ELECTRICAL</b>		
ELECTRICAL	16000	ELECTRICAL GENERAL REQUIREMENTS
ELECTRICAL	16110	RACEWAYS
ELECTRICAL	16115	UNDERGROUND CONDUIT SYSTEMS
ELECTRICAL	16120	WIRES, CABLES, SPLICES, TERMINATIONS (600 VOLTS OR LESS)
ELECTRICAL	16127	CONTROL/SIGNAL TRANSMISSION MEDIA
ELECTRICAL	16133	CONTROL PANELS, ENCLOSURE/CABINETS, AND TERMINAL BOXES
ELECTRICAL	16135	BOXES AND FITTINGS

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ELECTRICAL	16140	WIRING DEVICES
ELECTRICAL	16190	SUPPORTING DEVICES
ELECTRICAL	16320	Dry - Type Transformers General Purpose (600 Volts or Less)
ELECTRICAL	16450	GROUNDING
ELECTRICAL	16470	PANELBOARDS
ELECTRICAL	16475	OVERCURRENT PROTECTIVE DEVICES (600 VOLTS OR LESS)
ELECTRICAL	16510	LIGHTING SYSTEMS
ELECTRICAL	16720	FIRE PROTECTION ALARM SYSTEM.



**ATTACHMENT B: SCOPE OF WORK**

(NOTE: PLEASE SEE ELECTRONIC FILES FOR THE SCOPE OF WORK LOCATED IN FOLDER BOOK II ATTACHMENT B )

**ATTACHMENT C: FUNCTIONAL AND PERFORMANCE REQUIREMENTS**

(NOTE: PLEASE SEE ELECTRONIC FILES FOR THE SCOPE OF WORK LOCATED IN FOLDER BOOK II ATTACHMENT C)

**ATTACHMENT D: DESIGN, INSTALL, TEST DELIVERABLES**

[INSERT WHEN FINALIZED]



## **SCOPE OF WORK**

### **1 Introduction**

This Scope of Work describes the effort to be performed by the Contractor for the management, design, integration, construction, procurement, installation and testing of and training for the Port Authority of NY & NJ (Authority) integrated Perimeter Intrusion Detection System (PIDS) for John F. Kennedy International Airport (JFK), LaGuardia Airport (LGA), Newark Liberty International Airport (EWR), and Teterboro Airport (TEB). The objective of PIDS is detection and assessment of intruders (unauthorized entry) into the exterior Air Operations Areas (AOA) secure areas via exterior segments (non-building areas) of the Alarm/Detection Secure Line as identified in the Perimeter Characterization and Security Upgrade Plans (PCSUP) for each airport. The exterior AOA is defined as the "Blue" hatched area in the facility PCSUP bordered by the exterior AOA secure line. Please see Book IV, Attachment 3, Characterization and Facility Upgrade Plans. PIDS will enhance the ability of Port Authority Police, Operations, and other first responders to identify, in advance at the earliest possible perimeter point, attempts by intruders and/or terrorists to gain access to Air Operations Area (AOA) airport property. The overall Port Authority of NY and NJ security upgrade plan objective is to deter, delay, detect, assess, and track, potential or actual breaches of the perimeter in a proactive manner to enhance the efficiency of security personnel in responding to intrusion and provide a high level of protection for persons and property within the control of the four New York and New Jersey area airports. PIDS is a subset of the overall Authority Security Upgrade Plan and is intended to detect, assess, and track attempted intrusions on the perimeter AOA. This project will require extensive new infrastructure necessary to implement the PIDS security system and may include, but will not be limited to, the installation of conduit, duct banks, field distribution cabinets, drainage and erosion control, grading, trenching, power and signal cabling and pedestal installation. This effort will include requirements to supply software/hardware integration of equipment, devices, material and appurtenances; to install/upgrade infrastructure to meet security system requirements; to acquire, integrate and stage security equipment and ancillary materials; to design, procure, install, and integrate a security sensor system; to provide training in security system operation and maintenance; to prepare and deliver as-built drawings and all other PIDS design documentation in accordance with the requirements under this Contract; and to perform and arrange for maintenance support of the installed security system. Please note that maintenance support requirements are identified in Book III in this RFP.

#### **1.1 Functional and Performance Requirements Overview**

PIDS involves the design, integration and installation of an exterior intrusion detection, day/night alarm assessment, and tracking system into an integrated

Control and Display system. See Book II, Attachment C, the PIDS Functional and Performance Requirements Document.

1.2 Operational Requirement Overview

PIDS shall provide a critical line of defense in protecting the Authority's Airport facilities and resources. The PIDS will provide an electronic means of accomplishing intrusion detection, alarm reporting, assessment and display and alerting security personnel of intrusions to ensure the physical security of the Authority's Airport facilities and resources, including its employees, contractors, visitors, and patrons. PIDS will provide an integrated detection and display capability that permits situational awareness, reporting, and warning information to be rapidly and accurately passed among security personnel. The Contractor will develop the CONOPs as the PIDS Design and Installation progresses. The initial draft CONOPs, prepared by a consultant to the Authority, is Confidential and Privileged and available for Contractor review. **It is required that any review of available documents be conducted at the Office of Emergency Management (OEM) 241 Erie Street Jersey City, New Jersey, 07310. Please contact Lou Barani at 201-595-4698 to schedule a review. See Section 1.10 for details.**

1.3 Training & Maintenance Requirements Overview

The Contractor shall provide maintenance services on all equipment and software furnished under the Main Agreement so that the PIDS will perform in accordance with the functional performance requirements. The performance of the PIDS, shall also be in accordance with the Specifications and this Scope of Work. Maintenance will be on a twenty-four (24) hours per day, seven (7) days per week basis, including Holidays. Specific Training and Maintenance Requirements are identified in Book III of this RFP.

**2 Applicable Reference Documents**

A list of Specifications, Standards and Handbooks that are applicable reference documents and form part of this Scope of Work can be found in Book IV, Attachment 7.

**3 Scope of Work Requirement**

3.1 Project Management

3.1.1 Integrated Project Management

The Contractor shall be responsible for the total management of the design, integration, fabrication, procurement, construction, installation, training, and testing of the work performed under the Contract, pursuant of the terms and conditions thereof. The Contractor shall manage an integrated program as defined in the Contractor's-prepared and maintained Integrated Management Plan (IMP) originally submitted as part of the proposal and as such subject to Authority approval and comment. The IMP shall be an event-driven plan that documents the significant accomplishments and ties these accomplishments to major program milestones. The IMP will address each of the four airport facilities and discuss design, integration, fabrication, procurement, construction, installation, training, testing, and commissioning. The IMP is to be used throughout the design and installation program as a management tool to assess progress and determine the success in achieving the PIDS requirements. The Contractor is to report on the work in progress and schedule in accordance to the IMP at each program review. The plan shall also discuss how the Contractor proposes to interact with any subcontractors and with Authority Personnel to provide status reports and to communicate updates to the project schedule utilizing project management techniques. *(Please note that the IMP is a separate document from the "Integrated Maintenance Plan" as described in Book III of this Request for Proposal.)*

3.1.1.1 Project Organization

The IMP shall include detailed description of the Contractor's PIDS team (Team). The Team is defined as the Proposer(s), any subcontractor and key security subsystem suppliers who will be utilized for Work. The Contractor shall include organizational charts that illustrate the reporting structure of the Team. The Team shall include expertise in integrated security system design and installation, electrical engineering, electronic systems and system integration, in addition to traditional construction disciplines, that can deliver to the Authority a fully-functional and safe system. At a minimum, identify the project manager and other key technical or subcontractor staff. If a joint venture, provide a full description of the reporting structure, including the role of each entity and the roles of any subcontractor(s). Describe other personnel who, while not directly assigned to the implementation, may provide support. Indicate points of interaction with Authority staff for design reviews, construction supervision, etc. Include detailed resumes of all qualified management and key technical personnel to be assigned. For project manager and key technical staff, identify the time that the proposed staff will be committed to the project.

3.1.1.2 Integrated Schedule

The IMP shall include an integrated schedule utilizing critical path

methodology. This schedule must include detailed activities for design, integration, fabrication, procurement, construction, installation, training, testing, facility commissioning, providing submittals, indicating major milestones that correspond to contract dates, and description of the overall critical path. The information provided in the schedule shall also include, but will not be limited to, the interactions between the Contractor's activities and all other activities required for the successful completion of the contract, e.g. those to be performed by utility companies, by the Authority's forces, or by other entities. Moreover, schedules shall include time allowances for obtaining permits; preparation of shop drawings, designs, and other submittals; and obtaining approvals. The activities and schedule should demonstrate Contractor's understanding of contract objectives and indicate the Contractor's ability to complete the work on or before the contractual due date. A high level summary schedule must also be available. The integrated schedule shall be updated monthly and as part of the 30%, 60%, 90%, and 100% design submittals. Schedules should also be made available as requested by the Authority throughout the period of performance of this contract.

3.1.1.3 Subcontractor Management

The IMP shall include a subcontractor management plan that identifies subcontractors, their responsibilities, and how the Contractor proposes to interact with subcontractors to ensure PIDS Contract requirements and schedule milestones are met.

3.1.1.4 Correspondence Management

A numbering system and distribution listing for all correspondence under the Contract subject to review and comment by the Project Manager. This shall include, but not be limited to, Project Meeting Minutes, Submittals, Transmittals, Requests for Information, Project Change Requests, and Project Change Notices.

3.1.1.5 Risk Management Plan

The Contractor shall manage program and technical risk to reduce or eliminate problems. As part of the IMP, the Contractor shall provide a Risk Management Plan that identifies risks of the PIDS Program and a program for controlling and mitigating these risks. This plan will be updated throughout the life of the contract and coordinated with the Authority Risk Management group. The PIDS Project Manager will oversee this coordination.

3.2 Electronic Data Interchange

The Contractor shall participate in electronic data interchange and provide program information through electronic media as much as practical. This includes, but not limited to design and installation drawings, invoices, and

reporting.

### 3.3 Quality Assurance and Quality Control Plan

In conjunction with the 30%, 60%, 90% and 100% design submittals, the Contractor shall submit for review a Quality Assurance and Quality Control (QA/QC) program for the design, installation, test, training and commissioning of the PIDS system. This plan will become part of the Maintenance Agreement and shall be managed and tracked within the CMMS as described in Book III of this RFP.

## 4 Facility Security and Infrastructure Design

### 4.1 Site Surveys & Visits

The Contractor shall conduct design site surveys to gather all information necessary for an integrated PIDS Security Design. Site Survey as well as site Visits will be coordinated with the PIDS Site Project Managers as well as designated Facility Managers. Site surveys and visits will be planned at least two (2) weeks in advance to allow for facility coordination to include escorts as required. This design will address all security system (Software and Hardware) and infrastructure requirements to complete the installation. The effort may also include a temporary installation of sensors with monitoring equipment to verify proper sensor operation in the local environment. Upon completion of the site survey the Contractor shall prepare and deliver a site survey report within thirty (30) days after completion of the survey.

### 4.2 Facility 30%, 60%, and 90% Design & Deliverables (Post Award)

#### 4.2.1 Facility (30%, 60%, and 90%) Design [ADDENDUM 5]

The Contractor shall provide a Facility 30%, 60%, and 90% Systems Design for JFK, LGA, EWR, and TEB. This design will address all security system (Software and Hardware) and infrastructure requirements to complete the installation. The designs shall provide the features and technical specifications of the PIDS system at the 30%, 60%, and 90% complete level. In the course of completing the 30%, 60%, and 90% design, the Contractor shall obtain necessary user input on key open design questions that the Contractor may have and conduct site visits to each facility to collect the necessary data to assist in the development of the design. The design shall include updated PIDS equipment and locations as well as identify communications connectivity, distribution boxes, and power sources. These designs shall include wiring diagrams for power and communications infrastructure. As part of the 60% design, the Contractor shall identify elements (or areas) within the design that can immediately progress to

100% to expedite/initiate construction and installation. The Design Documentation shall include items as described in Book I, Section 7.2.9.

4.2.2 System Specifications

The Contractor shall provide detailed PIDS Systems Performance Specifications for each facility. This shall include, but not be limited to, all PIDS system components, intrusion detection, access control, assessment, control and display, communications, and power systems.

4.2.3 Project Schedule

The Contractor shall update the Project Schedule at the 30%, 60% and 90% design submittal, as defined above, for each facility based on a Project Work Breakdown Structure to track and report on infrastructure and security system design, installation, and test activities.

4.2.4 Project Cost

The Contractor shall update the detailed Project Cost for each facility based on the 30%, 60% and 90% Design. The estimate shall include cost of components, material, labor, and any other costs associated with the software and hardware design, integration, installation, and testing and commissioning of the PIDS System. This cost estimate will be integrated into the overall PIDS Program Cost.

4.3 Authority Design Reviews

The Contractor shall conduct, with the participation by Authority representatives and Authority support consultants, 30%, 60% and 90% design reviews for JFK, LGA, EWR and TEB. Design Reviews will be conducted at each facility. An Agenda shall be prepared in consultation with the Authority and distributed to all attendees five (5) working days prior to the review. The Contractor shall take minutes for these reviews and the minutes shall contain explicit statements of issues, problems or deficiencies to be corrected, and action items resulting from the discussion. The minutes shall be published to the Authority within ten (10) working days after of review.

4.4 Systems Integration (CACS and Ex. 4

4.4.1 Airport Surface Detection Equipment

The Port Authority is involved in a TSA Research & Development (R&D) Grant to modify the existing Ex. 4 system at JFK for detecting and tracking intruders along the Airport Perimeter.

JFK: TSA conducted Ex. 4 Intrusion Detection Demonstration at JFK in March 2005. The Airport Security Display Processor Interface System (ASDP) provides the interface to the existing Ex. 4 . The ASDP will be turned over to the Authority after testing. The system will be made available to the PIDS Contractor as Port Authority Furnished Equipment for potential integration. Maintenance of the ASDP will become part of the PIDS Maintenance Contract. Maintenance responsibilities for the Ex. 4 system will remain with the FAA.  
LGA, and EWR: The Contractor may acquire and integrate the ASDP Interface System for LGA, and EWR, Maintenance of the ASDP will become part of the PIDS Maintenance Contract. Maintenance responsibilities for the Ex. 4 . system will remain with the FAA.

Note: No. Ex. 4 is scheduled for TEB

4.4.2 Lenel International Central Access Control System (CACs), and Verint (Formerly Loronix) CCTV

The Contractor shall integrate the existing Lenel and Loronix systems at each facility to meet the requirements of a single operator controlled PIDS Control and Display System. The Contractor has the option to upgrade the existing system or integrate it into other solutions to meet the single operator controlled PIDS Control and Display for intrusion detection, access control, assessment and notification. Lenel interface control documentation can be found at [http://www.lenel.com/lenel\\_alliances/index.htm](http://www.lenel.com/lenel_alliances/index.htm). The Contractor shall contact Verint Systems to obtain interface control documentation (compatibility matrix) to ensure proper integration.

4.4.3 Other Integration

The Contractor shall design an open architecture system to allow for technology insertion, interface, and integration upgrades as part of this Contract. These efforts may include studies, design modifications, addition and/or replacement of security system components.

4.5 Final Project Schedule, Construction and Specification & Drawings

The Contractor shall submit a final Project Schedule, Specifications and Drawing Package for LGA, JFK, EWR, and TEB twenty (20) working days after each facility's 90% Design Review. The package for each facility shall include:

4.5.1 Construction Drawings

The Contractor shall provide final construction drawings for JFK, LGA, EWR and TEB. These drawings shall be the final design and construction

drawings, products of the 30%, 60% and 90% design reviews and facility visits.

4.5.2 Final Specification

The Contractor shall provide the final PIDS Systems Performance Specifications for each facility. This shall include, but not be limited to, all PIDS system components to include intrusion detection, assessment, control and display, communications, and power systems.

4.5.3 Final Project Schedule

The Contractor shall provide a final Project Schedule twenty (20) working days after the review of the 90% Design, as defined above, for each facility based on a project Work breakdown structure to track and report on infrastructure and security system design, integration, fabrication, procurement, construction, installation, training, and testing activities.

4.5.4 Final Project Cost

The Contractor shall provide a final detailed Project Cost Estimate for each facility twenty (20) working days after the review of the 90% Design. The final estimate shall include cost of components, material, labor and any other costs associated with the installation of the PIDS System. This cost estimate will be integrated into the overall PIDS Program Cost Estimate.

4.5.5 Facility Final (100%) Security System and Infrastructure Design [ADDENDUM 5]

The Contractor shall provide a final facility security system and infrastructure design which shall provide the features, functions, and technical specifications of the system at the 100% complete level. The design may be a subset of the complete facility design of the elements (or areas) identified during the 60% review that can be expedited to initiate construction and installation. ^ The design shall include final PIDS equipment locations as well as detailed connectivity drawing for the communications and power infrastructure. The design documentation shall include items as described in Section 2.9.

**5 Facility Installation**

5.1 Licensing and Permits

The Contractor shall acquire all necessary federal, state, local 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.

Please see Book II General Provisions.

5.2 Pre-Construction Inspections and Approvals [ADDENDUM 5]

After the 100% Infrastructure and Security Design Approval of the complete facility design or elements (areas) and prior to the commencement of the initial and prior to the commencement of Construction, the Contractor shall conduct a Pre-Construction Meeting(s) with the Authority and Resident Engineer and verify all permits and approvals that have been obtained. This may include any Pre-Construction Authority schedules that may be required.

5.3 Request for Information (RFI)

The Contractor shall generate RFI as necessary. RFI shall be addressed to the Resident Engineer. The Resident Engineer shall make every effort to answer RFI but may need the assistance of other Authority members and E/A Design Division Staff. The Contractor shall keep a log of RFI for each facility and actions

5.4 Site Mobilization: Required On-Site Construction Services

5.4.1 Material Delivery, Storage and Removal

Deliver materials to the construction site at appropriate intervals to ensure uninterrupted progress of work. Materials shall be stored in an area designated or approved by the Engineer. Deliver material in sealed protective packaging.

- A. Store materials in sealed packaging as required in a manner to prevent soiling, physical damage, wetting or corrosion prior to installation.
- B. Movement of material, either at the time of delivery, or subsequently, shall be the sole responsibility of the Contractor. All costs associated with this movement shall also be the responsibility of the Contractor.
- C. Handle in a manner to prevent damage to finished surfaces.

- D. Where possible maintain protective coverings until installation is complete and remove such covers as part of the final clean-up.
- E. Disturbed surfaces shall be patched in a manner approved by the Authority and finishes restored to their original condition.
- F. Costs of all shipping to the site, and of all unusual storage requirements shall be borne by the Contractor. It shall be the responsibility of the Contractor to make appropriate arrangements and to coordinate with authorized personnel at the site for proper acceptance, handling, protection, and storage of equipment so delivered.

The Contractor shall be responsible for safe storage of all equipment. In the event of equipment disappearance from the site, the Contractor shall bear full responsibility and all costs associated with equipment replacement at no additional cost to the Authority.

5.4.2 Environmental Protection

The Contractor shall perform installation of environmental protection barrier and pollution control structures as required.

5.5 Security and Infrastructure Installation

5.5.1 Construction and System Integration and Installation

The Contractor shall perform all site construction, integration and installation activities as required for PIDS. This shall include, but not be limited to:

- 5.5.1.1 Provide all required labor, tools, materials, and equipment necessary to complete infrastructure and system installation.
- 5.5.1.2 Provide or manufacture sensor brackets, enclosures for sensors or equipment installation and tamper protection.
- 5.5.1.3 Provide and install required, electrical and communications infrastructure, conduit, ductbanks, terminal cabinets, electrical circuit breakers as needed.
- 5.5.1.4 Provide and install, integrate, and configure all PIDS security equipment as required.
- 5.5.1.5 Perform (or hire to perform) any site-specific adaptation of system software and initial configuration programming to include data base entry.

- 5.5.1.6 Provide all incidental materials and infrastructure to the installation of PIDS Security Equipment. This includes, but is not limited to, clearing and grading, installation of environmental protection barrier and pollution control structures, drainage modifications/improvements, modifications of existing fencing, removal of existing fencing as well as installation of new fencing, relocation of existing or installation of new lighting, installation or modification to back-up power systems, installation of foundations and supports for field distribution boxes and CCTV/IR camera poles and if required the construction of assessment towers and the removal of existing security equipment.
- 5.5.1.7 Maintain the installed equipment through the turnover of the system to the Authority at the completion of the Test phase.
- 5.5.2 Monthly Installation Progress Reports

The Contractor shall prepare and submit an integrated Monthly Progress Report for each facility. The report shall be submitted within five (5) working days after the end of each month. The Progress Report shall contain tasks planned for the reported month, actual tasks completed, and the subsequent month's planned tasks for each facility. The report will also contain the facility project schedules showing task percent complete highlighting any schedule delays. The report will also highlight any major outstanding issues that require action by the Contractor or the Authority.

5.5.3 Facility Clean up and Restoration

The Contractor shall prepare a Site Restoration Plan to outline the Contractor's actions to restore the facility site to its original or better condition. The Contractor shall repair damage, if any, to Authority property resulting from the Contractor's activities and such property shall be returned to its original or better condition. The Contractor shall remove all debris at the end of each shift or more frequently if required to keep the space safe and usable. This shall include the area in which any Contractor trailers are located. All excess Contractor furnished equipment, materials and debris used or caused by the PIDS installation, including portable offices shall be removed from the installation no later than ten (10) days after completion of Acceptance Testing and commissioning of the security system.

5.5.4 Migration of Existing Systems

The Contractor shall develop and implement a Migration Plan for any existing systems that will be integrated into the PIDS. The Migration Plan shall be submitted as part of the 30%, 60% and 90% Design submittal for review and approval by the Port Authority. During the migration to PIDS of any existing

systems, the Contractor shall ensure that the current and existing systems continue to operate properly. The Contractor shall provide a comprehensive detailed phasing plan and methodology to accomplish (but not limited to) the following:

- 5.5.4.1 Install and Test PIDS
- 5.5.4.2 Address migration of infrastructure, network subsystems, communications support
- 5.5.4.3 Insure PIDS is functioning 100% before scheduling migration of any existing systems
- 5.5.4.4 Provide documentation of all problems and corrective actions that occur while implementing PIDS
- 5.5.4.5 Other significant items

The Migration Plan shall address periods of time/duration during the migration process when components of the existing system may be taken out of service. This needs to be held to a minimum. The Contractor shall coordinate with the Project Manager and facilities if and when the need arises for down time of existing systems.

## **6 PIDS Testing and Acceptance**

### **6.1 Pre-Acceptance Testing**

The Contractor shall test the software and hardware components individually and as an integrated system to ensure that they perform according to the specifications as set forth herein. The Authority shall have the right to review the Contractor testing and test progress at any time. Test milestones for pre-acceptance testing shall be reflected in the Project Schedule, and testing progress shall be documented in the Contractor's regularly issued project status reports.

### **6.2 Acceptance Testing and Provisions**

The Contractor shall prepare and deliver to the Authority a comprehensive Acceptance Test Plan that describes all the activities and tasks associated with testing during each test phase - Factory, Field and Operational. This Test Plan shall be submitted sixty (60) Working Days prior to the scheduled Factory Acceptance Test. At a minimum, the Contractor's Acceptance Test Plan shall conform to the requirements of ANSI/IEEE Standard 829-1983 and shall contain the following elements:

- A. A summary statement of the purpose and goal of each test phase, the method of testing, a description of the overall test environment, test equipment details, test equipment configuration sketches and diagrams, including cabling requirements, and a specification of the hardware and software required for the test: including the number and type of devices to be used during the test or the method of simulation,
- B. A test itinerary identifying each individual test to be performed, the anticipated duration, staffing requirements, the purpose of the test, the conditions that shall exist at the start of the test and the conditions/results expected to exist at the conclusion of the test,
- C. A description of the outputs (reports, database listings, statistical analyses, etc.) to be provided to the Authority to document the test results. Test incident report forms and test incident log.

After receipt of each Acceptance Test Plan, the Authority will formally comment on its content, and if necessary, the Contractor shall make appropriate changes to the Acceptance Test Plan and resubmit it for Authority review and approval. The Authority may, at its discretion, observe a portion of, or all of each acceptance test, as it deems necessary.

When all tests for a testing phase have been executed to the satisfaction of the Authority, the Contractor shall prepare and deliver to the Authority an Acceptance Test Report along with the Contractor's written certification that the PIDS has successfully passed all tests for that specific test phase. This report shall be delivered twenty (20) Working Days after completion of each test phase. The Acceptance Test Report shall contain at a minimum the following sections:

- A. Summary of the test phase,
- B. Description of the tests performed to include: Test conditions at start and end of each test, expected test results with Pass/Fail criteria, and actual test results,
- C. Action plan to conduct the next iteration of the test phase or a statement that the phase was completed successfully.

The Authority shall evaluate each Acceptance Test Report and notify the Contractor of its evaluation. No acceptance test phase shall be initiated without the Authority's written approval of the Acceptance Test Plan specific to that phase, and no test phase shall be considered complete, nor may the Contractor proceed to the next step of the project until the Authority has approved, in writing, the Contractor's Acceptance Test Report for the previous phase.

### 6.3 Factory Acceptance Test

The Authority, at the Contractor's place of manufacture or development, shall inspect the PIDS. Prior to the initiation of testing, the Contractor shall provide draft copies of all documentation required for system operation.

6.3.1

The Factory Acceptance Tests for each Facility shall be conducted by the Contractor and observed by the Authority. The Contractor shall perform each test as described in the Factory Acceptance Test Plan in its entirety with the use of actual system equipment and the use of simulated inputs and/or simulated outputs, if necessary and if pre-approved. The Contractor shall determine the detailed results of each test and the Authority shall record the success (pass) or failure of each test.

6.3.2

The factory test shall involve, at a minimum, the inspection by the Authority of all major physical components of the PIDS as well as the testing of the functionality of the PIDS in a controlled environment in accordance with the Factory Test Plan. The Contractor shall assemble the PIDS, including all major components, at the place of manufacture.

6.3.3

The Authority, at its own expense, will participate, in one (1) Factory Acceptance Test session for each Facility, which shall be based on the full system implementation. Should it be necessary for the Authority to attend more than one (1) Factory Acceptance Test session for a Facility, for reasons expressly due to Contractor delays, product failure, or failure to implement approved testing procedures, the Contractor shall bear all costs incurred by the Authority for each additional test session. Such costs may include, but not be limited to: Authority staff time, travel costs, food and lodging expenses, and any other costs incurred by the Authority related to its attendance at the test session. Acceptance of the factory test results by the Authority shall not relieve the Contractor of the responsibility for the installed system to meet the Specifications as set forth herein.

6.4 Field Acceptance Test

If required twenty (20) working days prior to the commencement of Field Acceptance Testing the Contractor shall submit an Updated Acceptance Test Plan to the Authority for review and approval. Contractor shall conduct a Field Acceptance Test at each of the Authority's facilities.

PIDS shall be tested in compliance with the Field Acceptance Test Plan. The Field Acceptance Test shall be conducted with all devices and components integrated as a system at the Authority's Airport Facilities with simulation only used to perform stress and performance testing. The test scripts to be used shall include, but not be limited to, those test scripts used for the Factory Acceptance

Test, and any additions as required to encompass all field devices, e.g., local processors, network components, infrastructure, etc. The Contractor shall perform any repairs, construction, or modifications as required complying with this Section without additional cost to the Authority. The Contractor shall perform Field Acceptance Tests at the facilities as detailed on the project schedule. The Contractor shall provide the Authority with a Field Acceptance Test Report at the conclusion of the test at each airport facility for the purpose of verifying and validating the accuracy and integrity of the PIDS installed. The Authority will review the report and respond, indicating its approval or noting changes required either in the performance of the work or in the report. Contractor shall make changes or perform additional work as the Authority may direct prior to the start of the Operational Test.

#### 6.5 Operational Test

After the Authority approval of the Field Test Report and Operational Test Plan, the Contractor shall begin a thirty-(30) day operational test at each Facility, at which time the PIDS shall perform in accordance with the approved Operational Acceptance Plan, and within the performance standards set forth in the PIDS Functional and Performance Requirements (availability and reliability), under full operating conditions. In the event of error or other malfunctions, including but not limited to, equipment failures or a failure of the PIDS to comply with the Functional and Performance Requirements, the Contractor shall make the necessary corrections as they occur, at no additional cost to the Authority. ***Contractor shall be required to re-start and continue testing until the objective of thirty (30) consecutive calendar days of continuous performance in accordance with the approved Operational Acceptance Plan and within the performance standards set forth in the Functional and Performance Requirements (Availability and Reliability).*** During the Operational Test phase, the Authority will determine the PIDS standard of performance as described herein:

- A. Performance Period. The Performance Period for operational testing shall begin on the date of notification of the Contractor by the Authority to commence operational testing and shall end when the PIDS has met the technical specifications set forth in this agreement for a period of thirty (30) consecutive days.
  
- B. Failure to Complete Operational Testing Successfully. In the event the PIDS is deemed not to have successfully completed Operational Acceptance Testing within ninety (90) days of the scheduled completion, then the Authority may, at its sole discretion, elect one of the following options, the election of which shall be effective upon written notification to the Contractor by the Authority, the Authority may terminate this Contract.

6.5.1

The Authority may require the Contractor to install, within such time period as may be mutually agreed in writing by the Authority and the Contractor, a direct substitute of equipment or components. The Contractor shall use due care in the removal and substitution of such equipment or components. Such substitutions shall be subject to Acceptance Testing as provided in this section and, in the event such substitute component fails to successfully complete Acceptance Testing by the agreed-upon date, the provisions of this paragraph shall again be applicable.

6.5.2

The Authority may permit the Contractor to continue to attempt to cause the PIDS to successfully complete the Operational Testing described in this paragraph; however, the Authority may revoke its election of this alternative at any time upon not less than five (5) days prior written notice to the Contractor, in which event the Authority may, in its sole discretion, elect any one (1) of the prior options specified in this paragraph, the further election of which shall be effective upon written notification of the Contractor by the Authority.

6.5.3

The Authority may pursue any other remedy hereunder or available at law or in equity or seek to enforce any damages, in addition to those provided in the section entitled "Liquidated Damages" herein.

6.6 Exchange and Expansion Equipment During Factory, Field and Acceptance Testing

The Contractor shall certify in writing to the Authority when exchange or expansion equipment, devices, or components are installed and ready for use. For the purpose of this section, "expansion" is used to denote equipment, which is not specified in the approved final design Bill of Materials. Contractor shall provide an Installation Date Certificate for the equipment or component. If this occurs during the thirty (30)-day Operational Test, the operational test shall recommence on the first Authority workday following acceptance of the Contractor's Installation Date Certificate.

**7 System Start-up and Commissioning**

Prior to the Field Acceptance Testing and prior to Operational Testing, the Contractor shall perform all activities necessary to prepare the PIDS for operation, including, but not limited to:

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- A. Written instructions for system generation and loading of all initial data and system parameters
- B. Written instruction for Sensor activation, alignment, parameter settings and programming
- C. Data initialization, database and archived data conversion;
- D. Initial database loading,
- E. Initial parameter settings,
- F. Adjustment of system parameters to allow maximum performance and reliability shall be made as soon as practical,
- G. Generation of all reports that are currently generated on the existing system.

The activation of PIDS shall not degrade the performance of the existing Computerized Access Control Security System, Ex. 4 and any other system that may integrate or interface with PIDS at any time or in any manner. The existing CACS will continue to be maintained by the existing system maintainer. Contractor shall be responsible for coordinating interface requirements with the existing system maintainer (HBE) through the Authority. Contractor shall be responsible for any work required by the maintainer resulting from unexpected conditions related to the activation of PIDS. The Contractor shall conform to the following installation requirements:

- 1. All system equipment, including communications network components, shall be fully installed and tested with all data communications paths operational, prior to activating PIDS. All work to be performed in vehicular or aircraft traffic areas shall be performed only with the approval of the Authority.
- 2. Transfers of existing security systems, access controlled doors, access monitored doors or intrusion detection devices shall be staged in a manner which will permit completion during a single work shift, to the maximum extent possible. Contractor shall notify the Authority forty-eight (48) hours prior to scheduled migration work, and the Authority shall provide guard coverage accordingly. The Contractor shall notify the Authority when migration work is expected to continue across shifts. Any transfers shall be performed and completed during the hours of normal operation for the facilities.
- 3. A work activity log shall be submitted to the Authority, with a daily work plan describing any system transfers and work to be accomplished, including, but not limited to, security guard requirements, work to be performed in or above vehicular and aircraft traffic areas.

**8 Training**

The Contractor shall provide a training program in order to provide initial and ongoing training for all users of the PIDS. Contractor shall develop and implement a training database configuration to train staff on the use of the system. This training configuration should address the functions and operation of the PIDS, including real-time simulation of typical alarm events. Contractor shall

conduct the required training at each of the four (4) facilities respectively, at the scheduled times and locations designated by the Authority consistent with the approved Training Plan. The full complement of training courses shall be conducted over time to accommodate shift personnel, vacations and make-up sessions. A detailed schedule for the delivery of all training shall be included in the IMP and Schedule and reported on during the regularly scheduled status meetings. All training shall be completed no later than fourteen (14) calendar days prior to commencement of the thirty (30)-day operational test. The training shall include, but not be limited to, the following groupings of staff with an estimated student population as shown. Also Audit staff should have two (2) seats allocated for training.

### 8.1 Operator Training

Operator Training shall include a simulation of actual site conditions at each facility and shall be provided for three groups of fifteen (15) students per course/per facility. Each group shall be trained for the equivalent of two eight (8) hour instructional classes (training must be flexible to accommodate shift workers). Training shall include but not be limited to: means to authenticate to the workstation, view live and recorded video, position the PTZ cameras, generate VHS Tapes and DVDs of specific events sequence of operation review; sign-on/sign-off; selection of all displays and reports; commanding of points, English and graphic mode; modifying English text; selection of all access control functions; reviews of all topics presented in the Operator's Manual. The Contractor shall provide forty-five (45) Operator's Manuals per facility for persons attending these instructional classes and make available an electronic copy for secured online access.

### 8.2 Supervisor Training

Supervisor Training shall include, in addition to subjects addressed in the operator training classes, training for two (2) groups of six (6) Authority supervisors per facility. Each group shall be trained for two, eight- (8) hour instructional classes to be held on two separate days. Training shall include but not be limited to: communications system instruction; program upload, download modification; password assignment, modification; operator assignment, modification; operator authority, assignment, modification; point disable/enable; terminal and data segregation/modification; review of all topics presented in the Supervisor's Manual. The Contractor shall provide fifteen (15) Supervisor's Manuals per facility for persons attending these instructional classes and make available an electronic copy for secured online access.

8.3 System Administrator Training

System Administrator and Maintenance Training shall include, in addition to subjects addressed in the Operator training and Supervisor training sessions, training for two (2) groups of six (6) students per course/per facility. Each group shall be trained for four (4) eight (8)-hour instructional classes to be held on four (4) separate days. Training shall include but not be limited to: software review, sequence of operation and flowcharts; modification of control programs and databases; add/delete/modify data points; use of diagnostics and system maintenance procedures; review of initialization; upload/download and off-line archiving of all system software; review of all topics presented in the PIDS Administrator's Manual. The Contractor shall provide fifteen (15) System Administrator's Manuals per facility for persons attending these instructional classes and make available an electronic copy for secured online access. Contractor shall videotape each type of instructional class and shall provide six copies of each instructional class on videocassette for the Authority's use. Contractor shall also provide videotaped instructions for the operation of each and every item of equipment supplied. Upon completion of each training program, the Contractor shall prepare and deliver a training report which shall summarize the results of the training program, including a list of attendees, course evaluation form, and recommendations for follow-up training or modification to the curriculum.

8.4 Training Plan

The Contractor shall provide for the review and approval ninety (90) days prior to Factory Acceptance Test a Training Plan, which shall address Operator Training, Supervisor Training, System Administration Training and Maintenance Training.

The Training Plan shall include at a minimum:

- A. A description of all training courses including identification of the purpose and goals of each course, duration of the course, type of training (presentations, hands on training) and identification of the facility and training equipment provided by the Contractor (e.g., lecterns, overhead projectors, televisions, video cassette recorders, specific PIDS hardware elements, etc.).
- B. A list of classroom instructors who shall conduct the training and a description of their skills, experience and qualifications.
- C. Individual course curricula, course materials, manuals, study guides and workbooks.
- D. Course critique and evaluation forms for students.
- E. Post-training and or on-the-job technical reference guides.

- F. A detailed schedule for the delivery of all training courses.

After receipt of the Training Plan, the Authority will formally comment on its content. Contractor shall make appropriate changes to the Training Plan and resubmit it for Authority review and approval.

Training shall encompass, at a minimum:

- a. Sequence of Operations
- b. Sign-On and Sign-Off
- c. Selection of all displays and reports
- d. Selection of all system functions, including;
  - 1. Event recording
  - 2. Video retrieval
  - 3. Copy video clip to CD
  - 4. Archive specific video clips
- e. Software review
- f. Modification of control parameters
- g. Diagnostics
- h. System Maintenance procedures
- i. Upload / Download and off-line archiving of all systems software
- j. security, administration and maintenance
- k. Local area network security, administration, maintenance
- l. Review topics in the System Administrator's Manual
- m. Complete configuration backups of all hardware and software

8.5 Training Program

Upon approval of the Training Plan, the Contractor shall conduct the specified training. The training program shall be implemented through the use of formal classroom training and/or other forms of presentation as recommended by the Contractor. The curriculum shall be designed so that each group of trainees shall be trained in the full repertoire of system commands, which they may have to use in the course of performing their designated functions. Students shall be provided with complete sets of training materials and operating manuals during the training sessions, which they shall retain for use on the job at the completion of training. Formal training shall also include a comprehensive student-testing program for determining that the intended training has been successfully imparted. Contractor shall conduct the required training at scheduled times and locations designated by the Authority. The full complement of training courses shall be conducted over time to accommodate shift personnel, vacations and make-up sessions. A detailed schedule for the delivery of all training must be included in the IMP and Schedule and reported on during the regularly scheduled status meetings. The training shall include, but not be limited to, the following groupings of staff (with an estimated

student population as shown below): Prior to commencement of training the Authority shall formalize the exact number of trainees.

## 8.6 Training Materials

Contractor shall provide the Training Manuals and any other associated course materials, study guides and workbooks, as described in the approved Training Plan. These manuals shall be for instructional use during the Training Program, for study and for refresher use to provide training of all the features and functions of the PIDS during normal and emergency operations. These manuals shall also be for Authority use to train new operators, supervisors, system administrators and maintenance staff on an ongoing basis.

## 9 Documentation

(Note: All Manual three (3) hardcopy sets per facility and 1 electronic copy per facility)

### 9.1 System Design Documentation

System Design Documentation shall be provided to the Authority in accordance with the approved project schedule. System Design Documentation has five (5) major components: system documentation, software documentation, hardware documentation, Communications Network Architecture documentation, and Drawing Package as described in the following paragraphs:

#### 9.1.1 System Documentation

- A. Executive Summary: A summary of documentation material provided in this deliverable, an overview of the entire system describing all major components of the PIDS and special features of PIDS which address performance, expansion, system security, ease of use, and maintainability.
- B. Design Overview: A description of the overall design. This shall include the advantages and disadvantages of the design (e.g., modularity, flexibility, expandability), and an explanation of why the design is the best implementation to meet the Authority's requirements.
- C. System Architecture: A system-level graphic representation of all hardware components and their interconnections. This shall include identification of the interfaces between each device and computer.
- D. System Processing Narratives: Narrative descriptions of each major processing activity to be performed by the PIDS. The narratives

should describe how all equipment and software interact to satisfy the Functional and Performance requirements of PIDS. These narratives shall be a clear and comprehensive explanation of how each of the Authority's Functional and Performance Requirements are supported.

- E. Security Features: A description of all system security features, computer controlled and physical, designed into the PIDS and its components to detect, assess, delay, track and ultimately notify security personnel to defeat the threat. (e.g., hardware, software and data). In addition, describe all features, components and equipment which protect the PIDS components from deliberate attempts to tamper or spoof the system as well as protect it against physical hazards such as fire, flood, electrical power surges, brown-outs and black-outs.
- F. System Reliability: an analysis of system reliability based on the Mean Time Before Failure (MTBF) and expected Mean Time to Repair (MTTR) for each major component and subsystem, including calculation methods and support documentation. If the configuration requires redundant or high availability components or equipment, the Contractor shall also provide a description of the hardware and/or software features incorporated to meet the requirement for high availability in the event of the failure of one or more system components.
- G. Failure Handling and Recovery: a failure / recovery matrix showing the types of failures, the process of reporting these failures and if automatic or semi-automatic. This shall include descriptions of system diagnostics to detect and isolate failures.

## 9.2 Software Documentation

- A. Software Architecture: System-level illustrations, such as flowcharts and block diagrams, illustrating the overall structure of the PIDS software. These diagrams shall include the major processing functions performed by each subsystem or major module, their interaction with each other and with the PIDS operators.
- B. Software Configuration: A description of the operating system, application, database/data management, utility, graphical user interface, device drivers and any other software used in the PIDS. The Contractor shall identify which software is to be custom developed and which is third party software. For third party software, the Contractor shall explain the functions to be performed by the product and identify the manufacturer, version and release to be used and shall submit all technical specifications and literature (e.g., user and system documentation, brochures, and any other literature produced or customarily provided by the third party manufacturer). For custom software the Contractor shall identify the

languages, compilers and utilities to be used (including version and release number) in development and operation. Reports shall be made available listing the accounts and access rights for the operating system, application, and the database.

- C. Database and Data Management Structure: A description of the overall organization of the files and/or database to be used in the PIDS. This description shall also include, but not be limited to, full details regarding any third party database products including version, release, functional characteristics, operational requirements, and any other relevant characteristics of the product.
- D. Data Dictionary: A listing and a magnetic media version of all PIDS data elements, including the size, definition, validation rules and other information pertaining to the data elements. If a commercially available data dictionary is to be used, the Contractor shall also submit complete and current information about the product.
- E. Data Storage Analysis: the techniques employed to ensure that the PIDS can meet the storage requirements for on-line and historical data, and expansion capabilities. The analysis shall include identification of all files (e.g., system, message, report files), databases, and their retention cycles.
- F. Operator Interface: Operator and user tools and techniques employed to ensure an easy to use, consistent and efficient interface between the operator and the PIDS. Examples of such techniques are: the use of a graphical user interface, standardization in the formatting of screens and reports, consistent use of program function keys, color coded alarm notification, drop down, pop up menus, data porting and system monitoring of the PIDS.
- G. Program and Module Narrative: A description of major program modules contained in the PIDS and a description of the processing functions, inputs and outputs of these modules. Particular emphasis should be placed on customized application software.
- H. Software Design: Block diagrams, flow charts and/or other software design documentation that describe the design of the PIDS software by major subsystem. This information shall include the details of main processing functions performed by each program or module, including inputs, outputs, and data type definitions.
- I. Inputs and Outputs: a description of all the PIDS inputs and outputs. For inputs, describe all transactions, messages, records, signals, etc. to be received. For outputs, identify screens, reports, menus, etc. that are produced or presented to the end user (operator, supervisor, administrator). Contractor shall provide the documentation for field structures of messages and records and the methodology for redefining menu structures.
- J. System Performance Analysis: An explanation of the capability of the PIDS to meet the performance requirements. Contractor shall fully

describe, explain and document the analysis that was used to support its statements of performance, durability, and availability. Where such documentation relies upon third party manufacturer claims, promises, or warranties, or relies upon the claims, promises, or warranties of the manufacturer's marketing or sales representative, the Contractor shall submit copies, or, as appropriate, original documentation of said promises, representations, and warranties. Contractor shall provide complete product information for any automated tools used in this analysis.

### 9.3 Hardware Documentation

Hardware Documentation shall include:

#### 9.3.1 Hardware Specifications

A full bill-of-materials (BOM) and complete specifications (e.g., sensor type, make, model, environmental and power requirements, ratings, communications ports, etc.) for each hardware element of the PIDS. The Contractor's format is acceptable but must include the following as a minimum:

- (1) BOM cover sheet contains:
  - a. All relevant Project Numbers and corresponding Project Titles.
  - b. Authority Project Manger's commercial voice number and e-mail address.
  - c. Contractor Project Engineer commercial voice number and e-mail address
  - d. Brief overall description of Project
  - e. Special shipping/handling instructions
- (2) BOM identifies the following:
  - a. Installation Site Location
  - b. Electronic Security/Parts and Spares, type, quantity, part or stock number, cost.
  - c. Ancillary Support Equipment/Parts, type, quantity, part or stock number, cost.
  - d. Maintenance Support Equipment/Parts, type, quantity, part or stock number, cost.
  - e. Test Equipment, type, quantity, part or stock number, cost.
  - f. Special Tools type, quantity, part or stock number, cost.
- (3) Long Lead Item List:

- a. Identifies any equipment/parts requiring more than one hundred and twenty (120) days for delivery.
- b. Specifies alternative products suitable for use and satisfying critical delivery requirements and specifications.
- c. Provides specification and/or drawing reference for each item listed
- d. Provides rationale or criteria for determining criticality of long lead status.

#### 9.4 Component Drawings

Drawings that indicate the function of each PIDS hardware component. The drawings shall indicate termination points of devices, and interconnections required for system operation, interconnection between modules and devices, spacing of components, and location, mounting and positioning details.

#### 9.5 Communications Network Architecture Documentation

The Contractor shall provide detailed diagrams and full technical specifications of communications network components, hardware and software, and communications protocols and network topologies used in the PIDS architecture. Contractor shall also provide a system-level diagram of the communications network and specifications for each major component and identify how the component functions in the network. Network diagrams shall include PIDS communications diagrams detailing the cabling, cable type, termination points, cable labeling inter-cabinet wiring and interconnections between PIDS devices. Contractor shall describe the techniques employed to ensure that the network can meet the volume of transaction traffic to be supported and is capable of meeting performance and expansion requirements.

#### 9.6 Drawing Package

The drawings shall be prepared in accordance with Authority standards found at <http://www.panynj-cadstandards.com> and CSI standards where applicable. The drawings package shall contain both site specific and standard drawings and details. In general, if a standard drawing is incorporated into a drawing package with only minor changes, the standard drawing title block shall state the originating agency, with revision notes annotated accordingly and the revision agency identified. All drawings must be reflected in the drawing index. The drawing package shall begin by conveying the macro view of the project and progress toward the micro views (e.g., Index and Abbreviations, Vicinity Maps, Base Maps, Site Plans, Floor Plans, Elevations, Sections, Details, Tables, and Part Listings).

9.7 Concept of Operations (CONOPs) [ADDENDUM 4]

The Contractor shall provide an updated CONOPs for each facility with the 30%, 60%, 90% and 100% PIDS Design. This document shall be an update from the Concept of Operations provided to the awarded proposer and shall be stamped and signed by a licensed Professional Engineer.

^

9.8 Operating Documentation

The Contractor shall provide all documents, manuals, and printed materials necessary for the effective operation of the PIDS. The documents provided shall be in a bound copy.; additionally an electronic version shall be provided using an industry standard word processor, such as Microsoft Word for Windows 2000. This documentation shall include, but not be limited to, the following specific Manuals:

9.8.1 Standard Operating Procedures Manual

A PIDS Operating Procedures Manual shall be provided which contains graphical depictions and explanations of system operation for all operator functions. This manual shall be for instructional, study, and refresher use and shall explain all the features and functions of the PIDS for day-to-day operations (e.g., log-on, monitors, print daily reports). The manual shall also have a troubleshooting section so the operator can resolve common operating problems (e.g., network problems, restart the PIDS in the event of a component failure, clear jams). The manual shall also contain instructions on how to perform normal maintenance (e.g., changing paper for the printer). This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

9.8.2 Emergency Operating Contingency Manual

An Emergency Operating Contingency Plan shall be provided which contains graphical depictions and explanations of system operations for all emergency functions specified under Operator Training. This manual shall explain all the features and functions of the PIDS for emergency operations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

9.8.3 System Administrator's Manual

A System Administrator's Manual shall be provided which contains graphical depictions and written descriptions of all functions required for software

modification and development. This manual shall contain all procedures necessary for the proper monitoring and administration of the PIDS. At a minimum, the manual shall contain separate sections that cover the following topics: startup and shutdown procedures, instructions for cold start of system equipment, backup and recovery, performance analysis, scheduled maintenance, user management, audit and control, report production, configuration control, system diagnostics, database integrity, special requests and expendable supplies. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 9.8.4 Security Administrator's Manual

A separate, removable section of the PIDS Administration Manual shall contain information on the proper administration and control of the security features built into the PIDS. Some of the information to be contained in this section includes: maintenance of user identifiers, password control, and security policy review. Information on appropriate review of security controls for adherence through various types of reporting mechanisms and utilities and/or third party security software. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 9.8.5 Supervisor's Manual

A Supervisor's Manual shall be provided with graphic descriptions of all functions and procedures required for system modifications specified under supervisor Training. This manual shall contain all the instructions included in the Operator Procedures Manual plus instructions on printing standard and ad hoc reports. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 9.8.6 Site Specific Manuals

Site Specific Manuals shall be provided which shall include but not be limited to the following: site-specific configuration parameters; detailed system configuration narratives; default parameters, actions, and descriptors; and device and component addresses and locations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

^

## **10 Systems Administration**

The Contractor shall provide systems administration and configuration control throughout the installation, integration, training and testing of PIDS.

The Contractor shall provide systems administration as identified in Book IV Attachment 8, Systems Administration during the Maintenance period. The maintenance period is defined in Book III of this RFP. This shall be priced as an option.

## **11 Documentation/Procedures Checklist**

- Access request forms authorized.
- Access request forms retained.
- Access request forms are used to assign access.
- Backup, restart and recovery procedures documented.
- Change Management procedures documented.
- Disaster Recovery Plans and Business Resumption Plans documented and comprehensive.
- Documentation is current for System Manuals, Operating Instructions.
- Documentation is up to date for Firewall rule sets, Inventory listings.
- Adequate training.
- Incident Response procedures documented.
- Password reset procedures controlled (Help desk function).
- Procedure for granting, modifying or deleting access to the system are documented.
- Roles and Responsibilities defined and documented.
- Security Administration Procedures documented.
- System Administration procedures documented.
- Test results documented.
- Topologies exist and are up to date (system/network diagrams).

## **12 Contract Close-Out**

Upon Authority acceptance of the completion of the thirty (30)-day Operational Test and the Warranty Period, the Contractor shall prepare all materials necessary to close out the design, integration, fabrication, procurement, construction, installation, training, and testing contract. This shall include but not be limited to: the delivery of a fully functioning PIDS that meets all functional and performance requirements and that has successfully completed factory, field and operational testing; and has successfully completed the Warranty Period, the delivery and approval of all documentation and; the training of all management, supervisory, operations, system administration and maintenance staff, as specified in the training plan. Contractor shall have transferred to the Authority at the end of the thirty (30)-day Operational Test, all documentation that is necessary for the operation of the PIDS whether or not it has been submitted as part of a

previous deliverable. This includes but is not limited to: third party software documentation and licenses, software executable code, hardware documentation and maintenance manuals. At the end of the thirty (30)-day Operational Test, the Contractor shall have engaged the services of an escrow agent, approved by the Authority, and submitted to the Authority a list of items to be included in the escrow package. The Contractor shall pay any fees incurred to engage the services of an escrow agent, including any annual maintenance fee and all fees associated with escrow deposits, from initiation of this contract through contract close-out.

13 Exhibit 1

13.1 Contractor Transmittal Form Instructions

**CHECK**

Make sure you have entered the Transmittal No.

**“To” BOX**

INPUT PROVIDED BY PA - Do not edit.

**“Submittal” Box**

Enter the correct Spec. No., Submittal. No. and Rev (*See attached numbering system.*), No. of Prints and Submittal Description for each item.

**“Routing” Box**

Complete the section titled **Actions**. The other sections in this box are for PA use.

**“Comment” Box**

Enter any necessary comments in this section.

“Transmittal No.”

“To” Box

“Submittal” Box

“Routing” Box

“Comment” Box

“From” Box

“Signature” Box

**“From” Box**

INPUT PROVIDED BY PA - Do not edit.

**“Signature” Box**

Send the file as an attachment via e-mail (if equipped) then Print, sign and date the Transmittal before dispatching them as required by the Contract Documents.

**PLEASE NOTE:** The Transmittal Form, sent via e-mail, is to be used as a communication aid during the submittal process. However, it does not remove the Contractual responsibility of the Contractor’s to dispatch required submittals via regular mail or by other means.

# Contractor Transmittal Form Instructions



## *Submittal Numbering Format*

*Spec. Section Number - Submittal Number*

Example: **02500-006**

The first 5 Digits identify the Specification(Spec. Section) or Package Number as detailed in the Contract Spec. Book. Use "99999" if the submittal does not correspond with any Spec. Section.

The second 3 Digits identify the individual Submittals which are numbered sequentially within a Spec. Section.

*Revision Number*

Example: **Rev0**

A Revision is defined as an individual review cycle for a particular submittal item. The initial submittal shall be identified as "Rev0" with subsequent revisions identified as "Rev1", "Rev2", etc.

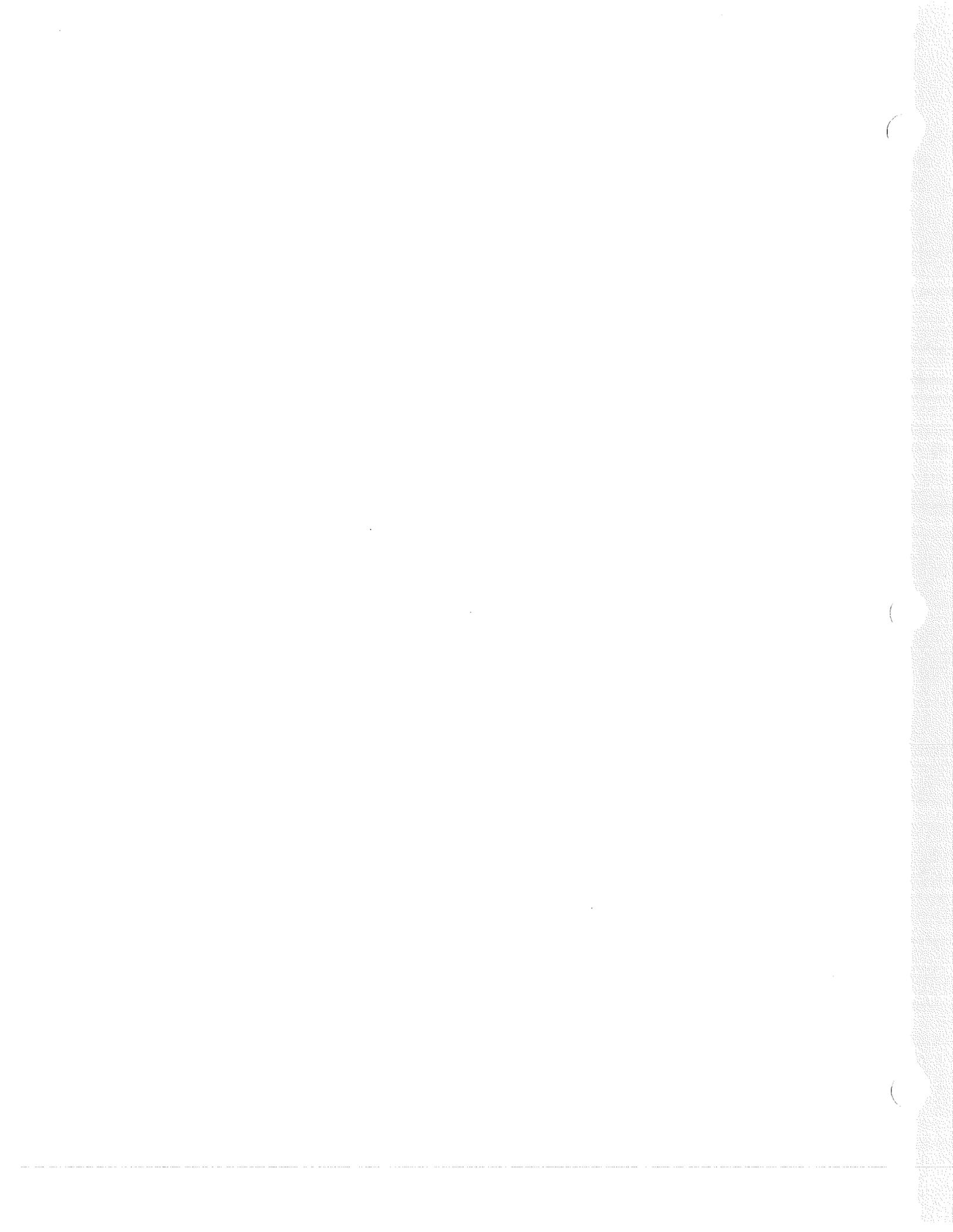




14 Design, Install and Test Deliverables [DELETED PER ADDENDUM 4]

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## SECTION 3





**THE PORT AUTHORITY** OF NY & NJ

# **CONFORMED**

**TITLE: MULTI-FACILITY AVIATION PERIMETER  
INTRUSION DETECTION SYSTEM (PIDS) SECURITY  
DESIGN, PURCHASE, CONSTRUCTION,  
INSTALLATION, AND INTEGRATION AND ON-SITE  
MAINTENANCE**

**CONTRACT# MFA-134.308**

**NUMBER: 8162**

**BOOK III – Maintenance and Warranties Requirements**

**CONTRACT MFA-134.308M**

**This proposal is not complete unless proposer's  
Signature appears on page 75**

Release Date: AUGUST 2005

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**BOOK III - MAINTENANCE AND WARRANTIES REQUIREMENTS**

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**1 GENERAL AGREEMENT**

- 1.1 The undersigned (herein called the "Contractor") agrees to perform designated Airport Security System Maintenance Services (hereinafter sometimes referred to as the "Service") at Newark Liberty International Airport (EWR), LaGuardia Airport (LGA), John F. Kennedy International Airport (JFK) and Teterboro Airport (TEB) to furnish all labor, supervision and equipment, including materials and supplies and to do all other things necessary or proper therefor or incidental thereto, all in strict conformance with the provisions of this Contract as it may be amended, and the Contractor further agrees to assume and perform all other duties and obligations imposed upon it by this Contract.
- 1.2 The Contractor shall perform in strict accordance with this Contract and with all addenda thereto as issued by the Port Authority of New York and New Jersey ("Authority,") taking all precautions against injuries to persons, property and traffic, replacing at his own expense all work unsatisfactory to the PA Project Manager, and paying or causing to be paid all lawful claims of subcontractors, materialmen, workingmen and other third persons. As used herein, the term "PA Project Manager" or "Manager" shall mean the duly authorized representative(s) of the Authority acting within the scope of the particular authority vested in him with regard to this Contract.
- 1.3 The enumeration herein of particular things to be furnished or done at the Contractor's expense, or without cost or expense to the Authority, or without additional compensation to the Contractor shall not be deemed to imply that not only things of a nature similar to those enumerated shall be furnished and done; but the Contractor shall perform all work as required without other compensation than that specifically provided.
- 1.4 Contractor's failure to perform work as required by this Contract may result in penalties or termination of the contractor as may be herein specified at the discretion of the Authority.
- 1.5 No certificate, payment (final or otherwise), acceptance of any work or any other act or omission of the Authority shall operate to release Contractor from any obligation under this Contract, or to stop the Authority from showing at any time that such certificate, payment, acceptance, act or omission was incorrect or to preclude the Authority from recovering any moneys paid in excess of that lawfully due, whether under mistake of law or fact or to prevent the recovery of any damages sustained by the Authority.
- 1.6 Contractor shall not issue or permit to be issued any press release, advertisement or literature of any kind, whether in hard copy or electronically, that refers to the Authority or the services to be performed in connection with this Contract unless Contractor first obtains the written approval of the Authority. Such approval may be withheld if for any reason the Authority believes that the publication of such information would be harmful to the public interest or is in any way undesirable.
- 1.7 All drawings, specifications, reports, computations, records, data, charts, documents, computer media or other papers of any type whatsoever, whether in the form of writing, figures or

delineations, except for software and software documentation, which are prepared or compiled in connection with this Contract, shall become the property of the Authority and the Authority shall have the right to use them for any purpose and at any time without other compensation except as specifically provided for herein.

- 1.8 Contractor shall at all times update and maintain current all documentation. Contractor shall submit both hard and electronic copies of all changes to PIDS documentation monthly. The PIDS documentation, as defined in Book I, Section 7.2 and Book II Attachment B, shall be preserved whole and readily available at all times to be used for Disaster Recovery of the PIDS. Contractor shall provide a broad scope Disaster Recovery Plan for each airport as part of his proposal.
- 1.9 The contractor shall supply adequate drawing hanger files, flat files, and file cabinets to the Authority at each facility in order to maintain PIDS records. The contractor shall maintain and update the master Authority PIDS files indices and physical PIDS files at each facility (four airports and Ex. 4 for the Authority throughout the installation period and during the warranty and maintenance agreement periods. Hanging files shall be the types that are in cabinets as supplied by the manufacturer. Drawer cabinets shall be legal size. All hanging, flat, and drawer file cabinets shall be equipped with locks by the manufacturer as well as supplemental exterior bar lock devices with hardened locks supplied by the Contractor. The Contractor shall maintain inventory control of the keys and issue 6 sets of keys to the Authority.
- 1.10 All information of any nature whatsoever that is marked by Contractor as competition sensitive or company proprietary which is in any way connected with Contractor's proposal or services performed in connection with the Contract, including oral communications as well, which has been or may be given by Contractor on his behalf, whether prior or subsequent to execution of this Contract, to the Authority, its Commissioners, officers, agents or employees, is given in confidence and may not be disclosed by or on behalf of the Authority, without Contractor's prior written consent, subject to the Port Authority's Freedom of Information Policy.
- 1.11 Under no circumstances shall Contractor or any subcontractors, consultants, suppliers or vendors communicate in any way with any department, board, agency, commission, or other organization or with any person whether governmental or private in connection with the services to be performed hereunder except upon prior written approval and instructions of the Authority, provided, however, that data from manufacturers and suppliers of materials, devices and equipment shall be obtained by Contractor when Contractor finds such data necessary, unless otherwise instructed by the Authority.
- 1.12 Any additional services performed for the benefit of the Authority at any time by Contractor or on the Contractor's behalf, even if expressly and duly authorized by the Authority, shall be deemed to be rendered under and subject to this Contract (unless referable to another expressly written, duly executed Contract by the same parties), whether such additional services are performed prior to, during or subsequent to the services described herein, and no rights or

obligations shall arise out of such additional services except as provided under this Contract. The Contractor's full time field personnel shall not work at the same time on different projects other than PIDS.

- 1.13 It is agreed that the Contractor does not assume possession of and/or control over any part of the System except to the extent that the Contractor may at times assume custody or control of the equipment for the purpose of performing its obligations hereunder, and that the Authority remains the owner of the equipment.
- 1.14 Any assignment or other transfer of this Contract or any moneys due or to become due hereunder without the written consent of the Authority shall be void and of no effect as to the Authority except that work may be sublet to such persons as the Manager expressly approves in writing. No sub-contract shall create any rights against the Authority or relieve the Contractor of any obligations hereunder, and all sub-contractors shall be deemed the Contractor's agents. All notices hereunder from the Contractor to the Authority shall be addressed to the Manager.
- 1.15 The Contractor shall pay all duties and imposts, if any, on the importation of any materials.
- 1.16 This Contract shall be construed in accordance with the Law of the States of New York and New Jersey. The Contractor hereby consents to the exercise by the courts of the States of New York and of New Jersey of jurisdiction in persona over it with respect to any matter arising out of or in connection with this Contract and waives any objection to such jurisdiction which it might otherwise have; and the Contractor agrees that mailing of process by registered mail addressed to it at the address of the Contractor indicated herein, shall have the same effect as personal service within the State of New York or New Jersey upon a domestic corporation of the said State.

## **2 GENERAL PROVISIONS**

### **2.1 CERTIFICATION OF NO INVESTIGATION (CRIMINAL OR CIVIL ANTI-TRUST), INDICTMENT, CONVICTION, SUSPENSION, DEBARMENT, DISQUALIFICATION, PREQUALIFICATION DENIAL OR TERMINATION, ETC; DISCLOSURE OF OTHER REQUIRED INFORMATION**

By submitting a Proposal on this Contract, the Contractor and each person signing on behalf of Contractor certifies, and in the case of a joint Proposal each party thereto certifies as to its own organization, that the Contractor and each parent and/or affiliate of the Contractor has not (a) been indicted or convicted in any jurisdiction; (b) been suspended, debarred, found not responsible or otherwise disqualified from entering into contracts with any governmental agency or been denied a government contract for failure to meet pre-qualification standards; (c) had a contract terminated by any governmental agency for breach of contract or for any cause related directly or indirectly to an indictment or conviction; (d) changed its name and/or Employer Identification Number (taxpayer identification number) following its having been indicted, convicted, suspended, debarred or otherwise disqualified, or had a contract terminated as more fully provided in (a), (b) and (c) above; (e) ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those

inserted in the Proposal; (f) been denied a contract by any governmental agency for failure to provide the required security, including bid, payment or performance bonds or any alternative security deemed acceptable by the agency letting the contract; (g) failed to file any required tax returns or failed to pay any applicable federal, state or local taxes; (h) had a lien imposed upon its property based on taxes owed and fines and penalties assessed by any agency of the federal, state or local government; (i) 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; (j) had any sanctions imposed as a result of a judicial or administrative proceeding with respect to any professional license held or with respect to any violation of a federal, state or local environmental law, rule or regulation; and (k) shared space, staff, or equipment with any business entity.

The foregoing certification as to "(a)" through "(k)" shall be deemed to have been made by the Contractor as follows: if the Contractor is a corporation, such certification shall be deemed to have been made not only with respect to the Contractor itself, but also with respect to each director and officer, as well as, to the best of the certifier's knowledge and belief, each stockholder with an ownership interest in excess of 10%; if the Contractor is a partnership, such certification shall be deemed to have been made not only with respect to the Contractor itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate proposer, shall be deemed to have been authorized by the Board of Directors of the Contractor, and such authorization shall be deemed to include the signing and submission of the Proposal and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Contractor cannot make the foregoing certification, the Contractor shall so state and shall furnish prior to signing of the Contracts a signed statement which sets forth in detail the reasons therefor. If the Contractor is uncertain as to whether it can make the foregoing certification, it shall so indicate in a signed statement furnished with its Proposal, setting forth an explanation for its uncertainty.

The foregoing certification or signed statement shall be deemed to have been made by the Contractor with full knowledge that it would become a part of the records of the Authority and that the Authority will rely on its truth and accuracy in awarding this Contract. In the event that the Authority determines at any time prior or subsequent to the award of the Contract that the Contractor has falsely certified as to any material item in the foregoing certification; willfully or fraudulently submitted any signed statement pursuant to this clause which is false in any material respect; or has not completely and accurately represented its status with respect to the circumstances provided for in this clause as requiring disclosure, the Authority may determine that the Contractor is not a responsible proposer with respect to its Proposal on this Contract or with respect to future bids or Proposals and may, in addition to exercising any other rights or remedies available to it, exercise any of the rights or remedies set forth in the clause of the Form of Contract MFA-134.308 entitled "Rights and Remedies of Authority". In addition, the Contractor is 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.). The Contractor is also advised that the inability to make such certification will not in and of itself disqualify the Contractor, and that in each instance the Authority will evaluate the reasons therefor provided by the Contractor.

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

**Affiliate** - An entity in which the parent of the Contractor owns more than fifty percent of the voting stock, or an entity in which a group of principal owners which owns more than fifty percent of the Contractor also owns more than fifty percent of the voting stock.

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

**Employer Identification Number** - The tax identification number assigned to firms by the Federal government for tax purposes.

**Investigation** - Any inquiries made by any federal, state or local criminal prosecuting 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 Contractor by whatever titles known.

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

**Space Sharing** - Space shall be considered to be shared when any part of the floor space utilized by the submitting business at any of its sites is also utilized on a regular or intermittent basis for any purpose by any other business or not-for-profit organization, and where there is no lease or sublease in effect between the submitting business and any other business or not-for-profit organization that is sharing space with the submitting business.

**Staff Sharing** - Staff shall be considered to be shared when any individual provides the services of an employee, whether paid or unpaid, to the Contractor and also, on either a regular or irregular basis, provides the services of an employee, paid or unpaid, to one or more other business(es) and/or not-for-profit organization(s), if such services are provided during any part of the same hours the individual is providing services to the Contractor or if such services are provided on an alternating or interchangeable basis between the Contractor and the other business(es) or not-for-profit organization(s). "The services of an employee" should be understood to include services of any type or level, including managerial or supervisory. This type of sharing may include, but is not limited to, individuals who provide the following services: telephone answering, receptionist, delivery, custodial, and driving.

**Equipment Sharing** - Equipment shall be considered to be shared whenever the Contractor shares the ownership and/or the use of any equipment with any other business or not-for-profit organization. Such equipment may include, but is not limited to, telephones or telephone systems, photocopiers, computers, motor vehicles, and construction equipment. Equipment shall not be considered to be shared under the following two circumstances: when, although the equipment is owned by another business or not-for-profit organization, the Contractor has entered into a formal lease for the use of the equipment and exercises exclusive use of the equipment; or when the Contractor owns equipment that it has formally leased to another business or not-for-profit organization, and for the duration of such lease the Contractor has relinquished all right to the use of such leased equipment.

**2.2 NON-COLLUSIVE PROPOSING AND CODE OF ETHICS CERTIFICATION;  
CERTIFICATION OF NO SOLICITATION BASED ON COMMISSION,  
PERCENTAGE, BROKERAGE, CONTINGENT FEE OR OTHER FEE**

By submitting a Proposal on this Contract, the Contractor and each person signing on behalf of the Contractor certifies, and in the case of a joint Proposal each party thereto certifies as to its own organization, that: (a) the prices in its Proposal 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 Contractor or with any competitor; (b) the prices quoted in its Proposal have not been and will not be knowingly disclosed, directly or indirectly, by the Contractor prior to the official opening of such Proposal to any other proposer or to any competitor; (c) no attempt has been made and none will be made by the Contractor to induce any other person, partnership or corporation to submit or not to submit a Proposal for the purpose of restricting competition; (d) this organization has not made any offers or agreements, or given or agreed to give anything of value (see definition of "anything of value" appearing herein entitled "No Gifts, Gratuities, Offers of Employment, etc.") 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 and Financial Disclosure dated as of April 11, 1996 (a copy of which is available upon request to the individual named in the clause of Contract MFA-134.308 entitled "Questions by Proposers"), 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 Contractor for the purpose of securing business, has been employed or retained by the Contractor 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.

The foregoing certification as to "(a)", "(b)", "(c)", "(d)" and "(e)" shall be deemed to have been made by the Contractor as follows: if the Contractor is a corporation, such certification shall be deemed to have been made not only with respect to the Contractor itself, but also with respect to each parent, affiliate, director and officer of the Contractor, as well as, to the best of the certifier's knowledge and belief, each stockholder of the proposer with an ownership interest in excess of 10%; if the Contractor is a partnership, such certification shall be deemed to have been made not only with respect to the Contractor itself, but also with respect to each partner. Moreover, the foregoing certification, if made by a corporate Contractor, shall be deemed to have been authorized by the Board of Directors of the Contractor, and such authorization shall be deemed to include the signing and submission of the Proposal and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Contractor cannot make the foregoing certification, the Contractor shall so state and shall furnish with the signed Proposal a signed statement which sets forth in detail the reasons therefor.

Notwithstanding that the Contractor may be able to make the foregoing certification at the time the Proposal is submitted, the Contractor shall immediately notify the Authority in writing of any change of circumstances which might under this clause make it unable to make the foregoing certification or required disclosure. The foregoing certification or signed statement shall be deemed to have been made by the Contractor with full knowledge that it would become a part of the records of the

Authority and that the Authority will rely on its truth and accuracy in awarding this Contract. In the event that the Authority should determine at any time prior or subsequent to the award of this Contract that the Contractor has falsely certified as to any material item in the foregoing certification 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 certification required to be disclosed, the Authority may determine that the Contractor is not a responsible Contractor with respect to its Proposal on this Contract or with respect to future bids on Authority contracts and may, in addition to exercising any other rights or remedies it may have, exercise any of the rights or remedies set forth in the clause of the Form of Contract of Contract MFA-134.308 entitled "Rights and Remedies of the Authority".

In addition, the Contractor is 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.). The Contractor is also advised that the inability to make such certification will not in and of itself disqualify a Contractor, and that in each instance the Authority will evaluate the reasons therefor provided by the Contractor.

### **2.3 CONTRACTOR ELIGIBILITY FOR AWARD OF CONTRACTS - DETERMINATIONS BY AN AGENCY OF THE STATE OF NEW YORK OR NEW JERSEY CONCERNING ELIGIBILITY TO RECEIVE PUBLIC CONTRACTS**

The Contractor is 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 Contractor is not eligible to submit a proposal on or be awarded public contracts because the Contractor has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

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

### **2.4 NO GIFTS, GRATUITIES, OFFERS OF EMPLOYMENT, ETC.**

During the term of this Contract, the Contractor shall not offer, give or agree to give anything of value either to an Authority employee, agent, job shopper, consultant, construction manager or other person or firm representing the 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 Authority of duties involving transactions with the Contractor on behalf of the Authority, whether

or not such duties are related to this Contract or any other 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 Authority contract), etc., which might tend to obligate the 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 Authority contract.

Where used in this clause, the term "Authority" shall be deemed to include all subsidiaries of the Authority. Currently, those subsidiaries are the Port Authority Trans-Hudson Corporation (PATH) and the Newark Legal and Communications Center.

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 as of April 11, 1996 (a copy of which is available upon request to the Office of the Secretary of the Authority).

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

## **2.5 · NOTIFICATION OF SECURITY REQUIREMENTS**

The Port Authority of New York and New Jersey operates facilities and systems at which terrorism or other criminal acts may have a significant impact on life safety and key infrastructures. The Authority reserves the right to impose multiple layers of security requirements on the performance of the contract work, including on the Contractor, its staff and subcontractors and their staffs depending upon the level of security required, as determined by the Authority. The Contractor shall, and shall instruct its subcontractors, to cooperate with Authority staff in adopting security requirements. These security requirements may include but are not limited to the following.

### **2.5.1 Identity Checks and Background Screening:**

Contractor/subcontractor identity checks and background screening shall include but shall not be limited to: (1) inspection of not less than two forms of valid and current government issued identification (at least one having an official photograph) to verify staff's name and residence; (2) screening federal, state and local criminal justice agency information databases and files; (3) screening of any terrorist identification files; (4) multi-year check of personal, employment and/or credit history; (5) access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning.

The Contractor may be required to have its staff, and any subcontractor's staff, authorize The Authority or its designee to perform background checks. Such authorization shall be in a form acceptable to The Authority. If the Manager directs the Contractor to have identity checks and background screening performed by a particular firm designated by the PA Manager, The Authority will compensate the Contractor for the cost of such screening at the Net Cost of such screening. "Net Cost" shall be computed in the same manner as is compensation for extra work, including any percentage addition to cost, as set forth in the clause of the contract providing compensation for extra work. Performance of such Net Cost work shall be as directed by the PA Manager and shall be subject to all provisions of the contract relating to performance of extra work. Compensation for said Net Cost work shall not be charged against the total amount of compensation authorized for extra work.

2.5.2 Issuance of Photo Identification Badges:

No person will be permitted on or about the construction site without a photo identification badge approved by the Manager. The Contractor shall provide such badges for employees, subcontractors and materialmen. All employees of the Contractor, subcontractors and materialmen shall wear identification badges in a conspicuous and clearly visible position whenever they are present on Authority property. Refer to section 16.19.8 for complete badge requirements.

If the Authority requires facility-specific identification badges for the Contractor's and subcontractors' staffs, the Authority will supply such identification badges at no cost to the Contractor.

2.5.3 Construction Site Access Control:

- 1.1 The Authority may provide for construction site access control, inspection and monitoring by Authority-retained security guards. However, this provision shall not relieve the Contractor of its responsibility to secure its equipment and work at its own expense.
- 1.2 At the beginning of each work period the Contractor shall furnish to Authority security guards, if any, or to the Manager a memorandum showing for that work period:
  - 1.3 The name and company affiliation of each employee of the Contractor or of a subcontractor who is expected to enter the site and,
  - 1.4 The name of any firm anticipated to be delivering materials or servicing equipment that day and a description of such materials or services.

The Authority may impose, increase, and/or upgrade security requirements for the Contractor, subcontractors and their staffs during the term of this contract to address changing security conditions and/or new governmental regulations.

To the extent changes to the security requirements set forth above result in additional cost to the Contractor, such costs shall be compensable to the Contractor at the Contractor's net cost.

## **2.6 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 any other business relationship with said contractor or potential contractor, nor shall the Contractor 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 contractor or the review or resolution of a claim in connection with such a contract is contemplated or if the Contractor has reason to believe that any other situation exists which might be viewed as or give the appearance of a conflict of interest, the Contractor shall immediately inform the Director in writing of such situation giving the full details thereof. Unless the Contractor receives the specific written approval of the Director, the Contractor shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. In the event the Director shall determine that the performance by the Contractor of a portion of its services under this Agreement is precluded by the provisions of this numbered paragraph, or a portion of the Contractor's said services is determined by the Director to be no longer appropriate because of such preclusion, then the Director shall have full authority on behalf on 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 contracts which result, directly or indirectly, from the services provided by the Contractor hereunder.

## **2.7 COMPENSATION FOR MAINTENANCE OF THE PIDS SYSTEM**

2.7.1 The Total Monthly Price for Corrective and Scheduled Preventive Maintenance (As described in Book III, Section 6.0) of the PIDS System includes the Contractor's compensation for:

- 1.4.1.1 Scheduled preventive maintenance for all equipment not specifically removed from service by the Manager including equipment diagnostics and engineering updates, whenever performed to ensure continued operation of the System.

1.4.1.2 Corrective maintenance for all equipment not specifically removed from service by the Manager performed upon report to the Contractor of any failure of the System.

2.7.2 The Contractor's sole compensation, in full consideration for the performance of all its obligations under this Contract in accordance with 1. GENERAL AGREEMENT herein, except for Extra Work, shall be determined by the monthly price for maintenance inserted by the Contractor on the attached Summary of Costs, and such price shall be adjusted as stipulated in 2.8.2.

## **2.8 MONTHLY PAYMENTS**

2.8.1 Each monthly payment shall be separately determined by the Total Monthly Price for Corrective and Scheduled Preventive Maintenance of the PIDS System as indicated in the Summary of Costs herein plus any/all adjustments indicated herein. Payments shall commence with the last day of the first monthly period after signature of the Authority of the Partial or Final Certificates of Completion. The first initial 12 month period shall be the Warranty Maintenance Period. Please see Section 11. The Warranty Maintenance Period will be followed by the first 2 year term of Maintenance or "initial term". The Contractor shall submit to the Manager, on the last day of such monthly period an invoice for the services performed under this Contract by the Contractor during that period (the first payment will be for services performed during the first monthly period following the signature of the Authority of the Partial or Final Certification). Within fifteen (15) days after the Manager certifies the correctness of each invoice, but not later than thirty (30) days after the receipt of the invoice and all information required by the Manager in connection therewith, the Authority will pay to the Contractor by check, the amount so certified. No certificate or payment shall, at any time, preclude the Authority from showing that such certificate or payment was incorrect, or from recovering any money paid in excess of that lawfully due hereunder.

### **2.8.2 Adjustment of Monthly Price for Maintenance**

1.4.1.3 Total Monthly Price for Corrective and Scheduled Preventive Maintenance of the PIDS System as indicated in the Summary of Costs herein will be adjusted annually in accordance with the following:

2.8.2.1.1 Commencing with the first day after the completion of the initial term, such Summary of Costs price inserted by the Contractor shall be adjusted as described in Section 2.8.3. below entitled "Formula For Adjustment". This adjusted price shall remain in effect for 24 months. Such adjustments shall continue thereafter every two (2) years for the duration of this Contract. A computation sheet prepared by the Contractor, detailing the adjustment of such price, shall accompany the first invoice in those years containing price adjustments.

2.8.2.1.2 No increase in such Summary of Costs price shall be made in any year until the Contractor submits the computation sheet required by (2.8.2.1.1) above.

2.8.3 Formula for Adjustment: The Summary of Costs price shall be adjusted as follows:

- 1.4.1.4 Eighty percent (80%) of the Summary of Costs price entered by the Contractor herein shall be increased or decreased by the percentage of increase or decrease of the average hourly earnings for production workers employed in the manufacture of electronic and electrical equipment. The average hourly earnings referenced above shall be that shown by the final published data in Table C-3 ("average hourly earnings excluding overtime of production workers on manufacturing payrolls by industry"; Manufacturing Sector, Durable Goods, Electric & Electronic Equipment) of "Employment and Earnings" issued by the Bureau of Labor Statistics, U.S. Department of Labor.
- 1.4.1.5 Twenty percent (20%) of the Summary of Costs price entered by the Contractor herein shall be increased or decreased based on the percentage change in the Index for Electrical Machinery and Equipment issued by the Bureau of Labor Statistics, U.S. Department of Labor.

The aforementioned earnings data (in 2.8.3.1 and 2.8.3.2) shall be that which is in effect on the applicable term as compared with the hourly earnings data in effect exactly one year previously.

### **3 INSURANCE PROCURED BY THE CONTRACTOR**

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

Commercial General Liability Insurance - \$ 5 million combined single limit per occurrence for bodily injury and property damage liability.

Automobile Liability Insurance - \$ 5 million combined single limit per accident for bodily injury and property damage liability.

If watercraft is to be used, the Contractor shall take out, maintain and pay the premiums on a policy of Marine Protection and Indemnity Insurance (that will "pay on behalf of" basis) and Chartered Legal Liability, where applicable, or similar watercraft coverage, relating to the operation, maintenance or use of any vessel (whether self-propelled or being towed) in connection with work to be performed under this Contract, in a limit of liability of not less than \$5 million for any one occurrence.

In addition, the liability policy (ies) shall name The Port Authority of NY and NJ as additional

insured, including but not limited to premise-operations, products-completed operations on the Commercial General Liability Policy. Moreover, the Commercial General Liability Policy shall not contain any provisions for exclusions from liability other than provisions for exclusion from liability forming part of the most up to date ISO form or its equivalent unendorsed Commercial General Liability Policy. The liability policy (ies) and certificate of insurance shall contain cross-liability language providing severability of interests so that coverage will respond as if separate policies were in force for each insured. Furthermore, the Contractor's insurance shall be primary insurance as respects to the above additional insured (s), its representatives, officials, and employees. Any insurance or self insurance maintained by the above additional insured (s) shall not contribute to any loss or claim. These insurance requirements shall be in effect for the duration of the contract to include any warrantee/guarantee period.

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

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

The Contractor shall also take out, maintain, and pay premiums on Workers' Compensation Insurance in accordance with the requirements of law in the state(s) where work will take place, and Employer's Liability Insurance with limits of not less than \$1 million each accident. And if watercraft is to be used, Coverage B Endorsement for Maritime (Masters or Members of the Crew of Vessels) in limits of not less than \$1 million per occurrence.

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

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

Within five (5) days after the award of this agreement or contract and prior to the start of work, the Contractor must submit an original certificate of insurance, to the Port Authority of NY and NJ, Facility Contract Administrator, at the location where the work will take place. This certificate of

insurance MUST show evidence of the above insurance policy (ies), stating the agreement/contract number prior to the start of work. The General Manager, Risk Management must approve the certificate(s) of insurance before any work can begin. Upon request by the Port Authority, the Contractor shall furnish to the General Manager, Risk Management, a certified copy of each policy, including the premiums.

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

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

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

Notwithstanding anything to the contrary in this clause, the Contractor shall cause the Authority to be named as additional insured under the insurance policies listed above, for those matters for which the Contractor may be liable either under this Agreement or at common law and arising out of this Agreement.

#### **4 TERMS OF CONTRACT AND TERMINATION**

- 4.1 This Contract shall take effect at 12:01 a.m. on the date that this Contract or a Letter of Contract Award is signed by both the Contractor and the Authority and shall continue in effect for the Warranty Period and one (1) two (2) year period (the "Initial Term").
- 4.2 This Contract, unless sooner terminated, revoked or extended, shall expire at 11:59 p.m. on the day before the anniversary date of the Effective Date (said date sometimes herein called the "Expiration Date").

The Authority shall have the right to extend this Contract for two (2) additional two (2) year periods following the Expiration Date upon the same terms and conditions subject to the following: not later than sixty (60) days prior to the Expiration Date of this Contract, or the expiration date of the first option period, if applicable, the Authority will send a notice of intention to extend the term of this Contract, as aforesaid, and the term of the Contract shall thereupon be extended for the applicable extension period subject only to the adjustment of charges as hereinafter provided. The Authority shall have the absolute right to extend this Contract for an additional one hundred twenty (120) day period subsequent to the Expiration Date or subsequent to the end of the first option period, if any, subject to the same terms and conditions of the Contract. The charges quoted by the Contractor that are in effect during the last year of the Initial Term or the first Option period, as applicable, shall remain in effect during this extension period with allowable adjustment as described in Section 2.8 above. The Authority will advise the Contractor, in writing, at least thirty (30) days prior to the Expiration Date that the Contract term is so extended.

## **5 SYSTEM TO BE MAINTAINED**

The system to be maintained under this Maintenance Contract shall be the PIDS as specified and installed under the terms of the PIDS Contract, Authority Contract No. MFA-134.308, or latest issue and all addenda thereto and which includes but is not limited to the Control and Display, Audiovisual, Intrusion Detection, Assessment, Data Management and Reporting, Facility Communications and Power Infrastructure Subsystems as well as interfaces with the Authority's Computerized Access Control System, CCTV monitoring and IP DVR systems and other existing Authority security systems.

## **6 MAINTENANCE STATEMENT OF WORK**

### **6.1 SCOPE OF MAINTENANCE**

Provide maintenance services on all equipment and software furnished under the PIDS Contract so that the PIDS will at all times perform in accordance with the specifications set forth in Contract MFA-134.308 (such specifications being hereinafter referred to as the "Specifications") and shall continue to meet all performance requirements as identified in the "Functional and Performance Requirements" (See Book II Attachment C). The performance of the PIDS in accordance with the Specifications, twenty-four (24) hours per day, seven (7) days per week, including Authority Holidays shall be hereinafter referred to as "System Maintenance". This is subject to the exception however, that if the existing telecommunications and power infrastructure is used as is, then after the thirty (30) day operational test and acceptance by the Authority, the Contractor shall not be responsible for the maintenance of the existing intra-facility telecommunications or power infrastructure or for failures of the PIDS because of failure of said infrastructure.

- 6.1.1 Perform preventive maintenance at EWR, JFK, LGA, TEB ; Ex. 4 . Perform corrective maintenance as requested, providing this service on a 24-hour, 7-days-per-week basis, including holidays. There shall be no distinction between "critical maintenance" and other forms of maintenance; maintenance is critical at all times.

- 6.1.2 Provide technicians permanently assigned to each airport between the hours Ex. 4 Monday through Friday, excluding Authority Holidays. Resident technicians shall have been certified by the manufacturers of the PIDS equipment. Submit the number of resident technicians required at each airport to maintain the PIDS at standards specified for system reliability and availability. For all work performed on the airport airside areas, dispatch in all cases a minimum of two (2) technicians.
- 6.1.3 Respond to all requests for service within Ex. 4 of notification. If dispatching a technician to provide this service, the technician must report to the requesting facility in accordance with the facility's reporting procedure within Ex. 4 after notification. Provide after-hour and weekend support to meet the intent of this Contract. Maintain a toll-free phone number(s) with live staff available on a 24 hour per day/7 day a week basis to respond to requests for service. Critical components shall be repaired within 24 hours after arrival at the Work Site. Non-Critical components shall be repaired within 72 hours after arrival at the Work Site.
- Critical" is defined as repair services for key equipment which would cause significant system failure, have significant impact to operations, and other emergencies as determined and/or defined by the Facility Manager which would result in the Facility losing the ability to either detect or assess an intrusion or threat.
  - "Non-Critical" is defined as repair for equipment or other components not affecting overall system performance. [ADDENDUM 8] ^
- 6.1.4 The Authority at its discretion may opt to maintain certain equipment. In this case coordinate activities with the Radio, Tolls, and Electronics Shop or other Authority entities for problem resolution. Where a problem has been identified with the system optical fiber, notify the Authority Radio, Tolls and Electronics Shop for corrective maintenance and continue work with that group until problem resolution is achieved. Perform problem isolation, identification, documentation and correction of problems with peripheral field devices and with the system optical fiber transmission equipment in instances where the Contractor's personnel in the course of carrying out their duties cause damage to the peripheral or system optical fiber transmission equipment. Maintain all optical fiber transmission equipment and cable installed under this Contract and assume liability for damages caused during the course of work performed under this Contract to equipment that is part of the existing Authority optical fiber system.
- 6.1.5 Upon request, perform analysis and diagnosis of problems and other issues with the PIDS system firmware and software. On an "as needed" basis provide technical support and respond to questions with respect to the PIDS system. Such support shall be provided at no additional charge to the Authority.
- 6.1.6 The Contractor's staff shall have appropriate skill sets and be factory trained and certified for each of the airport facilities. Ensure that staff are trained, knowledgeable, familiar with the facilities and with each facility's procedures and are familiar with badging, safety training and system configuration. Ensure sufficient staff at each airport facility so that the

unavailability of any one individual will not deprive the Authority of any appropriate skill sets, training, knowledge and areas of familiarization when required. Direct staff to attend Authority sponsored training courses to meet these obligations.

- 6.1.7 Submit for review and approval, prior to commencement of the Maintenance Contract period, details of a QA/QC program with appropriate training and documentation requirements emphasizing safety, security, reliability, availability, consistency, system and network security and good workmanship. Performance of maintenance procedures shall at all times ensure system and network security. The QA/QC program shall be implemented as part of the Maintenance Contract and shall be managed and tracked within the Computerized Maintenance Management System (CMMS), defined below in section 6.7. The Contractor's QA/QC team shall include a QA/QC Manager responsible for all aspects of the QA/QC program including periodic inspections, reporting and report submittal to the PA Project Manager and problem identification and resolution. The QA/QC Manager shall schedule and supervise periodic inspections for the purpose of monitoring the effectiveness, safety, system security, and security of the maintenance program.
- 6.1.8 The Contractor shall be responsible for maintenance reporting and resolution, even during events when the Authority is requested to assist the Contractor with maintenance fault analysis or problem resolution.
- 6.1.9 Conform to the Authority's on-site reporting procedures at each airport facility, regarding technician arrival and departure for normal and off hours work.

## **6.2 EQUIPMENT**

The major manufacturers and types of equipment and software, which the Contractor is required to support, shall be proposed by the Contractor as part of the proposal preliminary design submittal. As part of the maintenance proposal submit a preliminary bill of materials with all applicable associated costs as a table attached to this Maintenance Contract. As a minimum the bill of materials shall include the following:

- 6.2.1 Manufacturer
- 6.2.2 Model Number
- 6.2.3 Description
- 6.2.4 Unit Price for Materials, to include 150' of conduit and cable
- 6.2.5 Unit Price for Labor, to include installation of 150' of conduit and cable
- 6.2.6 Unit Price for Shipping and Handling
- 6.2.7 Unit Price for Engineering and Drawings
- 6.2.8 Unit Price for Project Management

- 6.2.9 Unit Price for Testing
- 6.2.10 Unit Price for Training
- 6.2.11 Unit Price for Warranty and Maintenance Service
- 6.2.12 Unit Price for Overhead and Profit
- 6.2.13 Unit price for applicable taxes
- 6.2.14 Unit Price for Escalation (annual)

**6.3 MAINTENANCE SERVICES**

- 6.3.1 Provide complete maintenance services for PIDS furnished and installed under this Contract. Maintain continuous PIDS operation twenty-four (24) hours a day, seven (7) days a week, with the exception, however, that the Contractor shall not be responsible for the maintenance of Authority provided inter-facility and intra-facility telecommunications or power infrastructure, (unless otherwise stipulated and agreed to as acceptance of an optional proposal).
- 6.3.2 Provide a maintenance plan and schedule for the Warranty Period to the Authority at least thirty-five (35) days prior to the Operational Acceptance Test. Maintenance consists of all materials, labor and travel to and from the airport to conduct troubleshooting, testing, inspecting, cleaning, lubricating, adjusting, repairing and/or replacing parts that are approaching unserviceable status, and all actions necessary to prevent and/or correct system failures and extend the PIDS' useful life. The maintenance plan and schedule shall address the following aspects of system maintenance in detailed descriptive narrative, with supporting tables, drawings and diagrams including, but not limited to:
  - 6.3.2.1 Response Times (Telephone & On-site) to be in accordance with the contract requirements.
  - 6.3.2.2 Problem escalation procedures
  - 6.3.2.3 Site arrival and departure procedures
  - 6.3.2.4 Maintenance Order Procedures and Documentation
  - 6.3.2.5 Training certifications
  - 6.3.2.6 Maintenance intervals and itineraries
  - 6.3.2.7 Hardware maintenance
  - 6.3.2.8 Software maintenance

- 6.3.2.9 System performance reviews
- 6.3.2.10 Software patching and updating
- 6.3.2.11 System monitoring, indexing and capacity assessments
- 6.3.2.12 Vulnerability assessments of both field devices and software
- 6.3.2.13 Inspection and Test Report samples, procedures, and schedules
- 6.3.2.14 Troubleshooting procedures
- 6.3.2.15 Billable services – Not included in Warranty and maintenance provisions
- 6.3.2.16 Sample invoices including unit price breakouts for materials, shipping and handling, installation labor, engineering, management, documentation, testing, certification, training, overhead and profit.
- 6.3.2.17 Quarterly Maintenance reports, including system availability reporting and system test and assessment reporting

#### **6.4 CHANGE CONTROL PROCEDURE**

- 6.4.1 Stock, keep, maintain and have quick access at each airport to a sufficient inventory of spare parts to provide for the replacement of failed components and components which in coordination with the technician's and PA Project Manager's judgment need replacement. Components which have been repaired, as opposed to replaced, more than two (2) times shall be replaced at the Authority's option.
- 6.4.2 Submit for approval a list of recommended spare parts that will be maintained at each facility in order to meet the System Operational Availability of requirement of no less than  
Ex. 4
- 6.4.3 Spare parts and materials shall include, but are not limited to consumables, such as printer cartridges, CDs, DVDs, videotape, and paper as required; tools; and other equipment as may be necessary to make replacements and repairs consistent with the terms described herein.
- 6.4.4 Maintain a spare parts inventory database as part of the CMMS, defined below in Section 6.7. The parts shall be warehoused in the New York, New Jersey metropolitan area as well as stocked at each of the commercial airports (LGA, JFK, EWR and TEB) in sufficient quantity to meet system availability requirements.
- 6.4.5 Include in the maintenance program battery replacement as required for the UPS system and replace all UPS batteries with new batteries whenever the maintenance agreement ends.

- 6.4.6 Provide error corrections, updates and new releases to any proprietary software, and correction releases to third party software after obtaining a) the written approval of the Authority and b) documentation updates to reflect these software changes within fifteen (15) days of completion of said software updates. Errors shall include flaws in operation as defined in the manuals supplied to the Authority and errors due to flaws in the design and coding of the software. Make new releases of third party software available to the Authority at the Authority's option and expense.
- 6.4.7 Furnish Maintenance Management Reports monthly or whenever requested by the Authority that indicate PIDS performance levels during any given period. The Authority staff will compare these reports with its own records of performance.
- 6.4.8 Maintain and submit records of system performance levels during any given period that indicate conformance with the system component availability as per Section 10.
- 6.4.9 Authority staff will compare these reports with its own records of performance and reserves the right to require corrective maintenance.

**6.5 PERFORMANCE OF SERVICES**

- 6.5.1 The PA Project Manager shall have the authority to suspend performance of any work for any period during which he deems it undesirable to proceed therewith for any reason, whether or not either of the parties is responsible for such reason; and the Director may cancel this Contract as to any work not yet performed if he deems it undesirable to proceed therewith for any reason, without prejudice to rights and obligations arising out of work already performed.

The Director may terminate performance of work under this contract in whole or, from time to time in part if the Director determines that a termination is in the Authority's interest. The Director shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

1. A Notice of Termination specifying the extent of termination and the effective date.
2. The contract price for completed supplies or services
3. The reasonable costs of settlement of the work terminated
4. A cure period, if the termination is for cause.

- 6.5.2 Comply with oral or written requests given by the PA Project Manager to correct or remedy a condition or situation deemed by the PA Project Manager to require action to meet system availability requirements. Immediately respond when the PA Project Manager characterizes any condition or situation as an emergency. Submit to the PA Project Manager on the first day of each calendar month during the term of this Contract a written report setting forth the actions taken by the Contractor with respect to any matters which

the PA Project Manager may have, during the preceding month, requested the Contractor to correct or remedy.

## **6.6 WORKMANSHIP AND MATERIALS**

- 6.6.1 Workmanship and materials shall in every respect be free from defects of any kind and shall be in accordance with the best modern practice. Workmanship shall conform to applicable specifications, manufacturer's instructions and recommendations for installation of products for the applications shown in the Maintenance Order Documentation, all of which shall be subject to the provisions of Section 16, Subsection 16.3 entitled "Inspections and Rejections". The warranties expressed in this agreement are in lieu of all other warranties, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose.
- 6.6.2 Materials and Equipment incorporated into the Work shall be new and of the most recent manufacture available, except as may be otherwise herein specifically required, and shall comply with make, size, type and quality specified, or as specifically approved in writing by the PA Project Manager in accordance with the Section 9 entitled "Replacement of Materials".
- 6.6.3 Reference to standards of any society, institution, association, or governmental authority in the Contract, whether specific or by implication, shall mean (1) for building codes: the provisions in effect at the time of work performance and which would apply if the Authority were a private corporation; and (2) for other documents: the latest edition in effect at the time of issuance of the Maintenance Order, unless specifically stated otherwise.
- 6.6.4 If required by the PA Project Manager, furnish satisfactory evidence as to the kind and quality of materials and equipment to be employed by the Contractor in performing the Work. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the approved instructions of the applicable supplier.
- 6.6.5 In case of a discrepancy between a description and requirement for any material or equipment and a catalog number or other designation for the same material or equipment (even though stated to be acceptable), the description or requirements shall control.
- 6.6.6 All inventions, ideas, designs and methods contained in the Specifications and Contract Drawings in which the Authority has or may acquire patent, copyright or other property rights are hereby expressly reserved for the exclusive use of the Authority. The Specifications and Contract Drawings may contain Privileged and Confidential information which is disclosed only to enable this Contract to be performed. Said Specifications and Contract Drawings shall not be used for any purpose detrimental to the interest of the Authority and shall not be produced or copied in whole or in part or used for furnishing information to others without the written consent of the Authority, provided, however, that the Contractor may, when the performance of the Contract so requires, furnish said

information to others for the purpose of engaging or informing subcontractors and materialmen after execution of an Authority approved non-disclosure agreement between the Contractor and said subcontractors and materialmen. Any further disclosure shall require the written approval of the PA Project Manager and may require the execution of a separate confidentiality agreement. Handling of Privileged and Confidential information shall be in accordance with PA Security Handbook dated November 2004.

**6.7 MAINTENANCE MANAGEMENT SYSTEM**

6.7.1 The purpose of the maintenance management system is to ensure the maximum availability of the Aviation PIDS at a minimum cost in man-hours and funds without compromising airport operations, security, system and network security, safety or PIDS reliability.

6.7.2 A software-based Computerized Maintenance Management System (CMMS) shall be provided and used by the Contractor and shall be made available for use by the Port Authority without additional cost for managing Maintenance Contract performance and documenting maintenance activities. The CMMS shall track maintenance calls from origination to successful closeout. The CMMS shall produce, at a minimum, weekly, monthly, and annual status reports to the Authority. Periodic reports shall include trend analysis that pinpoint areas targeted for improvement to allow for the managed mitigation of risks that may be inherent in the installed system.

6.7.3 Additionally, the CMMS shall contain a configuration management feature that shall track system configuration status and changes, including Change Authorizations requested by the Contractor and approved by the appropriate Authority Department(s). Change Authorization Requests shall be submitted not less than five (5) days in advance for minor system changes, and ten (10) to fifteen (15) days in advance for major system changes. Minor system changes are for changes at a cost of \$0-5,000, including equipment and labor. Major system changes shall be defined as changes at a cost greater than \$5,000.

6.7.4 Document any and all repairs, adjustments and modifications to any component. Repair information shall include as a minimum:

- 6.7.4.1 Time
- 6.7.4.2 Day
- 6.7.4.3 Component
- 6.7.4.4 Component number
- 6.7.4.5 Type of failure
- 6.7.4.6 Type of repair
- 6.7.4.7 Identification (ID) of repair technician

- 6.7.4.8 Name of Authority contact
- 6.7.4.9 Time and Date of contact with Authority
- 6.7.4.10 Result of contact with Authority: Left message, spoke with, etc.
- 6.7.5 All Maintenance activities shall be properly documented in the CMMS by the Contractor to include, but not be limited to, the following:
  - 6.7.5.1 Maintenance and Operations Documentation
  - 6.7.5.2 Repair Action Approval and Acceptance
  - 6.7.5.3 User Maintenance Repair Acceptance
  - 6.7.5.4 Maintenance Status Reporting
  - 6.7.5.5 Inspection and Test Reporting, by subsystem, sensor type and zone
  - 6.7.5.6 Installation and Spares Inventory Tracking
  - 6.7.5.7 As-Built Modifications
  - 6.7.5.8 Software Modifications
  - 6.7.5.9 Software Documentation
  - 6.7.5.10 System Documentation
- 6.7.6 The CMMS shall include a module for documentation and reporting of problems encountered during the course of maintenance performance. Document and resolve all problems encountered during the maintenance effort, particularly when the assistance of Authority Staff is requested or required. Types of problems that are anticipated include, but are not limited to, the following:
  - 6.7.6.1 Failure of maintenance notification procedures
  - 6.7.6.2 Access to site restricted or denied
  - 6.7.6.3 Authority personnel unavailable
  - 6.7.6.4 Fault analysis by Authority unavailable, inadequate or incorrect
  - 6.7.6.5 Maintenance requested not within scope of Maintenance Contract
  - 6.7.6.6 Spare parts inventory not available, incorrect or inadequate
  - 6.7.6.7 As-Built documents incorrect

6.7.6.8 Software not performing per specification or as required

6.7.6.9 Software documentation incorrect

6.7.6.10 System documentation incorrect

## **6.8 SCHEDULED PREVENTIVE MAINTENANCE**

The maintenance performed by the Contractor during the warranty and maintenance periods shall consist of scheduled preventive maintenance, which shall be in accordance with the manufacturers' suggested preventive maintenance schedules and recommendations, callback service and engineering updates as described herein.

### **6.8.1 Schedule of Work:**

Perform Monthly Minor Inspections and Quarterly Major Inspections of the PIDS. Monthly Minor Inspections shall be performed and completed during the week prior to the last day of each month. Quarterly Major Inspections shall be performed at three month intervals during the last week of the third month of each interval and commencing upon final approval by the Authority of the final 30-day acceptance test of the PIDS installation.

Tasks to be performed during the Monthly Minor and Quarterly Major Inspections shall include, but are not necessarily limited to, the following:

#### **6.8.1.1 Monthly Minor Inspections:**

Minor inspections shall include visual checks and operational tests of console equipment, peripheral equipment, local processors, sensors, and electrical and mechanical controls. Inspections shall include testing of all subsystem sensors and equipment to verify operation within the Specifications. Minor inspections shall also include mechanical adjustments, new ribbons/toner cartridges, and other necessary adjustments on printers.

#### **6.8.1.2 Quarterly Major Inspections:**

Major inspections shall include work performed for Monthly Minor Inspections and also:

6.8.1.2.1 Clean all system equipment and local processors, including interior and exterior surfaces.

6.8.1.2.2 Perform diagnostics on all equipment.

6.8.1.2.3 Check, walk test and calibrate each sensor.

6.8.1.2.4 Perform physical zone penetration tests of the entire PIDS Alarm/Detection Secure Area, the Alarm/Detection Secure Line and the Alert/Observation Area as identified in the Specifications and shown on the Contract PCSUPs. Testing shall include all alarms from the integrated system.

6.8.1.2.5 Run all system software diagnostics and correct all diagnosed problems.

6.8.1.2.6 Resolve any previous outstanding problems.

6.8.1.2.7 Purge and compress and re-index as required all databases.

6.8.1.2.8 Install patches and update the software to the latest releases.

6.8.2 Scheduled Work:

Scheduled work shall be performed wherever possible during regular working hours, Monday through Friday, excluding federal holidays. However, the Authority will have the option of requiring that tests of new software shall be done outside of regular working hours. Provide forty-eight (48) hours advance notification of intent to perform any work. The following legal holidays will be observed at Authority offices and facilities:

New Year's Day	Columbus Day
Martin Luther King, Jr. Day	Veteran's Day
President's Day	Thanksgiving Day
Memorial Day	Day after Thanksgiving
Independence Day	Christmas Day
Labor Day	

6.8.3 Monthly Preventative Maintenance Tasks:

Scheduled preventive maintenance shall include, but not be limited to, inspection, testing, cleaning lubricating, adjustment, repairs, replacement of field installable parts that are approaching unserviceable status and all actions necessary to prevent system failures and extend the PIDS' useful life. Submit a plan with an associated schedule for the performance of preventive maintenance and an itemized list of maintenance tasks with detailed descriptions of each task to the Authority with the proposal and prior to the commencement of installation. In addition, submit documentation of all equipment and parts repair or replacement, test reports and other work performed during Scheduled Preventive Maintenance.

6.8.4 System Updates

System updates shall consist of all actions necessary to incorporate hardware and software updates in the PIDS to ensure performance to original Specifications. Provide error correction, updates and third party software after obtaining: (a) the written approval of the Authority and (b) documentation of updates to reflect these software changes within fifteen (15) days of completion of said software updates. Errors shall include flaws in operation as defined in the manuals supplied to the Authority under the Contract and errors due to flaws in the design and coding of the software. Make new releases of third party software available to the Authority at the Authority's option and expense. Fully test and verify all Software updates/patches prior to installation on the PIDS Operational System.

6.8.5 System Inspection and Test Reports

- 6.8.5.1 Scheduled system inspection and test results shall be maintained and archived in the CMMS and problem items identified and resolved. System Inspection results and resolutions shall be submitted to the PA Project Manager for review and approval.

**6.9 MAINTENANCE ORDERS**

Maintenance orders will be initiated by the PA Project Manager by written request when he deems it necessary to modify the PIDS system as a result of new operation needs and requirements. These modifications may include but are not limited to adds, moves, changes to existing PIDS configuration, integration and development of interfaces to other security systems and support of demonstration and testing of new systems.

6.9.1 Maintenance Order Information

In response to the contract letter request the Contractor shall develop a Maintenance Order and record on each Maintenance Order all labor, materials, equipment, and supplies used as well as:

- 6.9.1.1 Milestone schedule, with items as required by the Maintenance Order terms.
- 6.9.1.2 Detailed staffing schedule including staff names as required by Maintenance Order.
- 6.9.1.3 Changes to the maintenance schedule as a result of the Order. Indicate addition/deletion of specific items from the schedule. Provide a total increment/decrement of monthly maintenance cost.
- 6.9.1.4 Make, model, description and quantity of the equipment included in Maintenance Contract to be supplied and included as an attachment to the Contract. Include columns for contract price, unit price and extended cost, with subtotals. Present minimum cost solutions and costs of alternative solutions.
- 6.9.1.5 The Authority will make its best effort to provide all CAD drawings in electronic format (.dwg or .dxf) or whatever is available (e.g. system diagrams, sketches, etc.) for all new construction and all locations.

6.9.2 Adds, Moves, Changes

The work performed in this category deals with modification of the PIDS System to deal with new operational needs, requirements, and factory software upgrade releases. These needs and requirements may be specifically planned by the Authority internally, or may be mandated by outside governing agencies such as the FAA or the TSA. The Maintenance Order process will provide the task definition including specifying the scope and schedule for the planned work. The Authority may request that this work be performed immediately or within thirty (30) days at its option. The Contractor must return a written proposal within five (5) to ten (10) business days.

Maintenance Orders may include work ranging in scope from minor system modification up to the design and implementation of major changes to the existing system. Examples of such work are, but not limited to:

- 6.9.2.1 Incorporating additional alarms
- 6.9.2.2 Movement of primary and backup host computers to new locations
- 6.9.2.3 Equipping new locations with intrusion sensors.
- 6.9.2.4 Installation of new CCTV cameras
- 6.9.2.5 Relocation of intrusion sensors
- 6.9.2.6 Other PIDS software enhancements
- 6.9.2.7 Integration of Authority Systems

### 6.9.3 Integration

The Authority anticipates requesting the Contractor to develop interfaces enabling the PIDS to interface and exchange information with other security systems and new security devices. The Contractor shall assist in requirements definition and review third party designs to assure consistency within and between requirements.

Assume the lead role in the design, construction and implementation of interfaces. Such design may require the use of specialized interface hardware and the development of software.

Coordinate service work and problem resolution to maintain system availability in the event that a problem is found in an interface with another integrated system that may itself require work to be performed by another contractor responsible for maintenance of that system or systems that are integrated with the PIDS.

Examples of possible integration efforts include interfacing the PIDS to Global Tracking Systems, CACS and CCTV Monitoring and Recording Systems, Fuel Farm and Guard Post Alarm.

### 6.9.4 Support for Pilot Projects

This type of Maintenance Order request involves researching, constructing, integrating and demonstrating new system devices and capabilities. In addition to the skills required for support of the existing system, personnel assigned to such Maintenance Orders shall be required to perform product and technical research, analysis, design and preparation of formal reports detailing the pilot project, its results, and recommendations for subsequent steps, if any. The format of such reports shall be as directed by the PA Project Manager.

Provide additional qualified personnel for Pilot Projects that involve new technologies. Example: Construct a working prototype subsystem based on advanced biometric technology (such as Biometric

Credential validation); demonstrate the feasibility and extent to which this prototype might be incorporated into the existing security system.

## **6.10 FOLLOW-ON SYSTEM TRAINING**

- 6.10.1 When requested by the Authority, the Contractor shall provide follow-on training as specified herein.
- 6.10.2 All training shall be provided by the Contractor.
- 6.10.3 Coordinate training objectives for PIDS Operation, Supervisor and System Administration personnel with the Port Authority, to ensure that the trainees have basic familiarity with Windows XP and 2000 operating systems for the PIDS workstations.
- 6.10.4 In addition to classroom sessions furnish two (2) sets of video recordings of the training sessions on VHS tape and DVD per airport for use in future training classes. Additional sets may be ordered at the Authorities request.
- 6.10.5 Provide one (1) file sets each of the Operator, Technical, and Administrator manuals and one (1) DVD set of each manual, in addition to providing an appropriate manual for each person attending these classes. Additional sets may be ordered at the Authorities request.
- 6.10.6 Submit training manuals, curricula and schedules for each type of training class to the Authority for approval between sixty (60) and fourteen (14) days prior to proposed training dates and incorporate and obtain approval of any changes thereto due to changes in content, equipment, system configuration, operating or maintenance procedures, or as required by the Authority prior to commencing any training.
- 6.10.7 Conduct all training at each individual airport, and utilize airport specific manuals and as-built documentation. Supply all of the equipment and software required to conduct the training, with a qualified trainer, for the specified number of students.
- 6.10.8 Training sessions shall include the following classes:
  - 6.10.8.1 Operator Training shall include training of classes for up to fifteen (15) students per class. This training shall provide the user with the means to authenticate to the workstation, view live and recorded video, position the PTZ cameras, generate VHS Tapes and DVDs of specific events, and all the other functions that a non-supervisory user would be expected to know.
  - 6.10.8.2 Supervisor / Administrator Training shall include training of classes of up to fifteen (15) students per course.
  - 6.10.8.3 System Manager / Administrator shall include training of classes of up to fifteen (15) students per course and shall be scheduled to meet the requirements of each airport.
- 6.10.9 Training shall encompass, at a minimum:

- 6.10.9.1 Sequence of Operations
  - 6.10.9.2 Sign-On and Sign-Off
  - 6.10.9.3 Selection of all displays and reports
  - 6.10.9.4 Selection of all system functions, including;
  - 6.10.9.5 Event recording
  - 6.10.9.6 Video retrieval
  - 6.10.9.7 Copy video clip to CD
  - 6.10.9.8 Archive specific video clips
  - 6.10.9.9 Software review
  - 6.10.9.10 Modification of control parameters
  - 6.10.9.11 Diagnostics
  - 6.10.9.12 System Maintenance procedures
  - 6.10.9.13 Upload / Download and off-line archiving of all systems software
  - 6.10.9.14 Ex. 4 security, administration and maintenance
  - 6.10.9.15 Local area network security, administration, maintenance
  - 6.10.9.16 Review topics in the System Administrator's Manual
  - 6.10.9.17 Complete configuration backups of all hardware and software
- 6.11 Systems Administration

The Contractor shall provide systems administration as identified in Book IV Attachment 8, Systems Administration. This shall be priced as an option.

## **7 EXTRA WORK AND COMPENSATION FOR EXTRA WORK**

### **7.1 DEFINITION OF EXTRA WORK**

Perform promptly all repairs and replacements regardless of the cause thereof. The Authority will pay the Contractor under the provisions of this Section, in addition to the Monthly Price For Maintenance set forth hereinbefore, the cost of any repairs and replacements ordered by the Authority which are: additional to those required to be performed by the Contractor for the Monthly Maintenance Price; or, necessitated directly by negligence, misuse, accidents or abuse which are not the fault of the

Contractor (which portion is herein called "Extra Work"). However, no repair or replacement work that the Contractor deems to entitle him to compensation additional to the Monthly Price for Maintenance shall be performed without the prior approval of the PA Project Manager. "Extra work" shall not be performed without prior written approval by the PA Project Manager. It shall be presumed that all repairs and replacements are caused by negligence, misuse, accidents, or abuse which are the fault of the Contractor and are the responsibility of the Contractor unless it is otherwise affirmatively demonstrated by the Contractor. No repair or replacement work, which the Contractor deems to entitle him to compensation additional to the monthly price for maintenance of the System under Extra Work, shall be performed without prior written approval of the Manager.

## **7.2 COMPENSATION FOR EXTRA WORK:**

7.2.1 In determining the amount to be paid the Contractor for Extra Work, there shall not be included any portion of the cost of repairs or replacements that represent wear and tear which would in any event require repair or replacement as part of the Contractor's maintenance obligations. Perform no Extra Work except pursuant to written orders of the Manager expressly recognizing such work as Extra Work. If Lump Sum or Unit Price compensation cannot be agreed upon by the parties in writing prior to the start of Extra Work, perform such Extra Work and the Contractor's compensation shall be increased by the sum of the following amounts and such amounts only: (1) the actual net cost, in money, of labor (including premiums for workers' compensation insurance, taxes and a proper proportion of vacation allowances and union dues and assessments required to be paid by the employer on the basis of such labor costs) and material required for such Extra Work, (2) ten percent (10%) of the amount under (1) above, (3) such rental as the PA Project Manager deems reasonable for plant and equipment (other than small tools) required for such Extra Work and (4) if the Extra Work is performed by a subcontractor, an additional five percent (5%) of the sum of the amounts under (1) through (3) above.

7.2.2 As used in this numbered clause (and in this clause only):

7.2.2.1 "Labor" means laborers, mechanics and other employees below the rank of supervisor, directly employed at the Work Site and subject to the PA Project Manager's or his/her designee's authority to determine (1) what employees of any category are "required for Extra Work" and (2) the portion of their time allotted to Extra Work; and "cost of labor" means the wages actually paid to and received by such employees plus a proper proportion of (a) vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligation upon the basis of such wages, and (b) taxes actually paid by the employer pursuant to law upon the basis of such wages. "Employees" as used in this paragraph means only the employees of one employer.

7.2.2.2 "Net Cost" means the Contractor's actual cost after deducting all permitted cash and trade discounts, rebates, allowances, credits, sales taxes, commissions, and refunds (whether or not any or all of the same shall have been taken by the Contractor) of all

parts and materials purchased by the Contractor solely for his use in performing his obligation hereunder provided that such purchase has received the prior written approval of the PA Project Manager as required herein. Promptly furnish to the Manager such bills of sale and other instruments as he may request, executed, acknowledged and delivered, assuring to it title to materials, supplies, equipment, parts and tools free of encumbrances.

7.2.2.3 “Materials” means temporary and consumable materials as well as permanent materials; and “cost of materials” means the price (including taxes actually paid by the Contractor pursuant to law upon the basis of such materials) for which such materials are sold for cash by the manufacturers or producers thereof, or by regular dealers therein, whether or not such materials are purchased directly from the manufacturer, producer or dealer (or if the Contractor is the manufacturer or producer thereof, the reasonable cost to the Contractor of the manufacture and production), plus the reasonable cost of delivering such materials to the Site of the Work in the event that the price paid to the manufacturer, producer or dealer does not include delivery and in case of temporary materials, less their salvage value, if any.

7.2.3 The PA Project Manager shall have the authority to decide all questions in connection with Extra Work. The exercise by the PA Project Manager of the power and authority vested in him/her by this section shall be binding and final upon the Port Authority and the Contractor.

7.2.4 Submit all reports, records and receipts requested by the PA Project Manager so as to enable him/her to ascertain the time expended in the performance of the Extra Work, the quantity of labor and materials used therein and the cost of said labor and materials to the Contractor.

7.2.5 The provisions of this Contract relating generally to Work and its performance shall apply without exception to any Extra Work required and to the performance thereof. Moreover, the provisions of the Specifications relating generally to the Work and its performance shall also apply to any Extra Work required and to the performance thereof, except to the extent that a written order in connection with any particular item of Extra Work may expressly provide otherwise.

7.2.6 If the Contractor deems work to be Extra Work, the Contractor shall give written notice to the Manager within twenty-four (24) hours of performing the work that he so considers as Extra Work, and failure of the Contractor to provide said notice shall be a waiver of any claim to an increase in compensation for such work and a conclusive and binding determination that it is not Extra Work.

7.2.7 Supply the amount of materials, supplies, equipment and personnel required by the PA Project Manager within seven (7) days following the receipt of written or verbal notice from the Manager, or in the case of an emergency as determined by the PA Project Manager, within two (2) hours following receipt by the Contractor of the PA Project

Manager's written or oral notification. Where oral notification is provided hereunder, the PA Project Manager will thereafter confirm the same in writing.

7.2.8 Notwithstanding anything to the contrary, as regards any change in the Contractor's compensation provided for in the immediately preceding paragraph, the amount of any increase in compensation hereunder shall not be more than, and the amount of any reduction in compensation hereunder shall not be less than the price the Contractor charges his other customers in like circumstances to provide such materials and equipment and to supply such services. If the costs for such materials, equipment and labor do not appear on published price lists, the Contractor shall produce evidence that the charges therefor are comparable to those charged other customers of the Contractor in like circumstances.

7.2.9 Bill all Extra Work monthly to the Port Authority on separate invoices.

## **8 EXTRA WORK PROCEDURES**

Whenever any work is performed by the Contractor and the Contractor deems that such work is Extra Work, the Contractor shall, as a condition precedent to payment for such work, furnish to the PA Project Manager or his authorized representative at the end of each day daily time slips showing; a) the name and number of each workman employed on such work, and the number of hours which he is employed thereon, and b) a brief description of the nature of the work performed and a list of material used. Such documentation shall not be required for any work for which lump sum compensation has been agreed to. This information shall be supplemented by the Contractor at a later date with a statement indicating from whom the material was purchased and the amount paid therefor or copy of the Contractor's price list, and all of the rates used in computing compensation for labor. Such daily time slips and memoranda are for the purpose of enabling the PA Project Manager or his authorized representative to determine the amounts to be paid to the Contractor. Accordingly, failure on the part of the Contractor to furnish them with respect to any particular work shall be deemed to constitute a waiver by the Contractor of any claims for such additional compensation.

## **9 REPLACEMENT OF MATERIALS**

Where a proprietary item or make is specified or mentioned herein or is called for or mentioned in the Maintenance Documentation and the phrases "similar and equal to" or "approved equal" are used in connection therewith, the utilization of any other item or make shall be deemed a substitution. Substitution for the proprietary item or make specifically named may be made only in accordance with Section 6.6, hereof entitled "Workmanship and Materials" and in accordance with the following:

Whenever materials or equipment are specified or described in the Maintenance Documentation or Specifications by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of another supplier or manufacturer may be accepted by the PA Project Manager if sufficient information and proof is submitted by the Contractor to permit the PA Project Manager to determine that the material or equipment proposed is equivalent or equal to that named, in form, fit, and function, and the PA Project Manager approves the substitution. The procedure for review by the PA Project Manager will

include the following. Requests for review of substitute items of material and equipment will not be accepted by the PA Project Manager from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall make a timely written application to the PA Project Manager for approval thereof, certifying that the proposed substitution will perform at least the identical functions and achieve at least the identical results called for by the specified product and otherwise be equal to the specified product with regard to, but not limited to, durability, maintenance, strength, energy costs and record of proven performance. The application shall include a specification sheet and shall state that the evaluation and approval of the proposed substitution shall not delay the Contractor's completion of the Work as required by the Contract, whether or not approval of the substitution will require a change in the construction, and in no event will the Contractor be granted an extension of time for completion of any portion of the Work for reasons related directly or indirectly to the evaluation of the proposed substitution or to the proposed substitution itself. Any variations of the proposed substitution, in form, fit or function, from that specified shall be identified in the application, and maintenance, repair and replacement services for the substitution shall be indicated. The PA Project Manager may require the Contractor to furnish at the Contractor's expense additional laboratory test data concerning the proposed substitution.

Additionally, such submission to the PA Project Manager shall be made by including the requested substitution in the list of materials required to be submitted to the PA Project Manager in accordance with Section 16, Subsection (16.3 hereof entitled "Inspections and Rejections" within 20 calendar days after the receipt by the Contractor of the acceptance of the Work. After the approval of said list, no substitutions will be permitted, except that a brand or make named in the Specifications may be submitted for approval in lieu of a brand or make on said list. Any such submission shall not imply, or impose on the PA Project Manager, any obligation whatsoever to discuss, disclose or justify the reasons for his opinion, approval, acceptance or rejection.

The PA Project Manager shall be the sole judge as to whether a proposed substitution shall be approved, and no substitution shall be ordered or utilized without the PA Project Manager's prior written approval. The PA Project Manager may require Contractor to furnish at Contractor's expense a special performance guarantee or other assurance with respect to any approved substitution. Furthermore, the approval of any substitute proprietary item or make shall not in any way entitle the Contractor to additional compensation therefor.

Notwithstanding such approval, however, the Contractor assumes the risk that such approved substitute item or make is not equal to that shown or specified and if at any time the substitution shall appear not to be so equal he shall replace the substitution with that originally shown in the Maintenance Documentation or called for in the Specifications at his own cost and reimburse the Authority for any loss occurring on account of the substitution failing to be equal, notwithstanding that it had been previously approved for use by the PA Project Manager.

The construction called for by the Maintenance Documentation and Specifications may be adapted for a particular proprietary item or make of material or equipment. Therefore, if any construction not required by the Maintenance Documentation or Specifications in their present form is necessary or desirable because of the use of substitute item or make of material or equipment (even though such other item or make is approved by the PA Project Manager), such construction shall be furnished or performed by the Contractor at his expense and subject to the approval of the PA Project Manager.

The Authority shall have the right to audit the proper use of materials including, but not limited to, materials used as substitutes for specified materials. The Authority shall retain the right to require correct installation as per approved materials and installation procedures recommended by the manufacturer and as submitted in approved shop drawings.

## **10 SYSTEM AVAILABILITY, RELIABILITY, & MAINTAINABILITY**

Maintain standards of system operational availability as defined below and in Book II Attachment C, Functional and Performance Requirements.

### **10.1 SYSTEM AVAILABILITY**

Ex. 4

### **10.2 RELIABILITY AND MAINTAINABILITY**

Maintain the PIDS so that its components meet industry and Authority standards for Probability of Detection ( $P_d$ ), Confidence Level, MTBF (Mean Time Between Failures) and MTTR (Mean Time To Repair) as specified in Book II Attachment C, Functional and Performance Requirements.

## **11 WARRANTY MAINTENANCE**

All new work shall be warranted against defects in material and workmanship for a period of at least twelve (12) months as specified herein. Contractor shall provide detail concerning its warranty coverage in his proposal.

### **11.1 WARRANTY MAINTENANCE PERIOD**

- 11.1.1 The PIDS Warranty Period for each airport shall commence with the full or partial acceptance of the PIDS components and subsystems upon successful completion of the thirty (30) day Operational Acceptance Test at each airport and Authority signature of the certificates of partial or full completion.
- 11.1.2 Arrange for all manufacturers' extended warranties to apply to this Contract and to be included in this Contract at no additional cost to the Authority. Submit all manufacturers' warranties with product literature submittals and clearly identify the length of each manufacturer's warranty period.
- 11.1.3 In the event that a manufacturer's warranty period expires prior to the end of a contractual warranty period, the Contractor shall maintain coverage for the duration of the contractual warranty period at Contractor's own expense and at no additional cost to the Authority.

11.1.4 During the warranty period the contractor shall perform corrective and preventative maintenance as required under this contract.

11.1.5 For new and replacement PIDS Components and subsystems, the warranty period for the component and/or subsystem shall commence after Test and Acceptance by the Authority.

**11.2 WARRANTY MAINTENANCE SERVICE**

Provide Warranty Service on all equipment and software furnished under the Contract such that the PIDS shall perform in accordance with the specifications as defined and specified in this Contract (the "Specifications") twenty-four (24) hours a day, seven (7) days a week, including Holidays. Such performance of the PIDS shall be referred to as performing in "Maintenance Contract". Warranty Service shall include:

11.2.1 On-site diagnosis and repair of defects in the equipment and software furnished herein. Provide diagnosis and fault isolation participation in any and all intra or inter facility communications troubles affecting the PIDS whether the Contractor or a third party provides maintenance. In the event the PIDS is not in Working Order, dispatch service personnel to the Work Site.

11.2.2 Inasmuch as the damage and loss to the Authority which will result from delays in completing warranty service will include items of loss whose amount will be incapable or very difficult of accurate estimation, damages in the form of Downtime Credits to the Authority shall be calculated and liquidated in the sums specified in the following table.[ADDENDUM 8]^

Event	Downtime Credits
Failure of service personnel to arrive at the Work Site within Ex. 4 of telephone notification	A Monthly Credit of \$100 for each hour or part thereof that service personnel arrive late at the Work Site. This shall be added to other downtime credits for which the Contractor is liable. "Arrival at the work site" shall be defined as arrival at the location where the work is to be performed or at a designated alternate location selected by the Authority and shall be considered to have occurred upon acceptance by the Authority of proper notification of arrival.
<u>Failure of service personnel to repair or replace</u> - <u>Critical* components within 24 hours after arrival at the Work</u>	<u>A Monthly Credit of \$100 for each hour or part thereof that service personnel fail to meet critical or non-critical component repair time shall be added to other downtime credits for which the</u>

<p><u>Site</u> <u>Non-critical* components within 72 hours after arrival at the Work Site.</u></p>	<p><u>Contractor is liable.</u></p>
<p><u>Failure to meet System Operational Availability standard</u></p>	<p><u>A Monthly Credit of \$1,000 for each hour or part thereof for each hour during which there is an absence of host services beyond the failure time at each of the airports. This shall be added to other downtime credits for which the Contractor is liable.</u></p>

- “Critical” is defined as repair services for key equipment which would cause significant system failure, have significant impact to operations, and other emergencies as determined and/or defined by the Facility Manager which would result in the Facility losing the ability to either detect or assess an intrusion or threat.
- “Non-Critical” is defined as repair for equipment or other components not affecting overall system performance.

- 11.2.3 The PA Project Manager will determine whether the Contractor has performed in a satisfactory manner and his/her determination shall be final in the first instance.
- 11.2.4 Each month calculate the total Monthly Warranty Payment Credit and reduce the Monthly Warranty Payment requested by that amount on the next invoice submitted to the Authority. The total Monthly Warranty Payment Credit shall not exceed the Monthly Warranty Payment. Warranty Payment credits for the various events set forth above shall be cumulative within a given month.
- 11.2.5 In the event PIDS is not working in accordance with the Functional and Performance requirements, the Contractor shall dispatch service personnel to the Work Site to arrive within two (2) hours of notification by the Authority.
- 11.2.6 In the event that the PIDS is not working in accordance with the Functional and Performance requirements, and the Contractor has exceeded either of the standards of System Availability because of a malfunction which, in the opinion of the Authority, is unlikely to be resolved by the Contractor, the Authority may, after giving the Contractor a reasonable period to perform in which the Contractor is unable to perform, at the Contractor’s expense, restore the PIDS to Working Order or provide a work around. Contractor shall credit to the Authority the expenses associated with any third party work up to the Monthly Warranty Payment.
- 11.2.7 Contractor guarantees and warrants that work done and items procured shall (a) meet the requirements of Contract MFA-134.308, (b) be free from defects in design, materials and workmanship, and (c) be free of all liens, encumbrances and other rights and interests of third parties. This guarantee and warranty shall apply to all discrepancies and defects that are discovered within twelve months after the date of System Acceptance. The terms of

Warranty for the defective items shall be extended for a time equal to any period that work done or equipment installed cannot be used for the purpose intended as a result of the discrepancy or defect. The warranty of the PIDS shall include all preventative and corrective maintenance, including repair of vandalized equipment, except that the cost of parts used to replace vandalized parts other than consumables and wear related items shall be borne by the Authority through a reduction in the spare parts inventory. The warranty shall apply to all components of the PIDS, regardless of cause of damage, except when caused directly by the Authority, and it shall cover the replacement of normal consumable items and wear related items. During the warranty period, the Contractor shall be responsible for all maintenance of the PIDS, including full time, on-site maintenance service, and for support personnel, field warranty troubleshooting and remediation. Remedial work to correct warranty defects shall be performed by the Contractor at a local repair facility, and shall include repair or replacement at the Contractor's option. Contractor shall not make any design modification to any component during the warranty period without the prior approval of the PA Project Manager. Contractor Maintenance Staff assigned to full-time maintenance response coverage shall not perform "extra work" while on duty without prior written approval by the PA Project Manager. Adequate staff shall be provided by the Contractor to meet the reliability requirements as specified in this Contract. In addition to the above, service contracts for all central computer system hardware and software purchased or upgraded shall be included during the installation and warranty period.

11.2.8 In the event the Contractor fails to comply with its maintenance obligations, the Authority will, upon written notice to the Contractor, have the right to deduct the downtime credits from any compensation due or which becomes due to the Contractor. In the event the Contractor has been paid, the Contractor agrees to compensate the Authority for the costs thereof.

11.2.9 Spare parts shall be interchangeable with their corresponding part. All spare parts shall be reconfigured to the latest revision during the maintenance period. Contractor shall have available at least two U.S. sources for spare parts that are exchanged regularly during preventive maintenance. Contractor shall also endeavor to have other spare parts available from two U.S. sources. A detailed list of all spare parts with manufacturer name, model number, quantities required to be on hand, warranty information and costs for one year after parts are out of warranty must be provided by the Contractor and submitted to the PA Project Manager prior to Contract signing.

11.2.10 Contractor is solely responsible for all costs of parts and/or labor that are incurred during the Warranty Period, except as expressly otherwise provided in this agreement.

## **12 PROJECT TEAM**

12.1 Provide personnel with the appropriate skills to satisfy Maintenance Work categories.

12.2 In the performance of either system enhancement or system maintenance, utilize personnel who are authorized and approved by the PA for installation and maintenance of the PIDS.

- 12.3 All Contractor's personnel shall be factory trained and certified by the manufacturers of the PIDS equipment and shall have a working knowledge of the equipment, its required maintenance, testing and trouble shooting procedures and spare parts to be stocked, as well as an understanding of the requirements of this Maintenance Contract and the use of the CMMS records management system.
- 12.4 Provide resumes, job definitions and hourly rates for personnel as listed above for approval prior to performance. Personnel proposed to maintain the PIDS system shall possess the necessary skills and have appropriate experience and background screening requirements as identified in the Prequalification Acceptance Letter to fulfill all system support responsibilities.
- 12.5 Contractor and his employees, subcontractors and laborers shall submit to background screening as required by the Authority and shall be responsible for all costs associated with completion of same prior to commencement of any work.
- 12.6 Initiate, maintain, and issue to the Authority at least monthly or whenever there is a change, a master project personnel roster for each facility including but not limited to: all contractors' supervisors, technicians, 7 X 24 reach numbers, 800 numbers and cell phone numbers. The contractor may be directed to add Authority personnel to this roster.
- 12.7 Furnish and maintain a backup list of technicians to perform work in case the responsible contractors or subcontractors cannot or do not perform the warranty work required in the time requirements specified elsewhere. Personnel must have met background-screening requirements.
- 12.8 Provide a contingency plan to the Authority in case the responsible contractor, supplier, and technicians fail to perform work under the warranty and the optional maintenance provisions of the contract as identified in the Prequalification Acceptance Letter.

### **13 WORK SITE CONDITIONS AND PROCEDURES**

- 13.1 Maintenance shall be performed by trained employees who shall be qualified to keep PIDS adjusted and repaired and in safe operating condition. If, in the opinion of the PA Project Manager, any of the Contractor's personnel are not satisfactory in the performance of services to be furnished hereunder, the Contractor shall remove such personnel and replace them with personnel satisfactory to the PA Project Manager. Qualifications of personnel shall be presented to the Authority upon request. Contractor shall so conduct its operations as to work in harmony with and not endanger, interfere with or delay the operations of others, all to the best interests of the Authority and others and as may be directed by the PA Project Manager. Contractor shall use all reasonable care, consistent with its rights to manage and control its operation, not to employ any person 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 Work Site or which interfere or are likely to interfere with the operation of this or any other facility of the Authority or with the operations of the Contractor under this Contract. Contractor shall give notice to the Authority, to be followed by written progress reports, as shall be necessary to advise the Authority of any and all impending

or existing labor complaints, troubles, disputes, or controversies that the Contractor believes may interfere with its or any other operations at the Work Site or any other Authority facility stemming from Work performed or to be performed under this Contract.

- 13.2 Contractor shall use its best efforts to resolve any such complaint, trouble, dispute or controversy. Contractor shall observe and obey and compel its officers, employees, guests, invitees, and those doing business with it to observe and obey the rules and regulations of the Authority and such further reasonable rules and regulations which may from time to time during the effective period of this Contract be promulgated by the Authority for reasons of safety, health, preservation of property, or maintenance of a good and orderly appearance of the area.
- 13.3 Contractor shall ascertain whether any labor union represented or not represented at the Work Site shall claim jurisdiction over the Work and notify the Authority in writing of such jurisdictional claims.
- 13.4 Contractor's service personnel shall report to the PA Project Manager or his/her designated representative at the start and completion of each maintenance visit, and said service personnel shall keep the PA Project Manager informed of the work performed by them by furnishing him/her with a completed "Service Maintenance Form", (designed and furnished by the Contractor with the approval of the PA Project Manager), which shall include in addition to any other pertinent data, such data as times of arrival and departure, materials replaced, the hours any item was out of service, the specific components which were inspected and/or adjusted and workers' names. A completed copy of the Contractor's "Service Maintenance Form" shall be attached to and submitted with each of the Contractor's invoices.
- 13.5 Unescorted access to security areas of the airports must be obtained, at the sole cost of the Contractor, for all Contractor technicians and other staff. For any installation/maintenance work that requires the retention of a subcontractor or the manufacturer's personnel, the Contractor must, at his sole cost, provide for cleared escorts as required by the Air Terminal Rules and Regulations and Federal regulations.
- 13.6 Any work requiring shutdown of all or any part of the AOA shall require prior approval of the Authority and shall be performed at such times as may be stipulated by the Airport's Aviation Operations management and the PA Project Manager.
- 13.7 In the event that maintenance work may cause any interruption in airport operations or any systems operations, the Authority may at its discretion provide guard services or direct the Contractor to provide those services if required.
- 13.8 If any maintenance work requires any gates or portals providing access to the AOA or other secure areas to be left open or otherwise not in compliance with airport security requirements the Contractor shall obtain prior approval of the Authority and the Facility Manager and Security Manager of the airport where the work is to be performed.

- 13.9 Any maintenance work requiring traffic lane closures shall be performed as directed by the responsible Facility Manager and only during the hours specified in this Contract.
- 13.10 Provide weather protection enclosures for outdoor work.
- 13.11 Report in writing to the PA Project Manager and the Authority's Manager, Claims Administration, all accidents whatsoever arising out of or in connection with the services hereunder which result in injuries or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or damages are caused the same shall be reported immediately to both of the said Authority representatives.
- 13.12 Should any claim be made by a third person against the Contractor on account of any accident resulting or alleged to have resulted out of the performance of the services hereunder, the Contractor shall promptly report the facts in writing to the PA Project Manager and the Authority's Manager, Claims Administration, giving full details of the claim.
- 13.13 The PA Project Manager will provide such cooperation as may be necessary to permit entry into locked areas.
- 13.14 Contractor shall give a minimum of forty-eight (48) hours notice of its intention to perform work (other than Emergency Services) under this Contract to the PA Project Manager or his/her designated representative in order that any necessary arrangements may be made by the PA Project Manager. This notice shall include the Contractor's expected hours of arrival and departure, areas to be serviced and the number of workers or crews which will be working.
- 13.15 At its discretion the Authority may furnish a limited quantity of free facility use passes and/or public parking spaces for the Contractor's service personnel. Any additional parking that may be required by the Contractor shall be at the Contractor's own expense.
- 13.16 Contractor may utilize Authority shuttle buses or shall furnish transportation as required at Contractor's own expense. Drivers shall submit for approval and maintain proper driver's licenses, vehicle registrations and insurance and shall observe all applicable Authority rules and regulations.
- 13.17 The Authority will provide identification badges for employees of the Contractor approved by the Authority. All employees of the Contractor, whenever engaged at the Work Site shall wear such badges in a conspicuous and clearly visible position.
- 13.18 The Contractor may be badged and empowered to escort personnel airside. The Contractor shall be responsible for conduct, actions and performance of personnel under Contractor's charge.
- 13.19 Provide warning signs and barricades as required to demarcate work areas.
- 13.20 Radio communications equipment required by the Contractor in the course of executing Maintenance Work shall comply with FCC, FAA and Authority operational requirements. Pay all costs associated with obtaining any necessary licenses or permits and for performing any

propagation and frequency coordination studies that may be required to ensure reliable radio communication and eliminate potential interference with or interruption of airport operations.

- 13.21 The Contractor shall furnish a minimum of five (5) radios and/or cellular telephones compatible with those used by the Contractor's personnel in the course of performance of this Contract per airport for Authority use. Submit radio requirements, specifications, make and model and proposed frequencies with proposal for review and approval.
- 13.22 In the event the Contractor encounters material reasonably believed to be asbestos, PCB or any other hazardous material at the Work Site, the Contractor shall immediately stop work in the area affected and report the condition in writing to the PA Project 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 PA Project Manager.
- 13.23 If the Contractor discovers any errors or omissions in the RFP or in the Work undertaken and executed by the Contractor it shall immediately notify the Authority and the Authority shall promptly verify the same. If, with the knowledge of such error or omissions and prior to the correction thereof, the Contractor proceeds with any Work affected thereby, the Contractor shall do so at its own risk, and the Work so done shall not be considered as Work done under and in performance of this Contract unless and until approved and accepted.

#### **14 ADDITIONAL CONDITIONS**

- 14.1 Contractor shall not be required to install equipment or appurtenances, other than those required for the maintenance of the equipment, even though such are recommended and required by insurance companies, or by governmental authorities, without additional compensation therefor. If directed by the PA Project Manager to install any such additional equipment or appurtenances, it shall be considered Extra Work and the Contractor will be compensated as set forth in Section 7, "Extra Work and Compensation for Extra Work".
- 14.2 Any breach of or delay in performing the maintenance obligation required hereunder which results in or tends to result in a substantial interruption of service shall be deemed a substantial breach of this Contract entitling the Authority at its option to take over the maintenance either itself or through others and to collect from the Contractor the additional cost, if any, of such maintenance or to terminate this Contract without liability to the Contractor; provided that in case of delay beyond the Contractor's control which it is unable to overcome by the exercise of all reasonable efforts or which it could not reasonably have anticipated or avoided, the Contractor shall not be deemed in breach. It shall be deemed that strikes, lockouts, fire, explosion, theft, floods, riots, civil commotion, war, acts of God and acts of government not yet specifically proposed or taken are beyond the Contractor's control. In case of delays beyond the Contractor's control the Authority may at its option and without liability to the Contractor, take over the maintenance either itself or through others until the Contractor resumes performance of the maintenance, and collect from the Contractor the additional cost, if any, of such maintenance work, provided, however, that in no event shall said cost exceed the proportional amount of the total Monthly Price for Maintenance, as determined by the PA Project Manager.

- 14.3 Contractor does not assume possession of and/or control over any part of the equipment, except to the extent that such possession and/or control are necessary for the purposes of performing its obligations under this Contract. The Authority shall remain the owner of the equipment serviced by the Contractor.
- 14.4 The Authority by its officers, employees and representatives shall have the right at all times to examine the supplies, materials and equipment used by the Contractor and to observe the operations of the Contractor, its subcontractors, agents, servants and employees and to do any act or thing which the Authority may be obligated or have the right to do under this Contract.
- 14.5 Nothing in this Contract is intended to create any rights in third persons and neither the Contractor nor the Authority shall be deemed to have intended to confer any rights on third persons by virtue of this Contract unless specifically provided otherwise herein.
- 14.6 Contractor shall pay all duties and imports fees, if any, on the importation of any materials used in work under this Contract.
- 14.7 Neither the Commissioners of the Authority nor any officer, agent or employee thereof shall be charged personally by the Contractor with any liability or be held liable to it under any term or provision of this Contract, or because of its execution or attempted execution, or because of any breach hereof.
- 14.8 [ADDENDUM 5] This offer shall be irrevocable for one hundred and twenty (120) days after the date on which the Authority opens the proposal for this Contract. ^

14.9 Laws and Ordinances

In order to effectuate the policy of the Authority, the Contractor shall comply with all provisions of Federal, state, municipal, local and departmental laws, ordinances, rules, regulations and orders which would affect the Contract and the performance thereof and those engaged therein if said Contract were being performed for a private corporation, except where stricter requirements are contained herein. However, the Contractor shall not apply for any permits or licenses in the name of, or on behalf of, the Authority.

14.10 Rights of Third Persons

Nothing in this Contract is intended to create any rights in third persons, and neither the Contractor nor the Authority shall be deemed to have intended to bestow any rights on third persons by virtue of this Contract unless specifically provided otherwise.

14.11 Risks Assumed by the Contractor

- 14.11.1.1 The Contractor assumes the following distinct and several risks whether they arise from acts or omissions (whether negligent or not) of the Contractor, of the Authority or of third persons, or from any other cause, and whether such risks are within or beyond the control of the Contractor, excepting only risks which arise solely from affirmative acts done by the Authority subsequent to the execution of this Contract with actual and

willful intent to cause the loss, damage, and injuries described in the subparagraphs below:

- 14.11.1.2 The risk of loss or damage to property of the Authority arising out of the performance of the services provided hereunder and to materials supplied hereunder by the Contractor prior to installation. The Contractor shall forthwith repair, replace, and make good any such loss or damage without cost to the Authority;
  - 14.11.1.3 The risk of claims, just or unjust, made by third persons or assessed by courts or governmental agencies or entities against the Contractor or the Authority on account of injuries (including wrongful death), loss, damage or liability of any kind whatsoever arising or alleged to arise out of or in connection with the performance of the Contract (whether or not actually caused by or resulting from the performance of the Contract) or out of or in connection with the Contractor's operations or presence at or in the vicinity of the Work Site including claims for worker's compensation, whether such claims, fines or penalties are made or assessed and whether such injuries, damage, loss and liability are sustained at any time both before and after the completion of the work provided for herein, and including intellectual property infringement claims;
  - 14.11.1.4 The risk of loss or damage to any property of the Contractor and of claims made against the Contractor or the Authority for loss or damage to any property of subcontractors, materialmen, workmen and others performing the Contract, occurring at any time prior to the completion of removal of such property from or in the vicinity of the Work Site or Authority premises.
- 14.11.2 The Contractor shall indemnify the Authority against all claims described in the subparagraphs above and for all expenses incurred by it in the defense, settlement or satisfaction thereof, including expenses of attorneys except where indemnity would be precluded by New York State General Obligations Law, Section 5-322.1 or by other applicable law. If so directed, the Contractor shall defend against any claims described in the sub-paragraphs above, in which event it shall not, without obtaining express advance permission from the General Counsel of the Authority raise any defense involving in any way jurisdiction of the tribunal, immunity of the Authority, governmental nature of the Authority or the provisions of any statute respecting suits against the Authority. Unless a claim is one which the Contractor is not required to indemnify the Authority against as described in the first sentence of this paragraph, such defense shall be at the Contractor's cost.
- 14.11.3 The provisions of this numbered clause shall also be for the benefit of the Commissioners, officers, agents, and employees of the Authority so that they shall have all the rights which they would have under this numbered clause if they were named at each place above at which the Authority is named, including a direct right of action against the Contractor to enforce the foregoing indemnity, except, however, that the Authority may at any time in its sole discretion and without liability on its part cancel the benefit conferred on any of them by this numbered clause, whether or not the occasion for invoking such benefit has already arisen at the time of such cancellation.

- 14.11.4 Neither the Authority's acceptance of service by the Contractor in part or in whole, nor the making of payment shall release the Contractor from its obligations under this numbered clause. Moreover, neither the enumeration in this numbered clause nor the enumeration elsewhere in this Contract of particular risks assumed by the Contractor or of particular claims for which it is responsible shall be deemed: (a) to limit the effect of the provisions of this numbered clause or of any other clause of this Contract relating to such risks or claims, (b) to imply that it assumes or is responsible for risks or claims only of the type enumerated in this numbered clause or in any other clause of this Contract or (c) to limit the risks which it would assume or the claims for which it would be responsible in the absence of such enumeration.
- 14.11.5 Inasmuch as the Authority has agreed to indemnify the City of New York and the City of Newark against claims of the types described above made against said city, the Contractor's obligation under shall include claims by said entities against the Authority for such indemnification, including those arising from acts or omissions (whether negligent or not) of said city.
- 14.11.6 The provisions of this numbered clause shall not be impaired by any rights the Contractor might otherwise have to limitation or apportionment of damages under the law of admiralty or to limitation of liability under 33 U.S.C.A. Chapter 9 (Protection of Navigable Waters and of Harbor and River Improvements), 46 U.S.C.A. Chapter 8 (Limitation of Vessel Owner's Liability), and any other similar statutes, and as between the Contractor and the Authority, the Contractor hereby waives any such rights. Moreover, the Contractor also waives any rights to limitation of liability under such law or statutes in connection with damage which may occur to property of the Authority arising out of or in connection with performance of the Contract whether the right to recover for such damage arises under this Contract or otherwise.
- 14.12 Exemption from New York State and New York City Sales Taxes - Purchase of Materials by the Contractor

The purchase by the Contractor of any materials to be used for the performance of "Extra Work" will be a purchase for resale and therefore not subject to New York State or New York City sales or compensating use taxes and the sale of such materials by the Contractor to the Authority which is a governmental agency, will not be subject to such taxes, provided that replacement of materials pursuant to the clause hereof entitled "Risks Assumed by the Contractor" shall not be a purchase for resale and shall be subject to the above taxes.

14.13 Non-Liability of the Authority Representatives

Neither the Commissioners of the Authority nor any officers, agents, or employees thereof, shall be charged personally by the Contractor with any liability or be held liable to it under any term or provision of this Contract, or because of its execution or attempted execution or because of any breach hereof.

## **15 MAINTENANCE AGREEMENT**

If (1) the Contractor fails to perform any of its obligations under this Contract or any other agreement between the Authority and the Contractor (including its obligation to the Authority to pay any claim lawfully made against him/her by any Subcontractor, workman or other third person which arises out of or in connection with the performance of this Contract or any other agreement with the Authority) or (2) any claim (just or unjust) which arises out of or in connection with this Contract or any other agreement between the Authority and the Contractor is made against the Authority or (3) any Subcontractor under this Contract or any other agreement between the Authority and the Contractor fails to pay any claims lawfully made against him/her by any Subcontractor, workman or other third person which arises out of or in connection with this Contract or any other agreement between the Authority and the Contractor or if in the opinion of the Director any of the aforesaid contingencies is likely to arise, then the Authority shall have the right, in its discretion, to withhold out of any payment (final or otherwise) such sums as the Director may deem ample to protect it against delay or loss or to assure the payment of just claims of third persons, and to apply such sums in such manner as the Director may deem proper to secure such protection or satisfy such claims. All sums so applied shall be deducted from the Contractor's compensation. Omission by the Authority to withhold out of any payment, final or otherwise, a sum for any of the above contingencies, even though such contingency has occurred at the time of such payment, shall not be deemed to indicate that the Authority does not intend to exercise its right with respect to such contingency. Neither the above provisions for rights of the Authority to withhold and apply moneys nor any exercise or attempted exercise of, or omission to exercise, such rights by the Authority shall create any obligation of any kind to the Contractor, Subcontractors, workmen or other third persons.

Until actual payment to the Contractor, his right to any amount to be paid under this Contract (even though such amount has already been certified as due) shall be subordinate to the rights of the Authority under this numbered clause.

If, however, the payment of any amount due to the Contractor shall be improperly delayed by the fault of the Authority, the Authority shall pay the Contractor interest thereon at the rate of eight percent (8%) per annum for the period of 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.

The acceptance by the Contractor, or by anyone claiming by or through him, of Final Payment shall be and shall operate as a release to the Authority of all claims and of all liability to the Contractor for all things done or furnished in connection with the Contract and for every act and neglect of the Authority and others relating to or arising out of the Contract, including claims arising out of breach of Contract and claims based on claims of third persons, excepting only his claims for reimbursement for certain sales taxes as hereinbefore provided. No payment, however, final or otherwise, shall operate to release the Contractor from any obligations in connection with this Contract.

The Contractor's agreement as provided in the immediately preceding paragraph shall be deemed to be based upon the consideration forming part of this Contract as a whole and not to be gratuitous; but in any event even if deemed gratuitous and without consideration, such agreement as provided in the immediately preceding paragraph above shall nevertheless be effective. Such release shall include all claims, whether or not in litigation and even though still under consideration by the Authority. Such release shall be effective notwithstanding any purported reservation of right by the Contractor to preserve such claim. The acceptance of any check designated as "Final Payment" or bearing any

similar designation shall be conclusively presumed to demonstrate the intent of the Contractor that such payment was intended to be accepted as final, with the consequences provided in this numbered clause, notwithstanding any purported reservation of rights.

The Contractor agrees that he shall not be entitled to, and hereby waives any right he might otherwise have to, and shall not seek any judgment whether under this Contract or otherwise for any such Final Payment or for an amount equivalent thereto or based thereon, or for any part thereof, if such judgment would have the effect of varying, setting aside, disregarding or making inapplicable the terms of this numbered clause or have the effect in any way of entitling the Contractor to accept such Final Payment or an amount equivalent thereto or based thereon or any part thereof other than in the same fashion as a voluntary acceptance of a Final Payment subject to all the terms of this Contract including this numbered clause, unless and until the Contractor should obtain a judgment on any claim arising out of or in connection with this Contract (including a claim based on breach of contract) for an amount not included in said Final Payment. In any case in which interest is allowable on the amount of the Final Payment, such interest shall be at the rate of eight percent (8%) per annum for the period, if any, in which such interest is due.

The clause "Final Payment" shall refer to the payment made for the last month in which maintenance is provided pursuant to the Contract. For additional Maintenance Order services as defined in this Contract it shall mean the last payment made for the performance of said services.

## **16 CONTRACTOR ROLES AND RESPONSIBILITIES**

### **16.1 Maintenance Order Specifications**

All work described in the Maintenance Order Documentation and all things not specified in the Maintenance Order Documentation but involved in carrying out its intent and the complete and proper execution of the work, are required; and the Contractor shall perform the same as though they were specifically delineated, described and mentioned.

The distribution of various parts of the work among the various Maintenance Order Documentation is not intended as a representation of the most effective or logical method of organizing, scheduling, or subcontracting the work, and the Contractor shall ascertain for himself how best to do so unless otherwise expressly prescribed in this Contract.

### **16.2 Shop Drawings, Catalog Cuts**

Specifically prepare for this Contract all Shop Drawings that may be required in addition to the Maintenance Order Documentation or in addition to any other drawings that the PA Project Manager may issue in supplementing the Maintenance Order Documentation. The specific drawing types and quantities shall be defined in each Maintenance Order.

After checking and verifying all field measurements and after complying with applicable procedures specified hereunder, submit to the PA Project Manager for review and approval, in accordance with the approved schedule of Shop Drawing submissions, or for other action if so indicated by the PA Project Manager, four (4) copies and two (2) reproducible sets, unless otherwise requested, of all Shop Drawings which shall bear a specific written indication that the Contractor has reviewed the submission for conformance to the requirements of the Maintenance Order Documentation and Specifications. All submissions shall be identified as the PA Project Manager may require. The data

shown on the Shop Drawings shall be complete with respect to quantities, dimensions, conformance to the specified performance and design criteria, materials, test results and similar information to enable the PA Project Manager to review the submittal as required.

### 16.3 Inspections and Rejections

All Work and all construction, processes, and methods involved in or related to the performance of the Work shall be at all times and places subject to the inspection of the PA Project Manager, acting personally or through his Inspectors, and the enumeration in these Specifications and Maintenance Order Documentation of particular portions of such Work, construction, processes or methods which will or may be inspected by the PA Project Manager or such Inspectors shall not be deemed to imply that only such Work, construction, processes and methods will or may be so inspected. The PA Project Manager shall be the judge of the quality and suitability of the Work, construction, processes and methods for the purposes for which they are used or to be used. Should they fail to meet his approval they shall be forthwith reconstructed, made good, replaced or corrected, as the case may be, by the Contractor at his own expense. Rejected material shall be removed immediately from the site. The fact that Inspectors have approved the materials and workmanship shall not relieve the Contractor from his obligation to supply other material and workmanship when so ordered by the PA Project Manager.

The Contractor, at his own expense, shall furnish such facilities and give such assistance for inspection as the PA Project Manager may direct. In the case of materials required by the Specifications to be inspected in the factory or plant, and in the case of any other items which the PA Project Manager may designate, the Contractor shall secure for the PA Project Manager and his Inspectors free access to all parts of such factories or plants and shall furnish to the PA Project Manager three (3) copies of purchase orders, two (2) copies of mill shipping statements and four (4) copies of shipping statements. Moreover, in the case of such materials to be factory or plant inspected, the Contractor shall give at least ten (10) days' notice to the PA Project Manager of his intention to commence the manufacture or preparation of such materials.

Other than the materials and equipment specifically required to be inspected at the manufacturer's factory or plant, all materials and equipment will be inspected at the construction site and any portions thereof which are rejected by the PA Project Manager shall be immediately removed from the construction site by the Contractor and shall be replaced with new materials or equipment by the Contractor at his own expense.

In the case of materials and equipment to be inspected at the construction site, the Contractor shall submit a list of all such materials and equipment in triplicate to the PA Project Manager for his approval prior to ordering same. The list shall be submitted within twenty (20) calendar days after receipt of the notice of acceptance and shall contain the following information:

(1) Classification of submittal in accordance with the following:

Class I - a submittal for record of an expressly specified item.

Class II - a submittal of an item, which conforms to an express generic specification, or a submittal that is deemed by the Contractor to be identical to an expressly specified item.

Class III - a submittal that is deemed by the Contractor to be functionally equivalent but not identical to a specified item.

- (2) In the case of Class II and Class III, the Contractor shall supply adequate information to the PA Project Manager to enable the PA Project Manager to compare the specified item and the proposed substitution. Information shall include, but need not be limited to, technical specifications, Catalog Cuts, drawings, references to existing installations and test data, or any other data required by the PA Project Manager.
- (3) In the case of fabricated materials for which Shop Drawings are to be prepared, a brief description of the material and the statement "see Shop Drawings".
- (4) In the case of materials or equipment listed in manufacturer's catalogs, the list shall contain the vendor's name, the manufacturer's name, brand name, style designation, catalog number and, where the Specifications require catalog cuts, the statement "see catalog cut".
- (5) In the case of materials or equipment for which Shop Drawings are not to be prepared, and which are not listed in any catalog, the list shall contain a complete description of the material or equipment, which shall be in sufficient detail to describe completely the materials or equipment and quality thereof.

The PA Project Manager will advise the Contractor whether said list is approved or requires corrections or additions within the number of working days indicated in the chart below:

Type of Submittal	No. of Working Days for PA Project Manager to Approve/Disapprove Items
Class I Material submittals	10
Portland Cement mix designs that require confirmation of the 28-day properties	35
Changes in asphalt mix designs that need to be confirmed with a batch mix at the plant	35
Class II Material submittals	20
Class III Material submittals	30

Failure of the Contractor to provide 30 calendar days advance notice to the PA Project Manager of any submittal shall result in a five (5) working day extension of the number of days stated in the chart above. In no event shall an extension of the PA Project Manager's review time provided for in this section relieve the Contractor from its duty to meet all contractual Milestone dates.

Within ten (10) working days after receipt of said list, the PA Project Manager will notify the Contractor of which items are approved and which disapproved. Within two working days thereafter, the Contractor shall resubmit a new list covering those items which were disapproved. After each such re-submission the PA Project Manager will have a similar period of ten days in which to approve or disapprove.

Should materials or equipment be delivered to the construction site without having been placed on the aforementioned list and approved, the Contractor, at his own expense, shall immediately remove said materials or equipment from the construction site.

#### 16.4 Errors and Discrepancies

If the Contractor discovers any errors or omissions, he shall immediately notify the PA Project Manager and the PA Project Manager shall verify the same and issue instructions in connection therewith. If, with the knowledge of such error or omission and prior to the correction thereof, the Contractor proceeds with any work affected thereby, he shall do so at his own risk and the work so done shall not be considered as work done under and in performance of the Contract unless and until accepted.

#### 16.5 Manufacturer's Certification

Where materials and equipment are required to conform to certain Standard or tentative Specifications or requirements for any organizations including, but not limited to, the American Society for Testing and Materials, American National Standards Institute, Association Rules for Grading Lumber, Federal Specifications, National Electrical Manufacturers Association, American Association of State Highway Officials, American Water Works Association and the International Municipal Signal Association, the Contractor shall furnish to the PA Project Manager the manufacturer's written certification that each of the materials or equipment conforms to the foregoing standard or tentative specifications. The certification shall be delivered to the PA Project Manager prior to installation of the materials to which it refers. Such certifications shall not be binding or conclusive on the Authority and may be rejected by the PA Project Manager at any time if incorrect, improper or otherwise unsatisfactory in his opinion.

Arrange for all Contractor personnel on the site responsible for installation and commissioning of equipment to be certified by the manufacturer(s) of the equipment.

#### 16.6 Approvals by Authority PA Project Manager.

Any approval by the PA Project Manager of anything done or proposed to be done by the Contractor shall be construed merely to mean that at that time the PA Project Manager knows of no good reason for objecting thereto; and no such approval shall relieve the Contractor from his full responsibility for the complete and accurate performance of the work in accordance herewith or from any duty, obligation or liability imposed upon him by the Contract or from responsibility for injuries to persons or damage to property.

#### 16.7 Contractor's Representative

During the performance of any work at the site, the Contractor shall have a representative thereat who shall be authorized by the Contractor to receive and put into effect, promptly, all orders, directions and instructions given by the PA Project Manager. A confirmation in writing of such orders or directions will be given by the PA Project Manager when so requested by the Contractor. The Contractor's representative shall be a full time manager with the staff required to administer the one year warranty provisions of this contract and any optional extended maintenance agreements. The manager shall be technically competent and administratively experienced to enforce all warranty and maintenance requirements on behalf of the Authority. He shall be responsible for coordinating spare parts, suppliers, contractors, subcontractors, technicians, utility interferences, shutdowns, work schedules, runway closures and space availability required to perform work both during normal and off-shift hours. The manager shall be the primary point of contact with PA Project Manager and/or his

designated representatives and, when required, with government agencies in order to obtain approvals, coordinate activities and perform installations. The manager shall be present at all times while subcontractors, suppliers, and technicians are performing work. The manager shall attend meetings at airports and prepare minutes of the meetings as required by the Authority. The manager shall maintain the Authority's PIDS records including all technical files, design drawing files, shop submittal files, correspondence files, spare parts inventory, team rosters with contact cell phone numbers, 24-hour emergency phone numbers, supervisor contact information and email addresses for each, at all airports. When the contractor's representative is not available the contractor shall provide a knowledgeable substitute so that work is not impinged or delayed.

### 16.8 Safety Provisions

In the performance of the Contract, the Contractor shall exercise every precaution to prevent injury to workers and the public or damage to property.

He shall, at his own expense, provide such temporary structures, place such watchmen, design and erect such barricades, fences and railings, give such warnings, display such lights, signals and signs, exercise such precaution against fire, adopt and enforce such rules and regulations, and take such other precautions as may be necessary, desirable or proper, or as may be directed.

The Contractor shall employ for Work of the Contract a competent person conforming to the requirements of the Code of Federal Regulations 29 CFR 1926.32(f) who shall be designated by the Contractor as authorized to perform the duties required by 29 CFR 1926 et seq. as applicable for Work of this Contract.

Obtain and submit to the PA Project Manager one copy of material safety data sheet (MSDS) conforming to the requirements of 29 CFR 1910.1200(g) for each hazardous chemical utilized for permanent and consumable materials employed for Work of this Contract.

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss, including but not limited to:

- 16.8.1 All employees on the Work, the public, and other persons and entities who may be affected thereby;
- 16.8.2 All the Work, materials and equipment to be incorporated therein, whether in storage on or off the site; and
- 16.8.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

The Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and the Contractor has removed all workers, material and equipment from the construction site, or the issuance of Final Payment, whichever shall occur last.

The Contractor shall employ only such men as are physically fit and are free from contagious or communicable diseases.

He shall use only machinery and equipment adapted to operate with the least possible noise, and shall so conduct his operations that annoyance to occupants of nearby property and the general public will be reduced to a minimum.

The bringing of intoxicating substances onto the work site and the use or consumption of intoxicating substances at the work site is prohibited. It shall be the responsibility of the Contractor to ensure that all employees of the Contractor and of all subcontractors, materialmen and any other persons under contract to or under the control of the Contractor shall comply with the provisions of this paragraph.

The Contractor shall daily clean up all refuse, rubbish, scrap materials and debris caused by his operations so that the risk of injury or damage therefrom shall be eliminated and so that the site shall present at all times a neat, orderly and workmanlike appearance. Before any inspection of the work by the PA Project Manager, the Contractor shall remove all surplus material and debris of every nature resulting from his operation.

The Contractor shall exercise every precaution and take every measure that will prevent injury to persons and damage to property.

In the event the Contractor encounters at the work site, material reasonably believed to be asbestos, PCB or any other hazardous material, immediately stop Work in the area affected and report the condition in writing to the PA Project 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 PA Project Manager.

Within [ADDENDUM 5] sixty (60) days of the acceptance of his Proposal, the Contractor shall submit to the PA Project Manager, for his review and approval, the Contractor's Safety Program which shall comply with all applicable federal, state, municipal and local and departmental laws and shall include, among other things, the designation by the Contractor of a qualified individual to administer such Safety Program.

#### 16.9 Accidents and First Aid Provisions

The Contractor shall immediately report in writing to the PA Project Manager and to the Authority's Manager, Claims Administration, all accidents whatsoever arising out of or in connection with the performance of the work which result in death, injury or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damage is caused, the same shall be reported immediately by telephone to both of the said Authority representatives.

#### 16.10 Permit and Requirements for Welding

Prior to the commencement of any cutting or welding operations at the construction site, the Contractor shall notify the PA Project Manager and obtain an Authority cutting and welding permit. The Authority will issue this permit without payment of a fee, and application forms may be obtained from any Resident Engineer of the Authority, at his office at the facility. Unless otherwise approved by the PA Project Manager, all cutting and welding operations shall be performed in accordance with the conditions, which form a part of said permit. The permit application must be filled out and submitted in duplicate to the PA Project Manager at least forty-eight (48) hours prior to commencing welding or cutting operations at the construction site.

#### 16.11 Final Inspection and Acceptance Test

When in the opinion of the Contractor the work is completed and ready for the final inspection and acceptance test, he shall notify the PA Project Manager in writing and the PA Project Manager will inspect the work and attend the acceptance test. Before final payment is approved by the PA Project Manager for work performed in conjunction with each Maintenance Order, any defects or omissions noted during this inspection and acceptance test must be made good by the Contractor.

An installed Maintenance Order shall be referred to as performing in "Working Order" when all equipment and software furnished under the Maintenance Order product performs in accordance with its Specifications twenty-four (24) hours a day, seven (7) days a week.

#### 16.12 Maintenance Order Documentation

Maintenance Order Documentation shall bear the general title "The Port Authority of New York and New Jersey - Contract No. MFA-134.308 and shall be separately numbered. Maintenance Orders shall contain the information presented in Section 6.9 of this Contract and shall include any other documentation deemed by the PA Project Manager to be necessary to assure the timely and accurate delivery of work products.

Maintenance Order Documentation will not necessarily show all the details of the work and will be intended only to illustrate the character and extent of the work to be performed. Accordingly, it may be supplemented during the performance of the work by the PA Project Manager, or by the Contractor subject to the approval of the PA Project Manager, to the extent necessary to further illustrate the work. Unless otherwise directed by the PA Project Manager, the Contractor shall provide engineering drawings depicting details of equipment installations to be performed as Work of each individual Maintenance Order, including, but not limited to, cabinet elevations, site plans, building plans, equipment cabling connection schematic diagrams, configuration diagrams and telecommunications interconnectivity diagrams. The specific drawing requirements shall be defined in each Maintenance Order.

#### 16.13 Operations of Others

During the time that the Contractor is performing either Maintenance Order or Maintenance activities, other persons and organizations may be engaged in other operations either closely related to the work being performed by the Contractor or at the same physical site where the Contractor is performing work, including facility and maintenance operations. Carry out activities in a manner that ensures all other such related or physically collocated work remains uninterrupted.

The Contractor shall so plan and conduct his operations as to work in harmony with others engaged in work for the Authority and not to delay, endanger or interfere with the operations of others (whether or not specifically mentioned above), all to the best interests of the Authority and the public and as may be directed by the PA Project Manager.

The Authority reserves the right to engage other firms and personnel resources, separately and independently from the work of this Contract, to perform services similar or identical to those described herein. In all cases, do not endanger or interfere with these third parties. Further, where their duties overlap with the duties of the Contractor, use best efforts to work in close harmony with such other firms and personnel.

The Authority reserves the right to require the Contractor to utilize specific third parties for maintenance orders where the Authority believes that the successful completion of work is dependent on the skills provided by such parties. Directed third party resources shall be utilized to augment personnel and material supplied by the Contractor. The use of such directed third party resources shall in no way alter or diminish the Contractor's responsibility for managing, executing and completing Maintenance Work, nor shall it in any way relieve the Contractor from defined warranty obligations.

#### 16.14 Contractor's Meetings

The Contractor shall conduct status meetings with subcontractors every two (2) weeks, or as frequently as job conditions require or the PA Project Manager may request. Notify the PA Project Manager so that he may at his option attend these meetings. Prepare and distribute minutes to the PA Project Manager and the subcontractors within forty-eight (48) hours of the day following the meetings.

Attend separate job progress and coordination meetings with the PA Project Manager monthly, or at times otherwise requested by the PA Project Manager.

#### 16.15 Temporary Structures

Unless otherwise provided in this Contract, the Contractor shall determine the need for and shall design, furnish and construct all barricades, fences, staging, false work, formwork, shoring, scaffolding and other temporary structures required in the performance of the Contract, whether or not of the type enumerated in the Maintenance Order Documentation, including those which would be required by law or regulation if this Contract were being performed for a private corporation. All such temporary structures shall be of adequate strength for the purposes for which they are constructed and shall be provided with graphics, warning signs and warning lights as required to inform personnel and the public of the hazards being protected against, and the Contractor shall maintain them in satisfactory condition. The design and drawings for such structures are to be prepared by the Contractor, and when requested by the PA Project Manager they shall be submitted for his review before being used. Neither such approval, however, nor any requirements of the PA Project Manager or the Maintenance Order Documentation shall relieve the Contractor of his responsibility for the design, construction and use of the temporary structures or from any obligations and risks imposed on him under this Contract, and any such approval or requirements shall be deemed merely to relate to minimum standards and not to indicate that the temporary structures are adequate or that they meet the Contractor's obligations under this Contract.

#### 16.16 Conditions and Precautions

Schedule and perform the work during the hours specified herein, and specified in individual Maintenance Orders in such a manner as not to delay, endanger, or interfere with the Authority operations. All maintenance activities that interfere with airport use by the general public shall be restricted to between the hours of 7:00 PM and 5:00 AM Monday through Friday, unless the PA Project Manager approves additional hours. The Authority reserves the right to limit Contractor access at areas experiencing high demand due to special events or otherwise. Minor activities, which do not interfere with normal airport operations, may be permitted at other times at the discretion of the PA Project Manager. All activities which require closing entrances to the general public or obstruction of more than 50% of operating gates at an entrance shall be restricted to between the hours

of 1:00 AM and 5:00 AM, unless additional hours are approved in advance by the PA Project Manager. This shall include activities in adjacent areas, which create objectionable dust, noise or fumes in those areas. Any work within airport vehicle normal operating areas, or which requires scaffolding or equipment replacement within five (5) feet of airport vehicle normal operating areas, shall require Authority flagging protection. The cost of required flagging protection shall be borne by the Contractor. Flagging protection shall be arranged through the PA Project Manager.

#### 16.17 AIRPORT OPERATIONS AND CONDITIONS

##### 16.17.1 General:

- 16.17.1.1 Place "Water" identification signs on all water vehicles or water tanks, which are to be used for the transportation or storage of water during the course of the Work at the airport.
- 16.17.1.2 At least 7 days but not more than 10 days prior to performing excavation, call 1-800-272-4480 and provide the information required for excavation(s) in New York and call 1-800-272-1000 and provide the information required for excavation(s) in New Jersey
- 16.17.1.3 Do not place temporary structures or store materials or equipment required in the performance of the Work within any of the buildings on the airport without specific prior approval of the PA Project Manager.
- 16.17.1.4 Do not store petroleum or combustible products, or any other flammable materials, within any buildings or in any part of the airport except as designated by the PA Project Manager.
- 16.17.1.5 Do not burn or bury debris of any type on Authority property, or wash waste materials down sewers or into waterways.
- 16.17.1.6 Maintain haul routes in a satisfactory condition, and repair damage to such routes, resulting from the Contractor's operations. Unless otherwise approved by the PA Project Manager, clean haul routes each work period and remove earth or other materials, which fall or are otherwise placed on such routes during the performance of Work.
- 16.17.1.7 Do not park vehicles on any grass or unauthorized area. Free parking of vehicles in any of the airport parking lots will not be permitted.
- 16.17.1.8 Protect against damaging existing lights, pavement, curbs and other fixed items that are to remain. Such items, which are damaged, either directly or indirectly, by the Contractor during the performance of the Contract, whether negligently or not, shall be restored by him to the condition that existed prior to such damage.
- 16.17.1.9 Take all precautions necessary for protection of persons, traffic and property during dust or fragment generating operations, concrete mixing or placing, or other operations which may stain, soil or damage property or injure persons.

- 16.17.1.10 Provide sound suppression devices on gasoline and diesel powered construction equipment and pneumatic tools as required to maintain noise exposures below the limits specified in the Code of Federal Regulations (CFR) 29 CFR 1926 U.S. Occupational Health and Safety Administration (OSHA). Maintain such sound suppression devices in proper operating condition throughout the time of their use, and adjust and repair as required to maintain noise within exposure levels stipulated in 29 CFR 1926.52, Table D-2.
- 16.17.1.11 Remove on an on-going basis, and before the end of each work period, all paving materials left in the grass shoulder areas, in manholes, catch basins or handholes as a result of the cleaning of the Contractor's equipment.
- 16.17.1.12 Food or food related debris shall not be left on or disposed of on the construction site.
- 16.17.1.13 Equipment, vehicles and materials not being utilized in the current work period shall be removed and stored in the area designated by the PA Project Manager for such purpose, or if there is no such area designated then such items shall be removed from the airport.
- 16.17.2 Site Conditions at Air Operations Areas:
- 16.17.2.1 "Air Operations Area" (AOA) means that portion of the airport designed and used for landing, takeoff, parking or surface maneuvering of aircraft, as well as the Restricted Service Roads (RSR).
- 16.17.2.2 During the time that the Contractor is performing the Work, the Air Operations Areas will remain in use by aircraft. To the extent feasible and convenient in the opinion of the PA Project Manager, and to the extent permitted by the Federal Aviation Administration (FAA), the use by aircraft of aprons, runways and taxiways adjacent to areas where the Contractor is working will be so scheduled by the Authority as to reduce disturbance to the Contractor's operations. It is further anticipated but not guaranteed that certain aprons, runways, taxiways, and taxilanes will be shut down to aircraft operations for limited periods at times requested in advance by the Contractor. Notwithstanding the foregoing, aircraft operations shall always have priority over any and all of the Contractor's operations. No representation or guarantee is made that any disturbance can or will be reduced. During periods of reduced disturbance aircraft may nevertheless taxi through and around construction or maintenance work areas. In order to minimize interference between aircraft operations and construction or maintenance operations, the Contractor shall therefore proceed with performance of the Work in a safe manner and in accordance with the requirements hereinafter stipulated, at all times coordinating operations with the PA Project Manager.
- 16.17.2.3 Should the Contractor be specifically directed to suspend operations or be directed as hereinafter described, and if solely because of such direction the Contractor is necessarily kept idle at the construction site, the Contractor will be compensated as stipulated in the provisions of the Contract concerning compensation for emergency delays.

- 16.17.2.3.1 Should aprons, runways, taxiways or taxilanes be required for the use of aircraft and should the PA Project Manager in his sole discretion deem the Contractor to be too close to the portion used by aircraft, he may direct the Contractor to suspend operations, remove personnel, plant, equipment and materials to a safe distance and stand by until the aprons, runways, taxiways or taxilanes are no longer required for use by aircraft, at which time the Contractor shall immediately resume operations in the vacated areas when so directed by the PA Project Manager.
- 16.17.2.4 The Contractor, subcontractors, materialmen, deliveryman or other persons over whom the Contractor has control shall not enter upon or allow any plant or material to be located upon any part of the Air Operations Areas without specific prior approval of the PA Project Manager.
- 16.17.2.5 The Contractor, employees of the Contractor, subcontractors, materialmen and all other persons over whom the Contractor has control shall comply with the following:
- 16.17.2.5.1 Clearly display on their person an identification tag indicating their name and company before entry upon any Air Operations Area. The Contractor shall provide tags and holders for such identification.
- 16.17.2.5.2 Do not enter upon any Air Operations Area unless accompanied by a representative of the Authority designated by the PA Project Manager to escort the Contractor and equipment to and from the point or points of operation within the limits of such areas, and do not traverse back and forth between points within such areas unless accompanied by said Authority representative.
- 16.17.2.5.3 Do not enter or remain upon or allow any plant or materials to be brought or to remain upon any part of the Air Operations Areas if in the opinion of the PA Project Manager they would create a hazard to aircraft or airport operations.
- 16.17.2.5.4 Smoking is not permitted in the Air Operations Area.
- 16.17.2.6 No two adjacent taxiways shall be closed at the same time unless otherwise directed by the PA Project Manager.
- 16.17.2.7 Materials tracked onto movement areas shall be removed continuously during each work period.
- 16.17.2.7.1 "Movement Areas" means areas within the AOA comprised of the runways, taxiways and other areas of the airport that are used for taxiing or hover taxiing, takeoff and landing of aircraft, exclusive of loading ramps and aircraft parking area. The Air Traffic Control Tower or Ground Control typically controls these areas.
- 16.17.2.8 At the end of each work period, remove plant, materials, equipment and any other obstructions away from the work area to a non-AOA site as designated by the PA Project Manager.

- 16.17.2.9 Information on Visual Flight Rules (VFR) or Instrument Flight Rules (IFR) weather conditions or Category II operations at the airport is available to the Contractor at the Operations Supervisor's Office of the airport. Category II operations only apply at EWR and JFK.

At the following Air Operations Area locations, conform to the following requirements:

- 16.17.2.9.1 Approach to Runways: When a runway is active, keep obstructions due to Work below or outside the VFR and IFR approach surfaces.

- 16.17.2.9.1.1 "Obstruction" shall be defined as any obstacle exceeding the obstruction standards specified by 14 CFR Part 77, subpart C.

- 16.17.2.9.2 Adjacent to Runways:

- 16.17.2.9.2.1 When a runway is active, no construction activities shall be permitted within 250 feet from the runway centerline. Place barricades in accordance with the Section herein entitled "Barricades."

- 16.17.2.9.2.2 During VFR weather conditions, obstruction mark all construction equipment, material, or debris penetrating a surface originating along a line 250 feet from the runway centerline at runway elevation, and extending upward and away from the runway at a slope of one foot vertically for every seven feet horizontally, in accordance with the paragraph herein entitled "Obstruction Marking and Lighting". In addition, all penetrations above runway elevation between 200 feet and 250 feet from the runway centerline shall be obstruction lighted with omni-directional lenses

- 16.17.2.9.2.3 During IFR weather conditions; in addition to obstruction marking, provide obstruction lights on fixed obstructions, construction equipment, materials or debris penetrating a surface originating along a line 500 feet from the runway centerline at runway elevations, and extending upward and away from the runway at a slope of one foot vertically for every seven feet horizontally. For such lighting, provide, locate and operate lighting in accordance with the paragraph herein entitled "Obstruction Marking and Lighting". In addition, all penetrations above runway elevation between 250 feet and 500 feet from the runway centerline shall be obstruction lighted with omni-directional lenses.

- 16.17.2.9.2.4 When Category II landing operations are being conducted on runways during IFR weather conditions, as defined by Federal Aviation Administration United States Terminal Procedures, no construction operations, equipment, materials or debris shall be within the Category II Touchdown Area, the Missed Approach Area and Transitional Surfaces as hereinafter defined.

16.17.2.9.2.4.1 "Touchdown Area" means an area longitudinally centered on the runway centerline, extending from a point 200 feet in advance of the runway approach threshold (normal or displaced) for a distance of 3,200 feet in the direction of landing, and having a total width of 1,000 feet.

16.17.2.9.2.4.1.1 "Threshold" is defined as the beginning of that portion of the runway available for landing. In some instances, the landing threshold may be displaced.

16.17.2.9.2.4.1.2 "Displaced Threshold" is the portion of pavement behind a threshold that may be available for takeoffs in either direction or landing from the opposite direction.

16.17.2.9.2.4.2 "Missed Approach Area" means an area which begins at the end of the touchdown area at the height of the runway and extends upward at a slope of one foot vertically for each 40 feet horizontally. In plan view, it has the same width as the touchdown area at the point of beginning with the width increasing uniformly to 3,100 feet at 6,000 feet from the point of beginning.

16.17.2.9.2.4.3 "Transitional Surfaces" means surfaces sloped at 7:1 extending outward and upward from the edges of the touchdown area or the missed approach area to a height of 150 feet above the elevation of the runway centerline or the end of the Touchdown Area.

16.17.2.9.2.5 Perform Work so that when the runway is being made available for aircraft operations, the maximum grade difference in any paved surface within the Safety Area shall not exceed 1 inch on runway surface and 3 inches within any part of the Safety Area.

16.17.2.9.2.5.1 "Runway Safety Area" means surfaces within 250 feet measured from and parallel to the centerline of the runway, and extending 1,000 feet beyond and parallel to the end of the runway. It is a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway, in accordance with AC 150/5300-13.

16.17.2.9.2.6 On active runways, open excavations, debris, construction equipment, personnel or materials are not permitted within the Safety Area.

16.17.2.9.2.6.1 "Open Excavation" means any trench in unpaved areas exceeding 6" in width or 3" in depth; and in paved areas, a drop of 3" or greater within a 6" horizontal measure.

16.17.2.9.2.7 Do not permit material capable of being dislodged by aircraft blast within 250 feet from the runway centerline. Remove or stabilize such loose materials in this area as approved by the PA Project Manager.

16.17.2.9.3 Adjacent to Taxiways (T/W) or Taxilanes (T/L):

16.17.2.9.3.1 Neither construction activity nor personnel are permitted within the Object Free Area (OFA),

16.17.2.9.3.1.1 "Object Free Area" means an area on the ground centered on the runway, taxiway, or taxilane centerline provided to enhance safety of aircraft operations by having the area kept free of objects except for those objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes.

16.17.2.9.3.2 Perform Work within the specified limits shown in Table I below only when the taxiway/taxilane is closed to air operations.

16.17.2.9.3.3 Open excavations as close as the edge of the taxiway are permitted provided they are delineated by placing obstruction marked and lighted collapsible barricades, in accordance with "Barricades" hereof, along the edge of the taxiway.

16.17.2.9.3.4 Do not permit loose material capable of being dislodged by aircraft blast and becoming a hazard within the Taxiway Safety Area (TSA), shown in Table 1 when the T/W or T/L is active. Remove or stabilize such loose materials in this area as approved by the PA Project Manager.

16.17.2.9.3.4.1 "Taxiway Safety Area" means a surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

16.17.2.9.3.5 Waste and loose material shall not be placed in active movement areas.

	EWR	TEB	JFK	LGA
T/W OFA	320-feet	152-feet	320-feet	259-feet
(From center-line)	(160-feet)	(76-feet)	(160-feet)	(129.5-feet)
T SA	214-feet	94-feet	214-feet	171-feet
(From center-line)	(107-feet)	(47-feet)	(107-feet)	(85.5-feet)
T/L OFA	276-feet	132-feet	276-feet	225-feet
(From center-line)	(138-feet)	(66-feet)	(138-feet)	(112.5-feet)

16.17.3 Construction Site Conditions Outside Airport Operations Areas:

16.17.3.1 During the time the Contractor is performing the Work, it may at times be necessary because of emergency or abnormal traffic conditions to suspend the Contractor's operations, or to postpone the time at which traffic lanes, parking or other areas become available for performance of Work. Should the Contractor be specifically directed to suspend operations in traffic lanes, parking or other areas, or to remove personnel, obstructing plant, equipment and materials from such lanes or areas, or should such lanes or areas not be available by the times specified, and if solely because of such suspension of operations or late availability of traffic lanes, parking, or other areas the Contractor is necessarily kept idle at the construction site, the Contractor will be compensated as stipulated in the provisions of the Contract concerning compensation for emergency delays.

16.17.3.2 Limit the maximum height of construction equipment to 25 feet unless otherwise shown on the Contract Drawings or expressly approved by the PA Project Manager. Obstruction light in accordance with the paragraph herein entitled "Obstruction Marking and Lighting" and obstruction mark and light that portion of equipment which exceeds 25 feet in height in accordance with FAA Advisory Circular 70/7460-1K Change 1.

16.17.3.3 Perform such duties as the PA Project Manager may direct and as may be necessary in the opinion of the PA Project Manager for the rerouting of traffic in the performance of the Work.

16.17.4 Obstruction Marking and Lighting:

- 16.17.4.1 Material, temporary construction and facilities for obstruction marking and lighting constitute temporary facilities that are and shall remain the property of the Contractor unless otherwise shown on the Contract Drawings or specifically directed by the PA Project Manager to be turned over to the Port Authority.
- 16.17.4.2 Provide new materials, or undamaged previously used materials in serviceable condition conforming to the requirements specified herein.
- 16.17.4.3 In Air Operations Areas or airport areas where obstructions occur within navigable airspace provide obstruction lights, Model UF-60-7-75A-PE-BI as manufactured by Julian A. McDermott Corp., Ridgewood, N.Y., or approved equal.
  - 16.17.4.3.1 Unless otherwise shown on the Contract Drawings, mount an obstruction light on the highest point of construction equipment or obstruction.
  - 16.17.4.3.2 Ensure that obstruction lights are maintained in proper operating condition throughout Work of this Contract, and operate at night seven (7) days a week and during IFR weather conditions.
    - 16.17.4.3.2.1 "Night" means the time between the end of evening civil twilight, and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.
- 16.17.5 Paving and Surfacing in Air Operations Areas:
  - 16.17.5.1 Paving and Surfacing in Air Operations Areas are designed to meet stringent requirements for aircraft operations. Exercise extreme care in machine and hand placing material to achieve the finished elevations shown on the Contract Drawings within the tolerances specified elsewhere herein.
  - 16.17.5.2 When applying tack coat, sealcoat, or pavement marking paint near or around edge lights and any in-pavement lights, provide temporary covers to protect glass fixtures. Remove covers prior to resuming air operations.
  - 16.17.5.3 Deactivate and adjust elevation of all existing edge lights and all in-pavement lights prior to paving operations in any given area and reactivate them prior to resuming air operations.
  - 16.17.5.4 Prior to reactivating a runway or a taxiway, any portion of a raised manhole, catch basin hand hole, edge light, or subsurface structure, located within 250 feet of a runway centerline or within the Taxiway Safety Area (TSA) shown in Table 1, protruding by more than three inches shall be ramped in accordance with details shown on the Contract Drawings or, if not shown, as directed by the PA Project Manager.
  - 16.17.5.5 In areas that are to be opened to aircraft prior to completion of paving top course, ramp all lifts which exceed a maximum of one inch in depth. Ramp in accordance with details shown on the Contract Drawings or, if not shown, as directed by the PA Project

Manager. When paving operations are resumed, cut and trim ramp to expose unsealed or granular surface for a depth of one inch, paint the edge of the lift with a thin coat of hot asphalt cement and place fresh asphalt against the edge of the lift and compact.

- 16.17.5.6 Remove sand and other debris from the taxiway, runway, apron, taxilanes, and restricted service road surfaces crossing air traffic lanes. Completely sweep with a power driven sweeper and flush with water on an ongoing basis so that such surfaces are ready for use by aircraft as required.

16.17.6 Night Illumination of Paving and Surfacing Operations:

- 16.17.6.1 Paving and surfacing operations conducted at Night shall, in addition to the requirements of the paragraph entitled "Obstruction Marking and Lighting" hereof, conform to the following requirements:

- 16.17.6.1.1 In Air Operations Areas, locate and shield night illumination to prevent interference with air traffic control or impairment of safe aeronautical operations.

- 16.17.6.1.2 Outside Air Operations Areas, locate and shield night illumination to prevent interference with motorists and pedestrians or impairment of traffic and pedestrian movement.

- 16.17.6.2 Illumination of Area of Work: Provide and operate portable floodlight units similar and equal to "Maxi-Lite 695" as manufactured by Allmand Brothers Inc., Holdredge, NE.

- 16.17.6.3 Equipment Illumination: Provide and operate electric beam lights with a capacity of not less than 3,000 watts affixed to paving machines, rollers, distribution trucks and other vehicles to provide not less than twenty foot candles of illumination on the following horizontal surfaces:

- 16.17.6.3.1 During operation of paving machines, an area 12 feet by 12 feet immediately behind the machine;

- 16.17.6.3.2 During operation of rolling equipment, an area 12 feet wide by 30 feet long immediately in front of and behind the machine; and

- 16.17.6.3.3 During application of tack coat, an area 12 feet by 12 feet on the area being coated.

16.17.7 Existing Airport Lights in Air Operations Areas:

Various types of lights are installed in the areas in which the Work is to be performed. Prior to the commencement of operations, note the exact number and location of lights in such areas and provide adequate protection therefor. Any light fixture which is damaged by the Contractor, whether negligently or not, during the performance of the Work shall be repaired or replaced in an approved manner before the end of each work period. Should the Contractor not repair or replace any such damaged lights by the end of each work

period, the Authority will undertake such restoration and the cost thereof, as determined by the PA Project Manager, will be deducted from the Contractor's compensation hereunder. The number and locations of lights shown on the Contract Drawings are approximate only and the Authority does not guarantee their accuracy.

16.17.8 Subsurface Structures:

- 16.17.8.1 Attention is called to the fact that some of the manholes, chambers or other subsurface structures, in which Work is to be performed under this Contract, contain energized high and low voltage cables, and that various insects, snakes, spiders and rodents may be present.
  - 16.17.8.2 Apply to the PA Project Manager in writing at least 24 hours in advance of the time of:
    - a. entry into existing manholes, handholes, or other subsurface structure or,
    - b. interruption or disruption of utility services. Perform interruptions of electrical services, and entry into subsurface structures in accordance with the provisions of the Section hereof entitled "PERMIT AND REQUIREMENTS FOR ELECTRICAL DISTRIBUTION WORK". Service shall not be cut off on existing installations until all operations have been completed except for connections or reconnections to power source of wiring to be installed under this Contract. Notice to the PA Project Manager shall specifically state which utilities will be affected and the time and the duration of such interruption. Keep all such interruptions to a minimum. No interruption of utility services shall be made without approval of the PA Project Manager whose decision in all cases shall be final.
  - 16.17.8.3 Test each subsurface structure for combustible, toxic or otherwise harmful, gases or vapors in accordance with NFPA No. 328 "Recommended Practice for the Control of Flammable and Combustible Liquids and Gases in Manholes, Sewers and Similar Underground Structures" before permitting personnel to enter. If such gases or vapors are detected, ventilate the subsurface structure until the gases have dissipated to an acceptable level as determined by the OSHA Air Quality regulations prior to entry.
  - 16.17.8.4 Manholes and other subsurface structures in which Work is to be performed under this Contract may contain water. Remove water encountered in such locations and keep the floors of such locations free of standing water at all times workers are in such locations.
  - 16.17.8.5 Verify the exact locations of underground utilities and subsurface structures in the field, and assume all risks of whatever nature, if any, as to the locations of such utilities and structures.
- 16.17.9 No requirement of or omission to require any precautions under this Contract shall be deemed to limit or impair any responsibility or obligation assumed by the Contractor under or in connection with this Contract and the Contractor shall at all times maintain adequate protection to safeguard the public and all persons engaged in the Work and shall take such precautions as will accomplish such end, without undue interference with the public or the operations of the Authority.

16.18 PERMIT AND REQUIREMENTS FOR ELECTRICAL DISTRIBUTION WORK

- 16.18.1 Notify the Engineer at least 24 hours prior to the commencement of operations at the construction site which in any way may affect existing electrical circuits or require entry into any electrical manhole at the airport, and obtain from the Engineer, Authority Form PA 2497A entitled, "Electrical Work Permit". Execute such form in triplicate each morning prior to commencement of Work on existing electrical circuits or entry into manholes. The Authority will issue this form to the Contractor without payment of a fee.
- 16.18.2 Allow sufficient time for loads to be transferred to other circuits from the circuits upon which Work is to be performed and for lock out of circuits which are within existing load centers. Comply with other requirements contained on the back of the "Electrical Work Permit" insofar as they are applicable to the Work to be performed under this Contract. In any event, reconnect and place back in operation electrical circuits activating parking field, roadway, runway operations, apron and taxiway lights prior to the close of operations on each day, and in any event before sunset of each day. Overtime operations or premium time required to be paid by the Contractor for or in connection with this numbered Section shall be borne by the Contractor without separate or additional compensation therefor.

16.19 AIRPORT CONSTRUCTION SAFETY REQUIREMENTS

16.19.1 General Safety Requirements:

- 16.19.1.1 The Contractor shall adhere to all safety precautions described in the current edition of the U. S. Department, Federal Aviation Administration Advisory Circular AC 150/5370-2, Operational Safety on Airports During Construction. The Contractor is to strictly conduct all activities so as not to violate safety standards contained in said Advisory Circular.
- 16.19.1.2 Throughout the construction period, the following safety and operational practices shall be followed:
- 16.19.1.2.1 Operational safety shall be a standing agenda item during work progress meetings throughout the duration of the Contract.
- 16.19.1.2.2 The Contractor shall perform onsite inspections of the construction site throughout the duration of the Contract, with immediate remedy of any safety deficiencies.
- 16.19.1.2.3 The Contractor, employees of the Contractor, subcontractors, materialmen or any other support workers over whom the Contractor has control, who are required to enter the Aircraft Operations Area will be required to wear a reflective safety vest, day or night.
- 16.19.1.2.4 Construction that is within the safety area of an active runway, taxiway, or apron must be performed when the runway, taxiway, or apron is closed or use-restricted and initiated only with prior permission from the PA Project Manager.

16.19.1.2.5 The PA Project Manager may order the Contractor to suspend operations and move personnel, equipment, and materials to a safe location at any time he deems it necessary.

16.19.2 Maintenance of Construction Site:

16.19.2.1 Inspect all construction and storage areas as often as necessary to be aware of conditions.

16.19.2.2 Promptly take all actions necessary to prevent or remedy any unsafe or potentially unsafe conditions as soon as they are discovered.

16.19.2.3 Provide continuous clean-up operations including a mechanical sweeper for all haul operations or other related traffic to and from the construction site.

16.19.2.4 The Contractor, at the direction of the PA Project Manager, may be required to provide and maintain an emergency response route through the work area, for Airport Emergency Vehicles. Construction vehicles on this road shall yield to emergency vehicles at all times. Parking or staging of any construction equipment or stockpiling of materials blocking the road or access to the road will not be permitted.

16.19.3 Approach Clearance to Runways:

16.19.3.1 Runway thresholds must provide an unobstructed approach surface over equipment and materials. (Refer to Contract Drawings for construction clearance surfaces.)

16.19.3.2 Ensure all personnel, materials, and/or equipment are clear of the applicable runway end slope criteria (Refer to Contract Drawings for construction clearance surfaces.)

16.19.4 Runway and Taxiway Safety Area (RSA and TSA):

16.19.4.1 Limit construction to outside of the approved RSA and TSA, as defined elsewhere in this section—unless the runway is closed or restricted to aircraft operations, requiring a lesser standard RSA that is equal to the RSA available during construction.

16.19.4.2 Procedures for Protecting Runway Edges:

16.19.4.2.1 Limit construction to no closer than 250 feet from the runway centerline—unless the runway is closed to aircraft operations.

16.19.4.2.2 Personnel, material, and/or equipment shall not penetrate the Obstacle Free Zone (OFZ) as defined in the U. S. Department, Federal Aviation Administration Advisory Circular AC 150/5300-13 Airport Design, Paragraph 306, "Obstacle Free Zone"

16.19.4.3 Procedures for Protecting Runway Ends.

16.19.4.3.1 Maintain the RSA as it existed before construction activity—unless the runway is closed to aircraft operations.

16.19.4.3.2 Prevent personnel, material, and/or equipment, from penetrating the OFZ.

16.19.5 Closed Runways:

16.19.5.1 For work that necessitates the closure of a runway or runways, the Contractor shall furnish and install and subsequently remove or relocate a lighted "X" as per FAA Advisory Circular 150/5345-55 "Lighted Visual Aid to Indicate Temporary Runway Closure", at each end of the closed runway on or near each of the runway designation numbers as directed by the PA Project Manager. The Contractor shall be responsible for the storage, mobilization, and demobilization of the lighted "X's" for each runway closure period and they shall remain the property of the Contractor unless otherwise noted on the Contract Drawings.

16.19.5.2 The lighted "X's" shall be the Sweepster Lighted Runway Closure Marker Model LXD06, or approved equal conforming to NTSB Safety Recommendation A-03-05 and 06.

16.19.6 Barricades

16.19.6.1 Use barricades to indicate construction locations in non-movement areas, which no part of an aircraft may enter. Barricades may be of different shapes and made from various materials, including railroad ties, sawhorses, jersey barriers, or barrels and shall be marked with diagonal, alternating orange and white stripes. During reduced visibility or night hours, supplement the barricades with red lights, flashing or steady burning, meeting the luminance requirements of the State Highway Department.

16.19.6.1.1 "Non-movement areas" are areas within the AOA not controlled by the Air Traffic Control Tower or Ground Control. These areas are typically aircraft ramp and parking areas as well as vehicular service roads.

16.19.6.2 Indicate construction locations in movement areas in which aircraft may enter with orange traffic cones, red lights (either flashing or steady burning), and collapsible barricades marked with diagonal, alternating orange and white stripes. All barricades, temporary markers, and other objects left in the safety area associated with the open runway, taxiway, and taxi lanes must be as low as possible to the ground, of low mass and easily collapsible upon contact with an aircraft or any of its components. The barricade shall be properly weighted or attached to the surface to prevent displacement by prop wash, jet blast, wing vortex or other surface wind currents. If affixed to the surface, they must be frangible at grade level or as low as possible, not to exceed 3-inches in height. Barricades shall be either Neubert Aero Corp., Model NACPC2410 or Model NACPVC2310, or Multi-Barrier Safety Barricade Corp., Model AR-10X96 or an approved equal.

16.19.6.3 Barricades shall be spaced no greater than 10' apart.

16.19.7 Temporary Lighting and Markings

16.19.7.1 The Contractor will be required to provide and maintain temporary pavement markings, remove existing markings and remove temporary markings, all in accordance with the Contract Drawings and Specifications.

16.19.8 Airport Air Operations Area Access and Control

16.19.8.1 The Contractor, staff, employees, sub-contractors, delivery and haul operators, or anyone required to enter the Air Operations Area related to the contract work, is required to produce valid government issued photo identification.

16.19.8.2 The Contractor is required to supply daily lists of all workers as well as list of all planned or anticipated deliveries. All vehicle operators must have, in their possession and produce on request, a valid driver's license.

16.19.8.3 Individual Contractor Identification is required for each worker. Identification badges are to be displayed on their outermost garment at all times. The Contractor Identification Badge shall be a minimum of 2" x 2" in size and include the following:

16.19.8.3.1 Minimum 1" x 1" current color photo of the individual

16.19.8.3.2 Laminated

16.19.8.3.3 Company name (and/or subcontractor where applicable)

16.19.8.3.4 Person's name

16.19.8.3.5 Unique badge number

16.19.8.3.6 Expiration date in accordance with the Contract

16.19.9 Vehicle Operation Marking and Control

16.19.9.1 All Contractor vehicles (including equipment, sub-contractors, delivery vehicles, etc) that must enter the Air Operations Area for the required work of the Contract, must be escorted and properly identified. To operate during daylight hours, construction equipment must have a 3' x 3' orange and white "Airfield Vehicle" identification flag (ANNIN & Co. NYL-GLO #319733 or approved equivalent) or flashing beacon. Any vehicle operating on the movement areas during hours of darkness or reduced visibility must be equipped with a flashing amber beacon light. In addition, vehicles must display permanently affixed company identification media acceptable to the Authority.

16.19.9.2 Neither the Contractor nor any construction support personnel will be permitted access to the AOA or work site in a private or personal vehicle. There is no employee parking on the Air Operations Areas.

16.19.9.3 At Air Operations Areas provide obstruction marking flags equipped with approved stiffeners as follows:

16.19.9.3.1 For Marking of Equipment, Material and Debris: 3 feet by 3 feet colored orange and white in a checkerboard pattern, mounted on a staff of not less than 8 feet in length. Maintain flag in a vertical position at all times and display on each fixed obstruction, truck or other piece of equipment, and at each separate group of workers and material or debris stack.

16.19.10 Navigational Aids

16.19.10.1 The Contractor shall not conduct any construction activity within navigational aid critical areas or affect the visual signal, transmitted signal or power supply of any navigational aid. Navigational aid restricted areas affected by the area of work are depicted on Contract Drawings. Work in these restricted areas is subject to availability based on runway configuration and weather conditions at the time, and may be cancelled by the PA Project Manager without advance warning based on the aforementioned conditions. If the Contractor is specifically directed by the PA Project Manager to suspend his operations in these areas, the Contractor will be compensated as stipulated in the provisions of the Contract concerning compensation for emergency delays.

16.19.10.2 Navigational aids include instrument landing system components and very high-frequency omni-directional range, airport surveillance radar.

16.19.10.3 Do not operate ultrasonic, X-ray, radio-type transmitter, magnetic or similar electromagnetic devices, which affect or may affect the operation of airport navigational aids, unless the PA Project Manager has granted specific prior approval for their operation or use.

16.19.11 Limitations on Construction

16.19.11.1 The Contractor shall obtain Authority permits for open-flame welding or torch cutting operations and electrical power shut-downs prior to start of the work.

16.19.11.2 All site storage of supplies and equipment requires approval by the PA Project Manager. All site storage must be in containers and must have company name and 24 hour contact telephone number clearly displayed.

16.19.12 Radio Communications

16.19.12.1 The Contractor is not required to maintain two-way radio communications with the PA Project Manager.

16.19.12.2 The Contractor is prohibited from having any communications, including two-way radio, with the Airport Air Traffic Control Tower. All movements within the AOA shall be escorted by the Facility Staff.

16.20 Delivery, Storage and Handling:

- 16.20.1 Deliver material in sealed protective packaging.
- 16.20.2 Store materials in sealed packaging in a manner to prevent soiling, physical damage, wetting or corrosion prior to installation.
- 16.20.3 Movement of material, either at the time of delivery or subsequently shall be the sole responsibility of the Contractor. All costs associated with this movement shall also be the responsibility of the Contractor.
- 16.20.4 Handle material in a manner to prevent damage to finished surfaces.
- 16.20.5 Where possible maintain protective coverings until installation is complete and remove such coverings as part of the final clean up.
- 16.20.6 Patch disturbed surfaces in a manner approved by the PA Project Manager and restore finishes to their original condition.
- 16.20.7 Costs of all shipping to the site and of all unusual storage requirements shall be borne by the Contractor. Make appropriate arrangements and coordinate with authorized personnel at the site for proper acceptance, handling, protection, and storage of equipment so delivered.
- 16.20.8 Safely store all equipment. In the event of equipment disappearance from the site, the Contractor shall bear full responsibility and all costs associated with equipment replacement at no additional cost to the Authority. Once title has passed to the Authority, the Contractor shall bear responsibility only if the disappearance is due to his negligence.

16.21 Field Acceptance Testing:

- 16.21.1 Field Acceptance Testing will be defined in each Maintenance Order as required.

16.22 Operational Acceptance Testing:

- 16.22.1 Operational Acceptance Testing will be defined in each Maintenance Order as required.
- 16.22.2 Maintain records of Acceptance Test and Inspection results and of punch list items developed and resolved. Timely submit Acceptance Test and Inspection results and punch lists to the PA Project Manager for review and approval.

**17 PA PROJECT MANAGER'S AUTHORITY**

In the performance of the Contract, the Contractor shall conform to all orders, directions and requirements of the PA Project Manager or his designee, and shall perform the Contract to the satisfaction of the PA Project Manager at such times and places, by such methods and in such manner and sequence as he may require, and the Contractor's performance shall at all times be subject to his inspection. The PA Project Manager or his designee shall determine the amount, quality, acceptability and fitness of all maintenance work and shall interpret the Specifications and any orders for extra work under this Contract. Upon request, the PA Project Manager will confirm in writing any oral order, direction, requirement or determination.

**18 METHOD OF OPERATION**

- 18.1 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 and forwarded to such party by fax, e-mail or express courier, followed up by express courier where requested by the other party for major items. All notices, requests, consents, or approvals of the Contractor shall be forwarded to the PA Project Manager. Postal and Email addresses will be provided after contract award.
- 18.2 Subject to any limitations provided or deemed advisable by the PA Project Manager, because of the operations of the Authority and others at and about the construction site, the Contractor shall have the use of any area reasonably necessary for the performance of maintenance.
- 18.3 The Authority's rights in software to be furnished hereunder shall be subject to the following:
  - 18.3.1 Definitions:
    - 18.3.1.1 Contractor Proprietary. This includes existing operating systems and other system software and firmware and programs that are either a Contractor product or integrated in a Contractor product, and all enhancements thereto developed in the performance of this Contract.
    - 18.3.1.2 Third Party Proprietary. This includes existing software provided by the Contractor under license or sublicense from a third party, and enhancements developed in the performance of this Contract.
    - 18.3.1.3 Applications Programs. All software specific to this project including all application programs, site-specific software tailoring, and configurations written by the Contractor or his/her Subcontractor to perform functions detailed in this Contract.
  - 18.3.2 Rights and Obligations:
    - 18.3.2.1 Contractor Proprietary. The Authority shall have a perpetual non-exclusive, non-transferable license to use the programs and related documentation only on Contractor-

provided or other compatible equipment. The Authority shall not sublicense, assign or otherwise transfer the software or documentation without the Contractor's prior written approval except to subsidiaries and successors.

- 18.3.2.2 The Authority may make copies of programs for back up, and archival purposes. The Authority shall not without the Contractor's written approval perform other copying, reverse compiling and disassembly. Title to the programs and documentation shall remain with the Contractor. The license shall terminate if there is a material breach by the Authority.
- 18.3.2.3 Third Party Proprietary. The Authority shall have at least those rights set forth above for Contractor proprietary programs and documentation, plus any other rights afforded under the licensor's Third Party License Agreements.
- 18.3.2.4 Application Programs. The Authority shall have a perpetual non-exclusive license to use programs and related documentation, including the royalty free right to copy, modify, create derivative works, and disclose or sublicense to third parties. The Authority shall be furnished with object codes for all application programs furnished under this Contract.

## **19 SPACE PROVIDED THE CONTRACTOR**

- 19.1 The Authority will furnish to the Contractor, without charge, exclusive or non-exclusive space at a location or locations at each Airport (to be designated by the Project Manager) to be used by the Contractor for clerical and management functions solely in connection with the Contractor's operations hereunder and for the storage of the Contractor's equipment, materials and supplies used at the Airport. The Contractor must supply the office furniture, supplies, telephone equipment and telephone service for the Space. The Contractor shall keep the Space at all times in a clean and orderly condition and appearance. The use of the Space shall be subject to all of the terms, provisions and conditions of this Contract, including, but not limited to, indemnification, repair and removal of property.
- 19.2 The Port Authority by its officers, employees and representatives shall have the right at all times to enter upon the Space for the purpose of inspecting the same, for observing the performance by the Contractor of its obligations under this Contract, and for the doing of any act or thing which the Port Authority may be obligated to or have the right to do under this Contract or otherwise. The Contractor shall repair all damage to the Space and all damage to fixtures, improvements and property of the Port Authority which may now or may hereafter be located thereon, which may be caused by the operations of the Contractor under this Contract or by any acts or omissions of the Contractor, its officers, agents, employees or representatives, whether the damage occurs during the course of their employment by the Contractor or otherwise. Without limiting the generality of the foregoing, the Authority shall have the right, for its own benefit and for the benefit of others at each airport facility, to maintain existing and future utility systems or portions thereof at the Space and to enter upon the Space at all reasonable times to make such repairs, replacements, additions or alterations as may, in the opinion of the Authority, be deemed necessary or advisable. It is understood that the foregoing

shall not impose or be construed to impose upon the Authority any obligations to inspect, construct or maintain the Space or to make repairs, replacements, alterations or additions to the Space, nor shall it create any liability for any failure to do so.

**20 MISCELLANEOUS**

- 20.1 The Captions herein are for reference purposes only and shall not in any way affect the meaning or interpretation of this Contract.
- 20.2 Wherever under this Contract written direction or prior written approval or consent of the Authority is required, such direction, approval or consent may at any time and from time to time be withdrawn or modified by written notice, in the sole discretion of the Authority.

**21 SIGNATURE**

“a corporation organized under the laws of the State of N.Y.”

CONTRACTOR\*

\_\_\_\_\_

By: \_\_\_\_\_

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

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

(Affix Corporate Seal)

ACCEPTED:

THE PORT AUTHORITY OF NY & NJ

\_\_\_\_\_

By: \_\_\_\_\_

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

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

- 
- \* (1) Insert Contractor's name. If a corporation, give state of incorporation, using the phrase, "a corporation organized under the laws of the State of ....."
  - If a partnership, give full names of partners, using also the phrase, "co-partners doing business under the firm name of....."
  - (2) If an individual using a trade name, give individual name, using also the phrase, "an individual doing business under the trade name of....."
  - (3) Give the information required in (1) or (2) above for the participant of the joint venture who will perform the Work of this Contract. If a joint venture, give the information required in (1) above for each participant of the joint venture.

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**ATTACHMENT A: SUMMARY OF COSTS**

A. TOTAL MONTHLY PRICE FOR CORRECTIVE AND SCHEDULED PREVENTIVE MAINTENANCE OF THE PIDS SYSTEM (INCLUDES LABOR, MATERIALS, EQUIPMENT) BASE SCOPE SYSTEM – WARRANTY PERIOD

Item No.	Schedule	Facility	Total Price Per Month
LGA.BM0	I	LGA PIDS	\$ 87,960
JFK.BM0	II	JFK PIDS	\$ 84,297
EWR.BM0	III	EWR PIDS	\$ 81,666
TEB.BM0	IV	TEB PIDS	\$ 78,365
Ex. 4			\$ Ex. 4
<b>TOTAL MONTHLY PRICE</b>			<b>\$ 345,950</b>

B. **EXTENDED PRICE** for twelve (12) months of Warranty Period

<i>12 x Total of A above</i>	\$ 4,151,397
<i>Total Extended Priced SPARES BOM</i>	\$ 1,413,510
<b>TOTAL PRICE</b> for twelve (12) months of Warranty Period	<b>\$ 5,564,906</b>

C. TOTAL MONTHLY PRICE FOR CORRECTIVE AND SCHEDULED PREVENTIVE MAINTENANCE OF THE PIDS SYSTEM (INCLUDES LABOR, MATERIALS, EQUIPMENT) BASE SCOPE SYSTEM – POST WARRANTY

Item No.	Schedule	Facility	Total Price Per Month
LGA.BM0	I	LGA PIDS	\$ 77,058
JFK.BM0	II	JFK PIDS	\$ 74,880
EWR.BM0	III	EWR PIDS	\$ 71,313
TEB.BM0	IV	TEB PIDS	\$ 67,852
Ex. 4			\$ Ex. 4
<b>TOTAL MONTHLY PRICE</b>			<b>\$ 303,070</b>

D. **EXTENDED PRICE** for first Two (2) years of Maintenance

(Initial Term: Post Warranty – 24 months)

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24 x Total of C above	\$ 7,273,685
Spares Replenishment (estimated at 25% per year)	\$ 706,755
Software Maintenance	\$ 473,684
<b>TOTAL PRICE for first Two (2) Years of Maintenance</b>	<b>\$ 8,454,124</b>

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**E. OPTIONAL EXTENDED PRICE for second Two (2) years of Maintenance**

(25 months – 48 months)	\$ 7,853,828
Spares Replenishment (estimated at 25% per year)	\$ 706,755
Software Maintenance	\$ 473,684
<b>TOTAL PRICE for second Two (2) Years of Maintenance</b>	<b>\$ 9,034,267</b>

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**F. OPTIONAL EXTENDED PRICE for third Two (2) years of Maintenance**

(49 months – 72 months)	\$ 8,073,077
Spares Replenishment (estimated at 25% per year)	\$ 706,755
Software Maintenance	\$ 473,684
<b>TOTAL PRICE for third Two (2) Years of Maintenance</b>	<b>\$ 9,253,516</b>

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**G. OPTIONAL EXTENDED PRICE for 120 days of Maintenance**

(73 months – 76 months)	\$ 1,369,240
Spares Replenishment (estimated at 25% per year)	\$ 117,792
Software Maintenance	\$ 78,948
<b>TOTAL PRICE for 120 days of Maintenance</b>	<b>\$ 1,565,981</b>

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**1.5 SCHEDULE I**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE MAINTENANCE COST (Includes Labor, Materials, Equipment)**

LGA

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
LGA.BM1	IDS Subsystem			
LGA.BM1A	Zones	LS	\$ 2,918	\$ 2,553
LGA.BM1B	Zones	LS	\$ 1,536	\$ 1,345
LGA.BM1C	Zones Ex. 4	LS	\$ 21,666	\$ 18,959
LGA.BM1D	Zones	LS	\$ 614	\$ 537
LGA.BM1E	Zones	LS	\$ 768	\$ 672
LGA.BM1F	Integration of CACS and other Systems	LS	\$ 4,126	\$ 3,611
LGA.BM2	Assessment Subsystem	LS	\$ 26,679	\$ 23,346
LGA.BM3	Control & Display Subsystem			
LGA.BM3A	Primary CDS	LS	\$ 2,804	\$ 2,454
LGA.BM3B	Secondary CDS Ex. 4	LS	\$ 2,804	\$ 2,454
LGA.BM3C	CDW	LS	\$ 935	\$ 819
LGA.BM3D	CDW	LS	\$ 2,235	\$ 1,956
LGA.BM4	Communications Subsystem – AOA Perimeter			
LGA.BM4A	Zones	LS	\$ 517	\$ 538
LGA.BM4B	Zones	LS	\$ 683	\$ 597
LGA.BM4C	Zones Ex. 4	LS	\$ 9,650	\$ 8,444
LGA.BM4D	Zones	LS	\$ 273	\$ 239
LGA.BM4E	Zones	LS	\$ 341	\$ 298
LGA.BM4F	Primary CDS	LS	\$ 2,625	\$ 2,297
LGA.BM4G	Secondary CDS	LS	\$ 2,625	\$ 2,297
LGA.BM5	Electrical Infrastructure Subsystem – AOA Perimeter			
LGA.BM5A	Zones	LS	\$ 174	\$ 152
LGA.BM5B	Zones Ex. 4	LS	\$ 90	\$ 80

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LGA.BM5C	Zones		LS	\$ 1,297	\$ 1,134
LGA.BM5D	Zones	Ex. 4	LS	\$ 35	\$ 32
LGA.BM5E	Zones		LS	\$ 45	\$ 40
LGA.BM5F	Primary CDS		LS	\$ 8	\$ 7
LGA.BM5G	Secondary CDS		LS	\$ 8	\$ 7
LGA.BM7	Data Management & Reporting Subsystem		LS	\$ 2,502	\$ 2,189
LGA.BM0	LGA PIDS Maintenance Base Scope			\$ 87,960	\$ 77,058

**1.6 SCHEDULE II**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE  
MAINTENANCE COST (Includes Labor, Materials, Equipment)**

JFK

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
JFK.BM1	IDS Subsystem			
JFK.BM1A	Zones	LS	\$ 2,232	\$ 3,060
	Ex. 4			
JFK.BM1B		LS		
JFK.BM1C	Zones	LS	\$ 1,338	\$ 1,172
JFK.BM1D	Zones	LS	\$ 447	\$ 391
JFK.BM1E	Zones	LS	\$ 1,785	\$ 1,562
JFK.BM1F	Zones	LS	\$ 15,844	\$ 13,865
JFK.BM1G	Zones	LS	\$ 519	\$ 454
JFK.BM1H	Integration of CACS Alarms and other Systems	LS	\$ 4,126	\$ 3,611
JFK.BM2	Assessment Subsystem			
JFK.BM2A	Assessment Subsystem not including Item JFK.BM2B	LS	\$ 23,476	\$ 20,545
JFK.BM2B	Deductive Item No. 3	LS	\$ 3,201	\$ 2,802
JFK.BM3	Control & Display Subsystem			
JFK.BM3A	Primary CDS	LS	\$ 2,804	\$ 2,454
JFK.BM3B	Secondary CDS	LS	\$ 2,804	\$ 2,454
JFK.BM3C	CDW	LS	\$ 935	\$ 819
JFK.BM3D	CDW	LS	\$ 935	\$ 819
MFJ.BM3E	CDW	LS	\$ 935	\$ 819
JFK.BM4	Communications Subsystem – AOA Perimeter			
JFK.BM4A	Zones	LS	\$ 1,168	\$ 1,022
	Ex. 4			
JFK.BM4B	Zones	LS	\$ 663	\$ 580

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JFK.BM4C	Zones		LS	\$ 701	\$ 614
JFK.BM4D	Zones		LS	\$ 234	\$ 204
JFK.BM4E	Zones	Ex. 4	LS	\$ 935	\$ 819
JFK.BM4F	Zones		LS	\$ 8,298	\$ 7,262
JFK.BM4G	Zones		LS	\$ 273	\$ 239
JFK.BM4H	Primary CDS		LS	\$ 1,750	\$ 1,531
JFK.BM4I	Secondary CDS		LS	\$ 1,750	\$ 1,531
JFK.BM4J	CDW		LS	\$ 1,750	\$ 1,531
JFK.BM5	Electrical Infrastructure Subsystem – AOA Perimeter				
JFK.BM5A	Zone		LS	\$ 154	\$ 135
JFK.BM5B			LS	\$ 85	\$ 76
JFK.BM5C	Zones		LS	\$ 92	\$ 81
JFK.BM5D	Zones		LS	\$ 30	\$ 27
JFK.BM5E	Zones	Ex. 4	LS	\$ 124	\$ 108
JFK.BM5F	Zones		LS	\$ 1,094	\$ 958
JFK.BM5G	Zones		LS	\$ 35	\$ 32
JFK.BM5H	Primary CDS		LS	\$ 5	\$ 4
JFK.BM5I	Secondary CDS		LS	\$ 5	\$ 4
JFK.BM7	Data Management & Reporting Subsystem		LS	\$ 2,502	\$ 2,189
JFK.BM0	<b>JFK PIDS Maintenance Base Scope</b>			<b>\$ 84,297</b>	<b>\$ 74,880</b>

**1.7 SCHEDULE III**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE  
MAINTENANCE COST (Includes Labor, Materials, Equipment)**

EWR

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
EWR.BM1	IDS Subsystem			
EWR.BM1A	Zones	LS	\$ 3,409	\$ 2,977
EWR.BM1B	Zones Ex. 4	LS	\$ 1,534	\$ 1,339
EWR.BM1C	Zone	LS	\$ 14,323	\$ 12,508
EWR.BM1D	Zones	LS	\$ 1,534	\$ 1,339
EWR.BM1E	Zones	LS	\$ 1,705	\$ 1,490
EWR.BM1F	Integration of CACS Alarms and other Systems	LS	\$ 4,034	\$ 3,523
EWR.BM2	Assessment Subsystem			
EWR.BM2A	Assessment Subsystem not including Item EWR.BM2B	LS	\$ 22,956	\$ 20,047
EWR.BM2B	Deductive Item No. 3	LS	\$ 3,130	\$ 2,734
EWR.BM3	Control & Display Subsystem - Primary CDS Ex. 4			
EWR.BM3A	Primary CDS	LS	\$ 0	\$ 0
EWR.BM3B	Secondary CDS	LS	\$ 5,621	\$ 4,908
EWR.BM3C	CDW Ex. 4	LS	\$ 937	\$ 819
EWR.BM3D	CDW :	LS	\$ 937	\$ 819
EWR.BM3E	CDW	LS	\$ 937	\$ 819
EWR.BM4	Communications Subsystem - AOA Perimeter			

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EWR.BM4A	Zones		LS	\$ 1,702	\$ 1,485
EWR.BM4B	Zones	Ex. 4	LS	\$ 766	\$ 669
EWR.BM4C	Zone		LS	\$ 7,150	\$ 6,244
EWR.BM4D	Zones		LS	\$ 766	\$ 669
EWR.BM4E	Zones		LS	\$ 850	\$ 742
EWR.BM4F	Primary CDS		LS	\$ 2,445	\$ 2,135
EWR.BM4G	Secondary CDS		LS	\$ 2,445	\$ 2,135
EWR.BM5	Electrical Subsystem – AOA Perimeter				
EWR.BM5A	Zones	Ex. 4	LS	\$ 238	\$ 207
EWR.BM5B	Zones		LS	\$ 107	\$ 94
EWR.BM5C	Zones		LS	\$ 1,003	\$ 875
EWR.BM5D	Zones		LS	\$ 107	\$ 94
EWR.BM5E	Zones	Ex. 4	LS	\$ 119	\$ 104
EWR.BM5F	Primary CDS		LS	\$ 12	\$ 10
EWR.BM5G	Secondary CDS		LS	\$ 12	\$ 10
EWR.BM7	Data Management & Reporting Subsystem		LS	\$ 2,118	\$ 1,850
<b>EWR.BM0</b>	<b>EWR PIDS Maintenance Base Scope</b>			<b>\$ 81,666</b>	<b>\$ 71,313</b>

**1.8 SCHEDULE IV**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE  
MAINTENANCE COST (Includes Labor, Materials, Equipment)**

TEB

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
TEB.BM1	IDS Subsystem			
TEB.BM1A	Zones	LS	\$ 4,005	\$ 3,467
TEB.BM1B	Zones	LS	\$ 8,583	\$ 7,431
TEB.BM1C	Zones Ex. 4	LS	\$ 1,717	\$ 1,485
TEB.BM1D	Zones	LS	\$ 10,871	\$ 9,413
TEB.BM1E	Zones	LS	\$ 256	\$ 222
TEB.BM1F	Zones	LS	\$ 256	\$ 222
TEB.BM1G	Integration of CACS Alarms and other Systems	LS	\$ 29	\$ 29
TEB.BM2	Assessment Subsystem	LS	\$ 24,918	\$ 21,573
TEB.BM3	Control & Display Subsystem			
TEB.BM3A	Primary CDS	LS	\$ 2,835	\$ 2,454
TEB.BM3B	Secondary	LS	\$ 2,835	\$ 2,454
TEB.BM3C	CDW Ex. 4	LS	\$ 945	\$ 819
TEB.BM3D	CDW	LS	\$ 945	\$ 819
TEB.BM4	Communications Subsystem – AOA Perimeter			
TEB.BM4A	Zones	LS	\$ 1,779	\$ 1,541
TEB.BM4B	Zones	LS	\$ 3,814	\$ 3,303
TEB.BM4C	Zones	LS	\$ 763	\$ 661
TEB.BM4D	Zones Ex. 4	LS	\$ 4,832	\$ 4,184
TEB.BM4E	Zones	LS	\$ 127	\$ 109
TEB.BM4F	Zones	LS	\$ 127	\$ 109
TEB.BM4G	Primary CDS	LS	\$ 2,452	\$ 2,124
TEB.BM4H	Secondary CDS	LS	\$ 2,452	\$ 2,124
TEB.BM5	Electrical Infrastructure Subsystem – AOA Perimeter			

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TEB.BM5A	Zones .	LS	\$ 235	\$ 203
TEB.BM5B	Zones .	LS	\$ 504	\$ 436
TEB.BM5C	Zones Ex. 4	LS	\$ 100	\$ 87
TEB.BM5D	Zones	LS	\$ 638	\$ 552
TEB.BM5E	Zones	LS	\$ 17	\$ 14
TEB.BM5F	Zones	LS	\$ 17	\$ 14
TEB.BM5G	Primary CDS	LS	\$ 17	\$ 14
TEB.BM5H	Secondary CDS	LS	\$ 17	\$ 14
TEB.BM7	Data Management & Reporting Subsystem	LS	\$ 2,282	\$ 1,975
TEB.BM0	TEB PIDS Maintenance Base Scope		\$ 78,365	\$ 67,852

**1.9 SCHEDULE V**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE  
MAINTENANCE COST (Includes Labor, Materials, Equipment)**

Ex. 4

Item No.	DESCRIPTION		COST	
			Warranty	Post Warranty
Ex. 4	Control & Display Subsystem			
	CDW	LS	\$ 4,891	\$ 4,284
	Ex. 4			
	CDW	LS	\$ 4,891	\$ 4,284
	Communications Subsystem	LS	\$ 3,179	\$ 2,785
	Electrical Subsystem	LS	\$ 699	\$ 613
	<b>Maintenance Base Scope</b>		<b>\$ 13,661</b>	<b>\$ 11,967</b>

**1.10 SCHEDULE VI**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE OPTIONAL MAINTENANCE COST (Includes Labor, Materials, Equipment)**

Optional

ITEM NO.	DESCRIPTION		MONTHLY	COST				
				WARRANTY PERIOD 12 MO.	POST WARRANTY - 24 MO.	OPTIONAL EXTENDED		
						25 MO.-48 MO.	49 MO.-72 MO.	73 MO.-76 MO.
LGA.OM1	Intrusion Detection Subsystem – Non-Building Perimeter Areas	LS	\$ 6,105	\$ 73,264	\$ 7,645	\$ 8,360	\$ 8,867	\$ 9,269
LGA.OM2	Assessment Subsystem – Purple Hatch Area	LS	\$ 3,311	\$ 39,736	\$ 6,183	\$ 6,757	\$ 7,167	\$ 5,024
LGA.OM3	Audio Visual Subsystem							
LGA.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467
LGA.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467
LGA.OM4	Facility Communications Subsystem – Non-Building Perimeter Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
LGA.OM5	Electrical Subsystem – Non-Building Perimeter Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
LGA.OM6	System Administration – Base Work	LS	\$ 26,765	\$ 321,180	\$ 27,895	\$ 29,951	\$ 32,165	\$ 34,038
LGA.OM7	System Administration – Leasehold Areas	LS	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1
JFK.OM1	Intrusion Detection Subsystem – Leasehold Areas	LS	\$ 14,019	\$ 168,229	\$ 17,559	\$ 18,697	\$ 20,358	\$ 21,283
JFK.OM2	Assessment Subsystem – Leasehold	LS	\$ 1,634	\$ 19,607	\$ 2,045	\$ 2,236	\$ 2,371	\$ 2,478
JFK.OM3	Audio Visual Subsystem							
JFK.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467

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TEB.OM7	System Administration – Leasehold Areas	LS	\$ Note 1					
	Enterprise Secondary CDS	LS	\$ 1,524	\$ 18,286	\$ 1,602	\$ 1,732	\$ 1,832	\$ 1,919
RE.M1	Ex. 4	EA	\$ 172	\$ 2,062	\$ 215	\$ 232	\$ 245	\$ 257
RE.M4		EA	\$ 172	\$ 2,062	\$ 215	\$ 232	\$ 245	\$ 257
RE.M7		EA	\$ 172	\$ 2,062	\$ 215	\$ 232	\$ 245	\$ 257
RE.M10		EA	\$ 172	\$ 2,062	\$ 215	\$ 232	\$ 245	\$ 257
RE.M13		Wireless Network LGA	EA	\$ 2,302	\$ 27,619	\$ 2,298	\$ 2,298	\$ 2,298
RE.M14	Wireless Network – JFK	EA	\$ 3,673	\$ 44,073	\$ 3,667	\$ 3,667	\$ 3,667	\$ 3,667
RE.M15	Wireless Network – EWR	EA	\$ 3,673	\$ 44,073	\$ 3,667	\$ 3,667	\$ 3,667	\$ 3,667
RE.M16	Wireless Network – TEB	EA	\$ 2,247	\$ 26,958	\$ 2,243	\$ 2,243	\$ 2,243	\$ 2,243
MF.T1	Follow-on Operator Training PER COURSE	EA	\$ 7,327	\$ 7,683	\$ 8,149	\$ 8,665	\$ 9,229	\$ 9,521
MF.T2	Follow-on Supervisor Training PER COURSE	EA	\$ 7,327	\$ 7,683	\$ 8,149	\$ 8,665	\$ 9,229	\$ 9,521
MF.T3	Follow-On System Administrator Training PER COURSE	EA	\$ 10,237	\$ 10,747	\$ 11,435	\$ 12,191	\$ 13,014	\$ 13,449
MF.T4	Operator Course Material							
MF.T4A	VHS - PER SET	EA	\$ 498	\$ 516	\$ 539	\$ 561	\$ 592	\$ 604
MF.T4B	DVD - PER SET	EA	\$ 781	\$ 800	\$ 823	\$ 845	\$ 874	\$ 888
MF.T4C	Course Manual - PER SET	EA	\$ 1,157	\$ 1,176	\$ 1,198	\$ 1,220	\$ 1,250	\$ 1,263
MF.T5	Supervisor Course Material							
MF.T5A	VHS - PER SET	EA	\$ 498	\$ 516	\$ 539	\$ 561	\$ 592	\$ 604
MF.T5B	DVD - PER SET	EA	\$ 781	\$ 800	\$ 823	\$ 845	\$ 874	\$ 888
MF.T5C	Course Manual - PER SET	EA	\$ 1,157	\$ 1,176	\$ 1,198	\$ 1,220	\$ 1,250	\$ 1,263
MF.T6	System Administrator Course Material							
MF.T6A	VHS - PER SET	EA	\$ 716	\$ 735	\$ 758	\$ 780	\$ 810	\$ 823
MF.T6B	DVD - PER SET	EA	\$ 1,283	\$ 1,301	\$ 1,323	\$ 1,345	\$ 1,375	\$ 1,388

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JFK.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467
JFK.OM4	Facility Communications Subsystem – Leasehold Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
JFK.OM5	Electrical Subsystem – Leasehold Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
JFK.OM6	System Administration – Base Work	LS	\$ 25,150	\$ 301,801	\$ 26,287	\$ 28,343	\$ 30,557	\$ 32,453
JFK.OM7	System Administration – Leasehold Areas	LS	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1
EWR.OM1	Intrusion Detection Subsystem – Leasehold Areas	LS	\$ 5,161	\$ 61,929	\$ 6,461	\$ 7,065	\$ 7,494	\$ 7,833
EWR.OM2	Assessment Subsystem – Leasehold Areas	LS	\$ 1,634	\$ 19,607	\$ 2,045	\$ 2,236	\$ 2,371	\$ 2,478
EWR.OM3	Audio Visual Subsystem							
EWR.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467
EWR.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467
EWR.OM4	Facility Communications Subsystem – Leasehold Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
EWR.OM5	Electrical Subsystem – Leasehold Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
EWR.OM6	System Administration – Base Work	LS	\$ 26,458	\$ 317,499	\$ 27,589	\$ 29,644	\$ 31,859	\$ 32,377
EWR.OM7	System Administration – Leasehold Areas	LS	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1	\$ Note 1
TEB.OM1	Intrusion Detection Subsystem – Leasehold Areas	LS	\$ 6,149	\$ 73,788	\$ 7,700	\$ 8,418	\$ 8,929	\$ 9,334
TEB.OM2	Assessment Subsystem – Leasehold Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
TEB.OM3	Audio Visual Subsystem							
TEB.OM3A	Primary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467
TEB.OM3B	Secondary CDS	LS	\$ 1,627	\$ 19,525	\$ 2,037	\$ 2,225	\$ 2,360	\$ 2,467
TEB.OM4	Facility Communications Subsystem – Leasehold Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
TEB.OM5	Electrical Subsystem – Leasehold Areas	LS	\$ 1,204	\$ 14,446	\$ 1,507	\$ 1,646	\$ 1,745	\$ 1,825
TEB.OM6	System Administration – Base Work	LS	\$ 24,924	\$ 299,090	\$ 26,058	\$ 28,113	\$ 30,328	\$ 32,226

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MF.T6C	Course Manual - PER SET	EA	\$ 1,157	\$ 1,176	\$ 1,198	\$ 1,220	\$ 1,250	\$ 1,263
MF.T7	Manuals							
MF.T7A	Operator Manual	EA	\$ 1,199	\$ 1,228	\$ 1,275	\$ 1,325	\$ 1,379	\$ 1,407
MF.T7B	Supervisor Manuals	EA	\$ 799	\$ 827	\$ 874	\$ 926	\$ 979	\$ 1,008
MF.T7C	System Administrator Manuals	EA	\$ 737	\$ 766	\$ 813	\$ 865	\$ 917	\$ 946

Notes 1. System Administration - Leasehold Areas is covered by System Administration - Base Work

1.11 ATTACHMENT A: SUMMARY OF COSTS – PRICING SCHEDULE SCOPE OF WORK DETAILS

A. Total Monthly Price, Base Scope System – Warranty Period

Item LGA.BM0 – LGA Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management, administration, and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at LaGuardia Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Warranty column on Schedule I.

Item JFK.BM0 – JFK Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management, administration, and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at John F. Kennedy Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Warranty column on Schedule II.

Item EWR.BM0 – EWR Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management, administration, and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at Newark Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Warranty column on Schedule III.

Item TEB.BM0 – TEB Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management, administration, and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at Teterboro Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Warranty column on Schedule IV.

Item Ex. 4 Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management, administration, and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at the Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Warranty column on Schedule V.

B. Extended Price for twelve (12) months of Warranty Period: this lump sum price is the total base scope price for corrective and preventive maintenance for all four airports (LGA, JFK, EWR, and JFK) as well as for Ex. 4 including all aggregate costs totaled in the monthly prices for each facility as identified in Part A multiplied times twelve (12) months. This item includes all sub breakout prices as indicated in the Warranty columns on Schedules I-V.

C. Total Monthly Price, Base Scope System – Post Warranty

Item LGA.BM0 – LGA Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at LaGuardia Airport in accordance with the Warranty and Maintenance and the functional and performance requirements of the Contract. This item represents the period commencing on the date following the last day of the Warranty Period and shall continue in effect for the entire initial two (2) year (24 month) term of the Maintenance period. This item includes the aggregate costs of all sub breakout prices as indicated in the Post Warranty column on Schedule I.

Item JFK.BM0 – JFK Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at John F. Kennedy Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Post Warranty column on Schedule II.

Item EWR.BM0 – EWR Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at Newark Airport in accordance with the Warranty and Maintenance and the Functional and

Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Post Warranty column on Schedule III.

Item TEB.BM0 – TEB Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at Teterboro Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Post Warranty column on Schedule IV.

Item Ex. 4 Total Monthly Price for PIDS Corrective and Scheduled Preventive Maintenance: this lump sum price includes all labor, materials, equipment, spare parts, shipping, handling, warehousing, engineering, drawings, software, forms, documentation, training, project management and incidentals, including all electrical, communications, architectural and mechanical infrastructure components and systems, to maintain PIDS operational availability and reliability at the Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. This item includes the aggregate costs of all sub breakout prices as indicated in the Post Warranty column on Schedule V.

D. Extended Price for the first two (2) years of Maintenance: this lump sum price is the total base scope price for corrective and preventive maintenance for all four airports (LGA, JFK, EWR, and JFK) as well as for Ex. 4 including all aggregate costs totaled in the monthly prices for each facility as identified in Part C multiplied times twenty-four (24) months. This item includes all sub breakout prices as indicated in the Post Warranty columns on Schedules I-V.

E. Optional Extended Price for the second two (2) years of Maintenance: this lump sum price is the total base scope price for corrective and preventive maintenance for all four airports (LGA, JFK, EWR, and JFK) as well as for Ex. 4 including all aggregate costs totaled in the monthly prices for each facility as identified in Part C multiplied times twenty-four (24) months (months 25-48) plus any permissible adjustments and/or escalation as stipulated in the Contract. This item includes all sub breakout prices as indicated in the Post Warranty columns on Schedules I-V.

F. Optional Extended Price for the third two (2) years of Maintenance: this lump sum price is the total base scope price for corrective and preventive maintenance for all four airports (LGA, JFK, EWR, and JFK) as well as for Ex. 4 including all aggregate costs totaled in the monthly prices for each facility as identified in Part C multiplied times twenty-four (24) months (months 49-72) plus any permissible adjustments and/or escalation as stipulated in the Contract. This item includes all sub breakout prices as indicated in the Post Warranty columns on Schedules I-V.

G. Optional Extended Price for 120 days of Maintenance: this lump sum price is the total base scope price for corrective and preventive maintenance for all four airports (LGA, JFK, EWR, and JFK) as well as for Ex. 4 including all aggregate costs totaled in the monthly prices for each facility as identified in Part C multiplied times twenty-four (24) months (months 73-76) plus any permissible adjustments and/or escalation as stipulated in the Contract. This item includes all sub breakout prices as indicated in the Post Warranty columns on Schedules I-V.

**Schedule I – Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for LGA**

Items LGA.BM1A through LGA.BM1E – Intrusion Detection Subsystem (IDS): that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all system sensors, controllers, power supplies, device signal and low voltage power cabling, and communications interfaces to maintain the IDS operational availability and reliability of the specified zones around the AOA perimeter at LaGuardia Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item LGA.BM1F – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties, including all software, programming and systems to maintain operational availability and reliability of the full integration of the CACS and other required systems integration with the LGA PIDS in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance. The following existing systems and their integration with PIDS to be warranted and maintained include: existing surveillance camera at MAT, Ex. 4

LGA.BM2 - Assessment Subsystem: that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, and incidentals, and warranties for all cameras, mounts, encoders, power supplies, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Assessment Subsystem in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items LGA.BM3A through LGA.BM3B – Primary/Secondary Control and Display System (CDS): that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all CDS display and processing equipment and racks, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the primary and secondary CDS locations at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items LGA.BM3C through LGA.BM3D – Control and Display Workstation (CDW): that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for

all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the CDW locations at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items LGA.BM4A through LGA.BM4E – Facility Communications Subsystem: those parts of the LGA.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zone, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the specified zone at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item LGA.BM4F – Facility Communications Subsystem – Primary CDS: that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the Primary CDS at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item LGA.BM4G – Facility Communications Subsystem – Secondary CDS: that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the Secondary CDS at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

[ADDENDUM 5]

Items LGA.BM5A through EWR.BM5E – Electrical Subsystem: those parts of the LGA.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the specified zones around the AOA perimeter at

LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item LGA.BM5F – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the LGA.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Primary and CDW locations at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item LGA.BM5G – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the LGA.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Secondary and CDW locations at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

LGA.BM7 - Data Management & Reporting Subsystem: that part of the LGA.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all software, firmware, printers, display and processing equipment, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Data Management and Reporting Subsystem at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

**Schedule II – Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for JFK**

Items JFK.BM1A through JFK.BM1G – Intrusion Detection Subsystem (IDS): that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all system sensors, controllers, power supplies, device signal and low voltage power cabling, and communications interfaces to maintain the IDS operational availability and reliability of the specified zones around the AOA perimeter at John F. Kennedy Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM1H – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties, including all software, programming and systems to maintain operational availability and reliability of the full integration of the CACS and other required systems integration with the JFK PIDS in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

JFK.BM2 - Assessment Subsystem: that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, and incidentals, and warranties for all cameras, mounts, encoders, power supplies, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Assessment Subsystem in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM3 – Control and Display Subsystem (CDS): that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all CDS and CDW display and processing equipment and racks, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the CDS in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items JFK.BM3A through JFK.BM3B – Primary/Secondary Control and Display System (CDS): that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all CDS display and processing equipment and racks, including all mechanical and

architectural infrastructure components, to maintain operational availability and reliability of the primary and secondary CDS locations at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items JFK.BM3C through JFK.BM3E – Control and Display Workstation (CDW): that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the CDW locations at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM4 – Facility Communications Subsystem – AOA Perimeter: that part of the JFK.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in all specified zones around the AOA perimeter, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Communications Subsystem at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items JFK.BM4A through JFK.BM4G – Communications Subsystem: those parts of the JFK.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zone, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the specified zone at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM4H – Facility Communications Subsystem – Primary CDS: that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the Primary CDS at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These

lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM4I – Facility Communications Subsystem – Secondary CDS: that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all network electronics, communication backbone cabling, horizontal CDW workstation cabling for Buildings Ex. 4 connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the Secondary CDS at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM4J – Facility Communications Subsystem – CDW Ex. 4 that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all network electronics, communication backbone cabling, horizontal CDW workstation cabling between the Primary and Secondary CDS locations and the CDW in Ex. 4 connection and termination hardware, enclosures, racks, etc. installed in the CDW in Ex. 4 as well as at the Primary and Secondary CDS locations, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the CDW at JFK, Building 245 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items JFK.BM5A through JFK.B5G – Electrical Subsystem: those parts of the JFK.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the specified zones around the AOA perimeter at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM5H – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the JFK.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Primary and CDW locations at JFK in accordance with the Warranty and

Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM5I – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the JFK.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Secondary and CDW locations at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM5J – Electrical Subsystem – Ex. 4 CDW: those parts of the JFK.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all software, firmware, printers, display and processing equipment, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Data Management and Reporting Subsystem at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item JFK.BM7 - Data Management & Reporting Subsystem: that part of the JFK.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all software, firmware, printers, display and processing equipment, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Data Management and Reporting Subsystem at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

**Schedule III - Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for EWR**

Items EWR.BM1A through EWR.BM1E – Intrusion Detection Subsystem(IDS): that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all system sensors, controllers, power supplies, device signal and low voltage power cabling, and communications interfaces to maintain the IDS operational availability and reliability of the specified zones around the AOA perimeter at Newark Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item EWR.BM1F – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties, including all software, programming and systems to maintain operational availability and reliability of the full integration of the CACS and other required systems integration with the EWR PIDS in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

EWR.BM2 - Assessment Subsystem: that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, and incidentals, and warranties for all cameras, mounts, encoders, power supplies, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Assessment Subsystem in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items EWR.BM3A through EWR.BM3B – Primary/Secondary Control and Display System (CDS): that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all CDS display and processing equipment and racks, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the primary and secondary CDS locations at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items EWR.BM3C through EWR.BM3E – Control and Display Workstation (CDW): that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for

all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the CDW locations at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items EWR.BM4A through EWR.BM4E – Facility Communications Subsystem: those parts of the EWR.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zone, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the specified zone at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item EWR.BM4F – Facility Communications Subsystem – Primary CDS: that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the Primary CDS at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item EWR.BM4G – Facility Communications Subsystem – Secondary CDS: that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the Secondary CDS at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items EWR.BM5A through EWR.BM5E – Electrical Subsystem: those parts of the EWR.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the specified zones around the AOA perimeter at

EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item EWR.BM5F – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the EWR.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Primary and CDW locations at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item EWR.BM5G – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the EWR.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Secondary and CDW locations at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

EWR.BM7 - Data Management & Reporting Subsystem: that part of the EWR.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all software, firmware, printers, display and processing equipment, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Data Management and Reporting Subsystem at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

**Schedule IV - Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for TEB**

Items TEB.BM1A through TEB.BM1F – Intrusion Detection Subsystem (IDS): that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all system sensors, controllers, power supplies, device signal and low voltage power cabling, and communications interfaces to maintain the IDS operational availability and reliability of the specified zones around the AOA perimeter at LaGuardia Airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item TEB.BM1F – Intrusion Detection Subsystem Integration of CACS and other Required Systems: that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties, including all software, programming and systems to maintain operational availability and reliability of the full integration of the CACS and other required systems integration with the TEB PIDS in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

TEB.BM2 - Assessment Subsystem: that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, and incidentals, and warranties for all cameras, mounts, encoders, power supplies, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Assessment Subsystem in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items TEB.BM3A through TEB.BM3B – Primary/Secondary Control and Display System (CDS): that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all CDS display and processing equipment and racks, including all mechanical and architectural infrastructure components, to maintain operational availability of the primary and secondary CDS locations at Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items TEB.BM3C through TEB.BM3D – Control and Display Workstation (CDW): that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for

all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the CDW locations at Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items TEB.BM4A through TEB.BM4F – Facility Communications Subsystem: those parts of the TEB.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc. installed in the specified zone, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the specified zone at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item TEB.BM4G – Facility Communications Subsystem – Primary CDS: that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, incidentals, and warranties for all required network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Primary CDS, including all communications, mechanical, and architectural infrastructure components, to maintain operational availability and reliability of communications for the Primary CDS at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item TEB.BM4H – Facility Communications Subsystem – Secondary CDS: that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all network electronics, communication backbone cabling, horizontal CDW workstation cabling, connection and termination hardware, enclosures, racks, etc. installed in the Secondary CDS, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the Secondary CDS Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Items TEB.BM5A through TEB.BM5F – Electrical Subsystem: those parts of the TEB.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the specified zones around the AOA perimeter at

TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item TEB.BM5G – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the TEB.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all software, firmware, printers, display and processing equipment, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Data Management and Reporting Subsystem Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Item TEB.BM5H – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the TEB.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Secondary and CDW locations Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

TEB.BM6 - Data Management & Reporting Subsystem: that part of the TEB.BM0 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all software, firmware, printers, display and processing equipment, including all communications, mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Data Management and Reporting Subsystem at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

**Schedule V - Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for**

Ex. 4 - Control and Display Workstation (CDW): that part of the lump sum price that includes all labor, materials, equipment, incidentals and warranties for all CDW display and processing equipment, consoles, cable extenders, etc., including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the CDW locations Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Facility Communications Subsystem: that part of the Ex. 4 lump sum price that includes all labor, materials, equipment, incidentals and warranties for all network electronics, communication backbone cabling, horizontal CDW workstation cabling within the Primary and Secondary CDS locations at each airport and at the CDW's Ex. 4, connection and termination hardware, enclosures, racks, etc. installed in the CDW's Ex. 4 including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of communications for the CDW's Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Excluded from the lump sum price are warranties and maintenance for all wide area network (WAN) communications from Ex. 4 Provision for these WAN communications will be coordinated with PANYNJ during the design phase of this task.

Ex. 4 - Electrical Subsystem: those parts of the Ex. 4 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the CDW locations, including all communications, mechanical, and architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the CDW's Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

**Schedule VI - Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for Options**

Item LGA.OM1 – Intrusion Detection Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Non-Building Perimeter Areas as defined in the LGA Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM2 - Assessment Subsystem - Purple Hatch Areas: this lump sum price includes all labor, materials, equipment and incidentals equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Assessment Subsystem installed in the Purple Hatch Areas as defined in the LGA Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items LGA.OM3A through LGA.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM4 - Facility Communications Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Non-Building Perimeter Areas as defined in the LGA Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM5 Electrical Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, innerduct, transformers, receptacles, termination hardware, enclosures, etc. , including all communications, mechanical, architectural infrastructure components, installed in the Non-Building Perimeter areas as defined in the LGA Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem for Non-Building Perimeter Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the LGA PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the LGA PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Assessment Subsystem for the JFK PIDS Leasehold Areas in

accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items JFK.OM3A through JFK.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, and architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM4 - Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM5 - Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc., including all communications, mechanical, and architectural infrastructure components, installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the JFK PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for

the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the JFK PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Assessment Subsystem for the EWR PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items EWR.OM3A through EWR.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM4 - Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM5 - Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc., including all communications, mechanical, and architectural infrastructure components, installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the EWR PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the EWR PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans in accordance with the Warranty and

Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Assessment Subsystem for the TEB PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items TEB.OM3A through TEB.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM4 - Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM5 - Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc., including all communications, mechanical, and architectural infrastructure components, installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for

the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the TEB PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the TEB PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Ex. 4 Enterprise Secondary CDS: A lump sum price that includes all labor, materials, equipment, incidentals and warranties for all Enterprise Secondary CDS display and processing equipment and racks, including all electrical, communications, mechanical and architectural infrastructure components and any ancillary or incidental items, to maintain operational availability and reliability of the PIDS Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Excluded from the lump sum price are all wide area network (WAN) communications Ex. 4. Provision for these WAN communications will be coordinated with PANYNJ during the design phase of this task.

Items RE.M1, RE.M4, RE.M7, and RE.M10 – Ex. 4 : these lump sum line item prices include all labor, materials, equipment, incidentals, and warranties for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the Vehicle and Handheld Thermal Imagers, Lap Tops and PDA's in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items RE.M13 through, RE.M16 – Wireless Network: these lump sum line item prices include all labor, materials, equipment, incidentals, and warranties for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the wireless network communications infrastructure for optional \_\_\_\_\_ Ex. 4 \_\_\_\_\_ at each airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items MFT1 through MF.T7C – Follow-on Training, Course Materials and Manuals: these lump sum line item prices include all labor, materials, equipment, incidentals, and warranties for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the \_\_\_\_\_ Ex. 4 \_\_\_\_\_ in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

**ATTACHMENT B: CONTRACT DELIVERABLES – MAINTENANCE**

(NOTE: PLEASE SEE ELECTRONIC FILES FOR CONTRACT DELIVERABLES LOCATED IN FOLDER BOOK III ATTACHMENT B)

**Book III  
Attachment B**

**Maintenance and Warranty Contract Deliverables**

Name	Submittal Date/Timeframe
<ul style="list-style-type: none"> <li>- Description of PIDS System and Sub-systems to be maintained</li> <li>- Warranty</li> <li>- Maintenance Management Plan</li> <li>- Facility specific Maintenance and Preventive Maintenance Schedule</li> <li>- CMMS software description and cost</li> <li>- Sample Forms and Reports</li> <li>- Testing Procedures</li> <li>- Facility specific staffing requirements</li> <li>- Office and storage facility requirements</li> <li>- Evidence of insurability</li> <li>- Evidence of factory training/certifications</li> <li>- Identification of proposed Maintenance Project Team with resumes of key personnel</li> <li>- List of recommended spare parts with unit pricing</li> <li>- QA/QC Plan</li> <li>- Preliminary Disaster Recovery Plan</li> </ul>	<p>Proposal Submittal</p>
<ul style="list-style-type: none"> <li>- Evidence of Satisfactory Completion of PA Mandated Safety and Operations Training</li> <li>- Licenses, Permits and Fees</li> <li>- Manufacturers' training and certification</li> <li>- Badging</li> <li>- Staffing</li> <li>- Office, parking, transportation and storage requirements</li> </ul>	<p>Prior to commencement of Installation</p>
<ul style="list-style-type: none"> <li>- Final Maintenance plan and schedule for the Warranty Period</li> <li>- Spare Parts for each Airport</li> <li>- Project Team, Staffing and Organizational Chart</li> </ul>	<p>Thirty-five (35) days prior to the Operational Acceptance Test</p>

<ul style="list-style-type: none"> <li>- Computerized Maintenance Management System (CMMS) Software <ul style="list-style-type: none"> <li>o Plan and Schedule of implementation tasks</li> <li>o Index of all, software and reports</li> <li>o Draft prototypes through final revisions of software and reports</li> <li>o technical description of CMMS specifications</li> <li>o drawings,</li> <li>o product literature and cut sheets,</li> <li>o technical manuals,</li> <li>o operations manuals,</li> <li>o training manuals,</li> <li>o other</li> </ul> </li> <li>- Sample Reports and Forms for: <ul style="list-style-type: none"> <li>o Extra Work,</li> <li>o Work Orders,</li> <li>o Adds, Moves Changes,</li> <li>o Inspections,</li> <li>o Maintenance Incident Reporting, Tracking and Trending,</li> <li>o Repairs and Replacements,</li> <li>o Software and Firmware Updates,</li> <li>o Testing Reports</li> <li>o and all other required documentation</li> </ul> </li> <li>- Testing Procedures</li> </ul>	<ul style="list-style-type: none"> <li>- Design Phase – Development as required</li> <li>- Finalize thirty-five (35) days prior to the Operational Acceptance Test</li> </ul>
<p>Maintenance plan and schedule for the Maintenance Period</p> <ul style="list-style-type: none"> <li>- Minor Inspections</li> <li>- Major Inspections</li> <li>- CMMS (Updated as required)</li> <li>- Reports and Forms</li> </ul>	<p>Sixty (60) Days prior to end of Warranty Period</p>

## **SECTION 4**



**THE PORT AUTHORITY OF NY & NJ**

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**Date: 8/19/05**

**ADDENDUM #1**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 7, 2005, no later than 2:00 PM

**The following changes are hereby made in the documents:**

1. Livelink has been updated to include the May 2005, Request for Pre-Qualification Information for Multi-Facility Aviation PIDS Security Design, Purchase, Construction, Installation, Integration and On-Site Maintenance as an available document.
2. In Book IV Attachment 3, the words "Reference Documents" from the Title Page and all drawing Title Blocks of the Newark Liberty International Airport, LaGuardia Airport, John F. Kennedy International Airport, and Teterboro Airport Perimeter Characterization and Security Upgrade Plans are hereby deemed deleted.

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

**1. Can we utilize, either in the proposal or during program performance, US Citizens or Legal Resident Aliens that work for foreign companies provided they have signed the NDA and received a PANYNJ background check? We are currently considering several Canadian and Israeli firms.**

Yes, US Citizens or Legal Resident Aliens that work for foreign companies can be utilized as long as the Port Authority has received signed Non-Disclosure Agreements for the individuals and they have successfully passed the Authority's background screening process. The Authority has the unqualified right, in its sole and absolute discretion to deny access to PIDS documents to any Proposer employee or any chosen and potential subcontractor employee.

The requirements set forth regarding citizenship or permanent residency may be waived by the Port Authority as appropriate. The waiver shall be in writing and must have the approval of the Director of Public Safety and the Chief Engineer. In such cases, access to and the handling of Confidential and Privileged Information (C&P) and / or Sensitive Security Information (SSI) shall be in accordance with all requirements and conditions otherwise set forth in the Port Authority of NY & NJ Handbook for Protecting Security Information ["Security Handbook"] and applicable federal laws and regulations. In addition, depending on the circumstances of the requested waiver, additional information security safeguards may be imposed to ensure the full intent of this policy remains in force.

<b>2.</b>	<b><i>Can we electronically transmit any work product developed by our team as part of our proposal response to team member personnel sitting outside our company's firewall provided that such transmission is encrypted and the recipient has signed the NDA and received a PANYNJ background check?</i></b>
	<p>Emailing of Privileged and Confidential Data is not permitted. Please refer to the Security Handbook for the handling of Privileged and Confidential Data. Please note that PIDS RFP Book IV Attachment 3 contains privileged and confidential data.</p> <p>Also, please note that The Port Authority uses Livelink as its project and program website solution to collaborate with team members. Access to these password-protected websites is controlled by permissions that apply to each individual user account. In this manner, users are allowed access folders and files in Livelink only when approved by the Project or Program Manager. Once users are logged in to the Livelink website they are working in a secure environment. Only those individuals who have passed the screening process are authorized to access the PIDS website on Livelink and the solicitation documents. The Authority has the unqualified right, in its sole and absolute discretion to deny access to PIDS documents to any Proposer employee or any chosen and potential subcontractor employee.</p> <p>With these measures in place, as described in the Security Handbook, the PA has deemed that "all electronic exchange of C&amp;P/ SSI must be accomplished using a project website with centrally managed access control on a per individual basis with encrypted transfer". The Livelink website is the only project website to be used for the storage and/or electronic exchange of C&amp;P/SSI information. Under no circumstances shall email or other websites be used for this purpose.</p>

- PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE, 7<sup>TH</sup> FL.  
NEW YORK, NY 10010

**REQUEST FOR PREQUALIFICATION INFORMATION (RFPQI)**

**THOSE PREVIOUSLY PRE-QUALIFIED FOR MFA-134.308**  
**DO NOT NEED TO RE-SUBMIT**

**TITLE: MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM  
(PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION,  
INTEGRATION, AND ON-SITE MAINTENANCE # MFA-134.308**

**COLLECTIVE # 0000007862**

**SUBMIT PREQUALIFICATION INFORMATION BEFORE THE DUE DATE AND TIME TO THE  
ABOVE ADDRESS**

**PREQUALIFICATION INFORMATION DUE DATE: MAY 27, 2005**

**TIME: 2:00 P.M.**

**BUYER NAME: JEANETTE SANTOS      PHONE: 212 435-3930**  
**FAX: 212 435-3959**

# THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

## REQUEST FOR QUALIFICATION INFORMATION FOR

MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM  
(PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION,  
INTEGRATION, AND ON SITE MAINTENANCE # MFA-134.308

### I. General Information

The Port Authority of New York and New Jersey (“the Port Authority” or “the Authority”) is a body corporate and politic created by Compact between the States of New York and New Jersey with the consent of the Congress of the United States. The Port Authority, together with its wholly-owned subsidiaries, provides the region with integrated transportation and trade services and operates facilities in connection therewith, including, but not limited to, four major regional airports, interstate traffic through four bridges and two tunnels, a bus terminal, a bus station, the PATH rapid transit system, the Hoboken-lower Manhattan ferry service, the World Trade Center site, and certain New York-New Jersey port facilities.

The Port Authority of New York and New Jersey (hereinafter referred to as “the Authority”) seeks to pre-qualify prospective proposers for Contract MFA-134.308; Multi-Facility Aviation Perimeter Intrusion Detection System (PIDS) Security Design, Purchase, Construction, Installation, Integration, and On-Site Maintenance (hereinafter referred to as “the Contract”) at John F. Kennedy International Airport, LaGuardia Airport, Newark Liberty International Airport, and Teterboro Airport.

#### A. PROJECT INFORMATION

It is anticipated but it is not guaranteed that the work required by the Contract will include, but may not necessarily be limited to the following:

Design, purchase, site mobilization, construction, installation, system integration (software and hardware), commissioning, testing, training, warranty maintenance and extended maintenance for open architecture, integrated, Perimeter Intrusion Detection Systems (PIDS) at four (4) airports. PIDS will include but will not be limited to wide area and line detection; day/night assessment and surveillance systems; notification systems and the integration of these systems into a single comprehensive alarm annunciation and video surveillance monitoring and control system (Control and Display System or “CDS”) at each airport. The Lenel (access control/alarm annunciation) and Verint Loronix (video monitoring control) systems have been selected as the Authority’s standard access control, alarm annunciation and video surveillance monitoring and control systems. The prospective proposer may be required to utilize and integrate/upgrade the existing Lenel and Verint Loronix systems to meet the requirement of a single CDS at each airport. The Authority may, however, consider other solutions if the prospective proposer can effectively demonstrate the benefits. An extension of the CDS may include hand-held/vehicle alarm notification systems. The purpose of these systems is to detect, assess and track threats to employees, contractors, visitors, patrons and Authority facilities and to notify and aid the Authority in making appropriate responses to detected threats. The PIDS shall be of modular design, rugged and dependable enough so that maintenance can be preformed in a field environment when required. The PIDS will be designed i

such a manner that terrain will not cause a loss of designed capabilities. Test measurement and diagnostic equipment, built in test (BIT), and built in test equipment (BITE) will be used to the greatest extent possible to facilitate maintenance. The design will involve, but will not be limited to architectural, civil, structural, mechanical, electrical, communications, radio frequency (RF) systems design and security systems design disciplines. The Contract will also include requirements to supply software/hardware integration of equipment, devices, material and appurtenances; to install/upgrade infrastructure to meet security system requirements; to acquire, integrate and stage security equipment and ancillary materials; to procure, install, and integrate security sensor system; to provide training in security system operation and maintenance; to prepare and deliver as-built drawings and all other record documentation for PIDS design and build the Authority in accordance with the requirements of the Contract; and to perform or arrange for contractor logistics support of the installed security system. This project will require extensive new infrastructure necessary to implement the PIDS security system and may include erection of security fencing; and the installation of conduit, field distribution cabinets, drainage and erosion control, grading, trenching, power and signal cabling and pedestal installation.

**B. Estimated Total Contract Cost**

The Authority currently estimates that the Work required by the Contract will be between \$45 million and \$65 million.

**C. Contract Schedule**

It is presently anticipated but it is not guaranteed that RFP Documents for the Contract will be available to pre-qualified proposer by June 2005. It is the present intention of the Authority to have all Work under the Contract completed within 24 months (not including Maintenance) after award of the Contract. Maintenance may include two (2), two (2) year options and one (1) one hundred twenty day (120) extension, subject to earlier termination by the Authority.

**D. General Requirements:**

1. The Authority will accept proposals on the Contract only from pre-qualified proposer. Notwithstanding pre-qualification to propose, qualified prospective proposer will be required to submit certain additional information with their proposals and, if so required, shall submit further information after the submission of proposals, all as will be stated in the Request for Proposal (RFP). The Authority reserves the right at any time to modify, waive or vary the terms and conditions of this Request for Qualification Information.
2. The Contractor will be required to furnish Performance and Payment Bond for the Contract in a penal sum equal to the full amount of the proposal.
- 3.. The Authority will entertain requests for pre-qualification from joint ventures. If a joint venture is pre-qualified to submit proposals, or if two or more entities separately pre-qualified to bid elect to submit a proposals as a joint venture, all participants in the joint venture shall be bound jointly and severally and each participant shall execute the proposal and awarded contract.
4. The prospective proposer is obligated to comply with all relevant clauses and provisions incorporated into this RFPQI and with the security policies and procedures set forth in the "Port Authority of NY & NJ's Security Handbook". Security requirements are a material condition of this contract. The contract shall be subject to immediate termination for default when it has been determined that a failure to comply with the security requirements of this contract resulted from willful misconduct or lack of good faith.

5. The prospective proposer shall be obligated to deliver and install a PIDS System at each airport in accordance with all applicable requirements of the established codes, standards, and local, state, and federal laws. The PIDS System shall meet the most stringent of the National Electrical Code, the New York City Building Code, the New York City Electrical Code, and the BOCA National Building Code.

## **E. SUBMISSION INSTRUCTIONS**

**1. Notification:** Following receipt of the required information, prequalification will be made by the Director, Purchasing Services Division, of the Port Authority of New York and New Jersey (hereinafter, the "Director"). The Director will indicate in writing if the firm has been prequalified to submit a proposal in response to the RFP.

### **2. Required Pre-Qualifications.**

To be considered, Proposers shall submit a complete response to this RFPQI, using the format provided in PART II. The signatures shall be by an official authorized to bind the Proposer.

### **3 Deadline for Receipt of Pre-Qualification Information.**

The due date specified on the cover page is the Pre-Qualification Information Due Date. Closing of due date is 2:00 P.M., Eastern Daylight Savings Time (EDT).

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

### **4 Submission of Pre-Qualification Information.**

One reproducible original, clearly designated as such, and fifteen (15) copies shall be submitted in an envelope or other packaging all of which shall be conspicuously marked with the Firm's name and address along with the Title of the Pre-Qualification Request, the Collective Number and the Pre-Qualification Due Date. If more than one envelope or package is submitted, each envelope or package shall be likewise marked.

### **5. Communications Regarding this Pre-Qualification.**

All contact with the Authority regarding this RFPQI shall be directed to the Principal Contracts Specialist listed on the cover page. All questions regarding this RFPQI must be received in writing via facsimile to 212 435-3959 with original documents mailed to Jeanette Santos, Principal Contracts Specialist at the address listed on the cover page on or before 3:00 p.m. on, May 11, 2005. The Principal Contracts Specialist is authorized only to direct the attention of Proposers to various portions of the Pre-Qualification Request so that they may read and interpret such portions themselves. Neither the Principal Contracts Specialist nor any employee or representative of the Port Authority is authorized to give an interpretation of any portion of the RFPQI or give information as to the requirements of the RFPQI in addition to that contained in the RFPQI. Interpretation of the RFPQI or additional information as to its requirements, where necessary, shall be communicated to Proposers only by written addendum issued over the name of the Manager, Purchasing Services Division, which addendum shall be considered part of the RFPQI.

### **6. Prequalification.**

Prequalification shall be only by mailing to or delivering at the office designated by the Proposer in its qualifications a notice in writing specifically signed by an authorized representative on behalf of the Authority. No other act of the Authority, its Commissioners, officers, agents or employees shall constitute prequalifications.

**THIS DOCUMENT PROVIDES PRE-QUALIFICATION INFORMATION AND PRE-QUALIFICATION INSTRUCTIONS ONLY. THIS IS NOT A REQUEST FOR PROPOSALS (RFP).**

**THOSE PREVIOUSLY PRE-QUALIFIED FOR CONTRACT MFA-134.308, DO NOT NEED TO RE-SUBMIT.**

**END OF PART I**

## PART II. PREQUALIFICATION REQUIREMENTS

A. Prospective Proposers must comply with the following prequalification requirements. Supporting documentation must be submitted in a clear and concise manner to the Port Authority at the time the pre-qualification document is due, for Port Authority review and approval.

1. The prospective proposer must have satisfactorily completed as a prime security integration contractor a minimum of three (3) contracts of equivalent size, type, scope, and complexity (as described in Section I A and B) comparable to the subject Contract within the last five (5) years. Two of these contracts shall be for System(s) installed in the Continental United States.

The prospective proposer must have performed at least one (1) contract in excess of \$50M over a 2-year period of performance and two (2) contracts each in excess of \$30M over a 2 year period of performance. At least one (1) of these contracts shall demonstrate the prospective proposers' ability to manage four (4) simultaneous security installations with a common design. One of these installations shall be in satisfactory operation for the last twelve (12) consecutive months, minimum. The prospective proposer shall indicate if the work involved installing a new system, or rehabilitation or replacement of an existing system. The contracts must reflect work that was performed directly by the prospective proposer or by a sub-contractor under direct supervision of the prospective proposer.

2. The prospective proposer must be able to obtain a Treasury listed Performance And Payment Bond for the amount of 45 million and \$65 million. Submit a letter from your surety.
3. The prospective proposer must have a minimum of ten (10) years continuous business operations, immediately prior to the submission date of this RFPQI, in the design, purchase, site mobilization, construction, installation, system integration (software and hardware), commissioning, testing, training, warranty maintenance and extended maintenance of Perimeter Intrusion Detection Systems, Day/Night Assessment & Surveillance Systems, Notification Systems, and infrastructure power and communications systems and the integration of these systems and other open architecture systems for the purpose of detecting, assessing, tracking, notifying and aiding in the response to detected threats, all in accordance with the scope of work outlined in Attachment A
4. The prospective proposer or a proposed sub-contractor must have principal(s) that are Professional Engineer(s) licensed to practice in both New York and New Jersey. Submit information to demonstrate a minimum of five (5) years experience (including technical, production and implementation experience), within its or its engineering subcontractors' organization, in multi-discipline engineering design services which included computer hardware components and communication networks, electrical, electronic, mechanical, structural, civil and traffic design services consisting of design, calculations, drawing and technical specifications.
5. The prospective proposer shall demonstrate that it has earned gross revenues of at least \$25 Million a year for the last calendar year or fiscal year from the type of services described herein.

- o. The prospective proposer shall show maintenance experience including operation and maintenance training during the last five (5) consecutive years, as evidenced by existing contracts that provide for effective maintenance of Perimeter Intrusion Detection Systems, Day/Night Assessment & Surveillance Systems, Notification Systems and other systems designed to detect, assess, notify and aid in the response to detected threats.
7. In the event a joint venture submits pre-qualification information, the foregoing prerequisites must be met as follows:
- a. With respect to Part II, Paragraph A, Subparagraphs (1), (2) (3), (4), (6):  
If the joint venture is a legal entity, the entity must meet the requirements; if a common law joint venture, at least one member must meet each requirement.
  - b. With respect to Part II, Paragraph A, Subparagraph (5): Either the legal entity's earnings or the cumulative earnings of a common law joint venture members may meet the requirement.
  - c. If a common law joint venture submits a Proposal, it and all participants in the joint venture shall be bound jointly and severally and each such participant of the joint venture shall execute the Proposal and do each act and thing required hereunder. On the Contract Signature Sheet and wherever else the Proposer's name would appear, the name of the joint venture and the names of all participants must be listed followed by the words "acting jointly and severally".

B. The prospective proposer must submit the information requested on the attached Schedule A.

**C. Good Faith Effort**

The Proposer shall use every good-faith effort to provide for meaningful participation by certified Minority Business Enterprises (MBEs) and certified Women-owned Business Enterprises (WBEs), in all purchasing, subcontracting and ancillary service opportunities associated with this Contract, including purchase of equipment, supplies and labor services.

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

- 1. Dividing the services and materials to be procured into small portions, where feasible.
- 2. Giving reasonable advance notice of specific contracting, subcontracting and purchasing opportunities to such MBEs/WBEs as may be appropriate.
- 3. Soliciting services and materials, to be procured, from the Directory of MBEs/WBEs, a copy of which can be obtained by contacting the Economic Development Department's Business and Job Opportunity unit at (212) 435-7819, or seeking MBE/WBEs from other sources.
- 4. Insuring that provision is made to provide progress payments to MBEs/WBEs on a timely basis.

In addition, The Proposer shall make every good-faith effort to include 12 percent participation by Minority Business Enterprises and 5 percent participation by Women-Owned Business Enterprises in all procurement and subcontracting opportunities associated with the contract, including purchase of equipment, supplies and labor services.

#### **D. Pre-Qualification Submission Requirements.**

In order to expedite the evaluation of pre-qualifications, the Proposer's response to this RFPQI must follow the format and order of items, using the same paragraph identifiers, as set forth below. Proposers and, if applicable, each common law Joint Venture participant shall submit the following:

##### **1. Letter of Transmittal**

Each qualification package shall contain a Letter of Transmittal identifying the Proposer, including any Joint Venture, and Prime with all subcontractors if a team approach is being suggested. If a common law joint venture, identify all members. The Letter of Transmittal shall contain:

- a. Name and address of the Proposer; Signature on behalf of the Proposer; Identify all team members if subcontractors will be used.

If a corporation or corporations: (1) a statement of the names and residences of its officers; and (2) a copy of Certificate of Incorporation, with a written declaration signed by the secretary of the corporation, with the corporate seal affixed thereto, that the copy furnished is a true copy of the Certificate of Incorporation as of the date the Qualification is submitted.

If a partnership: a statement of the names and residences of its members, indicating which are general and which are special partners.

If an individual: a statement of his/her residence.

If a joint venture: information on each of the parties or the legal entity consistent with the information requested above.

- b. Name, title and telephone number of the individuals authorized to negotiate and execute a Contract; along with information on the subcontractors and Prime
- c. Name and address of proposed subcontractors, if any.

##### **2. Agreement on Terms of Discussion**

A copy of the "Agreement on Terms of Discussion", signed by an officer of the firm. The agreement format is included as Appendix A herein and shall be submitted by the Proposer without any alterations or deviations.

### **3. Pre-Qualification Questionnaire and Prerequisite Documentation**

The Proposer shall prepare and submit a pre-qualification questionnaire response following the exact outline shown in Part II of this RFPQI. The Proposer shall submit as part of the questionnaire documentation to support compliance with all prerequisites as identified in Section A, Part II. Submission of company brochures, annual reports, and other company qualification material alone are not sufficient.

### **4. Ability to Make Certifications in the Contractor's Integrity Clauses**

The Proposer including its primes and subcontractors shall submit a statement as to whether it can make the certifications in the "Contractor's Integrity Provisions", Part III of the Standard Contract Terms and Conditions, provided in Appendix B, of this RFPQI. If it cannot make the certifications, include the reasons why.

### **5. Acknowledgment of Addenda**

If any Addenda are sent as part of this RFPQI, the Proposer shall complete, sign and include with its qualifications the addenda form(s). In the event any Proposer fails to conform to these instructions, its qualifications will nevertheless be construed as though the Addenda had been acknowledged.

### **6. Contractors Qualification Statement**

The prospective Proposer shall complete and submit the Contractors Qualifications Statement. This shall include the submission of Schedule A and B.

## **E. Conditions For The Submission Of Pre-Qualifications.**

In addition to all other requirements of this RFPQI, the Proposer agrees to the following conditions for the submission of its qualifications.

### **1. Changes to this RFPQI**

At any time, in its sole discretion, the Port Authority may by written addenda, modify, correct, amend, cancel and/or reissue this RFPQI. If an addendum is issued prior to the date qualifications are due, it will be provided to all parties to whom RFPQI's were mailed. If an addendum is issued after qualifications have been received, the addendum will be provided only to those whose qualifications remain under consideration at such time.

### **2. Qualifications - Preparation Costs**

The Port Authority shall not be liable for any costs incurred by the Proposer in the preparation, submittal, presentation, or revision of its qualifications, or in any other aspect of the Proposer's pre-contract activity. No Proposer is entitled to any compensation except under an agreement for performance of services signed by an authorized representative of the Port Authority and the Proposer.

### **3. Disclosure of Qualification Contents / Use of Ideas and Materials**

Qualification information is not generally considered confidential or proprietary. All information contained in qualifications is subject to the "Agreement on Terms of Discussion" attached hereto as Attachment A.

### **4. Ownership of Submitted Materials**

All materials submitted in response to or in connection with this RFPQI shall become the property of the Port Authority. Selection or rejection of Qualifications shall not affect this right.

**5. Prime and Subcontractors**

If a Proposer intends to use subcontractor(s) the Proposer must identify in its qualifications the names of the subcontractor(s) and the portions of the work the subcontractor(s) will perform.

**6. Conflict of Interest**

If the Proposer or any employee, agent or subcontractor of the Proposer may have a possible conflict of interest, or may give the appearance of a possible conflict of interest, the Proposer shall include in its qualifications a statement indicating the nature of the conflict. The Port Authority reserves the right to disqualify the Proposer if, in its sole discretion, any interest disclosed from any source could create a conflict of interest or give the appearance of a conflict of interest. The Port Authority's determination regarding any questions of conflict of interest shall be final.

**7. Authorized Signature**

Qualifications must be signed by an authorized corporate officer (e.g., President or Vice President), General Partner, or such other individual authorized to bind the Proposer to the provisions of its qualifications and this RFPQI.

**8. References**

The Port Authority may consult any reference familiar with the Proposer regarding its current or prior operations and projects, financial resources, reputation, performance, or other matters. Submission of qualifications shall constitute permission by the Proposer for the Port Authority to make such inquiries and authorization to third parties to respond thereto.

**9. Rights of the Port Authority**

The Port Authority reserves all its rights at law and equity including the unqualified right, at any time and at its sole and absolute discretion, to reject any and all qualification information, to waive defects or irregularities in qualification information received, to seek clarification of qualifications, to request additional information, to request any or all Proposers to make a presentation, to undertake discussions with one or more Proposers. The Authority may, but shall not be obliged to, consider incomplete responses or request or accept additional material or information. The holding of any discussions with any Proposer shall not constitute pre-qualifications. No respondent shall have any rights against the Authority arising from the contents of this RFPQI, the receipt of responses, or the incorporation in or rejection of information contained in any pre-qualifications or in any other procurement documents.

At any time after the opening of the Qualifications, the Manager, Purchasing Services Division, may give oral or written notice to one or more Proposers to furnish the Authority with information relating to its qualifications to perform the services contained in the RFPQI. The giving of such notice shall not be construed as an acceptance of a Proposer's qualifications. Information shall be submitted within three (3) calendar days, or the next business day following a Saturday, Sunday or Federal Holiday after the Authority's request.

The Authority does not assume any liability for any pre-contract activity and/or costs incurred by Proposers responding to this RFPQI. No Proposer is entitled to any compensation except under an agreement for performance of services signed on behalf of the Authority.

The Authority may consult references familiar with the Proposer and its performance on prior projects, financial resources, and reputation or otherwise. Submission of qualifications in response to this RFPQI

shall constitute permission for the Authority to make such inquiries and authorization to third parties to respond thereto.

The Authority makes no representations, warranties, or guarantees that the information contained herein is accurate, complete, or timely or that such information accurately represents the conditions that would be encountered at the site(s) of work now or in the future. The furnishing of such information by the Authority shall not create or be deemed to create any obligation or liability upon it for any reason whatsoever and each Proposer, by submitting its qualifications, expressly agrees that it has not relied upon the foregoing information, and that it shall not hold the Authority liable or responsible therefore in any manner whatsoever.

Neither the Commissioners of the Authority, nor any of them, nor any officer, agent or employee thereof shall be charged personally with any liability or held liable to it under any term or provision of this RFPQI or any statements made herein or because of the submission or attempted submission of a response hereto or otherwise.

#### **10. Security Requirements**

RFP documents issued as a result of this qualification will contain security requirements in order to protect sensitive Authority information released to such Proposer or such information as may be created by the Proposer in response to any subsequent work. Security system integration contractors will be required to adhere to and comply with the procedures and regulations as outlined within the Port Authority of NY & NJ Security Program Handbook (SEE ATTACHED). The handbook establishes uniform procedures for: identification, receipt care and storage of PANYNJ sensitive information; provides the basis for classifying information and material involving planning, design, development, construction and /or maintenance and training contracts; a contractual security program nondisclosure and confidentiality agreement; personnel questionnaires providing information concerning identity, address, employment history, citizenship and police record; background investigation; Prospective Proposers handling of all documents; security training and education of all personnel. Additional security requirements will be published with the RFP document.

## Cont. PART II – INFORMATION REQUIRED FROM CONTRACTORS

Proposer qualification information should be submitted in the questionnaire format outlined below. To be considered, Proposer shall respond to all questionnaire requirements. Any other information thought to be relevant, but not applicable to the questionnaire, should not be provided, as it will not be reviewed. Do not send generic company information or brochures as an attempt to qualify.

### PRE-QUALIFICATION QUESTIONNAIRE

#### 1. Firm Name, Business Address, and Business Type

*Provide the complete registered business name of your firm, and your firm's street address, including zip code.*

*Please indicate if your organization is a corporation, partnership, sole proprietorship, or common law joint venture, or joint venture legal entity.*

*If your organization is a joint venture, please provide complete separate information for all firms within the joint venture.*

*If firm is a corporation, the name indicated should be exactly as it appears on your firm's "Certificate of Incorporation" on file in the state in which your firm is incorporated.*

#### 2. Firm Web Page Address

*Provide your firm's Internet web page address if available.*

#### 3. Federal Employer Identification Number

*Provide your firm's Federal Employer Identification Number. This is the tax identification number assigned to firms by the Federal Government for tax purposes.*

#### 4. Name, address and EIN affiliates or subsidiaries

*If your firm is the parent of, affiliated with, or subsidiary of another firm(s), provide the name, address and EIN of all such firms.*

#### 5. Names and Contact Information of Person(s) to Receive Future Correspondence.

*Provide the name and title of the person you would like us to contact if we have any questions pertaining to the information indicated by you in the questionnaire. This should be the same person we contact when requesting information. A telephone number must be indicated included fax and email address.*

#### 6. Officer or Principal of Firm

*An officer, partner or principal of the firm must sign the questionnaire. Indicate the signatory's name, title and date of submission. The signature shall be the same as the signature as required on Appendix A.*

**7. Year Firm was Established**

*Provide the year the firm was established under the present name (as indicated in response to question 1). If known by a prior name, indicate former name, date of name change and reason therefore.*

**8. Prequalification Requirements Information**

Furnish full and complete information demonstrating that the prospective proposer meets each of the prerequisite requirements of Part II, Section A. For each qualifying project set forth descriptions, contract amount, durations, role of the prospective proposer, contact information for owner and any other information requested in Part II, Section A.

**END OF PART II**

**APPENDIX A - AGREEMENT ON TERMS OF DISCUSSION**

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The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) is not to impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefore (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 letter, 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 letter 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. The foregoing applies to any information, whether or not given at the invitation of the Port Authority.

\_\_\_\_\_  
(Company)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Date)

**END OF APPENDIX A**

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## APPENDIX B – 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 \$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.

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

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

- a. the prices in its bid have been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
- b. the prices quoted in its bid have not been and will not be knowingly disclosed directly or indirectly by the Bidder prior to the official opening of such bid to any other bidder or to any competitor;
- c. no attempt has been made and none will be made by the Bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition;
- d. this organization has not made any offers or agreements or taken any other action with respect to any Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics dated April 11, 1996 (a copy of which is available upon request to the individual named in the clause hereof entitled "Bidder's Questions"), 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.

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

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

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

In any case where the Bidder cannot make the foregoing certifications, the Bidder shall so state and shall furnish with the signed bid a signed statement which sets forth in detail the reasons therefor. If the Bidder is uncertain as to whether it can make the foregoing certifications, it shall so indicate in a signed statement furnished with its bid, setting forth in such statement the reasons for its uncertainty.

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 on this Contract of any change of circumstances which might under this clause make it unable to make the foregoing certifications 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 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 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.

#### **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.

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

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

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

**Conflict of Interest**

During the term of this Contract, the Contractor shall not participate in any way in the preparation, negotiation or award of any contract (other than a contract for its own services to the Authority) to which it is contemplated the Port Authority may become a party, or participate in any way in the review or resolution of a claim in connection with such a contract if the Contractor has a substantial financial interest in the contractor or potential contractor of the Port Authority or if the Contractor has an arrangement for future employment or for any other business relationship with said contractor or potential contractor, nor shall the Contractor at any time take any other action which might be viewed as or give the appearance of conflict of interest on its part. If the possibility of such an arrangement for future employment or for another business arrangement has been or is the subject of a previous or current discussion, or if the Contractor has reason to believe such an arrangement may be the subject of future discussion, or if the Contractor has any financial interest, substantial or not, in a contractor or potential contractor of the Authority, and the Contractor's participation in the preparation, negotiation or award of any contract with such a contractor or the review or resolution of a claim in connection with such a contract is contemplated or if the Contractor has reason to believe that any other situation exists which might be viewed as or give the appearance of a conflict of interest, the Contractor shall immediately inform the Director in writing of such situation giving the full details thereof. Unless the Contractor receives the specific written approval of the Director, the Contractor shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. In the event the Director shall determine that the performance by the Contractor of a portion of its Services under this Agreement is precluded by the provisions of this numbered paragraph, or a portion of the Contractor's said Services is determined by the Director to be no longer appropriate because of such preclusion, then the Director shall have full authority on behalf of both parties to order that such portion of the Contractor's Services not be performed by the Contractor, reserving the right, however, to have the Services performed by others and any lump sum compensation payable hereunder which is applicable to the deleted work shall be equitably adjusted by the parties. The Contractor's execution of this document shall constitute a representation by the

Contractor that at the time of such execution the Contractor knows of no circumstances, present or anticipated, which come within the provisions of this paragraph or which might otherwise be viewed as or give the appearance of a conflict of interest on the Contractor's part. The Contractor acknowledges that the Authority may preclude it from involvement in certain disposition/privatization initiatives or transactions that result from the findings of its evaluations hereunder or from participation in any contract which results, directly or indirectly, from the Services provided by the Contractor hereunder.

## 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 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;

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.

### **Notification of Security Requirements**

The Port Authority operates facilities and systems, at which terrorism or other criminal acts may have a significant impact on life safety and key infrastructures. The Authority reserves the right to impose multiple layers of security requirements on the performance of the Contract work, including on the Contractor, its staff and subcontractors and their staffs depending upon the level of security required, as determined by the Authority. The Contractor shall and shall instruct its subcontractors to cooperate with Authority staff in adopting security requirements. These security requirements may include but may not be limited to the following:

i. Identity Checks and Background Screening

Contractor/subcontractor identity checks and background screening shall include but shall not be limited to: (1) 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; (2) screening of federal, state, and/or local criminal justice agency information databases and files; (3) screening of any terrorist identification files; (4) multi-year check of personal, employment and /or credit history; (5) access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning.

The Contractor may be required to have its staff, and any subcontractor's staff, authorize the Authority or its designee to perform background checks. Such authorization shall be in a form acceptable to the Authority. If the Authority directs the Contractor to have identity checks and background screening performed by a particular firm designated by the Authority, the Authority will compensate the Contractor for the cost of such screening pursuant to the Extra Work provisions of the Contract.

ii. Issuance of Photo Identification cards:

If the Authority requires facility-specific identification cards for the Contractor's and subcontractors' staff, the Authority will supply such identification cards at no cost to the Contractor.

iii. Access control, inspection, and monitoring by security guards:

The Authority will provide for facility access control, inspection and monitoring by Authority retained security guards. Should the Authority require the Contractor to hire security guards for the purpose of facility access control and inspection in lieu of or in addition to the Authority retained facility security guards, the Contractor will be reimbursed for the cost of such security guards pursuant to the Extra Work provisions of the Contract. However, this provision shall not relieve the Contractor of its responsibility to secure its equipment and work at the facility at its own expense.

The Authority may impose, increase, and/or upgrade security requirements for the Contractor, subcontractors and their staffs during the term of this Contract to address changing security conditions and/or new governmental regulations.

END OF APPENDIX B

## ATTACHMENT A

### SCOPE OF WORK:

State of the Art Integrated technologies deployed may include but will not necessarily be limited to: Ground Surveillance Radars, buried Sensors, fence sensors, Microwave sensors, video motion/rule-based video system, Closed Circuit Television (CCTV), automated video recording, Thermal Imagers, laser sensors, infrared sensor, fiber mesh sensors etc. Scope of work will include:

- Site Surveys
- In developing the design the Consultant shall consider availability of materials, equipment and labor, construction sequencing and schedule, economic analysis of construction and operations, maintenance requirements and energy conservation. The Consultants requirements shall comply with all Authority requirements. In the case of a conflict the more stringent requirement shall apply.
- Production of Concept Designs, Design Development and Construction Drawing Design Packages, including design drawing and specification reviews, construction cost estimates and preparation of construction schedules. . All drawings shall be prepared and shall be sufficiently detailed to explain all decisions that have been made for the project.
- Project Package Development, including security system and site infrastructure design requirements, list of materials, installation specifications, installation instructions, system-based communications and integration details, and subsystem hardware and software configuration and integration details.
- Support the development of operational plans.
- Preparation of documentation, application filing, obtaining and maintaining licenses and permits and other inspection requirements. One line diagrams and communication riser diagrams. All contract drawings shall be “D” size drawings prepared and plotted in accordance with the Port Authority CAD Standards and plotted in the latest version of AutoCAD.
- Specify/finalize/install/upgrade infrastructure required to support complete security system operation (e.g., fencing, camera towers, conduit, duct banks, field distribution cabinets, grading, trenching, power and signal cabling and pedestal installation).
- Development of Installation Shop Drawings and the preparation, submission and processing of Submissions, Transmittals, Samples and Requests for Information.
- Procure material, equipment and ancillary services.
- Install and integrate PIDS.
- Prepare and deliver as-built drawings and all other required Record Documentation to support the delivered and accepted PIDS system
- Specify/finalize/install/upgrade infrastructure required to support complete security system operation (e.g., fencing, camera towers, conduit, duct banks, field distribution cabinets, grading, trenching, power and signal cabling and pedestal installation).
- Development of Installation Shop Drawings and the preparation, submission and processing of Submissions, Transmittals, Samples and Requests for Information.
- Procure material, equipment and ancillary services.

- Test and validate the installed security system to ensure that it meets performance requirements.
- Train user in PIDS system operations and maintenance.
- Support or arrange for contractor logistics support of the installed security system.

The prospective proposer may fulfill this requirement if it can demonstrate by submitting documentation that the persons owning and controlling the proposer have a cumulative total of at least the required number of years and type of direct continuous experience.

**INTENTIONALLY LEFT BLANK**

**SCHEDULE A**

**Multi-Facility Aviation Perimeter Intrusion Detection System (PIDS) Security design, purchase, construction, installation, Integration, and Maintenance**

**PROSPECTIVE BIDDER:** \_\_\_\_\_

Project Name, Location and Description	Owner *	Design Engineer *	Date Completed	Contract Price **	Percent of Work Performed By Own Forces

**Notes:** \* Include Name, Address and Phone No. of Reference Contact  
 \*\*Indicate amount of prospective bidder's contract and if work was done as a prime or general contractor



**THE PORT AUTHORITY** OF NY & NJ

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**Date: 8/19/05**

**ADDENDUM #2**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 7, 2005, no later than 2:00 PM

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

<b>1.</b>	<b><i>Divisions 10 through 14 are missing in Book II of the RFP.</i></b>
	Divisions 10 through 14 are not applicable to this Request for Proposals and are therefore not included in Book II.
<b>2.</b>	<b><i>Can sections of the RFP not marked "Privileged and Confidential" be shared with individuals who have not yet passed the background screening?</i></b>
	No.
<b>3.</b>	<b><i>As follow-up to Question 2. of Addendum 1, can work product developed as part of the RFP response – but not including any content from the RFP documents themselves – be sent electronically to team members who have passed the Port Authority's background screening?</i></b>
	The Port Authority Security Handbook gives clear direction as to content that must be treated as "Port Authority Confidential and Privileged Information"; any work product that qualifies as such cannot be transmitted electronically.

4.	<i>Is there any chance of getting the drawing files on a CD and fedexed to the proposers? These are huge files and have a propensity to crash the computer when I try to download.</i>
	No.



**THE PORT AUTHORITY** OF NY & NJ

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**Date: 09/06/05**

**ADDENDUM #3**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 7, 2005, no later than 2:00 PM

**The following changes are hereby made in the documents:**

1. None

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

**1.** *For the JFK drawings we cannot open up the SID file.*

The JFK drawings are broken up into a four file MultiZip archive. In order to open up the individual files within the four file archive, the user needs to first download each of the four zip files into a single folder. The filenames are as follows:

Biddername\_JFK\_PIDS\_8-04-05\_-\_MultiZip.z01.zip

Biddername\_JFK\_PIDS\_8-04-05\_-\_MultiZip.zip

Biddername\_JFK\_PIDS\_8-04-05\_-\_MultiZip.z02

Biddername\_JFK\_PIDS\_8-04-05\_-\_MultiZip.z03

Then the user needs to rename Biddername\_JFK\_PIDS\_8-04-05\_-\_MultiZip.z01.zip to Biddername\_JFK\_PIDS\_8-04-05\_-\_MultiZip.z01 by removing the .zip from this file name only.

Now the bidder can doubleclick on the Biddername\_JFK\_PIDS\_8-04-05\_-\_MultiZip.zip and the entire archive will open, including the SID file. There are no corrupted files.

2.	<i>For the EWR drawings we cannot open up the SID file.</i>
	<p>The EWR drawings are broken up into a five file MultiZip archive. In order to open up the individual files within the five file archive, the user needs to first download each of the five zip files into a single folder. The filenames are as follows:</p> <p>Biddername_EWR_PIDS_8-02-05_-_MultiZip.z01.zip  Biddername_EWR_PIDS_8-02-05_-_MultiZip.zip  Biddername_EWR_PIDS_8-02-05_-_MultiZip.z02  Biddername_EWR_PIDS_8-02-05_-_MultiZip.z03  Biddername_EWR_PIDS_8-02-05_-_MultiZip.z04</p> <p>Then the user needs to rename Biddername_EWR_PIDS_8-02-05_-_MultiZip.z01.zip to Biddername_EWR_PIDS_8-02-05_-_MultiZip.z01 by removing the .zip from this file name only.</p> <p>Now the bidder can doubleclick on the Biddername_EWR_PIDS_8-02-05_-_MultiZip.zip and the entire archive will open, including the SID file. There are no corrupted files.</p>
3.	<i>For the LGA drawings the jpeg site photo files are missing.</i>
	<p>A new zip file named "Proposers Name LGA PIDS Site Photos" has been added to the Book IV/Attachment 03/dwg files" folder. In addition a new file named "Proposers Name LGA PIDS Site Photo Readme has been added which provides instructions for incorporating these site photos into the LGA drawing set.</p>
4.	<i>Will photography be allowed at any of the walkthroughs?</i>
	<p>No - this is listed as part of the Site Inspection Itineraries guidelines. Photography will be allowed post award as we start the detailed design process.</p>
5.	<i>Would it at all be possible to change the date for the JFK walkthrough from September 6<sup>th</sup> to either the afternoon of September 7<sup>th</sup>, or September 9<sup>th</sup>? Travel arrangements will be complicated for those coming in from out of town following the Holiday on the 5<sup>th</sup>.</i>
	<p>The JFK site walkthrough must remain on September 6, 2005. Ninety percent (90%) of the Tour will be on the Facilities Air Operations Areas (AOA).</p> <p style="text-align: center;">Ex. 4</p>

<b>6.</b>	<i>Will additional site visits be permitted following the initial site visits and during the proposal process?</i>
	<p>No formal follow-on site visits are scheduled. The proposer will be allowed to survey outside of the AOA on his own. However, due to implemented security procedures the proposer must first coordinate with the Port Authority such that the security response teams can be notified. The Proposer must provide at least a 3 day advance notice of the visit. The proposer shall provide date and time of the survey, area to be surveyed (outside of AOA), and name of personnel. The Proposer should contact Mr. Ben Hovey at 201 595-4630 or email <a href="mailto:bhovey@panynj.gov">bhovey@panynj.gov</a>. Follow-on Detailed site survey will be conducted post award.</p>



**THE PORT AUTHORITY OF NY & NJ**

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**Date: 09/14/05**

**ADDENDUM #4**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 7, 2005, no later than 2:00 PM

**The following changes are hereby made in the documents:**

1. Book I, Section 7.2.14 – Replace with Attachment 1 of this Addendum
2. Book II, Attachment D – Replace with Attachment 1 of this Addendum
3. Book II Attachment B Scope of Work, replace paragraph 9.7 with the following:

**9.7 Concept of Operations (CONOPs)**

The Contractor shall provide an updated CONOPs for each facility with the 30%, 60%, 90% and 100% PIDS Design. This document shall be an update from the Concept of Operations provided to the awarded proposer and shall be stamped and signed by a licensed Professional Engineer.

4. Book I Section 7.2 Scope of Work, replace paragraph 7.2.9.7 with the following:

**7.2.9.7 Concept of Operations (CONOPs)**

The Contractor shall provide an updated CONOPs for each facility with the 30%, 60%, 90% and 100% PIDS Design. This document shall be an update from the Concept of Operations provided to the awarded proposer and shall be stamped and signed by a licensed Professional Engineer.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

<b>1.</b>	<i>Paragraph 2.2 - In a large corporation with many operating units, does this apply to the entire corporation or just the operating unit? Is there a threshold value for efforts listed?</i>
	This applies to the corporation, operating unit, or entity that was defined in Request for Pre-Qualification Information (RFPQI) submission and was pre-qualified/Accepted by the Port Authority of NY & NJ. During the RFPQI stage of the PIDS project, the proposer was also required to demonstrate that it is financially capable of performing the contract resulting from this RFP, MFA-134.308.
<b>2.</b>	<i>Why is reporting of project cost a requirement if the overall effort is fixed price?</i>
	Monitoring cost and expenditures is a key element in managing any project. Cost Reporting is required to help manage the PIDS project and ensure project costs/expenditures are controlled and monitored in a timely manner.
<b>3.</b>	<i>The proposal references in a number of places guarantees and remedies. Can the Port Authority define the expectations that are expected for these terms referenced in Section 1.4 of Book 1? This will help the Proposer bound cost and schedule associated with the expectation.</i>

	<p>As an example, the Proposer shall guarantee and warrant that the PIDS will meet the minimum performance requirements as identified in the Functional and Performance Requirements. For example, the Proposer shall guarantee a minimum</p> <p style="text-align: center;">Ex. 4</p>
4.	<p><i>Section 1.3 does not include a definition of open systems as used on page 10 and in other sections of the RFP. Is an open system considered a system that is capable of expansion through use of industry accepted and published hardware and software interfaces</i></p> <p>Yes. A security system that is an open system has attributes that facilitate interoperability to ensure cost effective deployment, operations and maintenance. The open system is based on industry standard practices for all software, hardware and communication devices thus increasing functionality, reliability and longevity. Also please refer to the PIDS Functional and Performance Requirements for PIDS Integration requirements.</p>
5.	<p><i>Paragraph 1.4 – Does the 24-month schedule include Ex. 4 is not listed ins the detailed schedule breakdown included in paragraph 7.2.14.</i></p> <p>Yes. This is an error; please see updated Book I, Section 7.2.14, Book II Attachment D, attached.</p>
6.	<p><i>Paragraph 3.3 – Authority to Visit... - The evaluation appears to focus on the exterior intrusion detection capability at the exclusion of many other capabilities noted in Paragraph 1.4 such as access control. Will any weighting be given to these other capabilities? If so, what is the weighting between the various capabilities noted in section 1.4?</i></p> <p>PIDS is focused on Ex. 4 Computerized Access Control Systems (CACS) to provide an integrated security system. In addition the PIDS should be capable of integrating future security systems. Please refer to Book II Attachment C, Functional and Performance Requirements.</p>
7.	<p><i>Paragraph 5.2 – In order to keep with the page limited intent of providing a summary of the proposer’s proposal, is there a specific page limitation?</i></p> <p>Executive Summary will be limited to no more than 2 Pages.</p>
8.	<p><i>The directions for the proposal have requested the inclusion of plans and design approaches, which would require more than the allocated 15 pages to fully describe (e.g. Risk, quality, subcontract management). Can the Port Authority clarify if the plans requested are to be included in the page limit or can they be included as a referenced appendix?</i></p> <p>Plan views may be included as a referenced appendix.</p>
9.	<p><i>For the Maintenance Technical Proposal the scope of the requested information includes sample documents, plans, procedures, parts lists and other information that will exceed the stated page limitation. Can the Port Authority clarify if the requested documents are to be included in the page limit or can they be included as a referenced appendix?</i></p>

	The Proposer shall include all items as listed in Book I, paragraph 5.5, table section E-II, Maintenance Technical Proposal Requirements in the 15 Page limit, except for "sample forms and reports". "Sample forms and reports" can be included as a referenced appendix.
<b>10</b>	<i>Paragraph 5.5 – Section E-1 – There is no mention of a requirement to discuss Ex. 4 in this section, however, it is included in the requested pricing. Should we address the design of in this section?</i>
	Yes, please address the design of Ex. 4 in this section. Also, please note the 1 <sup>st</sup> sentence of Book I, section 5.5, table section E-1.
<b>11</b>	<i>Paragraph 5.5 – Section E-2 – This section requests a list of recommended spare parts with unit pricing. Should the pricing information be contained solely in the cost proposal or should it also be placed in the maintenance technical volume?</i>
	Pricing information should be contained solely in the cost proposal. Only include the listing of recommended spare parts within the Maintenance Technical Proposal. Include this listing of spare parts with unit pricing in the cost proposal for JFK, LGA, EWR, TEB Ex. 4
<b>12</b>	<i>Paragraph 5.5 – Section V – Should the event based IMP also include Ex. 4 ?</i>
	Yes, the event based IMP should include Ex.4
<b>13</b>	<i>Paragraph 7.2.5.5.3 – When should the site restoration plan be submitted?</i>
	The Site Restoration Plan should be submitted in conjunction with the 100% Final Specification and Construction.
<b>14</b>	<i>Paragraph 7.2.6.5 – When should the operational test plan be submitted?</i>
	The Operational Test Plan should be a part of the proposer's Comprehensive Acceptance Test Plan. Please see Book I, Section 7.2.6.2, 7.2.14 and Book II Attachment D.
<b>15</b>	<i>Book I, page 67 lists a number of "TBD" dates. Does the port authority intend to clarify this or are they looking for the contractors to propose the dates?</i>
	The Proposer should propose these dates.
<b>16</b>	<i>There is a conflict between Book I, page 68, which requires an updated CONOPS with the design submittal and paragraph 7.2.9.7 requires same 20 days after approval of the 30/60/90/100 design. Which requirement for submittal correct?</i>
	The updated CONOPs shall be provided as part of the 30%, 60%, 90%, and 100% PIDS Design. Please note updated section 7.2.9.7 in attachment 2 of this

	Addendum.
<b>17</b>	<i>Can the port authority provide guidance as to the amount of time they will require for approval of all reviews and all submitted documentation?</i>
	<p>For 30%, 60%, 90%, and 100% Design Drawings, assume 20 Working Days for review and comments.</p> <p>For Meeting, Minutes and Reports assume 10 Working Days for review and comments.</p> <p>For Plans such as Test Plans, Training Plan, Quality Assurance and Control Plan, Project Safety Program Plan assume 15 Working Days for review and comment.</p> <p>For Training Manuals, and System, Software, Hardware, Communications, and Hardware Documentation assume 15 Working Days for review and comments</p>
<b>18</b>	<i>Will the port authority require the bidders to declare their teams prior to the site visits such that each potential bidding team is limited to the 4 participants? We are specifically concerned that multiple qualified primes may team together and therefore have the advantage of having a greater number of participants to the site visits.</i>
	The Port Authority requires that Pre-qualified Proposers identify personnel that will be participating in the facility tour and that those personnel have successfully passed the background screening requirements.
<b>19</b>	<i>Paragraph 7.2.14 – The document “Discrepancy List Compliance” does not show up anywhere else in the SOW. What is the work scope related to this deliverable?</i>
	Please delete this entry and refer to Book II Section 90, Inspections and Rejections. Please note that the Proposer is also responsible for any deliverables identified in Book II, Information for Proposers/General Contract Provisions – Security Design, Purchase, Construction, Installation and Integration.
<b>20</b>	<i>Will the Port Authority allow all bidders eight people for the site visits instead of four? After review of the RFP, we have determined that its broad scope requires greater participation. Specifically, we believe the following functions need to be present: facility A&amp;E, GC, facility electrical, comms, security, systems engineering functions, program management, and maintenance support.</i>
	No. Due to space limitations a maximum of four (4) proposer personnel will be permitted.
<b>21</b>	<i>In Volume IV, Section 4.0 Load Estimation, the paragraph titled “ROM Estimate:” contains spelled-out numbers that do not match the associated numbers in parenthesis:</i> <ol style="list-style-type: none"> <li><i>a. Third Bullet: twelve (16)</i></li> <li><i>b. Fifth Bullet: thirty-four (112)</i></li> </ol> <i>Please clarify which numbers are accurate?</i>
	<b>Book IV Section 4.1 Subsection 4.0 Load Estimate Paragraph “ROM Estimate”</b>
	ROM Estimate:

- Each electrical reference zone requires 850 Watts. Additional 100% spare capacity is Required.
- $850 \text{ Watts} + 100\% \text{ spare capacity} = 1,700 \text{ Watts}$
- We estimate the front side of the airport requires Ex. 4 zones.
- $1,700 \text{ Watts} \times \text{ electrical reference zones} = 27.2 \text{ Kwatts}$ , approximately = 27 Kwatts for Front side.
- We estimate the airside of the airport requires Ex. 4 zones.
- $1,700 \text{ Watts} \times \text{ electrical reference zones} = 190.4 \text{ Kwatts}$ , approximately = 191 Kwatts for airside.

**7.2.14 Design, Install and Test Deliverables**

“Days” refers to calendar days unless otherwise noted.

Name	Submittal Date/Timeframe
Integrated Management Plan (IMP) <ul style="list-style-type: none"> <li>- Organization</li> <li>- Integrated Schedule</li> <li>- Subcontract Management</li> </ul>	Proposal Submittal
Project Safety Program Plan	60 Days After Contract Award
Site Survey Reports	30 Days after completion of survey
Facility 30% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Design Cost <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Schedule <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Facility 60% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	150 Days after Contract Award

Name	Submittal Date/Timeframe
Project 60% Design Cost - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 60% Schedule - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 90% Design and Specifications - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Design Cost - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Schedule - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Design Review Agenda	5 Working Days prior to review
Design Review Minutes	10 Working Days after review
100% Final Specification and Construction Drawings - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review

Name	Submittal Date/Timeframe
Final Project Schedule - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Final Project Cost - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Migration Plan	With 30%, 60%, 90% and 100% Design Submittal
Facility Final 100% Security System and Infrastructure Design - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Site Restoration Plan	In conjunction with 100% Security System and Infrastructure Design.
Contractor Quality Assurances and Control Plan	In conjunction with 30%, 60%, 90% and 100% Design Submittals
Site Safety Provisions and Reports	As required
Monthly Construction & Installation Progress Report	Monthly – Within 5 Working Days after the end of each Month
Comprehensive Acceptance Test Plan	60 Work Days prior to Factory Acceptance Test. Updates - 20 Working Days Prior to Field Acceptance Test and Operational Test
Acceptance Test Report	20 Working Days after completion of each Test Phase (Factory, Field or Operational)
System Start up and Commissioning  - Work Activity Log (Transfers)	Daily
Training Plan	90 Working Days prior to Factory Acceptance Test
Training Manuals	TBD
System Documentation	TBD

Name	Submittal Date/Timeframe
Software Documentation	TBD
Hardware Documentation	TBD
Communications Network Documentation	TBD
Drawing Package	As Required
Operating Documentation - Standard Operating Manuals - Emergency Operating Contingency Manuals - System Administrator Manuals - Supervisor Manual - Site Specific Manual	1 <sup>st</sup> Draft 80 Working Days Prior to Factory Acceptance Test
Software Licenses and Agreement	TBD
Meeting Minutes	As Required
Concept of Operation	With 30%, 60%, 90% and 100% Design Submittal

**Book II**

**Attachment D**

Design, Install and Test Deliverables

“Days” refers to calendar days unless otherwise noted.

Name	Submittal Date/Timeframe
Integrated Management Plan (IMP) <ul style="list-style-type: none"> <li>- Organization</li> <li>- Integrated Schedule</li> <li>- Subcontract Management</li> </ul>	Proposal Submittal
Project Safety Program Plan	60 Days After Contract Award
Site Survey Reports	30 Days after completion of survey
Facility 30% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Design Cost <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Schedule <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Facility 60% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	150 Days after Contract Award

Name	Submittal Date/Timeframe
Project 60% Design Cost - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 60% Schedule - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 90% Design and Specifications - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Design Cost - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Schedule - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Design Review Agenda	5 Working Days prior to review
Design Review Minutes	10 Working Days after review
100% Final Specification and Construction Drawings - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review

Name	Submittal Date/Timeframe
Final Project Schedule - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Final Project Cost - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Migration Plan	With 30%, 60%, 90% and 100% Design Submittal
Facility Final 100% Security System and Infrastructure Design - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Site Restoration Plan	In conjunction with 100% Security System and Infrastructure Design.
Contractor Quality Assurances and Control Plan	In conjunction with 30%, 60%, 90% and 100% Design Submittals
Site Safety Provisions and Reports	As required
Monthly Construction & Installation Progress Report	Monthly – Within 5 Working Days after the end of each Month
Comprehensive Acceptance Test Plan	60 Work Days prior to Factory Acceptance Test. Updates - 20 Working Days Prior to Field Acceptance Test and Operational Test
Acceptance Test Report	20 Working Days after completion of each Test Phase (Factory, Field or Operational)
System Start up and Commissioning  - Work Activity Log (Transfers)	Daily
Training Plan	90 Working Days prior to Factory Acceptance Test
Training Manuals	TBD
System Documentation	TBD

ADDENDUM #4  
ATTACHMENT 1

Name	Submittal Date/Timeframe
Software Documentation	TBD
Hardware Documentation	TBD
Communications Network Documentation	TBD
Drawing Package	As Required
Operating Documentation - Standard Operating Manuals - Emergency Operating Contingency Manuals - System Administrator Manuals - Supervisor Manual - Site Specific Manual	1 <sup>st</sup> Draft 80 Working Days Prior to Factory Acceptance Test
Software Licenses and Agreement	TBD
Meeting Minutes	As Required
Concept of Operation	With 30%, 60%, 90% and 100% Design Submittal

## **SECTION 5**



**THE PORT AUTHORITY OF NY & NJ**

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

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**Date: 09/20/05**

**ADDENDUM #5**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 7, 2005, no later than 2:00 PM

**The following changes are hereby made in the documents:**

1. Proposal Due Date has been extended to October 28, 2005, no later than 2:00 PM

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

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JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

<b>1.</b>	Book II, Clause 33 – Given the work scope of the PIDS effort does not involve the monitoring of revenue owned by the authority, is this clause still applicable to this effort?
	<p>Yes. This Clause is applicable, however Please replace Book II, section 33 with the following:</p> <p><b>33 CONTRACT REVIEW AND COMPLIANCE AUDITS</b></p> <p>The Contractor, and any subcontractors, shall provide system access and reasonable assistance to the Authority's External and Internal Audit staff or its consultants in their performance of financial, system, security and operational reviews including producing specific requested information, extraction of data and reports. The Contractor, and any subcontractors, shall support requests related to audits of the service level agreement and administration tasks and functions covered by this Contract.</p>
<b>2.</b>	<i>Can a table, such as Volume IV, Attachment 4.3, Appendix B – "Zone listing with associated Lengths" be made available for JFK, LGA and TEB?</i>
	Please see Attachment 1 of this Addendum.

3	<p><i>At what point does the warranty phase for each location on PIDS start; upon Certificate of Completion for each individual location or upon receipt of all Certificates of Completion for all locations?</i></p>
	<p>Please refer to Book III, Section 11.1.</p>
4	<p><i>Pricing schedules 7 through 10 require the provision of perimeter security upgrade plans. These plans are not available in the RFP. Will the plans be provided to the bidders?</i></p>
	<p>The Plans are provided in Book IV Attachment 3.0 – Characterization and Facility Upgrade Plans.</p>
5	<p><i>Book 2, Attachment C, Functional Performance Requirements, Paragraph 1.6 &amp; Book 4, Attachment 7, Documents and References – Will the "PANYNJ PIDS Design Basis Threat (DBT)" document be made available for review by proposers during the proposal phase?</i></p>
	<p>The PANYNJ PIDS Design Basis Threat (DBT) will not be provided to the proposers. The required data/information is reflected within the PIDS Concept of Operations, 2004 which is available for review by all Proposers. Per Book I, Section 1.10, please contact Mr. Louis Barani at (201) 595-4698, Monday - Friday between the hours of 8:30 AM and 4:30pm. Also please refer to Book I, Section 1.10 for guidelines with respect to reviewing this documentation. Please note that a maximum of 2 Proposer personnel may review this document. These personnel must have successfully passed the background screening.</p>
6	<p><i>Will the PANYNJ Identify snow zones or areas where snow will most likely be stacked, and to what height at each airport?</i></p>
	<p>Please find the following available data for each facility in Attachment 2 of this Addendum:</p> <p>EWR – The Port Authority of NY &amp; NJ Newark Liberty International Airport Snow Removal Plan 2003 &amp; Beyond.</p> <p>TEB – TEB FBO Snow Pile Areas for PIDS 9.16.05; TEB ACM 2005_Snow Plan.</p> <p>LGA – LGA Snow Areas; LGA Snow Plan 2003-2004 (excerpt)</p> <p>JFK – A Snow Plan for JFK is not available. Snow is not piled in the Air Operations Area (AOA). Snow is immediately melted or removed from the AOA.</p>
7	<p><i>Please provide copies of the following PANYNJ Standards referenced in the RFP in Book IV – Attachment 7 "Documents and References":</i></p> <p>a. <i>Guard Post Hardening ... May 27, 2004</i></p> <p>b. <i>Construction Standards, Engineering Department, February 1999</i></p>
	<p>Please refer to Attachment 3 (Guard Post Hardening, Airside Vehicle Access Control System, Technical Requirements) and Attachment 4 (Construction Standards, Engineering Department) of this Addendum.</p>

8	<p><i>Reference Book IV – Attachment 4.1 “Electrical/Power Memorandum”:</i></p> <p>a. <i>The RFP requires emergency power for both primary and secondary CDS, CDW and communications devices. However, available emergency power sources are not referenced or indicated for JFK and LGA airports. Do they exist and, if so, will the information be provided for each terminal/facility?</i></p> <p>b. <i>The LGA memorandum, Section 2.0 refers to drawing E1 which is not included in the Appendix A – Sketches. Will this be provided?</i></p>
	<p>a. The Proposer shall assume emergency power will be provided by others and sources are available at all CDS, CDW and communications devices. The Proposer will be responsible for providing UPS Run Time as identified in section 2.3.7.4 of the PIDS Functional and Performance Requirements.</p> <p>b. Yes. Please refer to Attachment 5 of this Addendum for the E1 drawing of the LGA Memorandum.</p>
9	<p><i>Book 1, page 22 - Given the likely number of pages to create these drawings at the requested scale (1" = 100') this alone may exceed the 15 page limit by itself. Will a notional 1 page diagram for each airport that is not to scale be sufficient? If not, what are the delivery expectations given the stated page limitation?</i></p>
	<p>Please refer to Addendum #4 and the response to Question 8.</p>
10	<p><i>Book 3, 14.5 – Validity period of 90 days is inconsistent with Book 1, 1.8 (180 days). Which is correct?</i></p>
	<p>The validity period for both sections is updated to 120 Days.</p> <p>Please update Book I, Section 1.8 with the following</p> <p><b>1.8 Proposal Acceptance or Rejection</b></p> <p>Acceptance shall be conveyed, by mailing to or by hand-delivery to the office designated by the Proposer in its proposal, a notice in writing signed by an authorized representative on behalf of the Authority specifically stating that the proposal is accepted; or by execution of an agreement covering the subject matter of this RFP signed by authorized representatives of the Authority and the Proposer. No other act of the Authority, its Commissioners, officers, agents, representatives, or employees shall constitute acceptance of a proposal. Rejection of a proposal shall be only by either (a) a notice in writing specifically stating that the proposal is not accepted, signed by an authorized representative of the Authority and mailed to or delivered to the Proposer at the office designated in the Proposal, or (b) omission of the Authority to accept the proposal within one hundred twenty (120) days after the Proposal Due Date. – No other act of the</p>

	<p>Authority, its Commissioners, officers, agents, representatives or employees shall constitute rejection of a proposal.</p> <p>Please update Book III, Section 14.8 with the following:</p>
	<p>14.8 This offer shall be irrevocable for one hundred and twenty (120) days after the date on which the Authority opens the proposal for this Contract,</p>
<p><b>11</b></p>	<p><i>Book 3, 16.8 requires the contractors safety program within 15 days; however, Book 1, 7.2.14 requires same 60 days after contract award? Which is correct?</i></p>
	<p>Book I Section 7.2.14 is correct. Please change Book III, Section 16.8 to "sixty (60) days.</p>
<p><b>12</b></p>	<p><i>Book 3, 13.5 and 16.17.1.7 appear to conflict on whether free parking will be provided at the airports. Please confirm whether or not free parking will be provided and, if so, how many spaces at each airport?</i></p>
	<p>The correct sections that address Free Parking in Book III are section 13.15 and section 16.17.17.</p> <p>Free Parking will be provided at TEB, and on an as needed and as available basis. Free Parking will not be provided at LGA, JFK, and EWR.</p>
<p><b>13</b></p>	<p><i>Book 3, page 95 – Will a definition of LGA.BM5 be provided?</i></p>
	<p>Please refer to the below definitions.</p> <p>Items LGA.BM5A through LGA.BM5E – Electrical Subsystem: those parts of the LGA.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the specified zones, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the specified zones around the AOA perimeter at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.</p> <p>Item LGA.BM5F – Electrical Subsystem – Primary CDS and CDW Locations: those parts of the LGA.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Primary CDS</p>

	<p>and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Primary and CDW locations at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.</p>
	<p>Item LGA.BM5G – Electrical Subsystem – Secondary CDS and CDW Locations: those parts of the LGA.BM0 lump sum price that include all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc. installed in the Secondary CDS and CDW locations, including all communications, mechanical, architectural infrastructure components, to maintain operational availability and reliability of the Electrical Subsystem for the Secondary and CDW locations at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.</p>
14	<p><i>Risks include the Indemnification, delays, liquidated damages etc.; is the Port Authority willing to negotiate some of these risk issues as part of the bid process?</i></p>
	<p>Please refer to Book I, Section 5.7, Acceptance of Standard Contract Terms and Condition. This section states the following:</p> <p><b>5.7 Acceptance of Standard Contract Terms and Conditions</b></p> <p>The Authority has attached to this RFP as Book II and Book III, General Contract Provisions. The Proposer is expected to agree with these General Contract Provisions. However, if the Proposer has any specific exceptions, such exceptions should be set forth in a separate letter included with its response to this RFP. Failure to raise issues with the proposal shall preclude the Proposer from raising such issues at a later time.</p>
15	<p><i>The RFP states that this contract is design build, however it prohibits any construction prior to the completion and approval of the 100% design document and holding a pre-construction meeting, which is not a traditional Design/Build contract. Was this the intent? The RFP also state to fast track and start construction as soon as possible for construction completion in 2008. We believe the work could be expedited if we could start the infrastructure work (such as conduit, etc.) with minimal risk. Would it be possible to start construction before the final design approval?</i></p>
	<p>The PIDS Contract is a Design Build Contract. As stated in Book I, Section 5.5, the Proposer shall develop and propose a "Fast Track" approach schedule in accordance with the proposed IMP to commence construction and installation as soon as possible at each facility.</p>

Also, please refer to Attachment 6, of this Addendum for updates to:

- Book I Section 7.2.4.2.1 and Book II Section 4.2.1 – Facility (30%, 60%, and 90%) Design
- Book I Section 7.2.4.5.5 and Book II Section 4.5.5 – Facility Final 100% Security System and Infrastructure Design
- Book I Section 7.2.1.1 and Book II Section 5.2 Pre-Construction Inspections and Approvals.

Addendum 5 Attachment 1

John F. Kennedy Airport

<b>ZONE</b>	<b>APPROXIMATE LENGTH (Ft)</b>
E-1	1205
E-2	805
E-3	796
E-4	809
E-5	706
E-6	935
E-7	800
E-8	838
E-9	800
E-10	803
E-11	794
E-12	800
E-13	800
E-14	801
E-15	797
E-16	816
E-17	820
E-18	832
E-19	800
E-20	801
E-21	921
E-22	803
E-23	824
E-24	809
E-25	936
E-26	1168
E-27	800
E-28	802
E-29	802
E-30	878
E-31	816
E-32	782
E-33	885
E-34	938
E-35	803
E-36	805
E-37	918

Port Authority of New York & New Jersey  
PIDS for John F. Kennedy Airport  
Draft Electrical/Power Memorandum

E-38	806
E-39	821
E-40	800
E-41	801
E-42	792
E-43	820
E-44	798
E-45	738
E-46	1105
E-47	978
E-48	996
E-49	969
E-50	1075
E-51	1252
E-52	1359
E-53	814
E-54	876
E-55	1001
E-56	1807
E-57	1722
E-58	1309
E-59	1680
E-60	1101
E-61	1187
E-62	1447
E-63	2493
E-64	2546
E-65	1960
E-66	808
E-67	1369
E-68	1304
E-69	1414
E-70	1320
E-71	1015
E-72	931
E-73	859
E-74	954
E-75	1295
E-76	1385
E-77	1511
E-78	1510
E-79	1332
E-80	1005

Port Authority of New York & New Jersey

PIDS for John F. Kennedy Airport

Draft Electrical/Power Memorandum

E-81	1252
E-82	1382
E-83	1546
E-84	1540
E-85	1251
E-86	1004
E-87	1328
E-88	1218
E-89	2550
E-90	1211
E-91	917
E-92	1546
E-93	898
E-94	1221
E-95	968
E-96	1080
E-97	892
E-98	880
E-99	850
E-100	1090
E-101	1185
E-102	2034
E-103	875
E-104	1336
E-105	1556
E-106	1735
E-107	1265
E-108	1990
E-109	2590
E-110	715
E-111	1250
E-112	2298
E-113	885
E-114	1120
E-115	1140
E-116	1200
E-117	2076
E-118	881
E-119	1650
E-120	1485
E-121	1640
E-122	1370
E-123	1810

Port Authority of New York & New Jersey

PIDS for John F. Kennedy Airport

Draft Electrical/Power Memorandum

E-124	1665
E-125	1880
E-126	2060
E-127	1120
E-128	1093

Addendum 5 Attachment 1

LaGuardia Airport

ZONE	APPROXIMATE LENGTH (Ft)
E1	757
E2	800
E3	773
E4	794
E5	870
E6	889
E7	790
E8	765
E9	830
E10	750
E11	824
E12	597
E13	935
E14	835
E15	814
E16	823
E17	808
E18	800
E19	798
E20	800
E21	807
E22	815
E23	1065
E24	837
E25	833
E26	792
E27	797
E28	796
E29	787
E30	838
E31	778
E32	802
E33	789
E34	837
E35	805
E36	797

Port Authority of New York & New Jersey  
PIDS for LaGuardia Airport  
Draft Electrical/Power Memorandum

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E37	698
E38	649
E39	683
E40	795
E41	776
E42	860
E43	795
E44	798
E45	745

Addendum 5 Attachment 1

TETERBORO AIRPORT  
PERIMETER INTRUSION DETECTION SYSTEM

ZONE	APPROXIMATE LENGTH (Ft)
1	800
2	800
3	800
4	800
5	790
6	800
7	800
8	800
9	800
10	800
11	800
12	800
13	800
14	800
15	800
16	800
17	800
18	800
19	800
20	800
21	800
22	800
23	800
24	800
25	800
26	800
27	800
28	735
29	717
30	800
31	800
32	800
33	800
34	800
35	800
36	800
37	800
38	800
39	800
40	800
41	800
42	800
43	800
44	800
45	800
46	800
47	552

***THE PORT AUTHORITY OF NY & NJ  
NEWARK LIBERTY INTERNATIONAL  
AIRPORT***



***SNOW REMOVAL PLAN  
2003 & BEYOND***



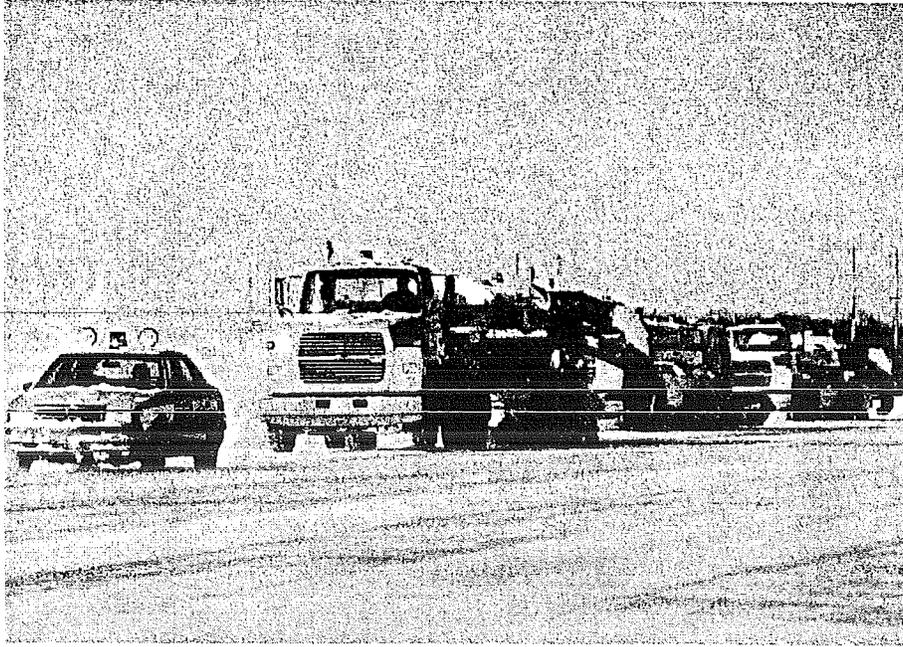
**EXEMPTION (4)**

**DRAWINGS OF NON-PUBLIC AREAS**

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## Newark Liberty International Airport Snow removal Plan

### GOALS:

**SAFETY:** The goal of this snow removal plan is to establish guidelines for snow removal operations, with the primary concern being a safe and efficient operation for the traveling public, airlines, service companies, government agencies, tenants, PA Maintenance, and Operations Crews.

**CUSTOMER SERVICE:** To maintain a high level of customer service during adverse winter weather conditions ensuring the expeditious movement of passengers and cargo.

**MINIMIZE DELAYS:** Maintain airport capacity through an effective snow removal operation.

**COOPERATION:** Ensure a cooperative effort with the airlines, FAA, service companies, and contractors through effective communications.

### SCOPE

The Newark Liberty International Airport Snow Removal Plan is designed to provide guidelines and procedures for snow removal on the entire airport. In order to compile a comprehensive and easily negotiated snow plan it was necessary to divide the plan into five distinct sections:

- Section One -** Port Authority's Response (general snow plan)
- Section Two -** Contractor's Response (supplemental to PA's plan)
- Section Three -** Snow and Ice Control (aircraft operating areas)
- Section Four -** Landside & Customer Services Plan
- Section Five -** International Facility Plan

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**SECTION ONE**  
**PORT AUTHORITY'S GENERAL SNOW PLAN**

## I. INTRODUCTION

Effective handling of snow removal is a vital part of airport operations requiring a high degree of cooperation, judgment, alertness and extra effort by everyone. Personnel engaged in snow removal are expected to perform their assigned duties in a safe and efficient manner consistent with best practices and interests of the Port Authority and airport users. Accordingly, these procedures provide a guide for the organization of the snow removal program.

## II TYPES OF SNOW ALERTS

The snow alert level is a system for determining how we will respond with personnel and equipment to a particular forecast of snow, freezing rain/sleet or freezing conditions. If the weather changes, an alert may be upgraded or downgraded. Alerts are also determined by the amount of priority work remaining after a substantial storm.

All Port Authority line departments participate in snow removal operations. In general, there are teams assigned to airside and landside snow removal as well as customer service teams assigned to assist airlines and passengers in the terminals.

Maintenance Duty personnel may be used for short periods of time for limited sanding or salting when no other Maintenance personnel are on the Facility or while an alert is being upgraded and additional personnel are being called in.

There are four snow alert levels, (I, II, III and IV).

### A) ALERT I

When the weather forecast predicts a dusting of snow (no accumulation), freezing rain or sleet, ten operators will be required.

- |                 |                                    |
|-----------------|------------------------------------|
| - 10 Structural | - 2 Maintenance Group Supervisors  |
| - 1 Mechanical  | - 1 Maintenance Service Supervisor |

The operation will generally be limited to aeronautical sanding, spreading chemicals in aeronautical areas, and the operation of a broom for centerline light identification. The landside operation will basically require salt spreading on roadways, terminal frontages and bus routes in public parking lots.

B) **ALERT II**

When the weather forecast predicts, or the conditions change to a light accumulation of snow, twenty-four operators and two support personnel will be needed.

-	22	Structural
-	2	Mechanical
-	1	Maintenance Equipment Serviceman
-	1	General Maintenance Supervisor
-	1	Maintenance Unit Supervisor
-	2	Maintenance Group Supervisor
-	2	Maintenance Service Supervisor

The operation will generally include a moderate utilization of snow equipment for aeronautical plowing, blowing, sanding and brooming; non-aeronautical plowing and chemical and salt applications. This alert level is supported by limited contract services.

C) **ALERT III**

When the weather forecast predicts, or conditions change to a substantial accumulation of snow, all available and qualified Facility and Sign Shop personnel (complete A or B shift) will be called in. The operation will require full utilization of all snow removal equipment and all contract services. In addition, a Police Supervisor will be assigned to the snow desk.

D) **ALERT IV**

When the weather forecast predicts, or conditions change to a heavy accumulation of snow, all available and qualified Facility and SEMAC personnel will be called in.

III. **SNOW REMOVAL ORGANIZATION AND RESPONSIBILITIES**

Throughout the Snow Season, the Snow Coordinators, in concert with the General Manager and with input from the Airport Duty Supervisor, are responsible for determining Snow Alerts and for monitoring all snow removal operations. The following is a brief description of key positions in a snow removal operation and their associated responsibilities

A) **SNOW COORDINATOR**

Reporting to the General Manager, two Snow Coordinators and Assistant Coordinators, each working opposing 12-hour shifts, assume overall responsibility for planning, coordination and control of all snow removal operations. The Coordinator's headquarters is designated as the Snow Desk located in Building #79. The Port Authority Coordinator will work closely with the Airlines' Coordinator in the assessment of the appropriate

course of action, the progress of snow removal and, in conjunction with the Airport Duty Manager, the condition of all aircraft operations areas.

**Specific Duties:**

Upon receiving preliminary forecasts of frozen or freezing precipitation from the Airport Duty Manager, the Coordinator maintains contact with Senior Staff and all line departments and tracks the storm's progress during and outside normal business hours.

- Alerts the General Manager to the weather forecast and advises of significant changes.
- When progress of a storm front is sufficiently advanced so as to allow reasonable appraisal of timing, intensity, duration, etc., advises the General Manager of manpower requirements and alerts Unit Heads, Airline Snow Committee, Automotive Foreman and Stockroom as applicable. Forecast information at this time should include both contract weather service and airline forecasts.
- Participates in all planning stages to evaluate personnel, equipment, contractor, and other related requirements and determines the corresponding Snow Alert.
- Initiates call-in procedure taking into consideration the staging requirements, equipment readiness, expected rate of accumulation, skills required, and other related factors.
- Coordinates activities of all units, agencies, and areas in a consistent effort toward having all facilities reasonably operational as early as possible, establishing priorities accordingly.
- Maintains continuous contact with the Operations Office and Snow Communications Desk.
- Will report to facility for duty sufficiently in advance of start of precipitation so that an orderly implementation of procedure can be made.

**NOTE:**

As practicable, the above procedure may be delegated to the Airport Duty Manager. Preliminary contacts and planning may be made by telephone outside of normal business hours.

B) **SNOW DESK**

Records, communications assistance, and liaison support will be provided to the Coordinators around the clock through the personnel assigned to the Snow Desk located in Building #79. The Snow Desk will be activated and assume the duties described in Exhibit A (pg 20).

C) **AIRPORT DUTY MANAGER**

The Airport Duty Manager (ADM) carries out all duties normally performed in the regular tour assignments. In addition, the ADM is required to work closely with the Coordinator, Aeronautical Supervisors, and Aeronautical Contract Supervisor in coordinating snow clearance in the Air Operations Area. The ADM will maintain a liaison with the Coordinator, issue NOTAMS, and obtain and assess weather forecasts. The ADM will work with the FAA and the airlines to coordinate movement of aircraft with the snow removal program to provide maximum safety and to satisfy, insofar as possible, the schedule demands of the carriers.

**Specific Duties :**

- The ADM has sole responsibility for determining the safety of snow covered areas, opening and closing runways and taxiways as required, and for making final inspections after snow removal to assure that safety standards for the surface condition, the snow bank location and for all associated runway components are met before returning the area to aircraft operations.
- Inspection of areas and preparation of a field condition report with the Airline Snow Committee.
- Assigns Operations personnel to aeronautical and ramp areas, as intersection guard and regular operational duties.
- Cooperates with the Snow Desk in maintaining hired equipment records.
- Participates with the Chief Operations Supervisor and Landside Services Supervisor in planning for rescheduled Operations and Landside Services personnel for snow duty and for subsequent normal operations.
- Maintains roster of all Operations Unit personnel available by tour.

D) **AERONAUTICAL SUPERVISORS**

Aeronautical Supervisors will lead snow equipment direct snow removal activities on runways, taxiways, and run-up blocks as assigned by the Snow Coordinator or instructed by the Airport Duty Manager.

**Specific Duties:**

- Works closely with equipment operators and Maintenance Techniques Forman to provide a safe and well-organized operation in the Aircraft Operations Areas.
- Coordinates snow removal activities on the Aircraft Operating Areas with the Control Tower via radio as necessary.
- Constantly monitors ground/tower frequency to ensure safe operations and to avoid conflict with aircraft movements
- Provides equipment status to the Snow Desk as appropriate.
- Coordinates snow removal contractor operations in conjunction with the ADM and Aeronautical Supervisor.

1) **TECHNIQUES SUPERVISOR**

The Techniques Supervisor, reporting to the Aeronautical Supervisor, is responsible for effective snow equipment operation in the aeronautical area.

**Specific Duties:**

- Participates in the planning of snow removal operations and the selection of the most efficient operation consistent with equipment availability.
- Briefs the equipment operators on the plan of attack during the removal operations for the purpose of evaluating equipment effectiveness and making adjustments for varying operating or weather conditions.
- Continually evaluates equipment performance to assure that it is properly adjusted and used in accordance with the snow removal plan and for maximum efficiency of the equipment.

- Evaluates operator performance so as to assure qualifications of personnel and to develop new or additional training requirements.
- Works closely with the Aeronautical Supervisor, Snow Desk, and Automotive Shop in the coordination of necessary equipment repairs, adjustments and post operational equipment readiness.

2) **OPERATIONS OFFICE SUPERVISOR**

The Operations Office Supervisor is stationed in the Airport Duty Manager's office and has a direct reporting relationship to the Airport Duty Manager and a dotted line reporting relationship to the Aeronautical Supervisor. The Operations Office Supervisor is responsible for maintaining a continuous snow log for a given snow tour. In addition, the Office Supervisor will update field condition reports, assist with issuing NOTAMS, reports any significant changes in weather forecasts, monitors office weather systems, and maintains direct communications link with the Control Tower. Note - SITATEX messages will accompany the issuing and canceling of NOTAMS. The Office Supervisor will also assist with snow alert staffing, distributing hotel keys, and snow event timekeeping.

3) **OPERATIONS SUPERVISORS and AGENTS**

Operations Supervisors and Agents reporting to the Aeronautical Supervisor are responsible for the safe escort of the equipment teams assigned to them. Snow removal operations will be in progress while normal airport operations are being maintained. Operations Agents and Supervisors will monitor aircraft movements in anticipation of possible conflicts and are required to maintain positive control of snow removal equipment at all times.

E) **AERONAUTICAL CONTRACT SUPERVISOR**

The Aeronautical Contract Supervisor is responsible for contract snow removal in the aeronautical areas identified in Exhibit N of this document. The Operations Unit will assign additional personnel to assist this Supervisor as required.

As part of the duties, the Contract Supervisor will report the arrival, departure, and down time of assigned equipment to the Snow Desk where operational records of the hired equipment are maintained, and also be responsible for the additional hired equipment records defined in Section Two (pg 27). The Contract

Supervisor will also coordinate the contractor's operations with the Airport Duty Manager and the Aeronautical Supervisor in all aircraft operations areas.

F) **AIR TERMINAL HIGHWAY SYSTEM SUPERVISOR**

The Air Terminal Highway System Supervisor, reporting to the Landside & Customer Service Supervisor, along with Landside Operations supervisory staff, is responsible for all roadway snow removal operations. Together they will evaluate the conditions of all landside areas and coordinate with the Snow Desk to have the designated equipment readied for assignment in their areas of responsibility. During operations, the supervisors will keep the Snow Desk and Landside & Customer Service Supervisor advised of all road conditions.

As a general policy, salt will not be used on any elevated roadway, in consideration of concrete construction, steel components and adjacent shrubbery. To the extent possible, other chemicals and/or sand will be used for ice control on said roadways.

G) **LANDSIDE & CUSTOMER SERVICE SUPERVISOR**

The Landside & Customer Service Supervisor shall report to the Coordinator and work closely with the Air Terminal Highway Supervisor, Landside Snow Coordinator, and B Service Volunteers to evaluate and ensure safe conditions at all landside and roadway areas, and that airport patrons receive appropriate levels of customer service on airport roadways and in the Terminals. This team is responsible for snow removal in parking lots, toll plazas, sidewalks, terminal frontages, remote Monorail Stations (NEC), roadways and other transportation areas. Terminal Services Supervisors will be assigned to supervise snow removal in the above areas.

H) **LANDSIDE SNOW COORDINATOR**

The Landside Snow Coordinator will report to the Landside & Customer Service Supervisor and be responsible for working along with the Maintenance Air Terminal Highway Supervisor to evaluate the conditions of the various areas of responsibilities and manage the staff associated with these specific duties listed below

**Specific duties will include:**

- Report arrival, departure and down time of assigned equipment to the Snow Desk where operations records of the hired equipment are maintained. Additional records are to be maintained in accordance with Section Two (pg 28-29).
- Arrange with Snow Desk Supervisor for assignment of sidewalk plow(s) and operator(s) (to be used in all snow removal operations).
- Using casual snow shovelers or Building and Ground Attendants as may be required, to remove snow from Parking Lot sidewalks and sidewalks between Terminals. Ensures Five Star Parking Systems maintains records of casual snow shovelers in accordance with PAI 20-2.05. Funds for this purpose will be maintained in the custody of the Parking Lot Contractor.
- The Parking Lot Contractor will arrange for feeding of casuals in accordance with Form 2702A.
- The Parking Lot Contractor is responsible to issue and store all equipment supplied to casual employees.

**I) MAINTENANCE EQUIPMENT SUPERVISOR**

The Maintenance Equipment Supervisor will supervise repairs made to equipment by Structural Unit personnel and will coordinate with the Automotive Shop supervisors the repairs being made by Automotive personnel.

- Report status of equipment to snow desk. Estimate return to service time for equipment out for repair.
- Assist aeronautical supervisors by escorting equipment to assigned field locations. Provide occasional relief for aeronautical supervisors.
- Arrange transportation for oncoming Structural personnel from Building #80 to Snow Desk.
- Coordinate and supervise the feeding of personnel.

- J) **SERVICE LEVEL B STAFF VOLUNTEERS**  
Reporting to the Landside & Customer Services Supervisors, the Service B Volunteer Staff's prime area of responsibility will be to monitor and manage customer service issues in the terminals and handle patron services requests.

#### IV. **SNOW DUTY SHIFTS**

- A) **OPERATIONS UNIT**  
The Operations Unit performs functions concerned with the aeronautical and area. Each 12-hour shift will be comprised of Assistant Chief Operations Supervisor, Operations Service Supervisors, Senior Operations Agents and Operations Agents and assigned as Airport Duty Manager, Aeronautical Supervisors and Operations Agents.

- B) **MAINTENANCE UNIT**  
To assure an effectively smooth changeover of shifts, personnel assigned to snow removal on both "A" and "B" shifts will report for duty at the Snow Desk, Bldg. #79, as follows:  
Coordinator Group, Area Supervisors and Communications Desk will report an hour earlier than the normal shift starting time (13 hour shift)

Under the direction of the Manager, Airport Maintenance, the Maintenance Unit will be directly responsible for the coordination of all activities associated with the Maintenance Unit in cooperation with other staff units as per policies established in this plan. This Unit may supplement, or be supplemented by, hired equipment, casual snow shovelers, Sign Shop and SEMAC personnel, etc. All personnel, other than supervisory, assigned to snow removal will be evenly divided between two 12-hour shifts, working hours normally to be 7:00 to 7:00 consistent with accepted restrictions, classifications and qualifications.

- C) **LANDSIDE SERVICES UNIT**  
Under the direction of the Manager, Landside and Customer Services, the Landside Services Unit will perform functions concerned with roadway systems, parking lots, remote monorail stations, transportation courtyards, and walkways. Adequate staff to cover these areas of responsibility will be assigned as necessary to work twelve-hour shifts.

D) **INTERNATIONAL FACILITY**

Under the direction of the International Facility Supervisor, or in their absence the International Facility Duty Manager, staff will coordinate snow removal on the B-2 and B-3 ramps, which include, gates, aircraft movement areas, and hardstands Amelia, Lindy, and Wilbur. International Facility Ramp snow removal staff requirements for any given Snow Alert will be as outline in the International Facility Snow Removal Plan, Section V (pg 72)

V. **CALL-IN PROCEDURE FOR MAINTENANCE PERSONNEL**

The snow calendar and plan will be issued to all Port Authority staff assigned to snow removal operations at Newark Liberty International Airport. The size of the crew to be called for a snow alert will be determined by the Snow Coordinators in conformance with the criteria attached hereto. These crews will be sufficiently skilled so they can operate multi purpose equipment, brooms, plows, sanding and salting equipment, and pay loaders. The senior Maintenance Supervisor on duty will determine which shift to call in using the following guidelines and the Snow Calendar shown in Exhibit B (pg 23).

A) **NOTIFICATIONS OF A SNOW ALERT**

All notifications of a snow alert are made between 10:30 A.M. and 12:00 Noon on Monday through Sunday, including holidays. The call-in of all necessary personnel will take place immediately after notification of a snow alert.

When a snow alert has been canceled, the personnel previously contacted to respond will be notified between the hours of 4:00 P.M. and 5:00 P.M. of any change.

B) **SHIFT DETERMINATION**

**Weekdays, Weekends or Field Holidays**

When personnel are required at the airport on or before 3:00 A.M., call-ins are to be made from the night shift. If personnel are required at 5:00 A.M., the day shift is to be called.

The same procedure applies for evenings. For example, if personnel are required at the airport on or before 3:00 P.M. on weekends, the day shift is called. Should personnel be required to report at 5:00 P.M. on weekends or holidays, the night shift is called.

The periods between 3:00 A.M. and 5:00 A.M.; and, 3:00 P.M. and 5:00 P.M. on weekends are gray areas. If at all possible, the call-ins will be postponed to 5:00 A.M. or 5:00 P.M. In the case that a delay is not acceptable, the shift scheduled to work at that time will

be called in. At 4:00 A.M. the night shift will be called and at 4:00 P.M. the day shift will be called.

C) **SIGN-IN PROCEDURE FOR MAINTENANCE  
EMPLOYEES REPORTING FOR SNOW DUTY**

During periods of snow duty, each member of the Maintenance Unit is required to sign his name and time of arrival on the Daily Attendance Record, PA Form #1313, or its equal. Likewise, when a member of the Maintenance Unit completes his duty for a given day, he will sign out on the same sheet, using the time his tour terminates, not the time he signs out. This procedure should be repeated each day of snow duty. If and when an individual is to sleep at the facility, he will sign out using the time his tour terminates and will also mark the initials "SI" adjacent to this time indicating that he is sleeping in by management request. Each employee authorized to sleep-in will remain on the facility and be responsible for notifying the Snow Desk Supervisor of his whereabouts in the event the employee must be contacted. The Maintenance Scheduler will insure that each man's IBM card agrees with the times indicated on Form #1313 and the Snow Desk will be responsible for insuring that the Maintenance Scheduler receives both the Form #1313 and "sleep-in" lists. These records must be both accurate and on time to permit overtime reports to be forwarded after the end of the snow emergency. The procedure outlined above does not supersede or in any way change the normal procedure for preparation and processing of the daily time cards by the men themselves or by the Maintenance Scheduler.

VI. **AUTOMOTIVE SHOP**

The Automotive Shop is responsible for all vehicle maintenance, repairs and fueling. Shop personnel should perform general inspections to assure that equipment is in good condition prior to operation and perform frequent inspections of equipment in the field during snow removal operations. All operating equipment should be inspected every 4 to 6 hours of operation. Between operations, vehicles will be run weekly for operational checks and battery condition. A fully equipped shop van shall be available for immediate repairs in the field. If needed, the Aeronautical Supervisors may request the shop van to stand-by in the field.

VII. **EQUIPMENT**

All equipment engaged in snow removal, including sedans, station wagons and other light vehicles, will at all times be operated in a safe manner within the limits of their intended purpose. Care will be exercised in that absolute minimum of electrical accessories will

be operated while the vehicle is parked or the engine is left idling for extensive periods of time so as to minimize the drain on batteries.

In the interests of safety of operation, distances of approximately 200 feet should be maintained between vehicles assigned to a team and maximum speeds of approximately 35 MPH should be observed. In addition, it is emphasized that support vehicles, such as service cars and those operated by area supervisors, remain safely out of the operating path (both front and rear) of snow removal equipment. Remember that the operator's capacity to avoid objects in close proximity is limited by the equipment and operating conditions related to speed, surface conditions and closeness of quarters.

Under conditions of restricted visibility (heavy snowfall, blowing snow, etc.), only vehicles directly engaged in the operation will be permitted in the operating area so as to avoid undue exposure to accident. Persons requiring access to the operating area under these conditions are required to obtain prior clearance from the Area Supervisors.

At the end of each operation and at such times that equipment will not be used for extended periods, units will be washed down interiors cleaned, refueled, chemicals and sand reloaded and stored in assigned garage areas.

#### **VIII. SNOW REMOVAL CONTRACTOR AND HIRED EQUIPMENT**

In order to maintain desired control, Area Supervisors will be responsible for maintaining records (Hired Equipment Form #2416 will be used for this purpose - reference Section Two (pg 33-34) relating to arrival down time, relief's and departure time of all equipment assigned to their area. In addition, all the above information will be communicated to the Snow Desk as each event occurs. All records maintained by the Area Supervisors shall be completed and returned to the Contract Maintenance Supervisor located at Building #79 at the end of each storm.

#### **IX. AIRLINES' PARTICIPATION**

The Airline Snow Coordinating Committee consists of representatives selected by the Newark Liberty International Airport Managers' Council. Two members of the Committee will be on duty during the initial planning stages. One member will be available throughout the entire snow removal operation. The Committee will participate in snow planning throughout the year. The Airline Coordinator will work closely with the Port Authority Airport Duty Manager and the Control Tower in all phases of planning and evaluation of aircraft operations area conditions. The

Airline Coordinator will also disseminate condition reports and the planned course of action to all operators. Airline snow removal operations adjacent to taxiways must be coordinated with the Port Authority ADM.

## **X. PERSONNEL TRAINING**

With the complex and diversified equipment used in snow removal, a coordinated training program for all personnel will be maintained under the direction of the Manager, Airport Maintenance. A detailed training program will be carried out prior to the snow season. The program should include general plans of action and equipment operation. In addition to Maintenance personnel, SEMAC, and Sign Shop. This will enable responsible supervisory personnel to understand the operation and function of equipment so as to insure its proper use by operators.

## **XI. ADMINISTRATIVE UNIT**

At the direction of the General Manager or Coordinator, the Administrative Unit will function throughout the entire snow emergency. Reporting to the Landside and Customer Services Supervisor, the Unit's prime area of responsibility through out the emergency will be to handle patron customer service requests and tenant requests for information and any other communications directed to the General Manager's Office or the Administrative Unit. When directed to the General Manager or Coordinator, it will be the responsibility of the Assistant to the General Manager to insure adequate staffing.

## **XII. POLICE UNIT**

### **Police Snow Removal**

The primary responsibilities of the Police Command during a snow emergency are reporting unsafe roadway conditions, ensuring the safety of motorists on the roadways, and maintaining essential services. The police will continually monitor all public roadways on the airport as well as access roads, checking for stranded motorists, and reporting changes in snow and ice conditions.

On a Snow Alert Level III, a Police Lieutenant will be assigned to the snow desk to coordinate all police activities. The lieutenant will ensure that all requests for police assistance by snow removing personnel are prioritized. In addition, he will keep the Police Emergency Crew Chief Sergeant aware of runway and taxiway conditions for safe AOA emergency responses. All reports from the Police Command will be handled by the Lieutenant and he/she



will advise the snow desk. He/she will also ensure that emergency access roads used by off airport emergency vehicles are checked, reporting problems and recording same.

### **XIII. ELECTRICAL UNIT RESPONSIBILITIES DURING SNOW**

The Electrical Unit at Newark Liberty International Airport plays a vital role in maintaining the runway and taxiway lighting systems during snow emergencies. It is imperative that the runway lighting be maintained within airport certification requirements to assure that the aircraft approach minimums are maintained. Three teams of electricians work around the clock during snow emergencies to repair or replace lighting fixtures damaged during snow removal operations.

At the outset of a storm, or if an un-forecasted storm were to occur the electricians would staff the hi-speed plows, brooms, and blowers as our first line of defense against the storm until maintenance forces could arrive. Electricians receive training each year on all of the snow equipment. During extreme weather conditions the electrical group is also charged with marking critical lighting with snow flags and digging out runway edge, end, and threshold lights

#### **Alert I & Alert II**

Electrical Supervisors (FM-3 & FM-4's) are split into 12-hour tours and assist at the Snow Desk and in the field to assure adequate staff is on hand.

#### **Alert III**

All Electrical Unit Supervisors are split into 12-hour tours

#### **Alert IV**

All electrical personnel are split into 12-hour tours and assist at the Snow Desk and in the field to assure adequate staff is on hand for a major winter storm. All RDO personnel are contacted to report to duty for the impending storm

### **EXHIBIT A**

#### **SNOW (COMMUNICATIONS) DESK**

The Snow Communications Desk located in Port Authority Maintenance Building #79, as directed by the General Manager or Snow Coordinator, will commence operation.

The snow desk is equipped with an all-facility radio transmitter and receiver, and a telephone communications system. Qualified personnel will staff the desk and be responsible for the following:

- 1) Equipment readiness coordinated with the Automotive Supervisor or lead mechanic prior to starting snow removal.
- 2) Operator inspection of the equipment prior to placing the equipment in service.

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- 3) Receive, transmit, and record information and messages relative to the snow removal operation.
- 4) Act as a communication center for all activities underway on Radio Channel X; dispatch equipment and operators as available upon request of the Area Supervisors through the Coordinator.
- 5) Provide qualified escort of equipment from Maintenance Area to rendezvous point with Area Supervisor.
- 6) Maintain an active status board depicting Port Authority equipment assignments by vehicle number and type, indicating the operators, location, and status of the equipment.
- 7) Maintain a record for each piece of P.A. snow removal equipment, which will provide a history of operation for each snowstorm.

**Note:**

In the event the Communications Desk is not activated, such as in a minor operation or if activation is delayed, the Maintenance Supervisor designated in charge will maintain appropriate records.

- 8) Follow-up with the responsible Maintenance Supervisor to ascertain the cause of equipment breakdowns, necessary repairs and duration that the equipment will be out of service.
- 9) Record in the log any minor equipment malfunctions reported by the operators, which do not require immediate repair. When the snow removal emergency is over, the Snow Desk Supervisor will return all equipment logs and paper work generated by the storm to the Maintenance Unit Supervisor in Building #80.
- 10) Ensure that periodic service adjustment and lubrication of equipment in accordance with the manufacturer's specifications or other adopted procedure.
- 11) Coordinate necessary repairs and priority of repair with Automotive Supervisor or lead mechanic.

- 12) Arrange for repairs, service, adjustment, cleanliness, and storage of equipment immediately upon termination of snow removal operation.
- 13) All requests to vendor for meal and refreshments for all personnel engaged in snow removal must be made through the Snow Desk. Maintain a check of quality of food and advise vendor's management of irregularities. Whenever possible a Maintenance Supervisor will inspect the food when it is picked up.
- 14) Maintain an active status board for depicting the Snow removal Contractor's equipment assignment by vehicle number and type, also indicate the location and status.

EXHIBIT B

2002 - 2003 SNOW CALENDAR

	<u>DAYS</u>	<u>NIGHTS</u>
11/14/03 To 11/28/03	A	B
11/28/03 To 12/12/03	B	A
12/12/03 To 12/26/03	A	B
12/26/03 To 01/09/04	B	A
01/09/04 To 01/23/04	A	B
01/13/04 To 02/06/04	B	A
02/06/04 To 02/20/04	A	B
02/20/04 To 03/05/04	B	A
03/05/04 To 03/19/04	A	B
03/19/04 To 04/02/04	A	B
04/02/04 To 04/16/04	B	A

TELEPHONES NUMBERS:

Operations (973) 961-6015  
Police (973) 961-6230  
Snow Desk (973) 961-6096  
(973) 961-6097

EXHIBIT C

SUPPLIES

<u>ITEM</u>	<u>CAPACITY</u>	<u>LOCATION</u>
* <u>Sand</u>	500 tons	Bldg. #81
* <u>Salt</u>	500 tons	Bldg. #81
<u>Liquid De-Icer</u>	100,000 gals	Bldg. #79 Storage Yard

Note:

During a sanding and salting operation, all equipment operators and supervisors must exercise good judgment in spreading both sand and salt. While we stress quick action, care must be taken not to spread sand indiscriminately for - with the advent of Spring - it must all be removed. Proper spreading of salt is equally important, especially around landscaped areas. Overdoses of salt on grass or at the base of shrubs and bushes will only cause severe problems in the Spring.



CHEMICAL TRUCK IN OPERATION ON RUNWAY 4R-22L

Check Snow Equipment

EXHIBIT D

NEWARK LIBERTY INTERNATIONAL AIRPORT  
SNOW EQUIPMENT

<u>VEHICLE NO.</u>	<u>MODEL</u>	<u>TYPE</u>	<u>HEIGHT</u>
2081-2	Salter	Six Cubic Yard Spreader	
2085-2	Salter	Six Cubic Yard Spreader	
2004-2	International	Dump/Blade	9' 3"
2005-1	International	Dump/Blade	8' 10"
2010-2	International	Dump/Salt Spreader/Blade	9' 3"
2031-2	International	Dump/Salt Spreader/Blade	9' 3"
2401-1	International	Dump/Salt Spreader/Blade	10' - 6"
2402-1	International	Dump/Blade	10' - 6"
2403-1	International	Dump/Blade	10' - 6"
3657-1	Oshkosh	R/O Plow/Sander	
3686-1	Oshkosh	R/O Plow/Sander	
3687-1	Oshkosh	R/O Plow/Sander	
3688-0	Oshkosh	R/O Plow/Sander	
3689-1	Oshkosh	R/O Plow/Sander	
3687-1	Oshkosh	R/O Plow/Sander	
3698-1	Oshkosh	R/O Plow/Sander	
3699-1	Oshkosh	R/O Plow/Sander	
3660-1	MACH	Dump/Blade/Salt Spreader	11'
3661-1	GMC	Dump/Blade	11'
3755-0	Snowblast	R-2000 Blower Idaho Norland	
3702-0	Snowblast	R-2200 Blower	
3705-1	Snowblast	R-3000A Blower	
3707-1	Snowblast	R-2000 Blower Idaho Norland	
3712-1	Rolba	R-2000 Blower	
3716-1	Snowblast	R-2000 Blower Idaho Norland	
3721-1	Snowblast	R-3000A Blower	
3722-1	Snowblast	R-3000A Blower	
3731-1	Rolba	Blower	
6108-2	International	Backhoe Slant Shovel Loader	10' 0"
6106	Case	Blade	
4920-2	Schorling	Broom	
4921-2	Schorling	Broom	
4922-2	Schorling	Broom	
4934-1	Schorling	Broom	
4935-1	Schorling	Broom	

4942-1	Schorling	Broom	
4924-2	Schorling	Broom	
4925-2	Schorling	Broom	
6356-1	Case	Loader/Bulldozer	
6405-2	Case	Loader/Bulldozer	10' 2"
9128-1	Fork Lift	Lift Capacity: 6,000 lbs.	
5942-3	4 x 4 Pick-up	Six Foot Plow	
4147-1	Batts 2000 Deicer	2,000 Gallon Capacity	
4148-1	Batts 2000 Deicer	2,000 Gallon Capacity	
4149-0	Batts 2000 Deicer	4,000 Gallon Capacity	
5956-2	4 x 4 Pick-up	Six Foot Plow	
1256-2	Small/Dump	Six Foot Plow	
6414-1	Case	Large Front-End Loader/Backhoe	
6140-2	Tiger	Articulated blowers/w directional chutes	
6142-2	Tiger	Articulated blowers/w directional chutes	
V-2	Vammas	Multi-function Equipment	
900-036	Overaasen	Multi-function Equipment	
V-4	Vammas	Multi-function Equipment	
900-145	Overaasen	Multi-function Equipment	
V-6	Vammas	Multi-function Equipment	
900-388	Overaasen	Multi-function Equipment	
4952-0	Batts Deicer	Roadway Chem Veh 1400 Gallon Capacity	
1317-4	Small Dump	Plow	
1391-0	Pick-up	Plow	

EXHIBIT E

2002 – 2003 SNOW ALERT GUIDELINES FOR CALLING MANPOWER

**SNOW ALERT #I: Using The Daily Call List**

- 1) Call (2) Maintenance Group Supervisors
- 2) Call (1) Maintenance Service Supervisor
- 3) Call (10) Operators - Structural Section
- 4) Call (1) Operator - Mechanical Section
- 5) Call Automotive Supervisor

**Note:** If the facility is in a Snow Alert Condition #I and if it becomes necessary to step up to Snow Alert Condition #II, call the following additional manpower:

**SNOW ALERT #I Using The Daily Call List**

1 GMS; 1MUS; 1MSS; 10 additional Structural Operators; 1 Mechanical Operator; 1 MES; 1 Garage Attendant and 5 Building and Ground Attendants. This will provide full staff for a Snow Alert Condition #II. Inform Automotive Supervisor of change in alert.

**SNOW ALERT #II: Using The Daily Call List**

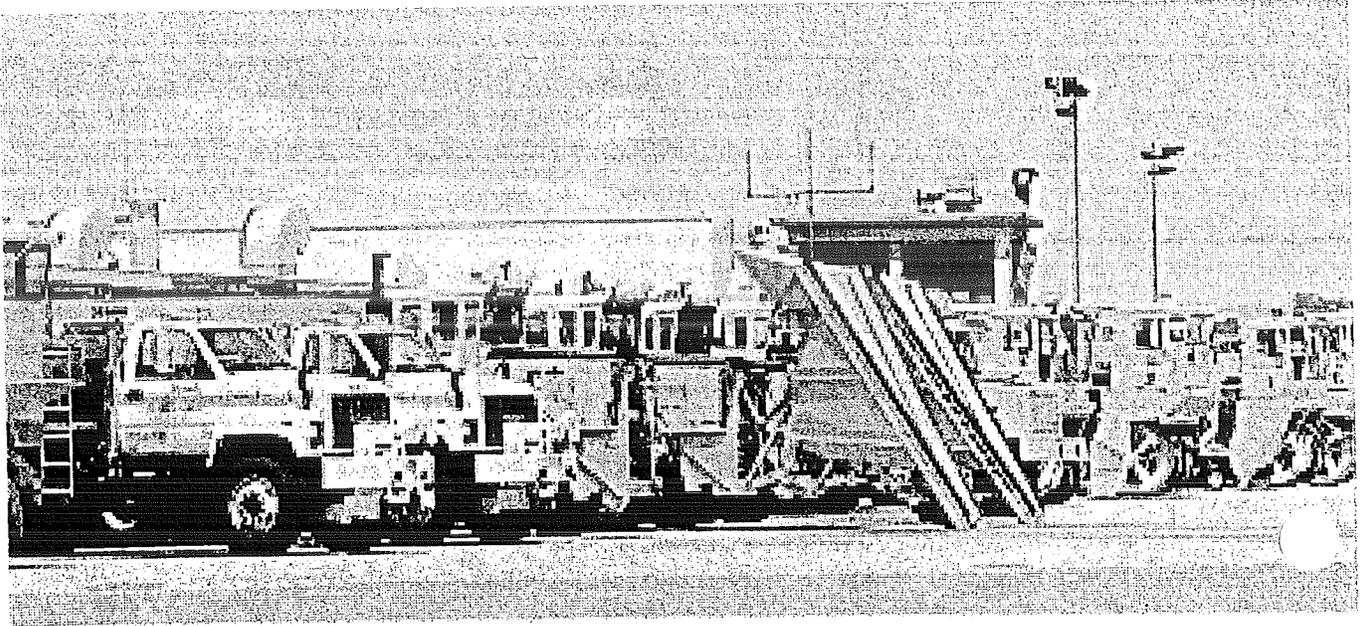
- 1) Call (1) General Maintenance Supervisor
- 2) Call (1) Maintenance Unit Supervisor
- 3) Call (2) Maint. Group Supv. and (2) Maint. Svc. Sup.
- 4) Call (22) Operators - Structural Section
- 5) Call (2) Operators - Mechanical Section
- 6) Call (1) Maintenance Equipment Servicer
- 7) Call (1) Garage Attendant
- 8) Call (2) Building & Ground Attendants
- 8) Automotive Supervisor
- 9) Call (1) Stockroom

**SNOW ALERT #III: Using The Snow Procedure**

- 1) Using Organization Chart call all Supervisors, either A or B
- 2) Call all men assigned to either A or B.
- 3) Call Mechanical groups of alert, advise section to break rotating shifts to provide maximum manpower.
- 4) Call/inform Supervisor General Maintenance Group of alert, advise section to break rotating shifts to provide maximum manpower.
- 5) Call Automotive Supervisor. State this is an Alert #III call.
- 6) Call EWR Stockroom. State this is an Alert #III call.
- 7) Call Sign Shop crew and state this is an Alert III call.

**SNOW ALERT #IV: Using Same Call Procedure as Snow Alert #III**

- 1) Call SEMAC crew either A or B.



## **SECTION TWO SNOW REMOVAL CONTRACTOR**

## SNOW REMOVAL CONTRACTOR

### **I. GENERAL**

- 1) During the period of November 1 through April 30 of each contract year, the Contractor shall have available at Newark Liberty International Airport for exclusive use in connection with this contract the following equipment with appropriate safety lighting:
  - a) A minimum of ten 30-foot blade plows and ten movers;
  - b) One 5-6 cubic yard pay loaders;
  - c) Sixteen 3-4 cubic yard pay loaders;
  - d) Six snow melters; 150-ton minimum capacity
  - e) Portable melters (2 minimum) total capacity 600 ton per hour with accompanying loaders (one per melter with appropriate capacity for Terminal B ramp).
  - f) Two snow melters with a minimum capacity of 40 tons per hour not to exceed the height and weight of the Trecon "40-PDLP to be positioned on the rooftop garages at parking lot (P-4) and Terminal C with accompanying loaders that do not exceed 7'6" in height
  - g) Two dump trucks with road plows - truck shall be of a minimum of 23,000 lb. gross vehicle weight.
  - h) Eighteen 4x4 jeep type vehicles with plows and 1.5 to 2 yard salt spreaders mounted on the vehicles (must not exceed a height of 8'5") for parking lots
  - i) Two roadway salters with a minimum salting capacity of 12-16 yards and with plow capabilities
  - j) One 4WD articulating pay loader w/ 1 CU YD bucket similar to a Case W4 loader or approved equal for Tolls
  - k) A minimum of ten Bobcats with bucket, broom and plow attachments for use on rooftops and monorail stations as well as line sweeping. All vehicles must have enclosed heated cabs with operational windshields wipers and defrosters.

**\*\* ALL SPREADERS ON ALL REQUIRED PIECES OF EQUIPMENT ARE TO BE HYDRAULICALLY POWERED TO ASSURE EFFICENCY \*\***

There will be made available to the Contractor an open area on Newark Liberty International Airport's premises for the storage of the Contractor's snow removal equipment.

Any additional property which the Contractor desires for their operations shall be obtained by them at their own expense. The Contractor shall, daily, clean up the areas made available to him so that they are safe and free at all times of refuse, rubbish, scrap material or debris.

## II WORK AREAS AND RESPONSE REQUIREMENTS

### AIRSIDE

The Contractor shall commence snow clearing operations in the following areas with the ten 30' wide blades and movers, one 5-6 cubic yard pay loader and (2) portable snow melters minimum total capacity 600 ton per hour with accompanying loaders (one per melter with appropriate capacity), and four jeep type vehicles with plows and one line sweeper upon accumulations of **one inch** of snow as measured by the National Weather Service Office, Building #1, Newark Liberty International Airport.

- a) The taxiway entrances (throats) to Terminal A, B, C, Taxiways PB, PD, FE and FD public aircraft parking Hardstands: Lindy, Amelia and Wilbur. Public aircraft parking includes all throats to T/W B (DM and DL) and direct access points to the Terminal C ramp.
- b) The west aircraft parking area, helicopter landing area "S" and aircraft parking area 340;
- c) Taxiways "U", "UB", north of Taxiway "Z";
- d) The portion of Taxiway "Z" directly in front of the Bldg #1 ramp
- e) The police emergency garage ramp (Bldg#1)
- f) The entire ramp of Terminal B2, B3, (International Facility) is to be plowed with 30 feet blades accompanied by two 4WD jeep type vehicles with plows, to thoroughly remove all snow from around all loading bridges and ramp service parking areas. Time and space is of the essence. All snow is to be melted with (2) portable snow melters (2 different

locations) minimum total capacity 600 ton per hour with accompanying loaders (one per melter with appropriate capacity).

- g) Aircraft parking area north of Building #10 (Y Ballpark);
- h) Entire aircraft parking area (Turnpike fence from guard booth), north to blocks of R/W #29 up to the #29 R/W edge (south side) including the T/W CC run-up pad 200 feet by 600 ft;
- i) Taxiway "PA" from Taxiway "V" up to and including PB, PC, PD;
- j) Hangar 14 ramp (northwest parking);
- k) Taxiway "Y", and the block of R/W 11;
- l) Block of R/W 22 R, block of R/W 4L from T/W N to T/W PD including and between T/W D and T/W PA.
- m) Hardstands Amelia, Lindy and Wilbur

\* The priority of the areas and equipment to be used shall be as ordered by the Manager.

\* Upon an accumulation of **one inch** of snow measured as stated above, the Contractor shall commence snow clearing operations with the two dump trucks with plows on the:

- 1) Restricted Service Road from Guard Post H out to Fed EX ramp including the road between UPS and Chelsea to the South Service Road.
- 2) From Parking Lots P 1-3 roadway to South Development exit Plus turnaround and entire length of street to Fed EX site.
- 3) Entrance to airport south of Parking Lots P 1-3.
- 4) Tower Road from Guard Post D to end.

## LANDSIDE

Upon an accumulation of **one inch** of snow measured as stated above. The contractor shall commence snow clearing and salt spreading operation, with eight (8) four-wheel drive jeep-type vehicles with plows and 1.5 to 2 year salt spreaders and ten bobcats with blades, buckets or brooms (2) 40 ton melters with accompanying loaders and (2) 12-16 yard salters with plows.

All salt will be supplied by the Authority and will be dispensed at a location designated by the Manager within the parking lots.

- 1) Salting of Parking Lots A, B, C, P1-3 (lot D), P6 (G), P7 (H), Valet and Employee Parking Lot F including entrance and exit lanes. Also, plowing and melting in Terminal C parking garage, P4 (E garage).
- 2) Plowing and salting of VIP lots, bus and van waiting areas and taxi hold lots adjacent to Terminals A, B and C and the Monorail station areas including the NEC.
- 3) Plowing and salting of CTP exit area;
- 4) Plow or broom all sidewalk areas located in and around Monorail stations to include all covered walkways located in Lots D & E and the NEC.

The time for the beginning of operations, the priority of areas, and equipment to be used shall be as ordered by the Manager.

Upon an accumulation of **three inches** of snow measured as stated above, the Contractor shall have eighteen pay loaders and one 4WD pay loader, in a marshaling area (as specified by the Manager) for the plowing of Parking Lots A, B, C, P1-3 (D, D2), P4 (E), P6 (G), P7 (H) and Employee Parking Lot F. The time for the beginning of clearing, the priority of lots, and equipment to be used shall be as ordered by the Manager .

- 5) Snow clearing hereunder shall include the removal of snow accumulations from the surfaces of all of the areas for snow clearing shown on Exhibit A and shall consist of the pushing, piling or melting of accumulated snow to the adjacent areas for snow piling designated by the Manager. In vehicular parking areas, snow clearing shall be limited to all aisles and roadways and those stall areas having eight or more vacant parking spaces and the snow in said parking areas shall be either stockpiled or melted, as the manager directs. Snow clearing shall continue until all of all areas specified have been cleared to the satisfaction of the Manager. Priorities may be determined at any time by the Manager.

In the event that stock piling is no longer feasible because of excessive accumulations, the Manager shall have the option, in his sole discretion, to direct the Contractor to haul the said piled snow by dump truck to a location within the limits of Newark Liberty International Airport. This work shall be considered as unclassified work and compensated at the hourly rates under the scheduled of unit prices for extra work.

In the event a portion of said facilities becomes inaccessible during the current snow operation, the Manager may direct the Contractor to return after the cession of snow to the work site when said facility again becomes accessible. This shall be considered part of the operation covered by this Contract and not as Extra Work.

The Contract also allows the Contractor to perform Extra Work beyond the areas mentioned above. In conjunction with this, General Services Department has also established lists of other contractors who are authorized to perform snow removal at the Airport, if needed. The list contains the contractor's name and address, type and make of equipment available, hourly rates and transportation cost.

## **II. AUTHORIZATION AND ORDERING**

- A) The General Manager or authorized representative (such as snow coordinators, the Snow Desk or Contract Services Staff) are the only facility members authorized to direct the Snow Contractor to perform extra work and hire outside contractors.
- B) Using factors such as the forecasted depth, density of the snow and hauling distances, the Duty Snow Coordinator will determine the number of additional units to be ordered or the extra work to be performed by the Snow Removal Contractor subject to the approval of the General Manager.
- C) Upon receiving appropriate authorization, the Duty Snow Coordinator or his appointed representative will contact the snow removal contractor advising him of the facility's requirements and in the case of an outside contractor, have equipment operators report to the Snow Desk at Bldg. #79.

## **III. REPORTING AND UTILIZATION**

- A) Record keeping, using Hired Equipment Record Form #2416, concerned with hired equipment utilization will normally be maintained by the Area Supervisor for each piece of equipment whether that equipment is performing extra work or not.
- B) When the Contractor's equipment arrives, or when there is any change of equipment operating status, the responsible supervisor will appropriately record all this information on Form 2416 and report all this information to

the Snow Desk. At the end of the storm, the records are to be submitted to the Supervisor, Airport Maintenance Services who will forward authorized paper work to the Contract Services Unit.

- C) Dump trucks or other types of hired units should not be accepted for assignment until ample loading equipment has been delivered by the contractor.
- D) Area Supervisors are to be responsible for the efficient and continuous operation of the Contractor's equipment:
  - 1) They will report status changes to the Snow Desk or Maintenance Office, denoting the specific times and areas that the equipment worked and any down time. All such information will also be recorded on Hired Equipment Record, Form 2416.
  - 2) It is the Area Supervisor's responsibility to determine that the equipment operators are briefed on the safety rules.
  - 3) At such time that the Area Supervisor determines that the Contractor has completed all the required work he is to contact the Duty Snow Coordinator to see if the equipment may be useful in another area.

#### IV. ACCOUNTING

- A) In the case where Extra Work is performed, the contractors are requested to present, in duplicate, a receipt for each vehicle hired.
  - 1) If this is not done, the Area Supervisor, or his representative, will utilize two copies of the Hired Equipment Record, Form 2416, for this purpose. Regardless, one copy of Form 2416 should be filled out for Port Authority use.
  - 2) The Area Supervisor or his representative will date, time stamp and initial the arrival and departure times on both copies of the contractor's receipt retaining one for our records. The Port Authority copy of the receipt should be attached to the Form 2416.
- B) On completion of work and dismissal of all contractor's equipment, the 2416 and the original contractor's starting receipt are to be forwarded to the Supervisor, Airport Maintenance Services for approval and processing.

- C) The Maintenance Unit will verify the contractor's billing by comparing with Hired Equipment Record, Form 2416. Upon verification the paper work will be forwarded to the Contract Services Unit where contractor invoices will be processed.
- D) Any discrepancies between the Contractor's billing and the facility record will be reconciled with the contractor by the Supervisor, Airport Maintenance Services and the Contract Services Unit.

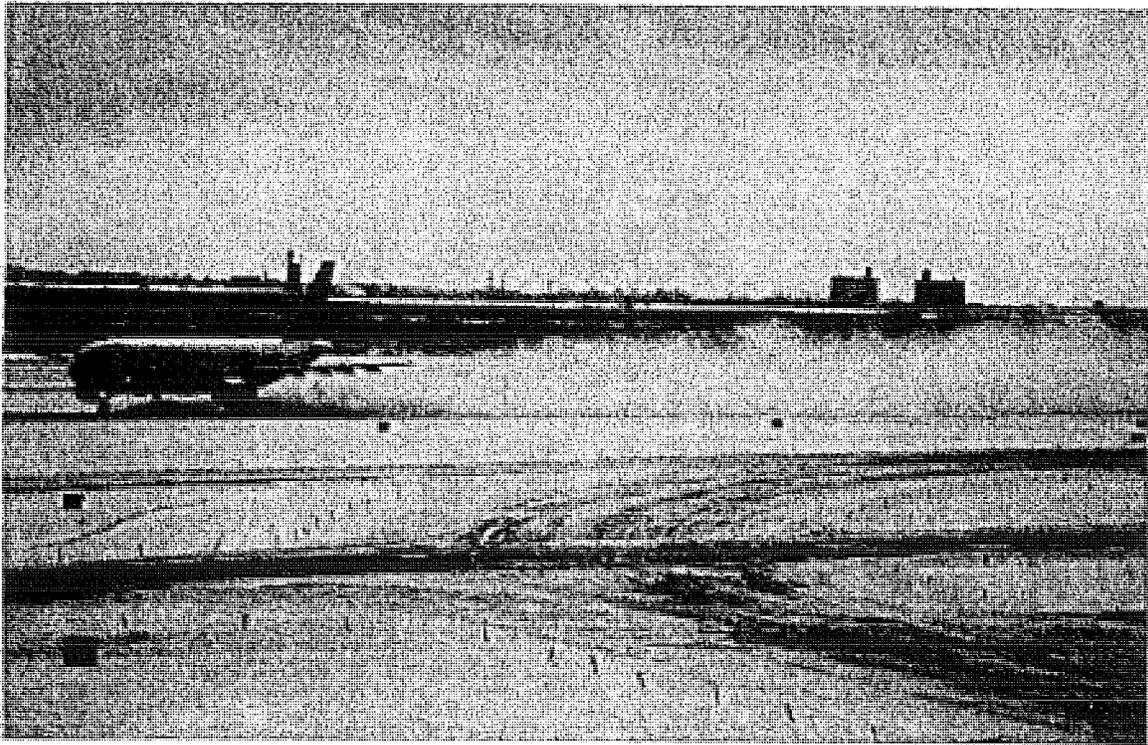
**Port Authority Snow Removal Contractor: AERO SNOW**

Contact telephone numbers:

Phil DeJana - 1- 516-944-3100 B-516-559-2689

Roy Arena - 973-242-7185, Beeper- 516-257-0893

Field Office at Newark International Airport - 973-961-5396



CONTINENTAL A-300 DEPARTURE RUNWAY 4L

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**SECTION THREE**  
**SNOW AND ICE CONTROL ON AIRCRAFT**  
**OPERATING AREAS**

## SNOW AND ICE CONTROL PLAN ON AIRCRAFT OPERATING AREAS (AOA)

### General

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This chapter contains the Snow and Ice Control Plan for EWR in compliance with FAA requirements outlined in FAR Part 139.

### **Snow and Ice Control**

#### **I. Responsibilities and Supervision**

The Airport Manager or his/her designee is responsible for the following:

- Determining when snow removal or anti-icing operations will begin. This will be based on the evaluation of existing field conditions, and present and forecasted weather.
- Maintaining a constant check of runway conditions during snow or ice storms to determine the presence of snow, ice, or slush and their depth.
- Maintain access for FAA personnel to NAVAID sites.
- Disseminating airport information through NOTAMS. Advising ATC of current field conditions and updating Sitatex messages for air-carriers use.
- Fix base operators and airlines are responsible for snow removal within their leasehold area.
- All supervisors involved in snow removal and ice control are responsible for the efficient operation of snow and ice removal equipment.

#### **II. Vehicles**

- All snow removal vehicles operating on aircraft movement areas under the control of the ATC tower must be equipped with a two-way radio or be under the direct control of a vehicle so equipped.
- All outside contractors employed for snow and ice control operations will be subject to all airport regulations. They will operate under the supervision of the airport manager or his designee. At no time will contractors be permitted to operate equipment beyond the limits of the

ramp areas without being cleared by the appropriate authorities and without being accompanied by a radio-equipped vehicle.

- The following airport owned equipment may be utilized for snow and ice control: (See Exhibit D pg 25)
- The snow removal contractor will provide equipment and trained personnel for emergency snow removal operations. The contractor will commence snow removal operations in the aeronautical area when the snow reaches a depth of one inch. The contractor will commence snow removal operations in the parking lots when the snow reaches a depth of three (3) inches.

### **III Snow Removal Operations**

The following principals regarding snow removal shall be adhered to in maintaining safe operating conditions on airport movement areas.

Drifted or windrowed snow will be removed promptly from runway, taxiway, and ramp surfaces.

In the event of heavy snow accumulation, the height of snow banks alongside usable runway, taxiway, and ramp surfaces must be such that all aircraft propellers, engine pods, rotors and wingtips, will clear each snowdrift and snow bank when the aircraft's landing gear traverses any full strength portion of the movement area.

In the event that the snow removal crew is unable to comply promptly with the requirements stated above, the airport manager or his representative will utilize the Notice to Airmen system to describe the conditions and will promptly notify the air carrier operations offices, airport control tower, and other airport users.

- A. The snow removal program will be activated as soon as the snow starts to fall. The runways to be plowed are determined on the basis of wind direction and estimated duration and the wind holding in that particular direction. The associated taxiways are also cleared for a particular runway and apron.
- B. The active runways and associated taxiways will receive the highest priority.
  - 1. Brooms may be dispatched to remain clear centerline lights and markings on taxiways.
  - 2. Liquid chemical trucks may be dispatched in an anti-icing mode to

prevent snow from accumulating on taxiway surfaces, or in a de-icing mode to break up accumulated snow and ice.

3. Displacement plows and snow blowers will be used on runways and taxiways.

C. Any drifted or piled snow will be moved off usable runway and taxiway surfaces and positioned off those surfaces in height so regulated that all aircraft propellers, engine pods and wingtips will clear snowdrifts and snow banks when the aircraft's most critical landing gear is located at any point along the full strength edge of the runway or taxiway. Snow or snow bank heights will not exceed the following criteria:

15 inches at 10 feet

3 feet, 6 inches at 40 feet

5 feet, 0 inches at 75 feet

When unable to comply with this requirement, the operator shall issue a NOTAM describing existing conditions.

D. Signs and lights will be frequently inspected by the ADM or his designee for visibility and should be cleared as appropriate or a NOTAM will be issued.

E. Snow removal operations on the airport access roads, auto parking lots, and service areas will receive lower priority. Because of the importance of the safe movement of passengers and visitors on the airport properties, access roads, parking areas, and sidewalks should be properly plowed and de-iced. This required different pieces of equipment and different chemicals than used on aircraft movement surfaces and will normally be the responsibility of facility maintenance crews.

F. In the event that the rate of all, together with gusty winds and poor visibility, requires, in view of safety, that airport operations cease, the airport manager or his designee will advise of the estimated downtime of the airport and the estimated time of and reopening. Concurrent with this, the Airlines Snow Committee, which has been working with the airport manager, will provide the airlines with the same information.

#### **IV. Ice Control**

A scan system with sensors embedded in runway and taxiway surfaces will be utilized along with physical inspections to monitor the surface condition relating to snow and ice.

- a. Ice control on runways, - a combination of sand and potassium acetate will be used to create a surface acceptable for aircraft operations.
- b. A liquid chemical may be used in both an anti-icing mode and de-icing mode

on taxiways along with sand and potassium acetate mix.

- c. Access roads and parking areas. Sodium chloride and calcium chloride are permissible on automobile roadways. Bridges must receive special attention since icing frequently occurs on those surfaces prior to the adjoining pavement because of cooling from underneath.

#### V. Cleanup

All snow windrows shall be removed as soon as possible after a storm ends. Sand will be removed from runways as soon as the surface is dry and braking action has been restored. The ADM or operations staff will assure that this is done. The airfield should be checked for broken or damaged lights and signs and repairs should be made.



Hi-Speed Plows conducting Snow Removal Operations on Runway 11-29

**EXEMPTION (4)**

**DRAWINGS OF NON-PUBLIC AREAS**

## OPERATIONS SNOW STORM CHECKLIST

### I.) General Outline

Weather Forecast - collection

- Snow Coordinators Meeting - Normally a coordinators meeting is held by 1100 hours on weekdays in the Manager of Airport Services' office and is chaired by the A & B shift coordinators. Participants include, the Airport Duty Manager, Manager of Airport Services, Assistant Manager of Airport Services, Chief Aeronautical Operations, Manager of Airport Maintenance Division of their designee, Chief of Maintenance, and the Manager of Terminal Services. On weekends the briefing is done via telephone.
- Review weather forecasts from - USWB, Weather Forecast Contractor, Scan Cast, Satellite Images, JFK, LGA, and Airline Forecast.
- Staffing level determination - Snow Alert Level established and time of start.
- Confirm Airline awareness via Sitatex and contact Airline Snow Committee representative.
- Confirmation of specific individuals for coverage.
- Confirm Contractor readiness - activate as required.
- Establish Preliminary Technique Plan - Broom vs. Plow & Blower Operation, Melters.
- Chemical Plan - Application of Potassium Acetate, tracking & location.
- Set implementation time of Foul Weather Plan - notifications.
- End of Storm Report to the Director of Aviation

### II.) Specific Outline

**Operations Staffing During Snow Alerts** - assure adequate staffing for all units.

**Snow Equipment Availability and tracking** of down equipment during a storm. This will be maintained by the Snow Desk and will be made available for the After Storm Report to the Director's Office.

**Potassium Acetate tracking** - Forms will be filled out by Operations Personnel leading the Chemical Trucks, tracking location and gallonage used. Forms are available in the Airport Duty Manager's Office. No prior approval will be needed for the use of Potassium Acetate in the Anti-icing mode. Prior approval will be needed from General Manager to use Potassium Acetate in a de-icing mode.

#### **Secondary De-icing**

- Two valves in secondary de-icing are to be closed just prior to entering a secondary de-icing operation. The Heating Plant will be notified to secure the valves.

- Dedicated Airport Operations Agent is assigned to this area to perform escorts for de-icing equipment, and to monitor the assign equipment to the secondary de-icing ops.
- The two end drains on the east side of the secondary de-icing are to be marked with cones to delineate the eastern boundary of the de-icing area.

#### **Runway 11-29 Closure**

With the advent of an ILS on 11-29, the runway will not automatically close on the outset of the snowstorm. Runway 11-29 will close when it is no longer of any use to ATC or poses a barrier to the operational needs of the snow removal crews.

#### **Contractor Areas in order of Priority.**

The Contractors Equipment start moving snow in the aeronautical area when EWR has an accumulation of 1", determined by the USWB.

- 1.) Secondary De-icing - Runway 4L Run up Block
- 2.) Taxiway throats between Taxiway A and the Ramp Areas
- 3.) North side Taxiway Throats
- 4.) RVSR
- 5.) B-2 and B-3 Ramp Area.
- 6.) Building #1 Ramp
- 7.) West Aircraft Parking, Area 340, and Taxiway "JB"
- 8.) Taxiway Y and the Ballpark
- 9.) Turnpike Aircraft Parking
- 10.) Block of R/W 11
- 11.) Area 15 - Will be done on T & M.
- 12.) T/W "UB" and T/W at T/W "Z"
- 13.) Taxilane U
- 14.) Hardstands Lindy, Amelia, and Wilbur

#### **Snow Removal Area of Responsibility for Terminal A and Hardstands Lindy and Amelia.**

A dividing line will be made with one pass on a 30-foot blade 60 feet from the hardstands. The snow from the cut to the H/S's will be moved by the airline contractor onto the H/S for melting by the Port Authority Contractor. All snow from the dividing line to Terminal A will be the responsibility of Hudson General to push toward Terminal A and melt.

### **Runway 11 ILS Snow Removal**

The End Fire Glide Slope is extremely sensitive, so particular attention has to be paid to snow removal in this area. The Glide Slope is located on the north side of the approach end of Runway 11. The snow on Runway 11-29 in the vicinity of the Glide Slope must be pushed from the north runway edge to the south.

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### **Records**

A log of Snow Removal Areas, Field Conditions, Notams and chronology of airport activities will be maintained in the CAL (Computerized Airport Log) computer in the Airport Duty Manager's Office.

### **End of Storm Report -**

The finalized report will be sent to the Director's Office within 24 hours after the storm and will consist of the following:

- Storm Plan - write down plan after snow meeting in the Manager of Airport Services' office. Include chemical aspect of the plan.
- Runway Closures Over One Hour
- Equipment Availability during Critical Times.
- Operational Problems

The End of Storm Report will be submitted by a representative of the Operations and Maintenance Units.

### **Feeding**

During a Level I Snow Alert the feeding will be at Building # 80 Cafeteria (when possible) or other food vendors will provide meals for snow staff. A Level II and above the feeding will be done at the Building #80 Cafeteria.

### **Hotel Room Tracking -**

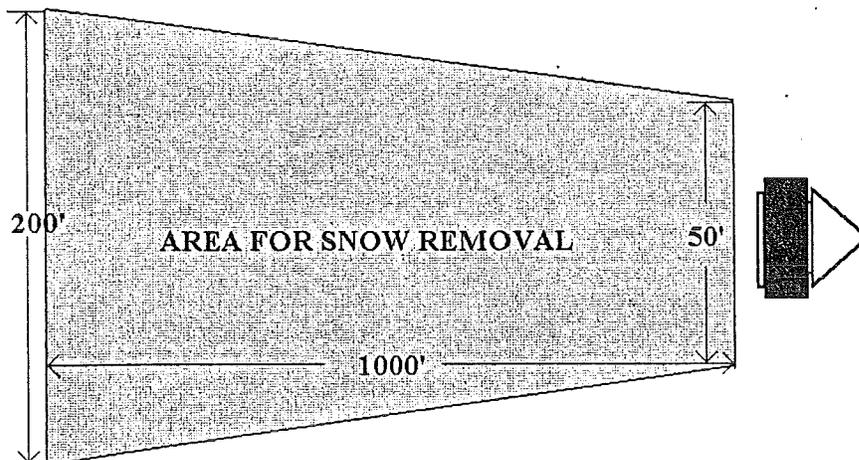
All Units will be responsible for hotel room assignments for their staff and will maintain a list of assigned rooms and occupants.

### **Outside Emergency Response**

It will be the responsibility of the Airport Duty Manager to maintain communications with the Port Authority Police Tour Commander in reference to whether the city streets are passable by Emergency Equipment in the event EWR needs assistance from Outside Agencies. If the city streets are not passable a decision will be made at that time to close the airport.

## GLIDE SLOPE ANTENNA

During a snowstorm it is imperative that the Navigational Aids at EWR remain operational. When the snow reaches a depth of six inches in front of the 4L and 22R Glide Slope Antenna it will be come necessary to commence a snow removal operation. In some cases the snow in front of the antenna may be compacted instead of being removed, if the snow can be compacted to below a depth of six inches. With the installation of the new Mark 20 ILS' on Runways 4R and 22L the depth of allowable snow in front of the antenna's has been increased to 18 inches. The responsibility for snow removal lies solely with FAA Maintenance, however if the FAA cannot meet their obligation the Port Authority will assist to the degree possible. Below is a diagram that depicts the area in front of the antenna, which will need to be cleared.



## FRICTION MEASUREMENTS ON RUNWAY SURFACES

### **1. USE OF SAAB (GENERAL):**

The SAAB Friction Tester will be used to aid in the operational assessment of runway surface friction conditions in accordance with the current AC 150/5200-30A Airport Winter Safety and Operations. The reporting of friction measurement readings to ATC are only required if the runways are covered with compacted snow and/or ice, we will operate under the following guidelines:

#### **A. WHEN TO TAKE READINGS:**

- 1) Before a closed runway is reopened following snow or ice removal procedures or anti-icing application(s);
- 2) After a pilot-braking report of "NIL" or after several pilot-braking reports of "Poor;"  
(2a) After a report of nil corrective action should take place prior to SAAB reading
- 3) As soon as practical, safe and feasible after an aircraft incident/accident;
- 4) Whenever it appears that there is a significant change in the runway surface conditions due to the presence of snow and/or ice;
- 5) Any other time airport Operations staff believes friction-measurement data would be useful for airport maintenance purposes (i.e. after sanding, chemical applications, mechanical removal);
- 6) After a storm when snow and/or ice is still present on the runway, a friction test should be done at least once a tour. SAAB readings will not be relied upon as the sole basis for determining the need for runway closures. If SAAB readings should contradict either pilot reports or staff's assessment of surface conditions, a second run should be made (if possible). If it is determined that the SAAB Friction Tester is not functioning properly, then NOTAM the vehicle out of service and follow the SAAB maintenance procedures in this paper.

#### **B. HOW TO TAKE READINGS**

- 1) SAAB runs should be taken in the predominant wheel tracks on the left side of the centerline, unless surface conditions are noticeably different on the right side, which should then be measured.
- 2) Runs should be taken in the direction of landing aircraft beginning at the landing threshold and ending at the runway end.
- 3) All runs should be taken at 40 mph or less as conditions dictate.

- 4) Do not take runs on loose snow over two (2) inches deep, or slush over 1/2 inch deep.
- 5) All readings will be recorded on a standard report form and retained for future review (see attachment).
- 6) Airport Operations staff will provide as much advance notification to Air Traffic Controllers as possible when requesting runway availability in order to conduct friction surveys. ATC will provide the runway within the time frame requested (i.e. surface inspection is required in 10 minutes - or surface inspection required in 30 minutes, etc.).

#### **C. WHEN AND HOW TO RELAY READINGS**

- 1) When readings are .40 and below for any one-third of the runway and taken on compacted snow and/or ice only, they must be reported to the Tower using the following format: (Example: EWR-Runway 4L- 41-36 38 - compacted snow, time 0813.) According A/C 150/5200-30A paragraph 14, it is no longer necessary to report the type of friction device used or distance from centerline, however the type of contaminant should be reported.
- 2) Friction reports should be relayed to the Airport Duty Manager who will relay them to the Control Tower by phone/radio or include in NOTAMS as stated in example.

#### **D. SAAB MAINTENANCE**

- 1) The SAAB should be calibrated before friction tests are conducted.
- 2) The test tire should be the Aero Tire at 100 PSI - check all tire pressures and tire wear at least daily.
- 3) If CAD is to respond effectively and efficiently to a SAAB vehicle problem, a standard trouble-reporting system should be established. Outlined below is a suggested procedure that should be followed:
- 4) Aviation - Operations reports any problems, immediately, to the Auto Shop Supervisor on duty.
- 5) If the problem is of an electronic nature, this should be the next step: Monday to Friday, between 7:00 a.m. and 3:30 p.m., the Auto Shop supervisor should contact the Electronics Shop. All other days and hours the Auto Shop, or Airport Operations, should contact the Central Police Desk (CPD) who, in turn, will get in touch with the Electronics Shop.
- 6) For technical support contact: Leonard Taylor at Trade Winds Scientific (613-832-2687)
- 7) When the SAAB is out of service, during the winter operations season (November 15 through April 15), it must be NOTAMed as such.

## LETTER OF AGREEMENT

Between

The Port Authority of New York and New Jersey

and

Newark Liberty International Airport

Air Traffic Control Tower

Federal Aviation Administration

Effective Date: November 24, 1993

Subject: Winter Operations Runway Friction Testing

- 1.) This Letter of Agreement outlines operational procedures as suggested in FAA AC 150/5200-30A, intended to provide the Airport Operations staff at EWR and the Air Traffic Control Tower Staff at EWR with a method for coordination of measuring, reporting, and disseminating to pilots information on runway conditions at EWR during adverse weather conditions.
- 2.) Airport Operations Staff will provide as much advanced notification to ATC as possible when requesting runway availability in order to conduct friction surveys. ATC will provide the runway in the time frame requested. It is anticipated that a period of approximately 10 minutes will be required per runway for the friction inspection.
- 3.) The Tower Area Supervisor or representative shall advise the Port Authority Supervisor whenever runway braking action reports of less than "good" are received and again when they improve to good.
- 4.) The runway surface friction measurement report relayed via radio or phone to ATC from the friction tester vehicle will identify the runway, time of the measurement, friction numbers for each zone tested (touchdown, midpoint, and roll out), and observed contaminant conditions+
- 5) When the friction-measuring device is out of service or there are no personnel to operate the equipment, it will be NOTAMed out of service.

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**SECTION FOUR**  
**Landside Services Snow Plan**

## LANDSIDE SERVICES

### SNOW STORM CHECKLIST

#### I. GENERAL OUTLINE

##### A. CUSTOMER SERVICES

- 1) Responsibility for
- 2) Awareness of
- 3) Reactive vs. proactive

##### B. WEATHER FORECAST

##### C. PRE-STORM COORDINATORS MEETING

##### D. INITIAL SNOW RESPONSE PLAN DEVELOPMENT

##### E. INCREASED STAFFING PLAN AND COORDINATION

##### F. SNOW REMOVAL CONTRACTOR BRIEFING

- 1) Weather forecast
- 2) Operational readiness
- 3) Early start possibilities

##### G. PARKING LOT CONTRACTOR BRIEFING

- 1) Weather forecast
- 2) Review areas of responsibility
- 3) Operational readiness
- 4) Staffing requirements
- 5) Casual snow shovelers availability

##### H. FOUL WEATHER PLAN ACTIVATION

- 1) Notification to respective agencies

##### I. TERMINAL ISSUE

- 1) Passenger activity
- 2) Flight operations/cancellations
- 3) Concession operations (what's available, what's not)

- 4) Stranded passenger comforts

**J. PRIORITY OF EQUIPMENT USAGE AND AREAS**

- 1) Refer to Landside Services Snow Plan

**K. GROUND TRANSPORTATION OPERATIONS**

- 1) Foul weather plan activation
- 2) Current/continuing availability of services

**L. AIRPORT CLOSURE**

- 1) Public notification
- 2) Re-evaluation of checklist

**M. AIRPORT RESUMPTION**

- 1) Status of roadways
- 2) Status of parking lots
- 3) Status of Ground Transportation Services

**N. AIR TRAIN OPERATIONS**

- 1) Forecast briefing
- 2) Operational concerns
- 3) Staffing requirements
- 4) Snow accumulation of emergency walkway
- 5) Service levels

**II. SPECIFIC AREAS OF CONCERN**

**A. CUSTOMER SERVICE**

- 1) Landside Services Unit plays key role in providing high standards of customer service.
- 2) All areas and actions of Landside Services staff should be focused on providing highest standards.
- 3) Ask the support of and follow up on requests of others in providing appropriate levels of customer service.
- 4) Staff should always be in a proactive role versus having to always be reactive to situations.

**B. WEATHER FORECAST**

- 1) Twice daily forecasts are received at the Landside Control Center.
- 2) Specific attention to forecast for snow operations between November 15th to April 18, 2004.

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**C. PRE-STORM COORDINATORS MEETING**

- 1) Supervisor of Landside Services
- 2) In the absence of the Supervisor, Deputy Chief Landside Services
- 3) Landside Services Duty Manager
- 4) Manager, Landside & Customer Services

Discussion held as to forecast, snow alert activation, staffing requirements, initial plan of attack.

**D. INITIAL PLAN OF ATTACK**

- 1) The Supervisor of Landside Services, Deputy Chief and Duty Manager develop the initial response to storm equipment activation and placement.
- 2) Develop staffing plan to handle immediate requirement and duration of storm requirements.
- 3) In the absence of the Supervisor of Landside Services and Deputy Chief, the Duty Manager is responsible for and acts on behalf of the Supervisor of Landside Services, i.e. weekends and off-hour tours.
- 4) Notify the Supervisor and Deputy Chief of impending snow alert and current status.
- 5) Monitor progress of storm.

**E. INCREASED STAFFING REQUIREMENTS**

- 1) Develop immediate staffing requirements.
- 2) Develop staffing plan for storm duration.
- 3) Staffing plan consistent with work schedules providing for ease in upgrading/downgrading/minimizing impact on existing schedules.

**F. SNOW REMOVAL CONTRACTOR BRIEFING**

- 1) Brief contractor on Port Authority's forecast, confirm/discuss his forecast and ours.
  - 2) Confirm operational readiness and availability of equipment.
  - 3) Confirm availability of equipment reference early start-up to existing contract requirements.
- 
- 4) Check on availability of additional equipment and time requirement to activate such equipment.

#### **G. PARKING LOT CONTRACTOR BRIEFING**

- 1) Brief contractor on Port Authority's forecast.
- 2) Review areas of responsibility, contract requirements and additional areas covered by contractors/casual snow shovelers. (See Landside Services Snow Plan for specific areas).
- 3) Confirm operational readiness of specialized equipment and operators.
- 4) Discuss staffing requirements, both contract and increased requirements.
- 5) Confirm and/or advise as to need for casual snow shovelers, amount needed and start-up time.

#### **H. FOUL WEATHER PLAN**

- 1) Be prepared to activate foul weather plan as required at appropriate time.

#### **I. TERMINAL BUILDING ISSUES**

- 1) Initial terminal inspection for passenger activity levels, flight operations.
- 2) Monitor flight operations/cancellations throughout duration of storm, keeping Airport Duty Manager abreast of changing conditions.
- 3) Confirm concessions availability, brief on forecast, coordinate with concession operators staffing availability and desire to have services available throughout storm.
- 4) Be alert for stranded passengers; concern should be with comfort and needs for small children and infants.

#### **J. PRIORITY OF EQUIPMENT USAGE AND AREAS**

- 1) Refer to Landside Services Snow Plan for equipment assignments.

- 2) Consider needs as required to adjust equipment usage based on changing priorities.

#### **K. GROUND TRANSPORTATION OPERATIONS**

- 1) Keep abreast of all ground transportation operations for current status, discuss with operators any planned reduction in service.
- 2) Activate foul weather plan as required.
- 3) Monitor for continued service levels, notification to public and other service providers of diminished or canceled service, i.e. no taxi service available, notify permittees who may be able to increase service.

#### **L. AIRPORT CLOSURE**

- 1) Ensure passengers in terminals are aware of airport's closure and expected time of resumption of service.
- 2) Review checklist, advising all agencies of closure and expected time of resumption of operations.
- 3) Ensure stranded passengers are monitored, provide assistance as required.

#### **M. AIRPORT'S RESUMPTION OF OPERATIONS**

- 1) Ensure all roadways, courtyards, access roads are ready.
- 2) Ensure all parking lots have available space or alternate space is available.
- 3) Alert all ground transportation operators that airport is open, check for available services.

#### **N. AIRTRAIN OPERATIONS**

- 1) Brief Bombardier Duty Managers on forecast, with emphasis on expected wind conditions throughout the storm.
- 2) Discuss any operational concerns that may be expected.
- 3) Ensure appropriate staffing is available.
- 4) Monitor snow accumulation on emergency walkway.
- 5) Discuss service levels, degraded service and notification procedure for unexpected operations.

## LANDSIDE SERVICES SNOW PLAN

- I. Introduction

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- II. Types of Snow Alerts and Personnel Requirements

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- III. Responsibilities and Procedures
- IV. Melting vs. Trucking
- V. Forms
- VI. 5-STAR Parking Systems Snow Removal Areas
- VII. Feeding Procedures
- VIII. Parking Lot Drain Locations

## I. INTRODUCTION

Snow removal in the Landside Services Unit is a vital part of the Airport Operation. It requires the total effort of our personnel to see that it is performed in a safe manner in order to keep traffic flowing on our roadways and in our parking lots.

The roadways, parking lots, crosswalks, bus courtyards, central stack, sidewalks remote AirTrain stations and bus stop shelters are as vital to our unit for snow removal as are the runways and taxiways to the Operations and Maintenance Units. The cooperation of the Maintenance Units, the Contractor, and total support of unit personnel will make our job easier.

The following guidelines will assist in making snow removal familiar to all staff as part of our winter requirements.

## II. TYPES OF SNOW ALERTS AND PERSONNEL REQUIREMENTS

Depending on weather forecasts and updates, the Airport Snow Coordinators, in conjunction with the General Manager, will determine whether to designate conditions as an Alert I, II, III or IV.

- A) An Alert I is declared when the weather forecast predicts a dusting of snow (no accumulation), freezing rain or sleet. Until there is any accumulation or the Alert is upgraded, facility maintenance will handle any necessary salting or sanding requested by Landside Services.

Staffing - normal tour coverage plus two supervisors on snow duty (usually a 12-hour tour - 0700 x 1900 or 1900 x 0700).

- B) An Alert II is declared when the weather forecast predicts, or conditions change to a light accumulation of snow. Once snowfall has reached a depth of 1", the Contractor (Aero Snow) shall supply, for Landside Services use, Eight 4x4s (6 with plows and salters. The contractor will have two 12-16 yard salters for the bus route. The contractor also provides 10 bobcats to clear the remote AirTrain stations and walkways and two 40 ton melters with loaders for the garage rooftops.

Staffing - normal coverage plus a coordinator and (6) Supervisors (usually a 12-hour tour) 0700 x 1900 or 1900 x 0700 ,

- C) An Alert III is declared when the weather forecast predicts, or conditions change to a substantial accumulation of snow. With a depth of 3" of snow accumulated, the Contractor will provide 18

pay

loaders for Landside Services use in the parking lots. One 4 wheel drive loader and 7 melters for the parking lots.

D) An Alert IV is declared when the weather forecast predicts or conditions change to a heavy accumulation of snow. These conditions warrant continued full utilization of all snow removal equipment, additional contractors being called in as well as additional maintenance manpower, i.e., SEMAC's full participation.

Staffing - the only difference for Landside Services Staff is the possible addition of more contractors' equipment being called in for assistance.Alert IV/V, etc.

### **PERSONNEL REQUIREMENTS**

All available staff should be assigned to either 0700 x 1900 or 1900 x 0700 tour to maintain consistency with schedule insuring easy transition back to normal operations.

RDO Personnel will also be called in for 12-hour tours and may be Assigned either a 0700 or 1900 hour starting time. At a forecast of 3" or more, of snow, for the EWR area it is the responsibility of all Landside Services Supervisors to contact the Landside Control Center to determine the Airport status and, if needed, to work during the snow emergency, or leave a telephone number where you may be contacted.

\*Note that the =Landside Services Duty Supervisor (91) may request additional staffing depending on the units needs during certain snow alerts.

The Landside Services Duty Supervisor may also request additional snow equipment through the coordinator on time and materials (T&M), if conditions warrant it.

ALERT I

91A  
coordinator

92A  
Parking lots

Coordinator

91A

92T

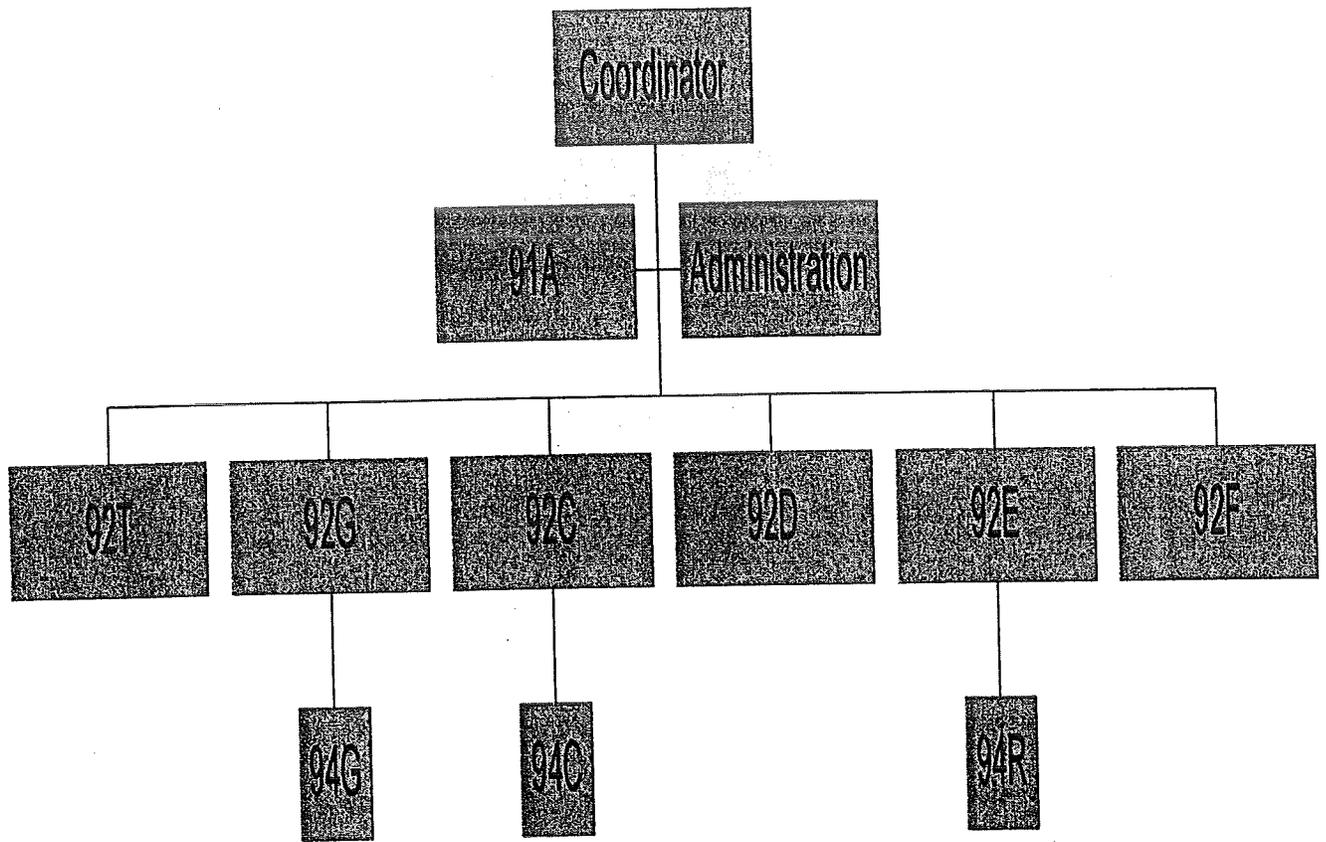
92C

92D

92E

92F

92G



### III. RESPONSIBILITIES AND PROCEDURES

During a snow alert extra supervisory personnel are assigned specific duties and areas of responsibilities and each person is assigned a specific call sign. Regardless of your snow assignment, all Landside Services Supervisors will be required to maintain records of work areas covered which will be submitted to the Landside Services Snow Coordinator at the end of your tour. All personnel should familiarize themselves with the paperwork involved for each position. (See attached samples).

#### Alert #1 Trace to less than 1 inch of snow

Two Supervisors...91A, 92A

##### 91A Duties

Along with the maintenance roadway supervisor will evaluate the conditions of the various roadways, parking lots, garages, remote AirTrain stations, courtyards, taxi areas, terminal areas and handicapped ramps. Will ensure that maintenance staff or casuals take care of all icy or slippery areas. Maintains close coordination with 91 and 99 for forecasted accumulation, and determines staffing requirements.

##### 92A Duties

Will inspect and monitor all parking lots, garages and Rail Link Station. Plans additional staffing if needed and makes the notifications to staff.

# Alert #II 1 to 3 inches of snow

Coordinator.....90 or 91C

Operations Supervisor...91A

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Plus six supervisors 92T, 92C, 92D, 92E, 92F, 92G

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Contract Equipment Eight 4x4s, 10 bobcats, two 40-ton melters with loaders and two 12-16 yard salters.

### Coordinator Duties

Along with the maintenance roadway supervisor evaluates the conditions of the various areas of responsibility, roadways, parking lots, garages, AirTrain Stations (including the RaiLink Station), and terminal areas. Ensures that any icy or slippery areas are taken care of by maintenance, contractor or casual personnel. Maintains close coordination with 91 and 99 for forecasted accumulation, and determines staffing requirements.

### 91A

Oversees overall snow and ice removal. Works closely with coordinator, maintenance and administration.

### 92T Duties

Responsible for the terminal area, courtyards, Taxi chutes, handicapped ramps. Assigned one 4x4s. two 12-16 yard salters.

**\*Note the large salters with plows will be sent to the lots as soon as possible.**

### 92C Duties

Responsible for the central terminal parking lots, walkways, entrances, exit plazas, aisles, roadways and C garage. Assigned 1 melter with loader, one 4x4s and 2 bobcats.

### 92D Duties

Responsible for parking lot P1/3, monorail stations P1, P2 and P3, walkways, aisles and entrance/exit plazas. Assigned 5 bobcats, 2 4x4 s

#### 92E Duties

Responsible for P4 Garage, Valet, Station P4 and Rail Link Station.  
Assigned 3 bobcats 1 40 ton melter with loader.

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#### 92F Duties

Responsible for parking lot F aisles, entrance/exit plazas, bus shelters and sidewalks. Assigned two 4x4s

#### 92G Duties

Responsible for parking lot P6 and if necessary lot P7 aisles, entrance/exit plazas, bus shelters and sidewalks. Assigned two 4x4s

### **Alert #III** **3 inches or more of snow**

In an alert III three additional supervisors are added to handle additional contractor equipment. Additional available staff could be called in.

#### 94R Duties

Assist 92E with the Station P4 assigned 1 bobcat.

#### 94C Duties

Assist 92C in the central terminal parking lots and C Garage.

#### 94H Duties

Assist 92G in lot P7.

#### Administration/Management Staff

Assist in securing hotel rooms, assist in transporting staff to and from hotel rooms, monitor status of stranded passengers in terminals, providing assistance when necessary.

## AirTrain Snow Removal Procedure

The AirTrain will be given top priority and handled accordingly. The Landside Services supervisor assigned to Lot P1/3 snow removal will directly supervise snow removal at the P1, P2 and P3 AirTrain stations. The Lot P4 snow supervisor will oversee the Station P4 and the Rail Link Station snow removal.

*Depending on the level of the alert, the 91A snow Air Train duties will include:*

- Check all stations, sidewalks, walkways and roadways for Hazardous conditions.
- Co-ordinate the use of all hired and contract equipment, Port Authority staff & equipment. Co-ordinate the Aero-Snow and 5-STAR PARKING snow contract staff. While direct supervision will be with 5-STAR the 91A will also oversee the contracting and supervision of the "snow casual" work force.
- The 91A will oversee the recording of all paperwork connected to the snow removal effort including but not limited to contract equipment timekeeping, operational needs, landside conditions and staffing needs.
- They will ensure that safe and effective snow removal methods are employed to clear the AirTrain stations.

Among the procedures they will monitor are:

- *Use of snow blowers by 5-STAR staff in clearing sidewalks, walkways and curb frontages.*
- *The snow removal procedures by Port Authority and outside equipment in clearing roadways at Stations P1, P2, P3, P4, Rail Link and Valet.*
- *The use of casual snow shovelers in clearing sidewalks, walkways and curb frontages at Stations P1, P2, P3, P4, Railink and Valet.*
- *The work of Cleaning contractors staff in keeping station platforms, lobbies, escalators and elevator clear of any hazardous conditions. Snow casuals can be used in addition to existing staff if conditions justify their need.*
- *The work of maintenance staff in keeping the helixes clear of snow and ice.*

## During an Alert III

### 92C and 94C Duties:

92C along with 94C will be responsible for 14 pieces of equipment (4 payloaders), (1) case tractor, 2 bobcats, one (1) 4x4, a 40 ton melter with loader, two large melters with loader which will be used to clear Parking Lots A-B-C. This is accomplished as follows:

- a) Rendezvous with equipment and record all information on P.A. Form 2416 (see sample attached). (92C will maintain a record of all operating time for each piece of equipment noting reasons for non-operation (down time) on this form.
- b) In an Alert II one piece of equipment is assigned to each lot and the perimeter roadway is cleared first along with the exit and entrance throats.
- c) The contractor should then begin to clear each aisle in the lot. Clearing of aisles should start with the first pass next to the parked vehicles. This method will help reduce the building of berms behind the cars.
- d) Once the aisles are cleared, the equipment will then begin opening up parking spaces. The contractor shall clear all areas which have eight or more adjacent vacant stalls.

### IMPORTANT NOTE:

When stockpiling snow in lots, you should keep the number of piles to a minimum. We will strive to keep a maximum number of spaces available in these lots. Also, where possible piles should be placed near drains in the event it becomes necessary to begin a melting operation. A copy of all parking lot storm drains is attached to each snow file. Under no circumstances should snow be piled along a fence line, roadway entrance, exit or emergency gate areas. Ideally, snow should be piled between light poles but not directly around the pole. No piece of equipment should be released until the area is checked by the Landside Services Snow Coordinator and it is determined the equipment is not needed in another area.

### 92D Duties:

92D Will be responsible for 15 pieces of equipment (4 payloaders) two 4x4s, 5 bobcats  
2 melters with loaders which will be used to clear Lot P1/3, the P1, P2, and P3 Air Train stations, and the charter bus hold area. This is accomplished as follows:

- a) Rendezvous with equipment at Lot P1/3, record all information on P.A. Form 2416 (see attached sample). 92D will maintain a record of all operating time for each piece of equipment noting the reasons for non-operation (down time) on this form.
- b) Assign at least one piece of equipment to clear the bus route along the perimeter of the lot so the shuttle bus can maintain their runs.
- c) Make sure the exit plaza is clear and then begin opening up the parking aisles.
- d) Once the aisles are open, the equipment can begin clearing spaces. Areas having eight or more vacant adjacent stalls should be cleared of all snow.
- e) The same criteria for stockpiling should be followed as mentioned before except to note that due to the size of the lot and number of vehicles parked there at the time of the snowfall. This lot usually ends up with additional equipment so it is important to keep accurate records and control of the operation.

#### **92E Duties:**

92E will be responsible for three (3) pieces of equipment, 2 pay loaders and a 4x4 which will be used to clear Lot P4, Station P4 and Valet.

#### **92F Duties:**

92F will be responsible for three pieces of equipment (2) pay loaders and (1) 4x4 to clear Employee Lot F. The clearing of snow in lots P4 and F is accomplished as follows:

- a) Rendezvous with equipment and record all information on P.A. Form 2416 (see attached sample). 92F and E will maintain a record of all operating time for each piece of equipment noting reasons for non-operation (down time) on this form.
- b) Assign at least one piece of equipment to clear the bus route along the perimeter of the lot so the shuttle bus can maintain their runs.
- c) Make sure the exit plaza is clear and then begin opening the parking aisles.
- d) Once the aisles are open the equipment can begin clearing spaces. Areas having eight or more vacant adjacent stalls should be cleared of snow.
- e) The same criteria for stockpiling snow should be followed as previously mentioned.

**92G and 94H Duties:**

92G along with 94H will be responsible for Four pieces of equipment, (3) pay loaders and (1) 4x4 which will be used to clear Lot P6 and P7 if necessary.

This is accomplished as follows:

- a) Rendezvous with equipment at Lot P6 and record all information on P.A. Form 2416 (see attached sample). 92G will maintain a record of all operating time for each piece of equipment noting reasons for non-operation (down time) on this form.
- b) Assign at least one piece of equipment to clear the bus route along the lot.
- c) Make sure the exit plaza is clear and then begin opening up the parking aisles.
- d) Once the aisles are open the equipment can begin clearing spaces. Areas having eight or more vacant adjacent stalls should be cleared of snow.
- e) The same criteria for stockpiling snow should be followed as mentioned previously. The 94H will oversee the snow removal operation in lot P7 if necessary

**92T and 94T Duties:**

92T and 94T will be responsible for supervising 4x4s and any additional equipment that may be ordered by the 91A on (T&M) i.e. (1) large roadway salter. Areas that the 4x4's should concentrate on are as follows:

- All bus courtyards, central taxi stack and terminal taxi chutes.  
All Landside Services Supervisors should monitor 5-STAR'S supervision of the snow shovelers who are utilized to clear the sidewalks bus stops and various walkways throughout the airport. Their specific assignments are noted on the CTA Snow Casual Deployment List.  
Supervisors working with hired equipment should know that it is very important to advise the 91A of any breakdowns or malfunctions with any equipment assigned to you. You should contact the 91A and inform him/her what equipment you have and what areas you are clearing. The 91A will keep accurate records of what areas have been addressed and what areas have to be done and what equipment is being used.

At the end of your tour, you should rendezvous with the Aero Snow Supervisors at their trailer to reconcile your paperwork before turning it into the 91A or passing it on to the next tour. Again, do not release any equipment until the Landside Services Supervisor Snow Coordinator and/or 91A have inspected the area and accepted the condition of the lot.

*It is important to note that once equipment is released and returned to the contractor, T&M will be charged for any returned equipment needed back in duty.*

### MELTING VS. TRUCKING

There will be times when snow accumulations will dictate that snow cannot be stored within the confines of a parking lot. When this occurs, the choice is trucking to a remote site or melting on-site. (It is important to locate snow piles near drains.) Landside Services Snow Coordinator will make the recommendation and request to the Airport Snow Coordinator which method is to be used based on some or all of the following criteria.

- Lot Status (% capacity)
- Time of Week  
(saturation or expected saturation)
- Time of Season  
(early or late-nature taking over)
- Proximity of remote site
- Additional snow forecast

*Snow Staff Teams for 2003-2004 Snow Calendar*

	<b>Days</b>	<b>Nights</b>
11/15/03-11/29/03	B	A
11/29/03-12/13/03	A	B
12/13/03-12/27/03	B	A
12/27/03-01/10/04	A	B
01/10/04-01/24/04	B	A
01/24/04-02/07/04	A	B
02/07/04-02/21/04	B	A
02/21/04-03/07/04	A	B
03/07/04-03/21/04	B	A
03/21/04-04/04/04	A	B
04/04/04-04/18/04	B	A

**2003/2004:**

**A Team - Joe Masterson (Snow Coordinator)**

**Ray Abel**

**B Team - Glenn Taylor (Snow Coordinator)**

**During Alert Level III, the following management staff will be assigned alternating tours depending on the severity of the snow:**

**N. Seliga/D. Papaiani**

**J. Giobbie/MJ Vespoli**

**E. McCarthy/V. Rob**

**Snow Alert Roster**

Date:                      Day                      Tour

*Alert I Normal tour plus two supervisors for snow*

*Alert II Normal tour plus Coordinator, and seven supervisors*

Alert III and above All Supervisory personnel on 12 hour split shifts

<i>Call Sign</i>	<i>Position</i>	<i>Schedule</i>	<i>Vehicle</i>	<i>Supervisor Hotel RM.</i>
900/90	Coordinator _____			
91A	Hired Equipment _____			
92C	CTP _____			
92D	Lot P 1/3 _____			
92E	<i>Lot P4, valet</i> _____			
<b>92F</b>	<b>Lot P8 (F)</b> _____			
92G	Lots P6 &P7 _____			
92T	Terminal areas _____			
<b>94C</b>	<b>CTP</b> _____			
94G	Lots P6& P7 _____			

Important Phone Numbers- Aero Snow 961-5396, Snow Desk 961-6096

**Contract Equipment:**

At an accumulation of 1 inch Aero Snow will supply us with 8 4x4s, with salters and plows. They will also give us 10 bobcats to clear snow from the monorail stations and the walkways in lots P 1/3 and P4. We also get two large 16 yard salters for the parking lots.

Upon an accumulation of 3 inches per the contract they will supply 18 pay loaders. They have additional pay loaders on site along with melters.

The additional equipment is to be used as needed on a T&M arrangement.

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**SECTION FIVE  
INTERNATIONAL FACILITY SNOW  
REMOVAL PLAN**

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## **INTERNATIONAL FACILITY RAMP SNOW REMOVAL PLAN**

Effective handling of snow removal on the ramp requires a high degree of cooperation, judgment, alertness and extra effort by everyone. Upon receiving the preliminary forecast of frozen or freezing precipitation, the "70" attends the snow meeting with the "99" and the "91" to determine the alert status. Calls should be placed to the FIS agencies for the relocation of their vehicles parked rampside behind the FIS building.

The following guidelines will be used to determine the number of ramp personnel and equipment needed for a particular snow condition.

### **ALERT 1**

- In addition to the normal staffing, the following coverage will occur.
- 0700x1900 - On weekdays the 72S will hold over until 1900 hrs and become the snow coordinator; on weekends a 0700x1900 snow coordinator will be called in on overtime.
- 1900x0700 – A "72" will be called in to cover ramp snow activity and the Duty "70" will be the Snow Coordinator.
- SAOA tours to be broken, 0700x1900 & 1900x0700

### **ALERT 2**

- In addition to the normal and Alert # 1 staffing, the following coverage will occur.
- 0700x1900 additional supervisors will cover the following;
  - B2 Ramp
  - B3 Ramp
  - Hardstands and Ramp entrance throats
  - Terminal Building
- 1900x0700 additional supervisors will cover the following;
  - B2 Ramp
  - B3 Ramp
  - Hardstands and Ramp entrance throats
  - Terminal Building

### **ALERT 3**

When the weather forecast predicts or conditions change to a substantial accumulation of snow, all international personnel will be called upon to assist with the snow removal operation.

#### **Notes on Staffing**

- "72S" will be snow coordinator on the 0700 to 1900 tour for an Alert 2 or 3.
- The 1900 to 0700 snow coordinator to be taken from the "70" pool for an Alert 2 or 3.
- B2 and B3 ramp snow supervisors will be taken from the 72, 70 and qualified "74," "75" and "76" RDO pools.
- Terminal snow supervisors are taken from the qualified "74," "75" and "76" RDO pools.
- Every effort should be made to keep staff consistent with their schedule rotation to ensure that there is a ready pool of staff available to resume business as usual.

### **EQUIPMENT and VEHICLES**

Additional Port Authority vehicles are available as needed in from the following sources in the following order:

1. Security Manger
2. Manager Landside and Customer Services
3. Manager of Airport Services

The "70" will have access to the keys.

Once an alert status has been determined and the probability of precipitation is greater than 50% the "70" will request a chemical truck for chemical application prior to the first snowfall. An alternative to liquid chemical would be a truck mounted spreader of dry chemical (SAFEWAY) for the gate areas in the event that the liquid application is not available.

Equipment is procured from the Snow Desk (6096) for chemical and sanding applications. All other equipment requires a time sheet and is escorted from the Snow Trailer adjacent to the Post Office. Sanding should be used at the snow supervisor's discretion but it should be noted that excessive sanding can be problematic after the snow operation is complete.

All equipment engaged in snow removal will be operated in a safe manner within the limits of their intended purpose. In the interest of safety a maximum speed of 10 MPH should be maintained. Drivers of all snow equipment should be briefed to ensure that they are familiar with what the expectations are for snow removal on the ramp.

- At the first coating of snow on the ground, two (2) sidewalk brooms will be utilized for the center lines (RD, RE and RF), DL and DM and all lead-in lines; one (1) broom for hardstands Amelia and Lindy.
- Once the brooms become ineffective, escalate to four (4) 4x4's (two (2) assigned to each satellite) at confined gate areas, three (3) 30-ft blades to plow B2 and B3 including the concrete pads, 2 snow melters with front end loaders. For hardstands Amelia, Lindy & Wilbur one (1) 30' blade, one (1) snow melter with front end loader.

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All snow piles and removal equipment MUST be removed from the ramp after the removal operation is complete. Do not release the snow melters until the snow piles are completely removed. Once snow removal is complete, the Snow Coordinator will determine the need for chemical sanding mixture to be applied to the surface.

## IMPORTANT TELEPHONE NUMBERS

General Manager NJ Airports	973-961-6161
Airport Duty Manager (ADM)	973-961-6025
Operations	973-961-6015
Landside Services Duty Manager	973-961-6700
Landside Services Control Desk	973-961-6154
Snow Desk	973-961-6096
Police Desk	973-961-6230
Terminal "B" Ramp Control	973-961-6622
FAA Control Tower	973-565-5000
National Weather Service EWR	973-624-6905
JFK Operations	718-244-3801
LGA Operations	718-533-3700-1
Auto Shop	973-961-6042
Aero Snow	(Field Operations EWR) Phil DeJana 973-961-5396 Roy Arena 516-944-3100 Roy Arena 973-242-7185 Roy Arena Beeper# 973-257-0893
MIC-5	973-961-6129
Stockroom	973-961-6250
Hudson General	973-824-5252
Monorail Maintenance Control Facility	973-624-1206
Newark De-icing Control Center (EDCC)	973-961-6327,28

## AIRLINE & SERVICE COMPANY OPERATIONS NUMBERS

Air France	961-0340
American Airlines	961-4140
American International	961-4700
America West	961-1510
Air Canada	961-1700
Air Transport Association	516-791-3444
British Airways	961-4588
Continental Airlines	961-1550
Delta Airlines	430-3911
Federal Express	Ramp 565-2314, A/C Maint:2347, Main #2300
Lufthansa	961-7430
Northwest	961-4371
SAS	622-4791
Signature Flight Support	624-1660
Signature Services Division	961-2695
Trans World Airlines	961-3101
United Airlines	961-5050
USAir	642-5533
Virgin Atlantic	961-3280
World Wide Flight Service	961-3487

**EXEMPTION (4)**

**DRAWINGS OF NON-PUBLIC AREAS**

**Section 313-Snow and Ice Control Plan**

**1. Responsibilities and Supervision**

A) It is the responsibility of the Operations Manager, or his/her designee, to oversee the removal of snow and/or slush from the runways and taxiways via the use of maintenance and operations personnel and, if necessary, outside contractors. The Duty Airport Operations Supervisor has the responsibility to commence, oversee, and end snow removal on the airport and designated leased areas. Priority snow removal will be given to the airport's runways and taxiways. The ramps are the responsibility of each individual tenant (as per their lease or use and occupancy agreement with the Port Authority of New York & New Jersey). The Duty Supervisor will coordinate the equipment and its operations, determine the surfaces to be plowed, and monitor the progress of the snow removal and make the necessary adjustments. The Airport Manager reserves the right to determine its' own involvement in any snow removal procedure in accordance with its' level of authority and responsibility.

B) Removal Crews – Airport Maintenance and Operations personnel are responsible for snow removal activity. Contact lists are provided at Airport Operations.

**2. Pre-Storm Planning**

A) When inclement weather is expected, a complete weather forecast must be compiled by the Duty Supervisor, or designee. Its information should contain, when available, facts such as:

**STORM MOVEMENT**  
**TYPES OF PRECIPITATION**  
**WIND DIRECTION AND VELOCITY**  
**TEMPERATURES (DAY OR NIGHT)**  
**EXPECTED ACCUMULATION**  
**EXTENDED FORECAST**

B) Snow removal should be scheduled when snow begins to fall on movement areas. Airport Operations and Maintenance will attempt to keep the runways and taxiways open as long as possible, **however, safety will not be compromised. If the Airport**

Operations Supervisor or Senior Airport management deems the runways and taxiways unsafe, they will be closed and appropriate NOTAMS issued. In addition, the runway will be closed for aircraft use if it has more than two (2) inches of dry snow and /or ½ inch of wet snow or slush. Once action has been taken or remedies have been initiated, Airport Operations may allow aircraft to operate on the respective runway.

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Paved surfaces should be carefully checked when snow starts to accumulate. If conditions warrant, the issuance of a NOTAM and runway surface friction survey should be completed.

#### FRICITION SURVEYS

The friction surveys will be taken with the Saab Friction Tester as the primary method, and the Vericom decelerometer as the secondary method. Both devices are on the FAA's list of approved vendors for both CFME's and Decelerometer's.

### **3. Notification Procedures**

- A) As soon as a decision is made to begin snow removal operations, Airport Operations will notify the air traffic control tower (direct line) and fixed based operators (via land line or fax).
  
- B) Airport information is disseminated through the Notice to Airman (NOTAM) system by calling the Millville Flight Service Station (FSS). NOTAMS are issued in accordance with FAR Part 139.339.

### **4. Vehicles**

- A) All snow removal vehicles operating on aircraft movement areas must be equipped with two-way radio or be under the direct control of a vehicle with such. Radios must be capable of monitoring the ground control frequency, 121.9 (or any frequency assigned by the airport traffic control tower).
  
- B) All supervisors involved in snow removal are responsible for the efficient operation of snow removal equipment. All equipment must be inspected prior to the snow removal

season as well as before each storm to ensure proper operation. The equipment must be inspected for damage and/or maintenance needs after each storm snow removal event.

C) The airport operates, maintains, or contracts out sufficient equipment to meet the guidelines outlined in AC 150/5200-30.

D) While operating snow removal vehicles all personnel (with the exception of the Operations Supervisor) will use the respective vehicle number for communication. The Operations Supervisor coordinating snow removal will be referred to as TEB 99.

E) All outside contractors employed for snow removal operations will be subject to all airport regulations. They will operate under the supervision of the airport operations supervisor or designee. At no time will contractors be permitted to operate equipment beyond the limits of the ramp areas without direct approval and control from the airport operations supervisor or designee. All vehicles must be equipped with the necessary lights and warning signals for night operation in accordance with AC 150/5210-5, Painting, Marking and Lighting of Vehicles Used on an Airport or acceptable substitute as approved by the operations supervisor or designee.

## **5. Snow Removal Operations**

### **A) Background**

The following principles regarding snow removal shall be adhered to in maintaining safe operating conditions on airport movement areas:

- 1) Drifted or windrowed snow will be removed completely and promptly from runway, taxiway, and ramp surfaces.
  
- 2) In the event that the snow removal crew is unable to comply promptly with the requirements stated above, the airport operations supervisor or designee will utilize the NOTAM system to describe the conditions, and will promptly notify the airport control tower and other airport users. See ACM Section 313.3.A and B: Notification Procedures.

### **B) Priorities - Early Stages of the Storm**

TETERBORO AIRPORT  
AIRPORT CERTIFICATION MANUAL

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1) The plan for snow removal for each storm will depend on the weather conditions.

2) Snow and ice control is performed on the active runway, associated parallel taxiway, and taxiways connecting the active runway to parking ramps. Standard procedures will consist of the use of one or more of the following: displacement plows, rotary plows, brooms, liquid chemical vehicles, solid chemical vehicles, and sand dispersment vehicles to meet FAR Part 139.313(b)(1-4).

3) If air traffic and prevailing weather conditions favor **RWY 06/24**, the priority taxiways for snow removal are:

**TWY's A, B, P, G (from P to L), L (from G to K), L (from P to RWY 19 threshold), K (west of L), J (west of L), and N.**

Snow removal on these aeronautical areas, during the storm period, will allow access to all ramp areas from the active runway. To perform this task, it is essential to close RWY 06/24 during the actual snow removal operation. The runway may be closed for snow removal operations via verbal confirmation with TEB ATCT without the issuance of a NOTAM. Also, snow removal will occur on RWY 01/19 approximately 500 feet north and south of RWY 06/24.

See Exhibit 313-1.

If air traffic and prevailing weather conditions favor **RWY 01/19**, the priority taxiways for snow removal are:

**TWY's B, P, G (from P to RWY 1/19), L (from G to RWY 1 threshold), L (from P to RWY 19 threshold), K, and J (west of L).**

Snow removal on these aeronautical areas, during the storm period, will allow access to all ramp areas from the active runway. To perform this

task, it is essential to close RWY 01/19 during the actual snow removal operation. The runway may be closed for snow removal operations via verbal confirmation with TEB ATCT without the issuance of a NOTAM. Also, snow removal will occur on RWY 06/24 approximately 500 feet north and south of RWY 01/19. See Exhibit 313-2.

4) When conditions warrant, snow removal will commence on the Aircraft Rescue Fire Fighting (ARFF) access road "B" adjacent to TWY L. In addition, conditions adjacent to emergency gate "D" are monitored to ensure access. Emergency gate "D" accesses a tenant ramp, therefore the tenant usually plows this area.

5) Keeping all NAVAID snow clearance areas within snow depth limits for the specific type of glide slope antenna configuration is imperative. FAA Airways Facilities is responsible for ensuring snow depth heights at the NAVAIDS are within limits. Snow bank heights should not exceed those for capture effect glide slope (CEGS), if possible. Due to the terrain in the area related to the glide slopes for RWY 19 and RWY 06, it is impractical to expect effective snow removal efforts in these areas. Therefore, AF may take action in the form of a NOTAM when snow depth limits are exceeded.

**C) Priorities - As the Storm Progresses**

1) The airport duty supervisor or designee, using various weather forecasts, will try to determine when the storm conditions will change. One of the purposes for this information is to plan snow removal for the alternate runway and associated taxiways.

**D) Other Considerations**

1) Signs and lights should be frequently checked by duty supervisor or designee for visibility and should be cleared as appropriate.

## **6. Ice Control**

Frequent review of current and forecast weather conditions should be performed when the air temperature falls in the most probable icing range. Runway sensors are important tools in determining when icing conditions may occur, or may exist.

One or more of the following methods are available in the treatment of icing conditions:

- 1) Application of Potassium Acetate
- 2) Application of Sodium Acetate
- 3) Application sand
- 4) Scraping of surfaces

Sand may be mixed with chemicals and/or heated to assist in adhering to the ice and prevent stockpiles from freezing.

**ABSOLUTELY NO CHLORIDE SALTS OR OTHER CORROSIVE CHEMICALS ARE TO BE USED ON AIRCRAFT MOVEMENT AREAS.**

The aircraft De-Icing Program may be in effect during snow removal operations. See LOA-7 *De-Icing Program* and LOA-8 *Braking Action Reporting*.

## **7. Cleanup**

All snow windrows must be removed as soon as possible after a storm ends. If visible sand remains after the storm ends, it will be removed from runways as soon as surface is dry and braking action has been restored. The airfield should be checked for broken or damaged lights, signs and repairs will be made.

## **8. Tenant/Contractor Responsibilities**

All fixed-base operators will be responsible for snow removal and ice control on their designated ramp areas. The placement of snow banks should be planned to maintain safe and efficient movement of aircraft.

**EXEMPTION (4)**

**DRAWINGS OF NON-PUBLIC AREAS**



**THE PORT AUTHORITY OF NY & NJ**

**TITLE: MULTI-FACILITY AVIATION PERIMETER INTRUSION  
DETECTION SYSTEM (PIDS) SECURITY DESIGN,  
PURCHASE, CONSTRUCTION, INSTALLATION, AND  
INTEGRATION AND ON-SITE MAINTENANCE  
PURCHASE ORDER #4500044655 – CONTRACT  
#4600006166**

**CONTRACT# MFA-134.308 and MFA-134.308M  
NUMBER: 8162**

**2c. Negotiated Books, Addendum #5, Attachment 3**

Available on Livelink at: Ex. 4

Access Livelink from within Port Authority's network via Ex. 4

Authorized Livelink access available outside Port Authority's network at: Ex. 4

Note: For access to Livelink, personnel must have completed Security Safeguard Training, Livelink training and acquired a Livelink account.

1. For granting of access contact Mr. Angel Martinez
  - (201) 595-4744
2. For Security Safeguarding training contact Mr. Mike Udvardy
  - (201) 595-4753
3. For Livelink training contact Mr. Paul Adams
  - (201) 595-4608

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## **Addendum 5, Attachment 6**

**Replace Book 1 Section 7.2.4.2.1 and Book II Section 4.2.1 – Facility (30%, 60%, and 90%) Design, with the following:**

### **Facility (30%, 60%, and 90%) Design**

The Contractor shall provide a Facility 30%, 60%, and 90% Systems Design for JFK, LGA, EWR, and TEB. This design will address all security system (Software and Hardware) and infrastructure requirements to complete the installation. The designs shall provide the features and technical specifications of the PIDS system at the 30%, 60%, and 90% complete level. In the course of completing the 30%, 60%, and 90% design, the Contractor shall obtain necessary user input on key open design questions that the Contractor may have and conduct site visits to each facility to collect the necessary data to assist in the development of the design. The design shall include updated PIDS equipment and locations as well as identify communications connectivity, distribution boxes, and power sources. These designs shall include wiring diagrams for power and communications infrastructure. As part of the 60% design, the Contractor shall identify elements (or areas) within the design that can immediately progress to 100% to expedite/initiate construction and installation. The Design Documentation shall include items as described in Book I, Section 7.2.9.

**Replace Book 1, Section 7.2.4.5.5 and Book II Section 4.5.5 – Facility Final (100%) Security System and Infrastructure Design with the following:**

### **Final (100%) Security System and Infrastructure Design**

The Contractor shall provide a final security system and infrastructure design which shall provide the features, functions and technical specifications of the system at a 100% complete level. The design may be a subset of the complete facility design of the elements (or areas) identified during the 60% review that can be expedited to initiate construction and installation. The design shall include final equipment locations as well as detailed connectivity drawing for the communications and power infrastructure. The design documentation shall include items as described in Section 7.2.9

**Replace Book 1, Section 7.2.11 and Book II Section 5.2 – Pre-Construction Inspections and Approvals with the following:**

### **Pre-Construction Inspections and Approvals**

After the 100% Infrastructure and Security Design Approval of the complete facility design or elements (areas) and prior to the commencement of the initial Construction, the Contractor shall conduct a Pre-Construction Meeting(s) with the Authority and Resident Engineer and verify all permits and approvals that have been obtained. This may include any Pre-Construction Authority schedules that may be required.

## **SECTION 6**



**THE PORT AUTHORITY OF NY & NJ**

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**Date: Sep 29, 2005**

**ADDENDUM #6**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 28, 2005, no later than 2:00 PM

**The following changes are hereby made in the documents:**

1. Please replace MFA 134.308 Book II Section 36, Compensation for Extra Work with the updated provision in Attachment 1 of this addendum.
2. Please update Book II, Attachment C (PIDS Functional and Performance Requirements), Section 2.4.4.1, Integration Ex. 4

The Port Authority is involved in a TSA Research & Development (R&D) Grant to utilize the existing Ex. 4 system at JFK for detecting and tracking intruders along the Airport Perimeter. The Airport Security Display Processor Interface System (ASDP) provides the interface to the existing Ex. 4. The ASDP will be turned over to the Authority after testing. The system at JFK will be made available to the PIDS Contractor as Port Authority Furnished Equipment for potential integration. The Contractor may acquire and integrate the ASDP Interface System for LGA, and EWR as well. Maintenance of the ASDP will become part of the PIDS Maintenance Contract. Maintenance responsibilities for the RADAR system will remain with the FAA”

3. Please update Book II, Attachment C, (PIDS Functional and Performance Requirements), Section 1.3, as follows:

“Data Management and Reporting Subsystem – The Data Management and Reporting Subsystem shall permit archiving of events and distribution of vital information to response teams and PANYNJ management.”

4. Please see Attachment 2 of this Addendum for information provided on the Ground Surveillance Radar system and assessment system installed at LaGuardia Airport.

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

<b>1</b>	<p><i>Book I, Section 1.4 - The RFP indicates that the proposer shall indicate and <b>guarantee</b> the Pa; ...shall indicate and <b>guarantee</b> the FAR and NAR. If we perform the required test and prove the Pa and FAR and NAR are within acceptable range, does that constitute a guarantee?</i></p>
	<p>As part of the Proposal, the Proposer shall indicate and guarantee they will meet the minimum Pd requirement and not exceed the maximum NAR and FAR rates. Testing and Acceptance will prove that requirements as identified in Book II, Attachment C, Functional and Performance Requirements are met.</p> <p>Also, Please refer to Book I, section 7.2.6 and Book II, Attachment B, Section 6, PIDS Testing and Acceptance.</p>
<b>2</b>	<p><i>Book I, Section 7.2.4.3 - Due to the time constraint, what assurance can be provided that the different Airport Facilities will not change the concepts submitted in the 60 or 90% design submittals and that the Airport Facilities will reasonably use consistent concepts proposed by the consultant across all four airports?</i></p>
	<p>The PIDS Concept of Operations and PIDS Functional and Performance Requirements specify the requirements for PIDS. These documents have been reviewed and agreed to by PIDS Team members of the Port Authority of NY &amp; NJ. Also Book II, Attachment C (PIDS Functional and Performance Requirements),</p>



	<i>down based on the updated estimates?</i>
	It is not the Port Authority of NY & NJ intent to adjust the overall proposed contract price. Follow-on cost is provided to facilitate the decision making process during the Design phase of PIDS.
<b>6</b>	<i>Book I, Section 7.2.6.3 - The contract calls for a Factory Acceptance Test for each facility. If the system provided is the same for each facility, does the Port Authority require that the test be repeated four times or would it accept one Factory Test for all four airports?</i>
	Yes, a Factory Acceptance Test will be required for each facility. The purpose of the Factory Acceptance Test for each facility is not only to test the system against the contract requirements but also to test facility specific system components prior to delivery to the site for installation. This will reduce the risk of major components arriving dead on arrival, causing installation schedule delays.
<b>7</b>	<i>Book I Section 7.2.6.3 - The contract indicates the Port Authority will review and approve the Field Acceptance Test plan. After the Test's successful completion and the submission of the test report the Port Authority will review the report and indicate changes to be performed in the Work and/or report. Furthermore, the Contractor is required to make changes or perform additional work as directed by the Authority prior to the Operation test. If the Authority elects to require the Contractor to make changes to the work in either case above, does the Field Acceptance Test have to be re-run and how does the Contractor get compensated for it? (Please note as stated above that work done as Extra Work would not cover the Consultant's cost.)</i>
	<p>Please, review Book I Section 7.2.6 and Book II, Attachment B, Section 6, PIDS Testing and Acceptance with respect to the first part of the question above. The first part of the question above does not reflect the statements contained in the aforementioned sections. Also please refer to Book I, Section 7.2.6.5, and Book II, Attachment B Section 6.5, Operational Test, with respect to options available should there be a failure to complete operational testing successfully.</p> <p>Compensation for changes will be dependant on whether changes are required as a result of poor contractor work/performance or redesign based on a change in scope at the request of the Authority. Compensation will not be provided as a result of poor contractor work/performance.</p> <p>Please refer to Question 3 above and Attachment 1 with respect to the contract provision for extra work.</p>
<b>8</b>	<i>Is this PIDS program to be integrated into the existing access control and alarm monitoring system and video surveillance system</i>
	Please refer to Book I, Section 7.2.4.4.2, Book II, Attachment B, Section 4.4.2, and Book II, Attachment C, Section 2.4.4.3.
<b>9</b>	<i>What is the source, value and availability of the Port Authority's Funding</i>

	PIDS is a Board authorized project and is included in the Port Authority of NY & NJ Security Capital Program.
<b>10</b>	<i>Book 4 Attachments indicates 5.4 is the facility Information – Communications Infrastructure for Teterboro. This information for Teterboro was not included. However we did receive information for Ex. 4 which was not indicated in the Table of Contents.</i>
	Please see the RFP Book IV Attachment 5 Memorandum documentation. Within this attachment, Memorandums are provided for JFK, EWR, LGA, TEB and There were no communications drawings provided for TEB since there is very limited communications infrastructure available and the Primary CDS is slated for installation within Ex. 4 and the secondary CDS is slated for installation
<b>11</b>	<i>Section 5.5, p. 21, Table E-1 lists requirements for the 15 page limit. However, single line block diagrams and schematic location drawings for each facility will and consume 8 of these pages. We assume that these documents are not included in the page count, and since the list of assumptions is site specific that this also will be outside of the page limit. Are these assumptions correct?</i>
	Please refer to Addendum #4 Question #8 response.
<b>12</b>	<i>Book I Section 1.3, Page 7 – Data Management and Reporting Subsystem. “The Data Management and Report Subsystems shall ... and notification of intruders of the discovery of their intrusion and announcement of countermeasures in process.” Is the PIDS supposed to warn intruders of their intrusion, and tell the intruders what countermeasures are being taken?</i>
	No, the system is not required to warn intruders of their intrusion and tell the intruder what countermeasures are being taken. Book II, Attachment C, Functional and Performance Requirements Section 1.3, Page 7 is updated as follows:  “Data Management and Reporting Subsystem – The Data Management and Reporting Subsystem shall permit archiving of events and distribution of vital information to response teams and PANYNJ management.”  Also please refer to Section 2.3.5 of the Functional and Performance Requirements for details on the Data Management and Reporting Subsystem requirements.

<p><b>13</b></p>	<p><i>Book I Section 1.3: Clarification of FAR and NAR. When do you consider a FAR or NAR has occurred?</i></p> <ul style="list-style-type: none"> <li>a. <i>The act of the system incorrectly classifying a detected event as a potential intrusion, resulting in a FAR/NAR;</i></li> <li>b. <i>The act of the system incorrectly classifying a detected event as a potential intrusion, and alerting the operator, but the operator correctly eliminates the alert using the Assessment subsystem. No FAR/NAR would result, since the operator resolved the event; or</i></li> <li>c. <i>The act of the system incorrectly classifying a detected event as a potential intrusion, and alerting the operator, but the operator cannot determine the event status resulting in incorrectly acting on or escalating the event, resulting in a FAR/NAR.</i></li> </ul>
	<p>Please Refer to the Definitions in Book 1, Section 1.3 for False Alarm, False Alarm Rate (FAR), Nuisance Alarm, and Nuisance Alarm Rate (NAR). It should be noted that NAR and FAR does not occur, they are calculated. False Alarms and Nuisance Alarms occur with the NAR/FAR being a derivative of these, that is, the NAR/FAR is the number of occurrences over some selected period of time.</p> <p>Please see the Book II, Attachment C, Section 2.3.3.13.3 for NAR/FAR requirements.</p>
<p><b>14</b></p>	<p><i>Reference Paragraph 2.3.1.5.20: Clarification – Ex. 4</i></p> <p><i>Is the requirement to store video 24/7 from all new cameras installed, and all existing cameras from the Guard Posts, and CACS/Verint CCTV System?</i></p>
	<p>The PIDS CCTV archiving requirements are for new cameras that are installed under the PIDS Contract, as well as any existing cameras that may be utilized by the Proposer for Perimeter Intrusion Detection and Assessment.</p> <p>The Guard Post and the CACS/Verint CCTV Systems are for access control and have their own existing archiving capabilities. As an integrated solution, PIDS shall have the capability to interface with these systems and be able to retrieve data as necessary.</p>
<p><b>15</b></p>	<p><i>Section 2.3.1 pp. 15- 18 describes CDW and CDW consoles. Clarification - The requirements for the CDW consoles are listed as for all CDW locations. However, drawings and site surveys clearly showed CDW as going on existing desks in some cases. Also, a console is listed as incorporating 4 x 21" displays in a cockpit arrangement, which will not fit in some of these locations. Please clarify equipment (rack, console, workstation) needs and space allocated for each CDW location. Similarly for Section 2.3.2, pp 25-26, please clarify what CDW locations require audiovisual equipment, since some CDW locations cannot accommodate the space required.</i></p>
	<p>Final equipment locations will be dependant on the proposed solution and determined during the design phase of PIDS, after contract award. For the purposes of the RFP submission, the Proposer shall propose a system that meets the functional and performance requirements.</p>

	Audiovisual equipment is also an optional capability and shall be priced for each facility; please refer to Book II, Chapter II, Section 34. Also, please make note of Book II Attachment C, Section 2.3.2.7, Existing Audio Visual Equipment.
<b>16</b>	Reference Paragraph 2.3.1.5.25: Clarification – What is the scope of the disaster recovery plan – recovery from a complete PIDS failure at an airport?
	Yes, recovery for a complete PIDS failure at an airport.

## ADDENDUM #6 – ATTACHMENT 1

### 36. COMPENSATION FOR EXTRA WORK

The Chief Engineer shall have authority to agree in writing with the Contractor on behalf of the Authority upon lump sum or other compensation for Extra Work in lieu of the compensation for which provision is hereinafter made in this numbered clause.

If such agreement on compensation is not made, and Extra Work be performed, the Contractor's compensation shall be increased by the following amounts and such amounts only:

- 1.) For Extra Work consisting of design services, an amount equal to the salaries paid to technical employees for time actually spent in performing such services, plus 100% of the portion of such salaries representing "straight time" payments.
- 2.) For Extra Work consisting of performance of construction at the construction site, an amount determined as follows:
  - a. In the case of Extra Work performed by the Contractor personally, an amount equal to the actual net cost in money of the labor and materials required for such Extra Work, plus twenty per cent (20%) of such net cost, plus such rental for equipment (other than small tools) required for such Extra Work as the PA Project Manager deems reasonable.
  - b. In the case of Extra Work performed by a subcontractor, an amount equal to the actual net cost in money of the labor and materials required for such Extra Work, plus twenty per cent (20%) of such net cost plus such rental for equipment (other than small tools) required for such Extra Work as the PA Project Manager deems reasonable, plus seven per cent (7%) of the sum of the foregoing cost, percentage of cost, and rental.

As used in this numbered clause (and in this clause only):

"Design Services" means the preparation of Detailed Contract Drawings and Detailed Specifications for approval of the PA Project Manager in accordance with the clause hereof entitled "Design" but shall not include the preparation of working or shop drawings.

"Salaries paid to technical employees" means salaries actually paid (excluding payments and factors for holidays, vacations, sick time, bonuses, profit participations and other similar payments) to architects, engineers, designers, draftsmen and other technical employees of the Contractor or of the subcontractor performing such design services, excluding however, any partners, corporate officers and clerical or administrative personnel.

"Labor" means foremen, surveyors, laborers, mechanics and other employees below the rank of superintendent, exclusive of timekeepers, directly employed at the construction site, whether employed by the Contractor or by the subcontractors, subject to the PA

Project Manager's authority to determine what employees of any category are "required for Extra Work" and as to the portion of their time allotted to Extra Work; and "cost of labor" means the wages actually paid to and received by such employees plus a proper proportion of (a) premiums, if any, actually paid by the employer for Workers' Compensation Insurance upon the basis of such wages, (b) vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligation upon the basis of such wages, and (c) taxes actually paid by the employer pursuant to law upon the basis of such wages. "Employees" as used above means only the employees of one employer.

"Materials" means temporary and consumable materials as well as permanent materials; and "cost of materials" means the price (including taxes actually paid by the Contractor pursuant to law upon the basis of such materials) for which such materials are sold for cash by the manufacturers or producers thereof, or by regular dealers therein, whether or not such materials are purchased directly from the manufacturer, producer or dealer (or if the Contractor is the manufacturer or producer thereof, the reasonable cost to the Contractor of the manufacture and production), plus the reasonable cost of delivering such materials to the construction site in the event that the price paid to the manufacturer, producer or dealer does not include delivery and in case of temporary materials, less their salvage value, if any.

"Work day" in reference to an item of equipment means a day other than a Saturday, Sunday or legal holiday except that if the particular item of equipment is actually utilized at the construction site by the Contractor or subcontractors under this or any other Contract with the Authority on a Saturday, Sunday or legal holiday said day shall be deemed a work day.

- A. The rental for equipment, whether owned by the Contractor or subcontractors or rented from others and notwithstanding the actual price of any rental or actual costs associated with such equipment, shall be computed by the PA Project Manager on the basis of the following
  - 1.) Hourly rental for those items of equipment listed in the "Rental Rate Blue Book" (published by Machinery Information Division, K-III Directory Corporation, 1735 Technology Drive, Suite 410, San Jose, California 95131-2398), (hereinafter called "the Blue Book") shall be 100% of the applicable rates as listed in said book, reduced to an hourly basis (see formula below) except that such applicable rates shall be reduced by 50% for all hours of rental payable hereunder in excess of 8 hours each day. The edition of this publication to be used shall be the one in effect on the date of the actual rental of the equipment. The "Estimated Operating Cost per Hour" as set forth for such item of equipment in the Blue Book shall be added to the hourly rental for each hour that such equipment is actually engaged in performing Extra Work. No amount for operating cost will be allowed during periods when such equipment is not actually engaged in performing Extra Work (i.e. standby rental time). None of the provisions of the Blue

Book shall be deemed referred to or included in this Contract except as specifically set forth in this Section.

- 2.) If no listing of rental rate and/or hourly operating cost for the item of equipment is in the Blue Book, the PA Project Manager shall determine the reasonable rate of rental and/or hourly operating cost of the particular item of equipment by such other means as he finds appropriate.

B. When utilizing the rental rates appearing in the Blue Book, the Engineer shall determine the applicable rate and the hourly rental determined therefrom by applying the following criteria:

- 1.) The rate to be applied for an item of equipment used on a particular Extra Work order shall be the daily, weekly or monthly rates from the foregoing publication based on the total number of work days or portions thereof that a particular item of equipment or substitute item of equipment is at the construction site for use by the Contractor or subcontractors whether under this Contract or any other contract with the Authority. Included within this period will be (i) work days of idleness of the equipment at the construction site whether such idleness results from acts or omissions of the Contractor, Authority or third persons, breakdowns in the equipment or any other cause, (ii) work days on which the equipment is removed from the construction site solely to enable the performance of repairs thereon, and (iii) work days intervening between the removal of equipment from the construction site for repairs and the delivery to the construction site of the same or substitute equipment. The number of work days in the period for each rate shall be as indicated below:

Three work days or less.	Daily Rate
More than three work days but not more than fifteen work days.	Weekly Rate
More than fifteen work days.	Monthly Rate

The pro rata portion which one hour bears to the applicable rate shall be determined in accordance with the following formula:

Hourly rate based on daily rental.	1/8 of daily rental from Blue Book
Hourly rate based on weekly rental.	1/40 of weekly rental from Blue Book
Hourly rate based on monthly rental.	1/176 of monthly rental from Blue Book

2.) The rental rate shall be multiplied by the applicable regional adjustment factor shown for such item of equipment in the Blue Book. The adjustment factor shall not apply to the hourly operating cost.

3.) If the Engineer should determine that the nature or size of the equipment used by the Contractor in connection with Extra Work is larger or more elaborate, as the case may be, than the size or nature of the minimum equipment determined by the Engineer to be suitable for the Extra Work, the reasonable rental will not be based upon the equipment used by the Contractor but will be based on the smallest or least elaborate equipment determined by the Engineer to have been suitable for the performance of the Extra Work.

C. In the case of equipment utilized only for Extra Work: (a) in addition to amounts determined as provided in subparagraphs A and B above, there will be added to the rental as computed above the taxes on the rental actually paid by the Contractor or subcontractor and the reasonable cost of transporting such equipment to and from the construction site, and (b) notwithstanding the number of hours during which such equipment is utilized, the minimum rental therefor will be for a period of eight hours.

In computing the Contractor's compensation insofar as it is based upon Extra Work, and notwithstanding any provision to the contrary appearing in the Blue Book, no consideration shall be given to any items of cost or expense not expressly set forth above, it being expressly agreed that the costs and percentage additions hereinbefore provided cover items of cost and expense to the Contractor of any type whatsoever, including administration, overhead, taxes (other than those enumerated above), clean-up, consumables including gas and oil, drafting (including printing or other reproduction), coordination, field measurements, maintenance, repairs, insurance, profit to the Contractor and small tools.

Whenever any Extra Work is performed (whether by the Contractor directly or through a subcontractor), the Contractor shall, at the end of each day, submit to the Engineer (a) daily time slips showing the name and number of each workman employed on such Work, the number of hours which he is employed thereon, the character of his duties, and the wages to be paid to him, (b) a memorandum showing the rates and amounts of Workers' Compensation Insurance premiums, if any, and state and federal taxes based on such wages, and vacation allowances and union dues and assessments which the employer actually pays pursuant to contractual obligation upon the basis of such wages (c) a memorandum showing the amount and character of the materials furnished for such Work, from whom they were purchased and the amount to be paid therefor, and (d) a memorandum of equipment used in the performance of such Work, together with the rental claimed therefor. Such memoranda and time slips are for the purpose of enabling the Engineer to determine the amounts to be paid by the Authority under this numbered clause; and accordingly, they shall constitute a condition precedent to such payment and the failure of the Contractor to furnish them with respect to any Work shall constitute a conclusive and binding determination on his part that such Work is not Extra Work and shall constitute a waiver by the Contractor of claims for payment for such Work. In the event that the Chief Engineer and the Contractor shall agree in writing upon a lump sum

or other compensation for Extra Work in lieu of compensation as provided in the second paragraph of this clause, the daily time slips and memoranda required by this paragraph shall not be required subsequent to the date on which such agreement has been reached.

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**THE PORT AUTHORITY OF NY & NJ**

**TITLE: MULTI-FACILITY AVIATION PERIMETER INTRUSION  
DETECTION SYSTEM (PIDS) SECURITY DESIGN,  
PURCHASE, CONSTRUCTION, INSTALLATION, AND  
INTEGRATION AND ON-SITE MAINTENANCE  
PURCHASE ORDER #4500044655 – CONTRACT  
#4600006166**

**CONTRACT# MFA-134.308 and MFA-134.308M  
NUMBER: 8162**

**2c. Negotiated Books, Addendum #6, Attachment 2**

Available on Livelink at: Ex. 4

Access Livelink from within Port Authority's network via , Ex. 4

Authorized Livelink access available outside Port Authority's network at: Ex. 4

Note: For access to Livelink, personnel must have completed Security Safeguard Training, Livelink training and acquired a Livelink account.

1. For granting of access contact Mr. Angel Martinez
  - (201) 595-4744
2. For Security Safeguarding training contact Mr. Mike Udvardy
  - (201) 595-4753
3. For Livelink training contact Mr. Paul Adams
  - (201) 595-4608

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**THE PORT AUTHORITY** OF NY & NJ

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**Date: October 7, 2005**

**ADDENDUM #7**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 28, 2005, no later than 2:00 PM. Please refer to Book I, Section 1.6 for Submission of Proposals.

**The following changes are hereby made in the documents:**

1. Please see attachment 1 for updated pricing schedules to:

Book I, Section 7.3, Schedule 12

Book I Section 7.4, Schedule 12 Definitions

Book II, Chapter II, Section 34, Schedule 12

Book II, Chapter II, Section 35, Schedule 12 Definitions

Book III, Attachment A, Section 1.10, Schedule VI

Book III, Attachment A, Section 1.11, Schedule VI Definitions

2. Please see attachment 2 for updated to:

Book I, Section 7.2.9.8 and Section 7.2.14

Book II, Attachment B, Section 9.8

Book II, Attachment D

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

1.	Do any of the facilities contain easements of "rights of way"? Will these be identified for the bidders?
	There are no easements, crossing the airport properties. There are pipelines servicing the fuel farms. However, these are tenant areas and the Port Authority does not have legal rights associated with recorded easements of record.
2	<i>Book II, Attachment C, Functional and Performance Requirements Section 2.3.5.6, p 36. No area of coverage is defined for wireless notification to portable devices. Please specify coverage. Also, please verify wireless notification infrastructure costs are to be included in the PIDS bid.</i>
	<p>Please refer to the PIDS Facility Perimeter Characterization and Security Upgrade Plans, provided in Book IV Attachment 3, Facility Perimeter Security Limits Area Drawing. Coverage for each Airport Facility shall include the exterior in the following areas of each facility:</p> <ul style="list-style-type: none"> <li>- Exterior AOA Secure Area (Blue Hatched Area)</li> <li>- Alarm/Detection Secure Area (Red and Orange Hatched Areas)</li> <li>- Alert/Observation Area (Green and Purple Hatched Areas)</li> <li>- Fuel Farm - Alarm/Detection Secure Area</li> </ul> <p>Yes, Wireless notification infrastructure Costs should be included as part of the Proposal. Please see Attachment 1 for updated pricing schedules to</p>

	<p>Book I, Section 7.3, Schedule 12</p> <p>Book I Section 7.4, Schedule 12 Definitions</p> <p>Book II, Chapter II, Section 34, Schedule 12</p> <p>Book II, Chapter II, Section 35, Schedule 12 Definitions</p> <p>Book III, Attachment A, Section 1.10, Schedule VI</p> <p>Book III, Attachment A, Section 1.11, Schedule VI Definitions</p>
3	<p><i>Book II, Attachment C, Section 2.3.7.3 requires that all power calculations and alternative power sources be listed in the proposal, but the submittal requirements in Book 1 do not include this. Where shall this information be proposed?</i></p>
	<p>This information is required and shall be included as part of Book 1, Section E-1, Integrated Perimeter Intrusion Detection System (PIDS) Design and Technical Approach, of the Proposal.</p> <p>To accommodate this material in Book1, section E-1, the Page Limit of Book 1, section E-1 of the Proposal submittal is increased to a 20 Page Limit. Any detailed Power Calculations that may be provided may also be added as an appendix.</p>
4	<p><i>Reference Paragraph 2.3.7.5: Clarification – Please definition of a Field Device Controller</i></p>
	<p>A Field Device controller is defined as the signal processor/controller associated with an intrusion detection sensor/system or assessment system that is required for the operation (processing of alarm/video data) of that sensor/system.</p>
5	<p>Ex. 4</p>
	<p>Ex. 4</p>
6	

Ex. 4

7	Ex. 4
8	<p><i>During the sight survey, at all airports, many sections of AOA fencing were found to have significant natural growth such as weeds, trees, and shrubs along the fence. Clearing this growth could increase perimeter security. If the proposer wishes to recommend clearing of growth along fences, and perhaps even large areas of growth, should the cost of clearing the growth as well as regular maintenance of the area be included in the proposal? Or will the PA provide the clearance and maintenance of the area?</i></p>
	<p>No, do not include the cost of clearing the growth as well as regular maintenance of the areas as part of the Proposal. The Port Authority of NY &amp; NJ will utilize existing facility contracts to clear and maintain the growth along fence lines.</p>
9	<p><i>It is our understanding that certain gates are to be removed from the perimeter of the airport. Can the PA provide a list of gates that will be removed?</i></p>
	<p>Please refer to Book IV Attachment 3.0, Perimeter Characterization and Security Upgrade Plans. The gates to be removed are identified within these drawings.</p>
10	<p><i>Are all gates on the perimeter of all airports covered by the unmanned gate project, and therefore are not in the scope of PIDS?</i></p>
	<p>The Unmanned Gate Project covers access Control for these gates. Intrusion Detection and Assessment are within the scope of PIDS. Please refer to Book IV Attachment 3.0, Perimeter Characterization and Security Upgrade Plans.</p>
11	<p><i>When will the bidders be allowed to review the CONOPS?</i></p>
	<p>Per Book I, Section 1.10, please contact Mr. Louis Barani at (201) 595-4698, Monday - Friday between the hours of 8:30 AM and 4:30pm. Also please refer to Book I, Section 1.10 for guidelines with respect to reviewing this information. Please note that a maximum of 2 Proposer personnel may review this document. These personnel must have successfully passed the background screening.</p>

12	<i>There is apparently no documentation (narrative nor drawings) on the existing communication infrastructure for TEB (only for JFK, EWR, LGA, Ex. 4 ). Is the existing communication infrastructure narrative and/or drawings for TEB available and will it be provided to the bidders?</i>
	Please see Addendum #6, Question 10 response.
13	<i>Will the latest PANYNJ wireless standard be provided to the bidders?</i>
	Please refer to Book IV, Attachment 12, Standards and Guidelines for Port Authority Technology.
14	<i>Will the PANYNJ provide an inventory of all installed and spare IDS devices currently at the airports to include any pilot projects?</i>
	There are no additional installed and spare Intrusion Detection System devices at the airports to be utilized for PIDS other than those identified within the RFP.
15	<i>Will the options for each airport that end in OM6 and OM7 be defined? Furthermore, there appears to be no base effort.</i>
	<p>Please refer to Book III, Attachment A, p108, "Schedule VI, Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for Option" definitions.</p> <p>OM6, Systems Administration – Base Work is for the Base effort as Identified in Book III, Attachment A, Schedule VI "Itemized Monthly Corrective and Scheduled Preventive Optional Maintenance Cost". OM7, System Administration is for Leasehold areas. Systems administration is priced out as an Option and includes pricing for the 12 month Warranty Period, Post Warranty up to 24 months, and extended options.</p>
16	<i>How does the zone numbering scheme on the pricing schedules and perimeter security upgrade zone table for each airport relate to the power drawing which has different zone numbering scheme?</i>
	The zones within Book IV, Attachment 4, Electrical/Power Memorandums are not related to pricing schedule or the security upgrade plans.
17	<i>Book 1, page 67 requires operating documentation as a first draft 80 working days prior to factory AT; however, paragraph 7.2.9.8 requires submittal for approval NLT 45 days prior to commencement of the formal training program. Which requirement is correct?</i>
	<p>After review of the submittal requirement, the submittal requirement for the Operating Documentation has been updated.</p> <p>The initial drafts of the Operating Documentation, which includes the Standard Operating Procedures Manual, Emergency Operating Contingency Manual, System</p>

	<p>Administrator Manual, Security Administrator Manual, Supervisor's Manual, and Site Specific Manuals, shall be submitted for review with the facility 90% design submittals. Finals documents shall be submitted for approval not later than Ninety (90) days prior to commencement of the formal Training Program.</p> <p>Please see Attachment 2 of this Addendum, for updated sections of the PIDS Statement of Work and Design, Install and Test Deliverables.</p>
<b>18</b>	<p><i>When will ex. 4 at TEB be available for build out and fit out?</i></p>
	<p>The Proposers shall assume that Ex. 4 will be available for build-out and fit out in mid 2007".</p>
<b>19</b>	<p><i>When will implementation of the new fence standard be completed at each airport? What is the current construction schedule at each airport? Will the designs for the new fence at each airport be provided to the bidders?</i></p>
	<p>Design standard(s) for the Airport perimeter fence are in the process of being developed and currently not available. These will be made available to the PIDS Contractor after contract award.</p> <p>Construction of segments of the AOA perimeter fencing could begin as early as the second quarter of 2006.</p>
<b>20</b>	<p><i>Are there specific snow-throw zones near the AOA external perimeter? Can annotated plans be provided?</i></p>
	<p>Please refer to Addendum 5, Question 6.</p>
<b>21</b>	<p><i>Book 2, Attachment C, paragraph 2.4.4.1. Will the winning bidder be required to maintain the ASDP or just the interface to the ASDP?</i></p>
	<p>Please refer to Addendum 6, Question 4.</p>
<b>22</b>	<p><i>Are there on-site radars at any of the airports that are not shown on plans, including pilot projects and other operational radars not planned for integration with PIDS?</i></p>
	<p>ex. 4</p>
<b>23</b>	<p><i>Will the PANYNJ provide environmental drawings for all of the airports?</i></p>
	<p>Please refer to Book IV, attachment 9.</p>

<b>24</b>	<i>Will the Port Authority guarantee that the API code for existing suppliers (specifically Lenel) is available to the successful Contractor for the purpose of system integration?</i>
	The Port Authority cannot guarantee Application Programming Interface Code from any supplier. The Port Authority neither owns software code, nor API Code, nor does it own any manufacturer's Software Development Kit or Tool. The Proposer is responsible for system integration, along with the tools that may be available from the development tool manufacturer. The Port Authority will own and retain all and exclusive rights to any API code or other code specifically developed by the Proposer under this Contract.
<b>25</b>	<i>Reference Addendum #5; Please confirm that emergency power to all CDS, CDW and communications devices will be furnished and installed by other and will be coordinated with the schedule for this project.</i>
	As stated in Addendum #5, the Proposer shall assume emergency power will be provided by others and sources are available at all CDS, CDW and communications devices. The Proposer will be responsible for providing UPS Run Time as identified in section 2.3.7.4 of the PIDS Functional and Performance Requirements. Schedules will be coordinated as appropriate.
<b>26</b>	<i>Are there existing or abandoned waste system sewers, leeching fields or underground fuel tanks at any of the airports? If so will their locations be identified to the bidders?</i>
	Please see Attachment 3 of this Addendum.

Schedule 12 - Optional Scope of Work Unit Price Items

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Qty.</u>	<u>Unit Price</u>	<u>Total Price</u>
RE.1		EA	1 to 5	\$ _____	\$ _____
RE.2		EA	6 to 10	\$ _____	\$ _____
RE.3		EA	11 to 20	\$ _____	\$ _____
RE.4		EA	1 to 5	\$ _____	\$ _____
RE.5	Ex. 4	EA	6 to 10	\$ _____	\$ _____
RE.6		EA	11 to 20	\$ _____	\$ _____
RE.7		EA	1 to 5	\$ _____	\$ _____
RE.8		EA	6 to 10	\$ _____	\$ _____
RE.9		EA	11 to 20	\$ _____	\$ _____
RE.10		EA	1 to 5	\$ _____	\$ _____
RE.11		EA	6 to 10	\$ _____	\$ _____
RE.12		EA	11 to 20	\$ _____	\$ _____
RE.13	Wireless Network – LGA	EA	1	\$ _____	\$ _____
RE.14	Wireless Network – JFK	EA	1	\$ _____	\$ _____
RE.15	Wireless Network – EWR	EA	1	\$ _____	\$ _____
RE.16	Wireless Network – TEB	EA	1	\$ _____	\$ _____

**Schedule 12 - Optional Scope of Work Unit Price Items**

Items RE.1 through RE.12 – Ex. 4 these lump sum line item prices include all labor, materials, equipment, incidentals, for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the Ex. 4 in accordance with the Functional and Performance Requirements of the Contract.

Items RE.13 through RE.16: A lump sum price for each line item that includes all labor, materials, equipment and incidentals to design, install, program and test all wireless network communications equipment and racks, including all electrical, mechanical, and architectural infrastructure components and any ancillary or incidental items necessary, to provide secure wireless links between vehicle mounted and portable devices, identified in Items RE.1 through RE.12, and both the primary and secondary CDS at each airport with full coverage within the Alarm/Detection Secure and Alert/Observation Areas identified on the PCSUP drawings and that are capable of supporting PIDS functions at all airports to achieve the functional and performance requirements as specified in the Contract.

Excluded from the lump sum price are all wide area network (WAN) communications to all airports. Provision for these WAN communications will be coordinated with PANYNJ during the design phase of this task.

**SCHEDULE VI**

**ITEMIZED MONTHLY CORRECTIVE AND SCHEDULED PREVENTIVE OPTIONAL MAINTENANCE COST (Includes Labor, Materials, Equipment)**

Optional

ITEM NO.	DESCRIPTION		MONTHLY	COST				
				WARRANTY PERIOD 12 MO.	POST WARRANTY - 24 MO.	OPTIONAL EXTENDED		
						25 MO.-48 MO.	49 MO.-72 MO.	73 MO.-76 MO.
LGA.OM1	Intrusion Detection Subsystem - Non-Building Perimeter Areas	LS	\$	\$	\$	\$	\$	\$
LGA.OM2	Assessment Subsystem - Purple Hatch Area	LS	\$	\$	\$	\$	\$	\$
LGA.OM3	Audio Visual Subsystem							
LGA.OM3A	Primary CDS	LS	\$	\$	\$	\$	\$	\$
LGA.OM3B	Secondary CDS	LS	\$	\$	\$	\$	\$	\$
LGA.OM4	Facility Communications Subsystem - Non-Building Perimeter Areas	LS	\$	\$	\$	\$	\$	\$
LGA.OM5	Electrical Subsystem - Non-Building Perimeter Areas	LS	\$	\$	\$	\$	\$	\$
LGA.OM6	System Administration - Base Work	LS	\$	\$	\$	\$	\$	\$
LGA.OM7	System Administration - Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
JFK.OM1	Intrusion Detection Subsystem - Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
JFK.OM2	Assessment Subsystem - Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
JFK.OM3	Audio Visual Subsystem							
JFK.OM3A	Primary CDS	LS	\$	\$	\$	\$	\$	\$

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JFK.OM3B	Secondary CDS	LS	\$	\$	\$	\$	\$	\$
JFK.OM4	Facility Communications Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
JFK.OM5	Electrical Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
JFK.OM6	System Administration - Base Work	LS	\$	\$	\$	\$	\$	\$
JFK.OM7	System Administration – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
EWR.OM1	Intrusion Detection Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
EWR.OM2	Assessment Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
EWR.OM3	Audio Visual Subsystem							
EWR.OM3A	Primary CDS	LS	\$	\$	\$	\$	\$	\$
EWR.OM3B	Secondary CDS	LS	\$	\$	\$	\$	\$	\$
EWR.OM4	Facility Communications Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
EWR.OM5	Electrical Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
EWR.OM6	System Administration - Base Work	LS	\$	\$	\$	\$	\$	\$
EWR.OM7	System Administration – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
TEB.OM1	Intrusion Detection Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
TEB.OM2	Assessment Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
TEB.OM3	Audio Visual Subsystem							
TEB.OM3A	Primary CDS	LS	\$	\$	\$	\$	\$	\$
TEB.OM3B	Secondary CDS	LS	\$	\$	\$	\$	\$	\$
TEB.OM4	Facility Communications Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
TEB.OM5	Electrical Subsystem – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$
TEB.OM6	System Administration - Base Work	LS	\$	\$	\$	\$	\$	\$
TEB.OM7	System Administration – Leasehold Areas	LS	\$	\$	\$	\$	\$	\$

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PATC.OM1	Enterprise Secondary CDS	LS	\$	\$	\$	\$	\$	\$
RE.M1		EA	\$	\$	\$	\$	\$	\$
RE.M4	Ex. 4	EA	\$	\$	\$	\$	\$	\$
RE.M7		EA	\$	\$	\$	\$	\$	\$
RE.M10		EA	\$	\$	\$	\$	\$	\$
RE.M13	Wireless Network LGA	EA	\$	\$	\$	\$	\$	\$
RE.M14	Wireless Network – JFK	EA	\$	\$	\$	\$	\$	\$
RE.M15	Wireless Network – EWR	EA	\$	\$	\$	\$	\$	\$
RE.M16	Wireless Network – TEB	EA	\$	\$	\$	\$	\$	\$
MF.T1	Follow-on Operator Training	EA	\$	\$	\$	\$	\$	\$
MF.T2	Follow-on Supervisor Training	EA	\$	\$	\$	\$	\$	\$
MF.T3	Follow-On System Administrator Training	EA	\$	\$	\$	\$	\$	\$
MF.T4	Operator Course Material							
MF.T4A	VHS	EA	\$	\$	\$	\$	\$	\$
MF.T4B	DVD	EA	\$	\$	\$	\$	\$	\$
MF.T4C	Course Manual	EA	\$	\$	\$	\$	\$	\$
MF.T5	Supervisor Course Material							
MF.T5A	VHS	EA	\$	\$	\$	\$	\$	\$
MF.T5B	DVD	EA	\$	\$	\$	\$	\$	\$
MF.T5C	Course Manual	EA	\$	\$	\$	\$	\$	\$
MF.T6	System Administrator Course Material							
MF.T6A	VHS	EA	\$	\$	\$	\$	\$	\$
MF.T6B	DVD	EA	\$	\$	\$	\$	\$	\$
MF.T6C	Course Manual	EA	\$	\$	\$	\$	\$	\$
MF.T7	Manuals							
MF.T7A	Operator Manual	EA	\$	\$	\$	\$	\$	\$

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MF.T7B	Supervisor Manuals	EA	\$	\$	\$	\$	\$	\$
MF.T7C	System Administrator Manuals	EA	\$	\$	\$	\$	\$	\$

**Schedule VI - Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost for Options**

Item LGA.OM1 – Intrusion Detection Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Non-Building Perimeter Areas as defined in the LGA Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM2 - Assessment Subsystem - Purple Hatch Areas: this lump sum price includes all labor, materials, equipment and incidentals equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, to maintain operational availability and reliability of the Assessment Subsystem installed in the Purple Hatch Areas as defined in the LGA Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items LGA.OM3A through LGA.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS at LGA in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM4 - Facility Communications Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Non-Building Perimeter Areas as defined in the LGA Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM5 Electrical Subsystem - Non-Building Perimeter Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, innerduct, transformers, receptacles, termination hardware, enclosures, etc. , including all communications, mechanical, architectural infrastructure components, installed in the Non-Building Perimeter areas as defined in the LGA Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem

for Non-Building Perimeter Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the LGA PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item LGA.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the LGA PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Assessment Subsystem for the JFK PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items JFK.OM3A through JFK.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, and architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS at JFK in accordance with the Warranty and

Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM4 - Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM5 - Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc., including all communications, mechanical, and architectural infrastructure components, installed in the Leasehold Areas as defined in the JFK Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem at JFK in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the JFK PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item JFK.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the JFK PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

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Item EWR.OM2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Assessment Subsystem for the EWR PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items EWR.OM3A through EWR.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM4 - Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM5 - Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc., including all communications, mechanical, and architectural infrastructure components, installed in the Leasehold Areas as defined in the EWR Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem at EWR in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the EWR PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum

line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item EWR.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the EWR PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM1 – Intrusion Detection Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all system sensors, controllers, device signal and low voltage power cabling, and communications interfaces of the IDS for the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM2 - Assessment Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all cameras, mounts, encoders, signal and low voltage power cabling, and communications' interfaces, software, firmware, display and processing equipment, including all mechanical and architectural infrastructure components, installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Assessment Subsystem for the TEB PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items TEB.OM3A through TEB.OM3B – Audiovisual Subsystem Primary and Secondary CDS: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required video display and display processing equipment, sound reinforcement equipment, switchers, interfaces, video sources, cabling, equipment cabinets, etc., including all communications, electrical, mechanical, architectural infrastructure components installed in the Primary and Secondary CDS, to maintain operational availability and reliability of the Audiovisual Subsystem Primary and Secondary CDS at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM4 - Facility Communications Subsystem – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required network electronics, communication backbone cabling, connection and termination hardware, enclosures, racks, etc., including all communications, mechanical, architectural infrastructure components, installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans to maintain operational availability and reliability of the FCS at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the

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Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM5 - Electrical Subsystem - Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals and warranties for all required wire and cable, conduit, transformers, receptacles, termination hardware, enclosures, etc., including all communications, mechanical, and architectural infrastructure components, installed in the Leasehold Areas as defined in the TEB Perimeter Security Upgrade Plans to maintain operational availability and reliability of the Electrical Subsystem at TEB in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM6 – System Administration – Base Work: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the TEB PIDS Base Work in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item TEB.OM7 – System Administration – Leasehold Areas: this lump sum price includes all labor, materials, equipment, incidentals, and warranties, including all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, for System Administration and support services to maintain operational availability and reliability of the TEB PIDS Leasehold Areas in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Item Ex. 4 Enterprise Secondary CDS: A lump sum price that includes all labor, materials, equipment, incidentals and warranties for all Enterprise Secondary CDS display and processing equipment and racks, including all electrical, communications, mechanical and architectural infrastructure components and any ancillary or incidental items, to maintain operational availability and reliability of the PIDS at Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing both for the twelve (12) month Warranty Period and for the Post Warranty Initial Term of twenty-four (24) months for Maintenance.

Excluded from the lump sum price are all wide area network (WAN) communications from Ex. 4 to all airports. Provision for these WAN communications will be coordinated with PANYNJ during the design phase of this task.

Items RE.M1, RE.M4, RE.M7, and RE.M10 – Ex. 4  
these lump sum line item prices include all labor, materials, equipment, incidentals, and warranties for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the Ex. 4  
in accordance with the Warranty and Maintenance and the Functional

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and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items RE.M13 through, RE.M16 – Wireless Network: these lump sum line item prices include all labor, materials, equipment, incidentals, and warranties for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the wireless network communications infrastructure for optional Ex. 4 at each airport in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Items MFT1 through MF.T7C – Follow-on Training, Course Materials and Manuals: these lump sum line item prices include all labor, materials, equipment, incidentals, and warranties for all required hardware, software and supplies, including all communications, electrical, mechanical and architectural infrastructure, to maintain operational availability and reliability of the Ex. 4 in accordance with the Warranty and Maintenance and the Functional and Performance Requirements of the Contract. These lump sum line item costs shall include pricing for the twelve (12) month Warranty Period and for the Post Warranty Initial Term and Optional Extended Terms for Maintenance.

Book II Attachment B: Scope of Work  
Section 9.8 Update  
Addendum 7

9.8 Operating Documentation

The Contractor shall provide all documents, manuals, and printed materials necessary for the effective operation of the PIDS. The documents provided shall be in a bound copy, additionally an electronic version shall be provided using an industry standard word processor, such as Microsoft Word for Windows 2000. This documentation shall include, but not be limited to, the following specific Manuals:

9.8.1 Standard Operating Procedures Manual

A PIDS Operating Procedures Manual shall be provided which contains graphical depictions and explanations of system operation for all operator functions. This manual shall be for instructional, study, and refresher use and shall explain all the features and functions of the PIDS for day-to-day operations (e.g., log-on, monitors, print daily reports). The manual shall also have a troubleshooting section so the operator can resolve common operating problems (e.g., network problems, restart the PIDS in the event of a component failure, clear jams). The manual shall also contain instructions on how to perform normal maintenance (e.g., changing paper for the printer). This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

9.8.2 Emergency Operating Contingency Manual

An Emergency Operating Contingency Plan shall be provided which contains graphical depictions and explanations of system operations for all emergency functions specified under Operator Training. This manual shall explain all the features and functions of the PIDS for emergency operations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

9.8.3 System Administrator's Manual

A System Administrator's Manual shall be provided which contains graphical depictions and written descriptions of all functions required for software modification and development. This manual shall contain all procedures necessary for the proper monitoring and administration of the PIDS. At a minimum, the manual shall contain separate sections that cover the following topics: startup and shutdown procedures, instructions for cold start of system

equipment, backup and recovery, performance analysis, scheduled maintenance, user management, audit and control, report production, configuration control, system diagnostics, database integrity, special requests and expendable supplies. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 9.8.4 Security Administrator's Manual

A separate, removable section of the PIDS Administration Manual shall contain information on the proper administration and control of the security features built into the PIDS. Some of the information to be contained in this section includes: maintenance of user identifiers, password control, and security policy review. Information on appropriate review of security controls for adherence through various types of reporting mechanisms and utilities and/or third party security software. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 9.8.5 Supervisor's Manual

A Supervisor's Manual shall be provided with graphic descriptions of all functions and procedures required for system modifications specified under supervisor Training. This manual shall contain all the instructions included in the Operator Procedures Manual plus instructions on printing standard and ad hoc reports. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 9.8.6 Site Specific Manuals

Site Specific Manuals shall be provided which shall include but not be limited to the following: site-specific configuration parameters; detailed system configuration narratives; default parameters, actions, and descriptors; and device and component addresses and locations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

## Book II

## Attachment D

## Design, Install and Test Deliverables

“Days” refers to calendar days unless otherwise noted.

Name	Submittal Date/Timeframe
Integrated Management Plan (IMP) <ul style="list-style-type: none"> <li>- Organization</li> <li>- Integrated Schedule</li> <li>- Subcontract Management</li> </ul>	Proposal Submittal
Project Safety Program Plan	60 Days After Contract Award
Site Survey Reports	30 Days after completion of survey
Facility 30% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Design Cost <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Schedule <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Facility 60% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	150 Days after Contract Award

Name	Submittal Date/Timeframe
Project 60% Design Cost - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 60% Schedule - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 90% Design and Specifications - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Design Cost - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Schedule - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Design Review Agenda	5 Working Days prior to review
Design Review Minutes	10 Working Days after review
100% Final Specification and Construction Drawings - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review

Name	Submittal Date/Timeframe
Final Project Schedule - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Final Project Cost - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Migration Plan	With 30%, 60%, 90% and 100% Design Submittal
Facility Final 100% Security System and Infrastructure Design - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Site Restoration Plan	In conjunction with 100% Security System and Infrastructure Design.
Contractor Quality Assurances and Control Plan	In conjunction with 30%, 60%, 90% and 100% Design Submittals
Site Safety Provisions and Reports	As required
Monthly Construction & Installation Progress Report	Monthly – Within 5 Working Days after the end of each Month
Comprehensive Acceptance Test Plan	60 Work Days prior to Factory Acceptance Test. Updates - 20 Working Days Prior to Field Acceptance Test and Operational Test
Acceptance Test Report	20 Working Days after completion of each Test Phase (Factory, Field or Operational)
System Start up and Commissioning  - Work Activity Log (Transfers)	Daily
Training Plan	90 Working Days prior to Factory Acceptance Test
Training Manuals	TBD
System Documentation	TBD

Name	Submittal Date/Timeframe
Software Documentation	TBD
Hardware Documentation	TBD
Communications Network Documentation	TBD
Drawing Package	As Required
Operating Documentation - Standard Operating Manuals - Emergency Operating Contingency Manuals - System Administrator Manuals - Supervisor Manual - Site Specific Manual	1 <sup>st</sup> draft with 90% Project design submittals. The Final document ninety (90) days prior to commencement of the formal Training Program
Software Licenses and Agreement	TBD
Meeting Minutes	As Required
Concept of Operation	With 30%, 60%, 90% and 100% Design Submittal

**7.2.14 Design, Install and Test Deliverables**

“Days” refers to calendar days unless otherwise noted.

Name	Submittal Date/Timeframe
Integrated Management Plan (IMP) <ul style="list-style-type: none"> <li>- Organization</li> <li>- Integrated Schedule</li> <li>- Subcontract Management</li> </ul>	Proposal Submittal
Project Safety Program Plan	60 Days After Contract Award
Site Survey Reports	30 Days after completion of survey
Facility 30% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Design Cost <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Schedule <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Facility 60% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	150 Days after Contract Award

Name	Submittal Date/Timeframe
Project 60% Design Cost - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 60% Schedule - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 90% Design and Specifications - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Design Cost - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Schedule - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Design Review Agenda	5 Working Days prior to review
Design Review Minutes	10 Working Days after review
100% Final Specification and Construction Drawings - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review

Name	Submittal Date/Timeframe
Final Project Schedule - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Final Project Cost - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Migration Plan	With 30%, 60%, 90% and 100% Design Submittal
Facility Final 100% Security System and Infrastructure Design - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Site Restoration Plan	In conjunction with 100% Security System and Infrastructure Design.
Contractor Quality Assurances and Control Plan	In conjunction with 30%, 60%, 90% and 100% Design Submittals
Site Safety Provisions and Reports	As required
Monthly Construction & Installation Progress Report	Monthly – Within 5 Working Days after the end of each Month
Comprehensive Acceptance Test Plan	60 Work Days prior to Factory Acceptance Test. Updates - 20 Working Days Prior to Field Acceptance Test and Operational Test
Acceptance Test Report	20 Working Days after completion of each Test Phase (Factory, Field or Operational)
System Start up and Commissioning  - Work Activity Log (Transfers)	Daily
Training Plan	90 Working Days prior to Factory Acceptance Test
Training Manuals	TBD
System Documentation	TBD

Name	Submittal Date/Timeframe
Software Documentation	TBD
Hardware Documentation	TBD
Communications Network Documentation	TBD
Drawing Package	As Required
Operating Documentation - Standard Operating Manuals - Emergency Operating Contingency Manuals - System Administrator Manuals - Supervisor Manual - Site Specific Manual	1 <sup>st</sup> draft with 90% Project design submittals. The Final document ninety (90) days prior to commencement of the formal Training Program.
Software Licenses and Agreement	TBD
Meeting Minutes	As Required
Concept of Operation	With 30%, 60%, 90% and 100% Design Submittal

necessary for the proper monitoring and administration of the PIDS. At a minimum, the manual shall contain separate sections that cover the following topics: startup and shutdown procedures, instructions for cold start of system equipment, backup and recovery, performance analysis, scheduled maintenance, user management, audit and control, report production, configuration control, system diagnostics, database integrity, special requests and expendable supplies. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 7.2.1.8.4 Security Administrator's Manual

A separate, removable section of the PIDS Administration Manual shall contain information on the proper administration and control of the security features built into the PIDS. Some of the information to be contained in this section includes: maintenance of user identifiers, password control, and security policy review. Information on appropriate review of security controls for adherence through various types of reporting mechanisms and utilities and/or third party security software. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 7.2.1.8.5 Supervisor's Manual

A Supervisor's Manual shall be provided with graphic descriptions of all functions and procedures required for system modifications specified under supervisor Training. This manual shall contain all the instructions included in the Operator Procedures Manual plus instructions on printing standard and ad hoc reports. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

#### 7.2.1.8.6 Site Specific Manuals

Site Specific Manuals shall be provided which shall include but not be limited to the following: site-specific configuration parameters; detailed system configuration narratives; default parameters, actions, and descriptors; and device and component addresses and locations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

Book I Scope of Work  
Section 7.2.9.8 Update  
Addendum 7

### 7.2.9.8 Operating Documentation

The Contractor shall provide all documents, manuals, and printed materials necessary for the effective operation of the PIDS. The documents provided shall be in a bound copy, additionally an electronic version shall be provided using an industry standard word processor, such as Microsoft Word for Windows 2000. This documentation shall include, but not be limited to, the following specific Manuals:

#### 7.2.1.8.1 Standard Operating Procedures Manual

A PIDS Operating Procedures Manual shall be provided which contains graphical depictions and explanations of system operation for all operator functions. This manual shall be for instructional, study, and refresher use and shall explain all the features and functions of the PIDS for day-to-day operations (e.g., log-on, monitors, print daily reports). The manual shall also have a troubleshooting section so the operator can resolve common operating problems (e.g., network problems, restart the PIDS in the event of a component failure, clear jams). The manual shall also contain instructions on how to perform normal maintenance (e.g., changing paper for the printer). This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

#### 7.2.1.8.2 Emergency Operating Contingency Manual

An Emergency Operating Contingency Plan shall be provided which contains graphical depictions and explanations of system operations for all emergency functions specified under Operator Training. This manual shall explain all the features and functions of the PIDS for emergency operations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

#### 7.2.1.8.3 System Administrator's Manual

A System Administrator's Manual shall be provided which contains graphical depictions and written descriptions of all functions required for software modification and development. This manual shall contain all procedures



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PURCHASING SERVICES DIVISION  
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**Date: October 12, 2005**

**ADDENDUM #8**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 28, 2005, no later than 2:00 PM. Please refer to Book I, Section 1.6 for Submission of Proposals.

**The following changes are hereby made in the documents:**

Please see Attachment 1 thru 7 for updated to:

Book I, Section 1.4  
Book II, Section 1.2  
Book II, Attachment C, Section 2.4.1  
Book III Section 10.1  
Book III Section 6.4.2  
Book III Section 11.2.2  
Book III Section 6.1.3

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

1	<i>Book I, Section 1.4 - The system shall exhibit Operational Availability Ex. 4 What does the Authority consider "Availability"? Please confirm that this high availability is for the system level and not for the component level.</i>
	<p>1. Please replace "Systems Availability" with "Systems Operational Availability" throughout the PIDS MFA-134.308 RFP Documentation.</p> <p>2. Please update Book I Section 1.4, PIDS Project Objectives, 4th bullet and Book II, Attachment C, Section 1.2 to the following:</p> <p>"A System Operational Availability Ex. 4</p> <p>Please see Attachment 1 and 2 of this Addendum.</p>

3. Please update Book II, Attachment C, Functional and Operational Requirement, Section 2.4.1 to the following:

"2.4.1 System Operational Availability

The installed systems shall exhibit a minimum Systems Operational Availability Ex. 4 at an airport facility. This System Operational Availability is calculated based on a computation of availability to critical system failure as defined in PIDS MFA 134.308, Book III, Maintenance and Warranties Requirements, Section 10 System Operational Availability."

Please see Attachment 3 of this Addendum.

4. Please update Book III Section 10 to the following:

"The PIDS shall meet a System Operational Availability Ex. 4 at an airport facility, as specified in the PIDS Functional and Operations Requirements, Book III Attachment C. The System Operational Availability is calculated based on a computation of availability to Critical System Failure. A Critical System Failure shall be defined as:

Any system failure that degrades the ability of the system to receive, annunciate, and display all critical functions such as, perimeter intrusion detection alarms and assessment functions, at an airport facility. "

Please see Attachment 4 of this Addendum.

5. Please update Book III Section 6.4.2 to the following:

"6.4.2 Submit for approval a list of recommended spare parts that will be maintained at each facility in order to meet the System Operational Availability of requirement Ex. 4 at an airport facility, as per Book III, Section 10.

Please see Attachment 5 of this Addendum.

6. Please update Book III, Section 11.2.2, Table with Attachment 6 of this Addendum.

7. Please update Book III Section 6.1.3 with Attachment 7 of this Addendum.

**Addendum #8, Attachment 1**  
**BOOK I, Section 1.4**  
**Update**

**1.4 Brief Summary of Scope of Work**

The general scope of the PIDS Design Build Contract is to design, procure, construct, install, integrate, test, and maintain an integrated security system at JFK, LGA, EWR, and TEB that deters, detects, provides assessment, and tracks intrusions into Secure Areas that may pose a threat to employees, tenants, contractors, visitors, patrons and Authority facilities, and provides intrusion information immediately to the security operations and PAPD personnel enabling appropriate responses to be dispatched. This Contract will also integrate a number of existing and future access control and intrusion detection systems. The system shall be an integration of intrusion detection sensors, access control, CCTV surveillance, digital recording and display equipment, and bi-directional tracking. The system operator will be able to assess the alarm and apply appropriate remedies. The PIDS security system is a subset of an overall security upgrade plan for each Airport facility. When applied in concert with appropriate security operational and response procedures, the PIDS will enhance the ability of security personnel to track and respond to threats. The system shall be flexible and able to support frequent changes as a result of the dynamic airport physical and weather environments.

The PIDS Project objectives are:

- A 24-hour 7 day/week integrated intrusion detection, assessment, and tracking system.
- A system with a minimum  $P_d$  of Ex. 4 with a Confidence Level of Ex. 4 with the objective of a  $P_d$  Ex. 4 as possible. All Proposers shall indicate and guarantee the  $P_d$  for the proposed system and not for the system's individual components.
- A FAR and NAR of zero (0) but not more than one (1) per zone per five (5) day period. All Proposers shall indicate and guarantee the FAR and NAR for the proposed system.
- A System Operational Availability Ex. 4 at an airport facility
- An open system capable of encompassing future integration of additional alarm points, communications command and control and assessment technology.
- An integrated control and display system providing situational awareness, alarm event annunciation and notification to responding security forces.
- Integration of the existing CACS.

The Scope of Work will also include, but is not limited to, the following: conduct site survey; develop security system and infrastructure design, conduct design reviews; develop 100% project construction drawings for each facility; develop installation specifications, and installation instructions; specify the install/upgrade infrastructure requirements to support security system (infrastructure necessary to implement the security system may include erection of camera towers, conduit, duct banks, field distribution cabinets, drainage and erosion control, grading, trenching, power and signal cabling and pedestal installation); acquire and stage security equipment and ancillary materials; install and integrate open architecture security system; train operators in security system operation; test the installed security system; prepare and deliver as-built drawings; and perform and arrange for contractor maintenance support of the installed security system.

It is the Authority's intention to have all Work under this Contract completed within twenty-four (24) months after award of the Contract. The Maintenance Contract shall continue in effect for one (1) two (2) year period as defined in Book III: Maintenance and Warranties Requirements.

The Authority shall have the right to extend the Maintenance Contract for two (2) additional two (2) year periods and shall have the absolute right to extend this Contract for an additional one hundred twenty (120) day period subsequent to the Expiration Date or subsequent to the end of the first option period, if any, subject to the same terms and conditions of the Contract.

See RFP Book I Section 7.2 for detailed Scope of Work.

**Addendum #8, Attachment 2**  
**BOOK II Attachment C**  
**Section 1.2**  
**Update**

**1.2 Project Purpose and Objectives**

The objective of PIDS is detection and assessment of intruders (unauthorized entry) into the Exterior AOA Secure Areas at John F. Kennedy International Airport (JFK) in New York, LaGuardia Airport (LGA) in New York, Newark Liberty International (EWR) Airport in New Jersey and Teterboro Airport (TEB) in New Jersey via exterior segments (non-building areas) of the Alarm/Detection Secure Line as identified in the Perimeter Characterization and Security Upgrade Plans (PCSUP) for each airport. The exterior AOA is defined as the "Blue" hatched area in the facility PCSUP bordered by the exterior AOA secure line. Please see Book IV, Attachment 3, Characterization and Facility Upgrade Plans. The Alarm/Detection Secure Line forms the secure perimeter around each airport (360 degrees), excluding tenant leasehold areas, and is encompassed by waterside and landside areas.

PIDS will enhance Port Authority monitoring and response force ability to detect, observe and identify at the earliest opportunity intruders attempting to gain access to the Exterior AOA Secure Areas, Ex. 4

The system shall also have the capability to detect and assess unauthorized exiting of the exterior AOA

PIDS will deter, observe, detect, assess and track intruders attempting to gain access to the Exterior AOA Secure Area in a manner that enhances the efficiency of security personnel to respond, intercept and neutralize the intrusion.

Overall objectives are:

- A 24 hour 7 day/week integrated intrusion detection, assessment, and tracking system.
- A system with a minimum Probability of Detection ( $P_d$ ) of Ex. 4, with the objective  $P_d$ .  
All proposers shall indicate and guarantee the  $P_d$  for the proposed system and not for the system's individual components.
- A false alarm rate (FAR) and Nuisance Alarm Rate (NAR) of zero (0) but not more than one (1) per zone per five (5) day period. All proposers shall indicate and guarantee the False and Nuisance Alarm Rates for the proposed system.
- A System Operational Availability of Ex. 4 with an objective of Ex. 4 at an airport facility.

- A system that is standardized across all four airports.
- An open system capable of encompassing future integration of additional alarm points, communications command and control and assessment technology.
- An integrated control and display system providing event assessment capability, alarm event annunciation and notification to responding security forces.
- Integration of the existing Computerized Access Control and Alarm Monitoring Systems (CACAS).
- PIDS will record and archive intrusion attempts.
- PIDS will have the capability for future phased integration of all alarms, signals (communications, sensor, power, tamper) and CCTV on the property.

**Addendum #8, Attachment 3**  
**Book II, Attachment C**  
**PIDS Functional and Performance Requirements**  
**Section 2.4.1**  
**Update**

**2.4.1 System Operational Availability**

The installed systems shall exhibit a minimum Systems Operational Availability  
Ex. 4 at an airport  
facility. This System Operational Availability is calculated based on a  
computation of availability to critical system failure as defined in PIDS MFA  
134.308, Book III Maintenance and Warranties Requirements, Section 10 System  
Operational Availability"

**Addendum #8, Attachment 4**  
**Book III, Section 10.1**  
**Update**

**10.1 SYSTEM OPERATIONAL AVAILABILITY**

The PIDS shall meet a System Operational Availability of Ex. 4  
at an airport facility, as specified in the PIDS  
Functional and Operations Requirements, Book III Attachment C. The System  
Operational Availability is calculated based on a computation of availability to Critical  
System Failure. A Critical System Failure shall be defined as:

Any system failure that degrades the ability of the system to receive, annunciate, and  
display all critical functions such as, perimeter intrusion detection alarms and assessment  
functions, at an airport facility."

**Addendum #8, Attachment 5**  
**Book III, Maintenance and Warranties Requirements**  
**Section 6.4.2**  
**Update**

6.4.2 Submit for approval a list of recommended spare parts that will be maintained at each facility in order to meet the System Operational Availability Ex. 4 at an airport facility, as per

Book III, Section 10.

**Addendum #8, Attachment 6**  
**Book III, Maintenance and Warranties Requirements**  
**Section 11.2.2**  
**Update**

11.2.2 Inasmuch as the damage and loss to the Authority which will result from delays in completing warranty service will include items of loss whose amount will be incapable or very difficult of accurate estimation, damages in the form of Downtime Credits to the Authority shall be calculated and liquidated in the sums specified in the following table.

Event	Downtime Credits
Failure of service personnel to arrive at the Work Site within two (2) hours of telephone notification	A Monthly Credit of \$100 for each hour or part thereof that service personnel arrives late at the Work Site. This shall be added to other downtime credits for which the Contractor is liable. "Arrival at the work site" shall be defined as arrival at the location where the work is to be performed or at a designated alternate location selected by the Authority and shall be considered to have occurred upon acceptance by the Authority of proper notification of arrival.
Failure of service personnel to repair or replace  Ex. 4	A Monthly Credit of \$100 for each hour or part thereof that service personnel fail to meet critical or non-critical component repair time shall be added to other downtime credits for which the Contractor is liable.
Failure to meet System Operational Availability standard	A Monthly Credit of \$1,000 for each hour or part thereof for each hour during which there is an absence of host services beyond the failure time at each of the airports. This shall be added to other downtime credits for which the Contractor is liable.

- "Critical" is defined as repair services for key equipment which would cause significant system failure, have significant impact to operations, and other emergencies as determined and/or defined by the Facility Manager which would result in the Facility losing the ability to either detect or assess an intrusion or threat.
- "Non-Critical" is defined as repair for equipment or other components not affecting overall system performance.

**Addendum #8, Attachment 7**  
**Book III, Maintenance and Warranties Requirements**  
**Section 6.1.3**  
**Update**

6.1.3 Respond to all requests for service within two (2) hours of notification. If dispatching a technician to provide this service, the technician must report to the requesting facility in accordance with the facility's reporting procedure within two (2) hours after notification. Provide after-hour and weekend support to meet the intent of this Contract. Maintain a toll-free phone number(s) with live staff available on a 24 hour per day/7 day a week basis to respond to requests for service. Critical components shall be repaired within Ex. 4 after arrival at the Work Site. Non-Critical components shall be repaired within Ex. 4 after arrival at the Work Site.

- "Critical" is defined as repair services for key equipment which would cause significant system failure, have significant impact to operations, and other emergencies as determined and/or defined by the Facility Manager which would result in the Facility losing the ability to either detect or assess an intrusion or threat.
- "Non-Critical" is defined as repair for equipment or other components not affecting overall system performance.



**THE PORT AUTHORITY OF NY & NJ**

**THE PORT AUTHORITY OF NEW YORK & NEW JERSEY  
PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**Date: October 21, 2005**

**ADDENDUM #9**

To prospective proposers on RFP # 8162 for MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION, INSTALLATION, INTEGRATION AND ON-SITE MAINTENANCE #MFA-134.308

Due back on October 28, 2005, no later than 2:00 PM. Please refer to Book I, Section 1.6 for Submission of Proposals.

**The following changes are hereby made in the documents:**

CHANGES IN THE CONTRACT BOOKLET I

Page 11 Section 1.6, 1<sup>st</sup> paragraph as follows (all other remaining paragraphs within this section remain)

“One reproducible original (containing original signatures and clearly designated as such) and twenty (20) hardcopies of the proposal must be submitted on or before the due date and time in accordance with the information on the cover page of this RFP and hand-delivered to the address specified on the cover page. Each copy of the proposal as well as the parcel(s) used for shipping must be conspicuously marked with the Proposer’s name and address along with the title of this RFP, this RFP number and the Proposal Due Date.

CHANGES IN THE CONTRACT BOOKLET II

- Page iii - Immediately below the line beginning “112.”, insert the following “113. NET COST WORK .....178A”
- Page 178 - Immediately after page 178, insert new page 178A, which is Attachment 1, made a part hereof.

**Please see attached the following:**

Proposer Questions and Answers

This communication should be initialed by you and annexed to your proposal upon submission.

In case any proposer fails to conform to these instructions, its proposal will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

JANE CETERKO, MANAGER  
PURCHASING SERVICES DIVISION

PROPOSER'S FIRM NAME: \_\_\_\_\_

INITIALED: \_\_\_\_\_

DATE: \_\_\_\_\_

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO  
JEANETTE SANTOS, WHO CAN BE REACHED AT (212) 435-3930.

## PROPOSER QUESTIONS & ANSWERS

The following information is made available in response to questions submitted by prospective Proposers. It should not be deemed to answer all questions, which have been submitted by Proposers to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Proposer does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein 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 Proposer, by submitting its proposal, 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, orally or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or any resulting contract and the Proposer agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever.

*Note:* Similar and related questions have been consolidated. Therefore, you should carefully read all questions and responses, as your questions may be answered in a slightly different format than submitted. Responses to questions will be provided through Addenda to the RFP. All potential Proposers will receive the same comprehensive list of questions and responses.

<b>1</b>	<i>Oral Presentation Questions – Approximately how large of a conference room will we be in where the demo will be held?</i>
	The Conference Room is about 35ft by 44ft.
<b>2</b>	<i>Approx. how many people do you expect will be in attendance for the demo?</i>
	Approximately 15 to 20 people will be attending.
<b>3</b>	<i>Will our shippers require any special paperwork by your receiving dock/security personnel to be allowed to drop the equipment off at the facility? Will we be able to drop off the equipment a day or so ahead of time?</i>
	There is no storage available and the Port Authority cannot be responsible for any missing or damaged goods. Presentations will be scheduled in the near future and conducted at PATC, 241 Erie Street, Jersey City, New Jersey, 07310. Proposers are responsible to bring presentation materials/equipment on the day of the scheduled presentation. Upon arrival at PATC please contact Mr. Ben Hovey at 201 595-4630 for admittance to PATC. Alternate point of contact is Mr. Rainer Burger at 201-595-4757.

<b>4</b>	<i>Do you have a general idea of approx. date as to when the demo will occur?</i>
	Dates will be determined after the proposal receipts and initial review.
<b>5</b>	<i>How much time will we have for presentation set up and tear down?</i>
	Each Proposer may have 1 hour and 30 minutes of set up and teardown time.
<b>6</b>	<i>Will the folks involved with the demo need Port authority clearances?</i>
	No specific Port Authority Clearance is required. However, all involved with RFP process need to have cleared the PA's background screening process and have a photo ID to gain entrance to the facility.

**Addendum #9, Attachment 1  
Book II Section 113**

**113. NET COST WORK**

When and as directed by the Engineer, the Contractor shall perform the following items of Work and will be compensated at the "Net Cost" of the Work.

- Relocation of underground utilities.
- Maintenance of traffic and work area protection.
- Premium Time due to after hours or weekend Work.
- Removal and disposal of contaminated and unsuitable soil.
- Construction staging and schedule changes.

"Net Cost" shall be computed in the same manner as is compensation for Extra Work, including any percentage addition to cost, as set forth in the clause of the Contract entitled "Compensation for Extra Work". Performance of such Net Cost Work shall be as directed by the Engineer and subject to all the provisions of the Contract relating to the performance of Extra Work. Compensation for said Net Cost Work shall not be charged against the total amount of compensation authorized for Extra Work.

## **SECTION 7**



**THE PORT AUTHORITY OF NY & NJ**

**TITLE: MULTI-FACILITY AVIATION PERIMETER INTRUSION  
DETECTION SYSTEM (PIDS) SECURITY DESIGN,  
PURCHASE, CONSTRUCTION, INSTALLATION, AND  
INTEGRATION AND ON-SITE MAINTENANCE  
PURCHASE ORDER #4500044655 – CONTRACT  
#4600006166**

**CONTRACT# MFA-134.308 and MFA-134.308M  
NUMBER: 8162**

**2d. Negotiated Books, Book IV**

Available on Livelink at: Ex. 4

Access Livelink from within Port Authority's network via Ex. 4

Authorized Livelink access available outside Port Authority's network at: Ex. 4

Note: For access to Livelink, personnel must have completed Security Safeguard Training, Livelink training and acquired a Livelink account.

1. For granting of access contact Mr. Angel Martinez
  - (201) 595-4744
2. For Security Safeguarding training contact Mr. Mike Udvardy
  - (201) 595-4753
3. For Livelink training contact Mr. Paul Adams
  - (201) 595-4608

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## **SECTION 8**

# CONFORMED



**THE PORT AUTHORITY OF NY & NJ**

**PURCHASING SERVICES DIVISION  
ONE MADISON AVENUE, 7<sup>TH</sup> FL.  
NEW YORK, NY 10010**

**TITLE: MULTI-FACILITY AVIATION PERIMETER INTRUSION  
DETECTION SYSTEM (PIDS) SECURITY DESIGN,  
PURCHASE, CONSTRUCTION, INSTALLATION,  
INTEGRATION AND ON-SITE MAINTENANCE**

**CONTRACT# MFA-134.308**

**NUMBER: 8162**

**BOOK I**

**SUBMIT PROPOSALS BEFORE THE DUE DATE AND TIME TO THE ABOVE  
ADDRESS**

**PROPOSAL DUE DATE: October 7, 2005 TIME: 2:00 PM**

**QUESTIONS SHOULD BE  
SUBMITTED BY: September 12, 2005 TIME: 2:00 PM**

**SITE VISIT:**

- **JFK Sep 6, 2005, 9:00 AM EDT, Building 14.**
- **LGA Sep 7, 2005, 9:00 AM EDT, Hanger 7.**
- **EWR Sep 8, 2005, 8:30 AM EDT, Building 1.**
- **TEB Sep 8, 2005, 1:00 PM EDT, 90 Moonachie Road.**

**BUYER NAME: Jeanette Santos**      **PHONE#: (212) 435-3930**  
**FAX#: (212) 435-3959**  
**EMAIL: jsantos@panynj.gov**

Release Date: AUGUST 2005

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## **1.0 INFORMATION FOR PROPOSERS**

### **1.1 General Information: The Port Authority of New York and New Jersey**

The Port Authority of New York and New Jersey (the Authority) is a body corporate and politic created by Compact between the States of New York and New Jersey with the consent of the Congress of the United States. The Authority, together with its wholly-owned subsidiaries, provides the region with integrated transportation and trade services and operates facilities in connection therewith, including, but not limited to, four regional airports, interstate traffic through four bridges and two tunnels, a bus terminal, a bus station, the Port Authority Trans-Hudson (PATH) rapid transit system, the Hoboken-lower Manhattan ferry service, and certain New York-New Jersey port facilities.

The Authority is hereby seeking proposals from qualified firms for the Multi-Facility Aviation Perimeter Intrusion Detection System, contract MFA-134.308, as more fully described herein.

### **1.2 Acronyms**

ANSI/IEEE	American National Standards Institute/Institute Electrical Electronics Engineers
AOA	Air Operations Area
ASDE	Airport Surface Detection Equipment
ARFF	Aircraft Rescue and Fire Fighting
AV	Audiovisual
BLDG	Building
BOM	Bill of Materials
CACS	Computerized Access Control System
CCTV	Closed Circuit Television
CDE	Control and Display Equipment
CDS	Control and Display System
CDW	Control Display Workstation

CES	Central Electrical Substation
CONOPs	Concept of Operations
COTS	Commercial Off-The-Shelf
CMMS	Computerized Maintenance Management System
CSI	Construction Standards Institute
CTA	Central Terminal Area
CTB	Central Terminal Building
D/B	Design-Build
DBT	Design Basis Threat
DLP	Digital Light Processing
DSP	Digital Signal Processor
DVD-R	Digital Versatile Disc – Recordable (Per DVD+RW Alliance Standard)
DVI	Digital Visual Interface
EDT	Eastern Daylight Time
EL	Elevation
EOC	Emergency Operations Center
ETS	Electronic Transmittal Form
EWR	Newark Liberty International Airport
FAA	Federal Aviation Administration
FAR	False Alarm Rate
FCS	Facility Communications Subsystem
FCSD	Facility Conceptual Systems Design
GIS	Geographic Information System

GSR	Ground Surveillance Radar
GUI	Graphical User Interface
HMI	Human-Machine Interface
IDS	Intrusion Detection System
ILS	Instrument Landing System
IMP	Integrated Management Plan
IP DVR	Internet Protocol Digital Video Recorder
IPS	Images Per Second
IR	Infrared
IVMD	Intelligent Video Motion Detector
JFK	John F. Kennedy International Airport
LCC	Landside Control Center
LGA	LaGuardia International Airport
MAT	Marine Air Terminal
MDT	Mean Down Time
MHHN	Mean Higher High Water
MLLW	Mean Lower Low Water
MRT	Mean Repair Time
MTBCF	Mean Time Between Critical Failures
MTBDE	Mean Time Between Downing Events
MTBF	Mean Time Between Failures
MTBM	Mean Time Between Maintenance
MTTR	Mean Time To Repair

M/WBE	Minority/Women-Owned Business Enterprises
MWS	Manager Workstations
N/A	Not Applicable
NAR	Nuisance Alarm Rate
NEC	National Electrical Code
NDI	Non-Developmental Item
NIC	Not in Contract
NO	Number
OBJO	Port Authority Office of Business and Job Opportunity.
OCC	Operations Control Center
OEM	Office of Emergency Management
OSHA	Federal Occupational Health & Safety Administration
OWS	Operator Workstations
PANYNJ	Port Authority of New York and New Jersey
PAPD	Port Authority Police Department
PATC	Port Authority Technical Center
PC	Personal Computer (IBM compatible)
PCB	Polychlorinated biphenyl
PCSUP	Perimeter Characterization and Security Upgrade Plans
PDA	Personal Digital Assistant
PEG	Police Emergency Garage
PIDS	Perimeter Intrusion Detection System
PTZ	Pan-tilt-zoom

QA/QC	Quality Assurance/Quality Control
RFP	Request for Proposals
RGBHV	Red, Green, Blue, Horizontal and Vertical Sync.
RFI	Request for Information
SOC	Security Operations Center
SNMP	Simple Network Management Protocol
TBD	To Be Determined
TEB	Teterboro Airport
TSA	Transportation Security Administration
TYP	Typical
WO	Work Order
WXGA	Wide eXtended Graphics Array
XML	Extensible Mark-up Language
YD	Yard

### **1.3 Definitions**

Alarm	A warning from a sensor or sensor system that a sensor has been triggered or activated usually signaled by light or sound; it may indicate a nuisance or false alarm, or valid alarm.
Alarm Assessment	Process of determining an alarm condition status; appraisal of the credibility, reliability, pertinence, accuracy, or usefulness of an indicated alarm.
Bistatic	Refers to an active intrusion detection sensor in that the transmitter and the receiver are not collocated in the same unit.

Corrective Maintenance	Work required to maintain the PIDS as designed and specified and/or as directed by the Authority.
False Alarm	An alarm caused by internal equipment malfunction; since false alarms have no readily discernible cause, they actually are unknown alarms.
FAR	False Alarm Rate. The false alarm rate is defined as the number of alarms from an intrusion detection sensor that can not be attributed to known causes unrelated to intrusion attempts in a given time period divided by the total number of alarms received by the system during the same time period.
Maintenance Order	A document that may be issued as a result of new operation needs and requirements that may result in changes to the overall system configuration. This is for activities over and above the proposed corrective and preventative maintenance.
Nuisance Alarm	An alarm that is not caused by an unauthorized action. For example, wind, snow, birds, or system malfunction may cause nuisance alarms.
NAR	Nuisance Alarm Rate. The nuisance alarm rate is defined as the number of alarms from an intrusion detection sensor that can be attributed to known causes unrelated to intrusion attempts in a given time period divided by the total number of alarms received by the system during the same time period.
$P_d$	Probability of Detection, the likelihood of detecting an intruder within the zone covered by an intrusion detection sensor.
Polling	Polling is a technique to control access to the network. In decentralized polling scheme, each station (device) knows its successor in the polling sequence.
Project Manager	The duly authorized representative(s) of the Authority acting within the scope of the particular authority vested in them with regard to this PIDS Construction, Maintenance, and Warranty Project.

Project Team	Individuals or entities assigned to the work effort by the Contractor. Those individuals include, but are not limited to, employees of the Contractor and/or Subcontractors and key security subsystems suppliers.
Secure Area	The area bounded by the Alarm/Detection Secure Line. This area is comprised of the exterior AOA secure area and the Alarm/Detection Secure area.
System Administrator	The Authority's designated person(s) in charge of the operation of the PIDS and related security systems.
UPS	Uninterruptible Power Supply. A battery-powered, alternating current source that will maintain power to vital equipment even if all site power is lost.

#### 1.4 Brief Summary of Scope of Work

The general scope of the PIDS Design Build Contract is to design, procure, construct, install, integrate, test, and maintain an integrated security system at JFK, LGA, EWR, and TEB that deters, detects, provides assessment, and tracks intrusions into Secure Areas that may pose a threat to employees, tenants, contractors, visitors, patrons and Authority facilities, and provides intrusion information immediately to the security operations and PAPD personnel enabling appropriate responses to be dispatched. This Contract will also integrate a number of existing and future access control and intrusion detection systems. The system shall be an integration of intrusion detection sensors, access control, CCTV surveillance, digital recording and display equipment, and bi-directional tracking. The system operator will be able to assess the alarm and apply appropriate remedies. The PIDS security system is a subset of an overall security upgrade plan for each Airport facility. When applied in concert with appropriate security operational and response procedures, the PIDS will enhance the ability of security personnel to track and respond to threats. The system shall be flexible and able to support frequent changes as a result of the dynamic airport physical and weather environments.

The PIDS Project objectives are:

- A 24-hour 7 day/week integrated intrusion detection, assessment, and tracking system.
- A system with a minimum  $P_d$  of Ex. 4 with a Confidence Level of Ex. 4 with the objective of a  $P_d$  as possible. All Proposers shall indicate and guarantee the  $P_d$  for the proposed system and not for the system's individual components.
- A FAR and NAR of zero (0) but not more than one (1) per zone per five (5) day period. All Proposers shall indicate and guarantee the FAR and NAR for the proposed system.
- A System Operational Availability Ex. 4 at an airport facility
- An open system capable of encompassing future integration of additional alarm points, communications command and control and assessment technology.
- An integrated control and display system providing situational awareness, alarm event annunciation and notification to responding security forces.
- Integration of the existing CACS.

The Scope of Work will also include, but is not limited to, the following: conduct site survey; develop security system and infrastructure design, conduct design reviews; develop 100% project construction drawings for each facility; develop installation specifications, and installation instructions; specify the install/upgrade

infrastructure requirements to support security system (infrastructure necessary to implement the security system may include erection of camera towers, conduit, duct banks, field distribution cabinets, drainage and erosion control, grading, trenching, power and signal cabling and pedestal installation); acquire and stage security equipment and ancillary materials; install and integrate open architecture security system; train operators in security system operation; test the installed security system; prepare and deliver as-built drawings; and perform and arrange for contractor maintenance support of the installed security system.

It is the Authority's intention to have all Work under this Contract completed within twenty-four (24) months after award of the Contract. The Maintenance Contract shall continue in effect for one (1) two (2) year period as defined in Book III: Maintenance and Warranties Requirements.

The Authority shall have the right to extend the Maintenance Contract for two (2) additional two (2) year periods and shall have the absolute right to extend this Contract for an additional one hundred twenty (120) day period subsequent to the Expiration Date or subsequent to the end of the first option period, if any, subject to the same terms and conditions of the Contract.

See RFP Book I Section 7.2 for detailed Scope of Work.

### **1.5 Deadline for Receipt of Proposals**

The due date specified on the cover page is the Proposal Due Date. Closing of due date is 2:00 PM, EDT.

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

### **1.6 Submission of Proposals**

One reproducible original (containing original signatures and clearly designated as such) and fifteen (15) hardcopies of the proposal must be submitted on or before the due date and time in accordance with the information on the cover page of this RFP and hand-delivered to the address specified on the cover page. Each copy of the proposal as well as the parcel(s) used for shipping must be conspicuously marked with the Proposer's name and address along with the title of this RFP, this RFP number and the Proposal Due Date.

Proposers should submit 1 [one] CD copy of their proposal to assist in the review.

Note – If there is any difference between the CD and paper copy, the paper copy will take precedence.

Selected Proposers will be required to conduct an oral presentation. The Presentation will be held to a maximum 1 hour presentation followed by thirty (30) minutes for questions and answers. Presentations shall include a briefing on proposed conceptual design, proposed technology, technical approach for implementation, integrated management approach along with the project organization, cost, schedule and maintenance and sustainment approach. The presentation shall be presented by the key personnel that will be responsible for the design, integration, installation, test, training and maintenance of the PIDS. Proposal presentation dates will be established after receipt of the proposals.

### **1.7 Communications Regarding this RFP**

All communications concerning this RFP should be directed to the Buyer listed on the cover page. All questions regarding this RFP must be submitted in writing to the Buyer at the address or facsimile number listed on the cover page no later than 3:00 PM, EDT on the date specified on the cover page.

The Buyer is authorized only to direct the attention of prospective Proposers to various portions of this RFP so that they may read and interpret such portions themselves.

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

### **1.8 Proposal Acceptance or Rejection**

Acceptance shall be conveyed, by mailing to or by hand-delivery to the office designated by the Proposer in its proposal, a notice in writing signed by an authorized representative on behalf of the Authority specifically stating that the proposal is accepted; or by execution of an agreement covering the subject matter of this RFP signed by authorized representatives of the Authority and the Proposer. No other act of the Authority, its Commissioners, officers, agents, representatives, or employees shall constitute acceptance of a proposal. Rejection of a proposal shall be only by either (a) a notice in writing specifically stating that the proposal is not accepted, signed by an authorized representative of the Authority and mailed to or delivered to the Proposer at the office designated in the Proposal, or (b) omission of the Authority to accept the proposal within one hundred twenty (120) days after the Proposal Due Date. No other act of the Authority, its Commissioners, officers, agents, representatives or employees shall constitute rejection of a proposal.

### **1.9 Proposal Meeting(s)/Site Inspection(s)**

A Site Inspection is scheduled for each facility as follows:

- JFK Sep 6, 2005, 9:00 AM EDT, Building 14.
- LGA Sep 7, 2005, 9:00 AM EDT, Hanger 7.
- EWR Sep 8, 2005, 8:30 AM EDT, Building 1.
- TEB Sep 8, 2005, 1:00 PM EDT, 90 Moonachie Road.

A site inspection allows Proposers to tour and physically inspect the actual site(s) of work prior to the submission of a proposal. No questions will be taken during site inspection. Personnel (Prime & Subcontractors) who have not completed and passed the background screening requirements will not be allowed to attend site visits. Any questions concerning this RFP should be submitted in writing so that the Authority may prepare written responses.

Attendance is strongly recommended. Do to logistical limitations, attendance is limited to no more that four (4) personnel per Proposer. Attendees must have a valid Photo ID. Information gathered by Proposers may be useful to them in preparing their proposals. Proposers not attending site inspections assume all risks which may ensue from non-attendance.

Attendees interested in attending shall RSVP to **Benjamin Hovey** at **bhovey@panynj.gov** no later than 12:00 PM EDT, ten (10) days prior to the scheduled date(s) to confirm attendance and/or receive traveling directions.

### **1.10 Available Documents**

Certain documents, specified below, will be made available for examination by Proposers. These documents are Privileged and Confidential and only those qualified Proposers who have been identified as a Point of Contact, who have completed and signed the Authority Non-Disclosure and Confidential Agreements as set forth in the Authority's "*Handbook for Protecting Security Information*" and have met all the requirements and background screening identified in the letter to pre-qualified Proposers dated Jul 25, 2005 will be able to view these documents. The Authority will not provide vendors with any hardcopies of these documents. During vendor viewing, no electronic devices of any kind will be allowed in the review room, ensuring that documents are not photographed. If note taking is allowed, notes will be given to the Authority, scanned and placed in an appropriate secured, dedicated website folder. Notes are not to be hand-carried from Authority facilities. Points of Contact may request to review documents by contacting Louis Barani at (201) 595-4698, Monday - Friday between the hours of 8:30 AM and 4:30 PM.

Said documents are as follows

- PIDS Concept of Operations, December, 2004 (SAIC)

**1.11 City Payroll Tax**

Proposers should be aware of the payroll tax imposed by the:

- a) City of Newark, New Jersey for services performed in Newark, New Jersey.
- b) City of New York, New York for services performed in New York, New York; and
- c) City of Yonkers, New York for services performed in Yonkers, New York.

Proposers should be aware of the payroll tax imposed by the City of Newark, New Jersey for services performed in Newark, New Jersey. These taxes, if applicable, are the sole responsibility of the Proposer. Proposers should consult their tax advisors as to the effect, if any, of these taxes. The Authority provides this notice for informational purposes only and is not responsible for either the imposition or administration of such taxes. The Authority exemption set forth in the paragraph entitled "Sales or Compensating Use Taxes", in the "Standard Contract Terms and Conditions" included herein, does not apply to these taxes.

**1.12 Security and Non Disclosure Agreements**

As noted above, this RFP contains Privileged and Confidential documentation and only those qualified Proposers who have been identified as a Point of Contact, who have completed and signed the Authority Non-Disclosure and Confidential Agreements as set forth in the Authority's "*Handbook for Protecting Security Information*" and have met all the requirements and background checks as set forth in the Authority Acceptance Letter dated July 25, 2005 will be permitted to submit a proposal. The Proposer is obligated to comply with all relevant clauses and provisions incorporated into this contract and with the security policies and procedures set forth in the Authority's "*Handbook for Protecting Security Information*". Security requirements are a material condition of this RFP. Approval to submit a proposal shall be subject to immediate termination when it has been determined that a failure to comply with the security requirements results from willful misconduct or lack of good faith. Vendors are required to secure all documents they prepare in response to this RFP and must have submitted to the Authority a safeguarding plan for securing these documents. Proposers are instructed to not copy or disseminate documents to anyone without Authority permission, except those Points of Contact that have received security clearance to do so. Also, subcontractors must only be provided those portions of the solicitation documents that they possess a "need-to-know" for. Proposers will be required to return all Authority-provided documents as well as any specific information regarding Authority facilities developed during RFP preparation upon notification of award.

**2.0 FINANCIAL INFORMATION**

2.1 The Proposer will be required to demonstrate that it is financially capable of performing the contract resulting from this RFP, MFA-134.308. The determination of the Proposer's financial qualifications and ability to perform this Contract will be in the sole discretion of the Authority. The Proposer shall submit, with its proposal, the following:

2.1.1 Certified financial statements, including applicable notes, reflecting the Proposer's assets, liabilities, net worth, revenues, expenses, profit or loss and cash flow for the most recent year or the Proposer's most recent fiscal year.

2.1.2 Where the certified financial statements in 2.1.1 above are not available, then reviewed statements from an independent accountant setting forth the aforementioned information shall be provided.

Where the statements submitted pursuant to subparagraphs 2.1.1 and 2.1.2 aforementioned do not cover a period which includes a date not more than forty-five (45) days prior to the Proposal Due Date, then the Proposer shall also submit a statement in writing, signed by an executive officer or his/her designee, that the present financial condition of the Proposer is at least as good as that shown on the statements submitted.

2.2 A statement of work which the Proposer has on hand, including any work on which a bid has been submitted, containing a description of the work, the annual dollar value, the location by city and state, the current percentage of completion, the expected date for completion, and the name of an individual most familiar with the Proposer's work on these jobs.

2.3 The name and address of the Proposer's banking institution, chief banking representative handling the Proposer's account, the Proposer's Federal Employer Identification Number (i.e., the number assigned to firms by the Federal Government for tax purposes), the Proposer's Dun and Bradstreet number, if any, the name of any credit service to which the Proposer furnished information and the number, if any, assigned by such service to the Proposer's account.

### **3.0 PIDS EVALUATION CRITERIA**

#### **3.1 General Award Provisions**

Award will be made to the Proposer(s) whose proposal best conforms to the RFP requirements and is judged to represent the best buy to the Authority. Best buy means the expected outcome of an acquisition that, in the Authority's estimation, provides the greatest overall benefit in response to the requirement. To arrive at a best buy decision, the designated competitive selection committee will evaluate each of the proposals against the evaluation factors. The Authority reserves the right to award no contract at all, depending on the quality of the proposal(s) submitted and the availability of funds.

#### **3.2 Evaluation Criteria and Ranking**

The Authority will award to the Proposer(s) whose proposal is deemed most advantageous to the Authority based on meeting the proposal submission Requirements and an assessment of the evaluation factors described below.

All proposals will be screened by the Authority to determine if they adhere to the format set forth in this RFP and contain all required submissions such that they can be considered responsive.

Responsive proposals from qualified Proposers will then be evaluated pursuant to the criteria below, which are set forth in order of importance.

#### **3.3 Evaluation Factors**

The evaluation factors below are presented in order of importance but criteria may be weighted equally. Definition of each factor follows the list. Please see Book I, Section 5.0 for detailed submission requirements:

1. Technical Approach
2. Cost
3. Management Plan

##### **Technical Approach**

###### Integrated PIDS Design and Technical Approach

The integrated PIDS design proposal is of quality and includes all systems and sub-systems equipment, products and services required. The submitted proposal demonstrates a clear and concise understanding of the Scope of Work and functional and performance requirements as outlined in Book I, Section 7.2, and Book II, Attachment B and C. The proposed system closely

correlates to the requirements and demonstrates the capabilities required to fulfill these requirements. In meeting the system requirements, the proposed system solution should also provide innovative system solutions to minimize the cost of communications and power infrastructure. The proposed design and technical solutions demonstrate system capabilities that include all newly proposed PIDS equipment, the existing equipment to be integrated with, the currently defined potential equipment and exhibits the required expansion capability beyond all of these considerations (future growth) with Commercial Off The Shelf (COTS) equipment with complete discussion of any/all technical risks that may be involved. The proposal clearly details the approach for the design, install and test of an integrated security system as highlighted in the Scope of Work

Maintenance Technical Proposal

The submitted proposal is responsive and demonstrates a clear, concise and detailed system maintenance strategy that meets the requirements as defined in Book III.

Authority Visit to Proposer's Selected Previously Completed Facility

The facilities (minimum of three (3)) selected by the Proposer and subsequent site visits/tours by the Authority represent relevant installations and clearly demonstrate by physical evidence (installation and operation) and interviews/meetings with the user/owner that the Proposer clearly understands and is fully-capable of executing the work necessary to accomplish the security requirements as outlined in PIDS RFP. The selected facilities are not expected to mirror all of the elements of the PIDS requirements but should reflect similar experience in design, install, test and maintain large-scale exterior integrated security systems.

**Cost (Design, Installation, Testing, and Maintenance)**

The submitted proposal demonstrates that the Proposer clearly understands the scope of the PIDS requirements by clearly stating the cost of each Facility Installation. The Submitted proposal includes completed cost schedules as outlined in Book II for the design, and installation and Book III for system maintenance. The cost proposal is economical and financially advantageous to the Port Authority. The cost proposal provides the basis, rationale, assumptions, estimating methodology and historical database used to derive labor and material estimates.

## **Management Plan**

### Integrated Management Plan (IMP) and Project Schedule

The submitted proposal demonstrates a clear, concise, and detailed integrated management approach necessary to provide a smooth workflow and ultimately a successful installation at each of the facilities and includes necessary program management details to highlight the Proposer's ability to interface with the various Authority organizations. The IMP shall address overall management/subcontractor Management Plan and Risk Management and the Proposer's approach for the Training Requirements as outlined in Book III and the Proposer's proposal to meet the Authority M/WBE goals. The IMP identifies key managers and team members and shows the Proposer's capacity to manage and provide all skills and services. The submitted schedule demonstrates the Proposer's clear understanding of the program scope and detail. The integrated schedule shows activities for design, integration, fabrication, procurement, construction, installation, training and testing for each airport indicating major milestones and critical paths. The Proposer provides a "Fast Track" approach schedule in accordance to the proposed IMP to commence construction and installation as soon as possible at each facility. All installation efforts must be completed in January 2008.

After application of evaluation criteria the Authority reserves the right to use a "best-buy" evaluation methodology.

**4.0 M/WBE SUBCONTRACTING PROVISIONS**

- 4.1 The Authority has a long-standing practice of making its business opportunities available to Minority Business Enterprises (MBE) and Women-owned Businesses Enterprises (WBE) – together noted as “M/WBE” – and has taken affirmative steps to encourage such firms to seek business opportunities with the Authority. The successful Proposer will use every good faith effort to provide for meaningful participation by Authority-certified M/WBE as defined in this document, in all purchasing, subcontracting and ancillary service opportunities associated with this contract, including purchase of equipment, supplies and labor services. Good faith efforts include 1) dividing the services and materials to be procured into small portions where feasible, 2) giving reasonable advance notice of specific subcontracting and purchasing opportunities to such firms as may be appropriate, 3) soliciting services and materials from M/WBE, which may be certified by the Authority and 4) insuring that provision is made for timely progress payments to the M/WBE.
- 4.2 The Authority has a list of certified M/WBE firms, which are available to Proposers at their request. The Authority makes no representation as to the qualifications and ability of these firms to perform under this contract. The Proposer may use firms which are not on the list but will be required to submit, to the Authority’s Small Business Programs (SBP) for certification, the names of M/WBE firms it proposes to use. Only Authority-certified M/WBE firms may be considered to meet the goals. For inquiries and assistance, please contact SBP at (212) 435-7819.
- 4.3 To the maximum extent feasible and consistent with the Proposer’s exercise of good business judgment, the Proposer shall make a good-faith effort to include twelve percent (12%) participation by MBE and five percent (5%) participation by WBE in all procurement, subcontracting and ancillary service opportunities associated with this contract. The Proposer shall submit an M/WBE Participation Plan (Plan). The Plan shall consist of the following:
- 4.3.1 Previous M/WBE Participation: Describe any previous or current M/WBE participation which the Proposer has sponsored.
- 4.3.2 Scope of Work: Describe the specific scope of work the M/WBE will perform.
- 4.3.3 Identification of M/WBE: Provide the name and address of any M/WBE included in the Plan. If none are identified, describe the process for selecting participant firms.
- 4.3.4 Level of Participation: Indicate the percentage of M/WBE participation expected to be achieved with the arrangement described in the Plan.

## **5.0 PROPOSAL SUBMISSION REQUIREMENTS**

In order to expedite the evaluation of proposals, the Proposer's response to this RFP must follow the format and order of items, using the same paragraph identifiers, as set forth below.

### **5.1 Letter of Transmittal**

The Proposer shall submit a letter on its letterhead, signed by an authorized representative, stating its experience and qualifications in meeting the requirements of this RFP. This letter shall include a statement on whether the Proposer is submitting a proposal as a single entity, a joint venture, or is partnering with another firm in a prime/subcontracting relationship. In all cases, information required for a single entity is required for each participant in a joint venture.

The Letter of Transmittal shall contain:

1. Name and address of the Proposer and an original signature on the Letter of Transmittal by an authorized representative on behalf of the Proposer;
2. Name(s), title(s), email address(es) and telephone number(s) of the individual(s) who are authorized to negotiate and execute the Contract;
3. Name, title, email address, and telephone number of a contact person to which the Authority can address questions or issues related to this RFP;
4. Name and address of proposed subcontractors, if any;
5. If a corporation: (a) a statement of the names and residences of its officers, and (b) a copy of its Certificate of Incorporation, with a written declaration signed by the secretary of the corporation, with the corporate seal affixed thereto, that the copy furnished is a true copy of the Certificate of Incorporation as of the date of the opening of the Proposals;

If a partnership: a statement of the names and residences of its principal officers, indicating which are general and which are special partners;

If an individual: a statement of residence;

If a joint venture: information on each of the parties consistent with the information requested above.

### **5.2 Executive Summary**

The Proposer shall submit a summary presenting the major features of its proposal and how the proposal satisfies the requirements contained in this RFP, as well as the special competencies and expertise of the Proposer to meet the requirements of this RFP.

**5.3 Agreement on Terms of Discussion**

The Proposer shall submit a copy of the "Agreement on Terms of Discussion," signed by an authorized representative of the Proposer. The Agreement format is included in Book I, Section 7.1 and shall be submitted by the Proposer without any alterations or deviations. Any Proposer who fails to sign the Authority's "Agreement on Terms of Discussion" will not have its proposal reviewed. If the Proposer is a joint venture, an authorized representative of each party must sign the Agreement.

**5.4 Certifications With Respect to the Contractor's Integrity Provisions**

The Proposer, by signing the Letter of Transmittal, makes the certifications in the Integrity Provisions as included in Book II, Chapter 1, Section 30 of this RFP. If the Proposer cannot make any such certifications, it shall enclose an explanation of that inability.

**5.5 Proposal (Technical, Cost and Management)**

The Proposer must submit a Technical, Cost (Price) and Management Proposal. The Technical Proposal shall consist of Section E-I thru E-V shown in the table below which details and clearly describes its capability to perform the work described in this RFP, its approach to such work and the cost of such work to the Port Authority. At a minimum, the proposal shall address the following:

<p><b>E-I: Integrated Perimeter Intrusion Detection Systems (PIDS) Design &amp; Technical Approach</b> – 15 page limit (Not Including Equipment Product Cut Sheets and Facility Specific Project Schedules)</p>
<p>Provide a proposed Integrated Security System Conceptual Design for JFK, LGA, EWR, and TEB for an integrated security system that meets the Functional and Performance Requirements in Book II, Attachment C. The Design shall include the following:</p> <ul style="list-style-type: none"><li>- Technical description of the proposed system (system/sub-system levels) for each facility to include specifications product cuts sheets. Product Cut-Sheets should be for systems/sub-systems only relevant to the proposed PIDS Design.</li><li>- Technical challenges/risks involved in achieving functional performance requirements at each facility and Proposers approach to mitigate them.</li><li>- Performance characteristics of proposed major system/sub-systems components (e.g. Intrusion Detection Sensors, Assessment Cameras,</li></ul>

	<p>Control and Display Equipment) at each facility; include test results from competent independent agencies that support your performance claims.</p> <ul style="list-style-type: none"><li>- How sub-systems are integrated at each facility. This will included the integration of the PIDS System to existing Authority systems as provided in the Book I, Section 7.2, Scope of Work, and the Book II, Attachment C, Functional and Performance Requirements</li><li>- Single Line system block diagram to depict sub-system connectivity for each Facility.</li><li>- Plan view Facility Schematic/Drawing depicting projected system/sub-system locations, power sources, detection and assessment patterns etc. Ensure 1 in.=100 ft scale schematic/drawing is clear and legible.</li><li>- Level of installation effort to include Infrastructure and Construction at each facility</li><li>- Assumptions made in the selection and availability of systems/sub-systems proposed in the design.</li><li>- Proposed system testing and overview of system Test Plan</li><li>- Future Growth Capability</li><li>- Facility Specific Project Schedule</li></ul> <p>- Section E-I shall be subdivided as follows to address each unique facility</p> <ul style="list-style-type: none"><li>- Section E-I-A – JFK Integrated PIDS Design</li><li>- Section E-I-B – LGA Integrated PIDS Design</li><li>- Section E-I-C – EWR Integrated PIDS Design</li><li>- Section E-I-D – TEB Integrated PIDS Design</li></ul> <p>The Proposer shall describe the approach to the Scope of Work and Functional Performance Requirements, including performance standards, design, installation, testing, transfer of existing security systems, scheduling, milestones and, a Quality Control Plan, Construction Safety Compliance, and Project Safety Program Plan.</p>
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<b>E-II: Maintenance Technical Proposal - 15 page limit</b>
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	<p>The Proposer shall describe in detail its approach to the Maintenance Scope of Work (RFP Book III) to meet system performance standards, warranty and maintenance requirements, follow-on Training etc. including, but not limited to,</p> <ul style="list-style-type: none"><li>- Overview Description of PIDS System and Subsystems to be maintained</li><li>- Warranty</li><li>- Maintenance Management Plan</li><li>- Preventive Maintenance Plan</li><li>- Facility specific Maintenance and Preventive Maintenance Schedule</li><li>- CMMS software description and cost</li><li>- Sample Forms and Reports</li><li>- Testing Procedures</li><li>- Facility specific staffing requirements</li><li>- Office and storage facility requirements</li><li>- Evidence of insurability</li><li>- Evidence of factory training/certifications</li><li>- Identification of proposed Maintenance Project Team with resumes of key personnel</li><li>- List of recommended spare parts with unit pricing</li><li>- QA/QC Plan</li><li>- Preliminary Disaster Recovery Plan</li></ul>
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**E-III: Cost Proposal – Design Installation and Test**

	<p>The Port Authority has structured this request for proposal in a manner to achieve the best buy result based on available funding. The Port reserves the right to award this contract for the base scope of work or as may be modified by deductive items as defined in the General Provision. The comparison and evaluation of cost criteria will be based on prices included in the pricing proposal and will be based on the methodology described below. The proposal shall provide the basis of estimate, rationale, assumptions, estimating methodology and database used to drive labor and material estimates.</p> <p>The Proposer shall provide prices in accordance with the following pricing schedules:</p> <ul style="list-style-type: none"><li>Schedule 1 – Base Scope of Work Summary Entire Project</li><li>Schedule 2 – LGA Base Scope of Work Detail</li><li>Schedule 3 – JFK Base Scope of Work Detail</li><li>Schedule 4 – EWR Base Scope of Work Detail</li><li>Schedule 5 – TEB Base Scope of Work Detail</li><li>Schedule 6 – Ex. 4 Base Scope of Work Detail</li><li>Schedule 7 – LGA Optional Scope of Work Detail</li><li>Schedule 8 – JFK Optional Scope of Work Detail</li><li>Schedule 9 – EWR Optional Scope of Work Detail</li><li>Schedule 10 – TEB Optional Scope of Work Detail</li></ul>
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Schedule 11 – Ex. 4 Optional Scope of Work  
 Schedule 12 – Optional Scope of Work Unit Price Items

Please see Attachment Section 7.3 for detailed Pricing Schedules and Descriptions.

Deductive Items for Base Scope of Work Priced on Schedule 1:

- Deductive Item No. 1 = Pricing Item LGA.B3B, JFK.B3B, EWR.B3B (Secondary CDSs)
- Deductive Item No. 2 = Pricing Items TEB.B0 (TEB PIDS Base Scope)
- Deductive Item No. 3 = Pricing Item JFK.B2B, EWR.B2B (Exterior AOA Secure Area Assessment & Tracking – Leasehold Locations) as indicated in Book IV Attachment 11

These deductive items will be applied to the Total Price for Schedule 1 in the following manner in the cost evaluation of each proposal:

For the purpose of comparing proposals, the proposer evaluated most favorably in terms of cost will be that proposer offering the lowest Total Contract Price (TCP) that meets the Port’s available funding budget. This does not necessarily mean the proposer offering the lowest TCP also provides the best buy to the Port but merely provides the lowest price for cost evaluation. The TCP will be computed by deducting from each proposer’s Schedule 1 Lump Sum, the prices inserted by the proposer for Deductive Items listed above in the order of priority listed, until at least one proposer’s TCP is equal to or less than such available funds. The funds available for the Contract may be disclosed at the option of the Authority after receipt of proposals.

To illustrate how the determination of the proposer with the lowest TCP meeting the Port’s available funds in the case that no proposer’s Schedule 1 Total Lump Sum is equal to or less than the available funds, the following example is given:

<u>Example No. 1</u>	<u>Available Funds = \$100</u>		
	<u>Proposer A</u>	<u>Proposer B</u>	<u>Proposer C</u>
Total Price Schedule 1	110	120	130
1. Deductive Item 1	- 5 (=105)	-10 (=110)	-25 (=105)
2. Deductive Item 2	- 3 (=102)	- 5 (=105)	- 6 (= 99) *
3. Deductive Item 3	- 1 (=101)	- 8 (= 97)	- 1 (= 98)

\* Proposer C has a total price meeting the Port’s funding budget and will be

evaluated in terms of the cost evaluation criteria more favorably than Proposers A and B.

To illustrate how the determination of the proposer with the lowest TCP meeting the Port's available funds in the case that no proposer's Schedule 1 Total Lump Sum is equal to or less than the available funds, and where more than one proposer's TCP is equal to or less than the available funds in proceeding down the deductive items in order of priority, the following example is given:

Example No. 2

Available Funds = \$100

	<u>Proposer A</u>	<u>Proposer B</u>	<u>Proposer C</u>
Total Price Schedule 1	110	120	130
1. Deductive Item 1	- 5 (=105)	-10 (=110)	-25 (=105)
2. Deductive Item 2	-15(= 90) *	-15 (= 95)	- 6 (= 99)
3. Deductive Item 3	- 1 (= 89)	-10 (= 85)	- 5 (= 94)

\* Proposer A has a TCP meeting the Port's available funds and will be evaluated in terms of the cost evaluation criteria more favorably than Proposers B and C.

**E-IV: Cost Proposal – Maintenance**

	<p>The comparison and evaluation of cost criteria will be based on prices included in the maintenance price proposal. The Proposer shall complete provide prices in accordance with the following Summary Costs and pricing schedules, as listed in Book III Attachment A. The proposal shall provide the basis of estimate, rationale, assumptions, estimating methodology and database used to drive labor and material estimates.</p> <p style="text-align: center;">Summary Costs</p> <p>Schedule I    Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost (LGA)</p> <p>Schedule II    Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost (JFK)</p> <p>Schedule III    Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost (EWR)</p> <p>Schedule IV    Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost (TEB)</p> <p>Schedule V    Itemized Monthly Corrective and Scheduled Preventive Maintenance Cost Ex. 4</p> <p>Schedule VI    Itemized Monthly Corrective and Scheduled Preventive Optional Maintenance Cost</p> <p>Please see Book 1, Section 7.3 and Book III Attachment A for detailed pricing schedules and descriptions.</p>
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**E-V: PIDS Integrated Management Plan (IMP) & Project Schedule – 15 page limit (Not including Schedules, and Resumes)**

	<p>The Proposer shall provide an event based IMP for implementing the proposed security systems design. The IMP will address each of the four airport facilities and discuss the approach and process for controlling and managing the design, integration, fabrication, procurement, construction, installation, training, testing and commissioning of the system as well as maintaining cost, schedule, and system performance. The IMP shall also contain Project Organization, Resumes of Management Staff and key technical staff, Integrated Master Schedule, Subcontract Management Plan, and Risk Management Plan. Please see Book I Section 7.2, Scope of Work paragraph for more detail. The integrated schedule shows activities for design, integration, fabrication, procurement, construction, installation, training and testing for each airport indicating major milestones and critical paths. Book IV, Attachment 1 contains a preliminary PIDS Schedule as a guide. The Proposer shall develop and propose a “Fast Track” approach schedule in accordance with the proposed IMP to commence construction and installation as soon as possible at each facility. All installation efforts must be completed in January 2008.</p>
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**5.6 Acknowledgment of Addenda**

If any Addenda are sent as part of this RFP, the Proposer shall complete, sign and include with its Proposal the addenda form(s). In the event any Proposer fails to conform to these instructions, its proposal will nevertheless be construed as though the Addenda had been acknowledged.

### **5.7 Acceptance of Standard Contract Terms and Conditions**

The Authority has attached to this RFP as Book II and Book III, General Contract Provisions. The Proposer is expected to agree with these General Contract Provisions. However, if the Proposer has any specific exceptions, such exceptions should be set forth in a separate letter included with its response to this RFP. Failure to raise issues with the proposal shall preclude the Proposer from raising such issues at a later time.

### **5.8 M/WBE Plan**

The Proposer shall submit an M/WBE Plan in accordance with the section of this RFP entitled "M/WBE Subcontracting Provisions".

### **5.9 Contractor Selected Demonstration Facility**

The Proposer shall select and submit a minimum of three (3) facilities within the Continental United States, of which the proposer was the prime contractor, to be visited by the Authority that demonstrate by physical evidence (installation and operation) and interview/meetings with the user/owner that the proposer clearly understands and is fully capable of executing the work necessary under this RFP. The Authority will coordinate with the Proposer and Facility representatives on the dates of the site visits as appropriate. The Proposer shall provide:

1. Location name and address
2. A primary and alternate Point of Contact at the facility
3. Telephone number and Email of the primary and alternate point of contact
4. A short description of the system installed (limit 5 pages)

### **5.10 Financial Certification**

Please see Book I, Section 2.0 for submittal requirements.

## **6.0 CONDITIONS FOR THE SUBMISSION OF A PROPOSAL**

In addition to all other requirements of this RFP, the Proposer agrees to the following conditions for the submission of its proposal.

**6.1 Changes to this RFP**

At any time, in its sole discretion, the Authority may in written addenda, modify, correct, amend, cancel and/or reissue this RFP. If an addendum is issued prior to the date proposals are due, it will be provided to all parties to whom RFP's were mailed. If an addendum is issued after proposals have been received, the addendum will be provided only to those whose proposals remain under consideration at such time.

**6.2 Proposal Preparation Costs**

The Authority shall not be liable for any costs incurred by the Proposer in the preparation, submittal, presentation, or revision of its proposal, or in any other aspect of the Proposer's pre-contract activity. No Proposer is entitled to any compensation except under an agreement for performance of services signed by an authorized representative of the Authority and the Proposer.

**6.3 Disclosure of Proposal Contents / Use of Ideas and Materials**

Proposal information is not generally considered confidential or proprietary. All information contained in the proposal is subject to the "Agreement on Terms of Discussion" (see Book I, Section 7.1 of RFP).

**6.4 Ownership of Submitted Materials**

All materials submitted in response to or in connection with this RFP shall become the property of the Authority. Information submitted will not be divulged to competitors. Selection or rejection of a Proposal shall not affect this right.

**6.5 Subcontractors**

If a Proposer intends to use subcontractor(s) the Proposer must identify in its proposal the names of the subcontractor(s) and the portions of the work the subcontractor(s) will perform.

**6.6 Conflict of Interest**

If the Proposer or any employee, agent or subcontractor of the Proposer may have a possible conflict of interest, or may give the appearance of a possible conflict of interest, the Proposer shall include in its proposal a statement indicating the nature of the conflict. The Authority reserves the right to disqualify the Proposer if, in its sole discretion, any interest disclosed from any source could create a conflict of interest or give the appearance of a conflict of interest. The Authority's determination regarding any questions of conflict of interest shall be final.

### **6.7 Authorized Signature**

Proposals must be signed by an authorized corporate officer (e.g., President or Vice President), General Partner, or such other individual authorized to bind the Proposer to the provisions of its proposal and this RFP.

### **6.8 References**

The Authority may consult any reference familiar with the Proposer regarding its current or prior operations and projects, financial resources, reputation, performance, or other matters. Submission of a proposal shall constitute permission by the Proposer for the Authority to make such inquiries and authorization to third parties to respond thereto.

### **6.9 Evaluation Procedures and Negotiation**

Only prequalified Proposers submitting responsive proposals may have their proposals evaluated based on the evaluation criteria set forth in this RFP. The Port Authority may use such procedures that it deems appropriate to evaluate such proposals. The Authority may elect to initiate contract negotiations with one or more Proposers including negotiation of costs/price(s) and any other term or condition, including modifying any requirement of this RFP. The option of whether or not to initiate contract negotiations rests solely with the Authority.

### **6.10 Taxes and Costs**

Sales to the Authority are currently exempt from New York and New Jersey state and local sales and compensating use taxes and generally from federal taxation. All costs associated with the Contract must reflect this exemption and be stated in U.S. currency. See Book II and Book III, General Contract Provisions.

### **6.11 Most Advantageous Proposal/No Obligation to Award**

The Port Authority reserves the right to award the Contract to other than the Proposer proposing the lowest price. The Contract will be awarded to the Proposer whose proposal the Port Authority believes, in its sole discretion, will be the most advantageous to the Port Authority. Neither the release of this RFP nor the acceptance of any response thereto shall compel the Authority to accept any proposal. The Port Authority shall not be obligated in any manner whatsoever to any Proposer until a proposal is accepted by the Authority in the manner provided in the Section 1.8 of Book I of this RFP entitled "Proposal Acceptance or Rejection."

### **6.12 Right to Extend Contract**

The Authority reserves the additional right to extend the contract term of the Maintenance Contract for an additional 120 days, upon the same terms and

conditions of the original Contract negotiated between the Authority and the successful Proposer.

**6.13 Rights of the Authority**

1. The Authority reserves all its rights at law and equity with respect to this RFP including, but not limited to, the unqualified right, at any time and in its sole discretion, to change or modify this RFP, to reject any and all proposals, to waive defects or irregularities in proposals received, to seek clarification of proposals, 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 RFP, may express an interest in the subject matter hereof, to terminate further participation in the proposal process by a Proposer or to proceed with any proposal or modified proposal, which in its judgment will, under all circumstances, best serve the Authority's interest. The Authority may, but shall not be obliged to, consider incomplete proposals or to request or accept additional material or information. The holding of any discussions with any Proposer shall not constitute acceptance of a proposal, and a proposal may be accepted with or without discussions.
2. No Proposer shall have any rights against the Authority arising from the contents of this RFP, the receipt of proposals, or the incorporation in or rejection of information contained in any proposal or in any other document. The Authority makes no representations, warranties, or guarantees 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 Authority shall not create or be deemed to create any obligation or liability upon it for any reason whatsoever and each Proposer, by submitting its proposal, expressly agrees that it has not relied upon the foregoing information, and that it shall not hold the Authority liable or responsible therefor in any manner whatsoever. Accordingly, nothing contained herein and no representation, statement or promise, of the Authority, its directors, officers, agents, representatives, or employees, oral or in writing, shall impair or limit the effect of the warranties of the Proposer required by this RFP or Contract and the Proposer agrees that it shall not hold the Authority liable or responsible therefor in any manner whatsoever.
3. At any time and from time to time after the opening of the proposals, the Authority may give oral or written notice to one or more Proposers to furnish additional information relating to its proposal and/or qualifications to perform the services contained in this RFP, or to meet with designated representatives of the Authority. The giving of such notice shall not be

construed as an acceptance of a proposal. Information shall be submitted within three (3) calendar days after the Authority's request unless a shorter or longer time is specified therein.

**6.14 No Personal Liability**

Neither the Commissioners of the 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 RFP or any statements made herein or because of the submission or attempted submission of a proposal or other response hereto or otherwise.

**7.0 ATTACHMENTS**

**7.1 AGREEMENT ON TERMS OF DISCUSSION**

The Port Authority's receipt or discussion of any information (including information contained in any proposal, Proposer qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) is not to 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 letter, 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. The foregoing applies to any information, whether or not given at the invitation of the Port Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority's Freedom of Information Resolution adopted by its Committee of Operations on August 13, 1992, a copy of which is attached hereto, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise, which, if disclosed, would cause substantial injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

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**(Company)**

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**(Signature)**

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**(Title)**

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**(Date)**

**Freedom of Information – Port Authority Policy and Procedure**

In 1977, the Committee adopted a policy for access by the public to records maintained by the Port Authority. While based on the policy therefore declared by the States of New York and New Jersey, with respect to access by the public to public records, inasmuch as the respective New York and New Jersey statutes differed (and continue to differ) as to certain policy particulars and provide for different procedures for implementation of the policy, it was deemed desirable for the Committee to adopt a separate Port Authority Policy and Procedure. In light of action new being taken by the Board with respect to open public meetings, it is appropriate at this time to restate the basic principles and reflect necessary procedural changes.

Pursuant to the foregoing report, the following resolution was adopted with Commissioners Burgos, Hellmuth, Henderson and Kaltenbacher voting in favor, none against:

**RESOLVED**, that government, including the activities and decisions of The Port Authority of New York and New Jersey (and its wholly-owned subsidiary corporations) is the public's business and therefore the public should have access to the records of the Port Authority (and its subsidiaries) as herein provided for; and it is further

**RESOLVED**, that the resolution of the Committee on Operations adopted on September 28, 1977, regarding Freedom of Information (which resolution appears at pages 12 et seq. Of the Committee Minutes for that date) shall be, and it hereby is rescinded; and it is further

**RESOLVED**, that all records of the Port Authority (and its subsidiaries), including records stored electronically such as on computer tapes or disks, shall be made available for public inspection and copying, except that such access may be denied as to records or portions of thereof which:

- (1) are rendered confidential or privileged or are exempted from disclosure by Federal or state law or regulations or rules of the court;
- (2) if disclosed, would constitute an unwarranted invasion of personal privacy (including personnel, medical, or disciplinary records, and any lists of names and address to be used for profit or financial gain);
- (3) if disclosed, would impair present or future awards or negotiations, including collective bargaining or negotiations, of leases, permits, contracts, or other agreements;
- (4) are trade secrets or are maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause injury to the competitive position of the enterprise;
- (5) are compiled for public safety, law enforcement, or official investigative purposes (internal or external) when their disclosure may affect public safety, interfere with internal investigations, audits, law enforcement investigations, or judicial or disciplinary proceedings, or deny or prejudice a right to a fair trial or impartial adjudication, or identify a confidential source or disclose confidential

information relating to an audit or a civil, criminal, or internal or external disciplinary investigation.

- (6) if disclosed, would endanger the life and safety of any person;
- (7) are inter-agency or intra-agency materials other than statistical or factual tabulations of data, provided that instructions to staff that affect public or final agency policy or determinations are not exempted;
- (8) are examination questions or answers which are requested prior to final administration of such questions; or
- (9) could affect or impact the competitive economic position of the Port District, the Port Authority, or specific business entities with which the Port Authority deals;

and it is further

**RESOLVED**, that the Secretary of the Port Authority shall maintain a current list of subject nature and category of all records in the possession of the Port Authority (and its subsidiaries) whether or not they are available for public copying and inspection, and the Secretary shall, under the direction of the Executive Director, administer the following rules and regulations with respect to public inspection and copying are available records:

**Procedures**

- (a) Requests for inspection or copying of public records of the Port Authority shall be made to the Secretary of the Port Authority upon a form prescribed by the Port Authority and shall contain sufficient information to identify the particular record sought. Such requests shall be made either:
  - (1) In person during regular business hours at the Port Authority's main office or
  - (2) By mailing such request, postage prepaid to said Secretary, The Port Authority of New York and New Jersey, at the aforesaid address, Attention: FOI Administrator.
- (b) Upon receipt of a request, the Secretary of the Port Authority shall promptly determine whether or not the record requested can be made available and will notify the person making the request of such determination. If the request is granted, such person shall also be notified where and when the record will be made available. The Port Authority will provide an opportunity for inspection and copying of the record.
- (c) The record may be inspected only under the supervision of the Secretary of the Port Authority or such other officer or employee as may be designated by the Secretary in the Office of the Secretary during regular business hours or at such other times or places as the Secretary deems convenient.
- (d) (1) Documents which are to be copied will be copied by The Port Authority, if practicable, and the person requesting a copy will be charged a fee equal to the Port Authority's cost but no less than 25 cents for each page of the first ten, 15 cents for each page of the second ten, and 10 cents for each additional page. If it is not practicable for the Port Authority to copy such documents, they will be copied commercially and the person requesting the copy will be charged a fee equal to the Port Authority's cost of such commercial reproduction. Documents which have been

purchased by the Port Authority commercially (such as stenographic transcripts) may be copied and the person requesting the copy will be charged a fee no less than the amount paid by the Port Authority for such documents.

(2) A fee of no less than two dollars will be charged for certification by the Secretary of the Port Authority as to authenticity of any document, or that a record of which the Port Authority is legal custodian cannot be found.

(3) In the event a search for records requested requires more than one person hour, or in the event a search of computer records requires programming which would take more than one person hour, a fee will be charged at the rate of not less than five dollars per hour, or any part thereof, per person assigned to such search or programming.

(4) All such fees shall be paid by the person making the request in cash, certified check, or cashier's check, in advance or at any time of the delivery of any record for inspection or copies of any records or certificate referred to in this procedure.

(e) The Secretary of the Port Authority, or the Secretary's designee, shall respond to each request within ten business days of the receipt thereof. The response shall provide reasons for the denial of access or copying or a statement of the time and place when the record requested will be made available.

### **Appeals**

- (a) Any person who is denied access to a public record of the Port Authority (or its subsidiaries) by the Secretary of the Port Authority may file an appeal from such denial with the Port Authority's General Counsel (who serves as Counsel to the subsidiaries).
- (b) Such appeal shall be accompanied by a memorandum in support thereof setting forth the reasons why the appellant is entitled to access to the record requested.
- (c) Appeals pursuant to this procedure shall be decided by General Counsel or his designee. If the appeal is denied, the reasons therefor shall be explained fully in writing within seven business days of the date on which such appeal is received by General Counsel.

**7.2 SCOPE OF WORK**

## **7.2 SCOPE OF WORK**

### **7.2.1 Introduction**

This Scope of Work describes the effort to be performed by the Contractor for the management, design, integration, construction, procurement, installation and testing of and training for the Port Authority of NY & NJ (Authority) integrated Perimeter Intrusion Detection System (PIDS) for John F. Kennedy International Airport (JFK), LaGuardia Airport (LGA), Newark Liberty International Airport (EWR), and Teterboro Airport (TEB). The objective of PIDS is detection and assessment of intruders (unauthorized entry) into the exterior Air Operations Areas (AOA) secure areas via exterior segments (non-building areas) of the Alarm/Detection Secure Line as identified in the Perimeter Characterization and Security Upgrade Plans (PCSUP) for each airport. The exterior AOA is defined as the “Blue” hatched area in the facility PCSUP bordered by the exterior AOA secure line. Please see Book IV, Attachment 3, Characterization and Facility Upgrade Plans. PIDS will enhance the ability of Port Authority Police, Operations, and other first responders to identify, in advance at the earliest possible perimeter point, attempts by intruders and/or terrorists to gain access to Air Operations Area (AOA) airport property. The overall Port Authority of NY and NJ security upgrade plan objective is to deter, delay, detect, assess, and track, potential or actual breaches of the perimeter in a proactive manner to enhance the efficiency of security personnel in responding to intrusion and provide a high level of protection for persons and property within the control of the four New York and New Jersey area airports. PIDS is a subset of the overall Authority Security Upgrade Plan and is intended to detect, assess, and track attempted intrusions on the perimeter AOA. This project will require extensive new infrastructure necessary to implement the PIDS security system and may include, but will not be limited to, the installation of conduit, duct banks, field distribution cabinets, drainage and erosion control, grading, trenching, power and signal cabling and pedestal installation. This effort will include requirements to supply software/hardware integration of equipment, devices, material and appurtenances; to install/upgrade infrastructure to meet security system requirements; to acquire, integrate and stage security equipment and ancillary materials; to design, procure, install, and integrate a security sensor system; to provide training in security system operation and maintenance; to prepare and deliver as-built drawings and all other PIDS design documentation in accordance with the requirements under this Contract; and to perform and arrange for maintenance support of the installed security system. Please note that maintenance support requirements are identified in Book III in this RFP.

#### **7.2.1.1 Functional and Performance Requirements Overview**

PIDS involves the design, integration and installation of an exterior intrusion detection, day/night alarm assessment, and tracking system into an integrated

Control and Display system. See Book II, Attachment C, the PIDS Functional and Performance Requirements Document.

#### 7.2.1.2 Operational Requirement Overview

PIDS shall provide a critical line of defense in protecting the Authority's Airport facilities and resources. The PIDS will provide an electronic means of accomplishing intrusion detection, alarm reporting, assessment and display and alerting security personnel of intrusions to ensure the physical security of the Authority's Airport facilities and resources, including its employees, contractors, visitors, and patrons. PIDS will provide an integrated detection and display capability that permits situational awareness, reporting, and warning information to be rapidly and accurately passed among security personnel. The Contractor will develop the CONOPs as the PIDS Design and Installation progresses. The initial draft CONOPs, prepared by a consultant to the Authority, is Confidential and Privileged and available for Contractor review. **It is required that any review of available documents be conducted at the Office of Emergency Management (OEM) 241 Erie Street Jersey City, New Jersey, 07310. Please contact Lou Barani at 201-595-4698 to schedule a review. See Section 1.10 for details.**

#### 7.2.1.3 Training & Maintenance Requirements Overview

The Contractor shall provide maintenance services on all equipment and software furnished under the Main Agreement so that the PIDS will perform in accordance with the functional performance requirements. The performance of the PIDS, shall also be in accordance with the Specifications and this Scope of Work. Maintenance will be on a twenty-four (24) hours per day, seven (7) days per week basis, including Holidays. Specific Training and Maintenance Requirements are identified in Book III of this RFP.

### 7.2.2 Applicable Reference Documents

A list of Specifications, Standards and Handbooks that are applicable reference documents and form part of this Scope of Work can be found in Book IV, Attachment 7.

### 7.2.3 Scope of Work Requirement

7.2.3.1 Project Management

7.2.3.1.1 Integrated Project Management

The Contractor shall be responsible for the total management of the design, integration, fabrication, procurement, construction, installation, training, and testing of the work performed under the Contract, pursuant of the terms and conditions thereof. The Contractor shall manage an integrated program as defined in the Contractor's-prepared and maintained Integrated Management Plan (IMP) originally submitted as part of the proposal and as such subject to Authority approval and comment. The IMP shall be an event-driven plan that documents the significant accomplishments and ties these accomplishments to major program milestones. The IMP will address each of the four airport facilities and discuss design, integration, fabrication, procurement, construction, installation, training, testing, and commissioning. The IMP is to be used throughout the design and installation program as a management tool to assess progress and determine the success in achieving the PIDS requirements. The Contractor is to report on the work in progress and schedule in accordance to the IMP at each program review. The plan shall also discuss how the Contractor proposes to interact with any subcontractors and with Authority Personnel to provide status reports and to communicate updates to the project schedule utilizing project management techniques. *(Please note that the IMP is a separate document from the "Integrated Maintenance Plan" as described in Book III of this Request for Proposal.)*

7.2.3.1.1.1 Project Organization

The IMP shall include detailed description of the Contractor's PIDS team (Team). The Team is defined as the Proposer(s), any subcontractor and key security subsystem suppliers who will be utilized for Work. The Contractor shall include organizational charts that illustrate the reporting structure of the Team. The Team shall include expertise in integrated security system design and installation, electrical engineering, electronic systems and system integration, in addition to traditional construction disciplines, that can deliver to the Authority a fully-functional and safe system. At a minimum, identify the project manager and other key technical or subcontractor staff. If a joint venture, provide a full description of the reporting structure, including the role of each entity and the roles of any subcontractor(s). Describe other personnel who, while not directly assigned to the implementation, may provide support. Indicate points of interaction with Authority staff for design reviews, construction supervision, etc. Include detailed resumes of all qualified management and key technical personnel to be assigned. For project manager and key technical staff, identify the time that the proposed staff will be committed to the project.

7.2.3.1.1.2 Integrated Schedule

The IMP shall include an integrated schedule utilizing critical path

methodology. This schedule must include detailed activities for design, integration, fabrication, procurement, construction, installation, training, testing, facility commissioning, providing submittals, indicating major milestones that correspond to contract dates, and description of the overall critical path. The information provided in the schedule shall also include, but will not be limited to, the interactions between the Contractor's activities and all other activities required for the successful completion of the contract, e.g. those to be performed by utility companies, by the Authority's forces, or by other entities. Moreover, schedules shall include time allowances for obtaining permits; preparation of shop drawings, designs, and other submittals; and obtaining approvals. The activities and schedule should demonstrate Contractor's understanding of contract objectives and indicate the Contractor's ability to complete the work on or before the contractual due date. A high level summary schedule must also be available. The integrated schedule shall be updated monthly and as part of the 30%, 60%, 90%, and 100% design submittals. Schedules should also be made available as requested by the Authority throughout the period of performance of this contract.

#### 7.2.3.1.1.3 Subcontractor Management

The IMP shall include a subcontractor management plan that identifies subcontractors, their responsibilities, and how the Contractor proposes to interact with subcontractors to ensure PIDS Contract requirements and schedule milestones are met.

#### 7.2.3.1.1.4 Correspondence Management

A numbering system and distribution listing for all correspondence under the Contract subject to review and comment by the Project Manager. This shall include, but not be limited to, Project Meeting Minutes, Submittals, Transmittals, Requests for Information, Project Change Requests, and Project Change Notices.

#### 7.2.3.1.1.5 Risk Management Plan

The Contractor shall manage program and technical risk to reduce or eliminate problems. As part of the IMP, the Contractor shall provide a Risk Management Plan that identifies risks of the PIDS Program and a program for controlling and mitigating these risks. This plan will be updated throughout the life of the contract and coordinated with the Authority Risk Management group. The PIDS Project Manager will oversee this coordination.

#### 7.2.3.2 Electronic Data Interchange

The Contractor shall participate in electronic data interchange and provide program information through electronic media as much as practical. This includes, but not limited to design and installation drawings, invoices, and

reporting.

#### 7.2.3.3 Quality Assurance and Quality Control Plan

In conjunction with the 30%, 60%, 90% and 100% design submittals, the Contractor shall submit for review a Quality Assurance and Quality Control (QA/QC) program for the design, installation, test, training and commissioning of the PIDS system. This plan will become part of the Maintenance Agreement and shall be managed and tracked within the CMMS as described in Book III of this RFP.

### 7.2.4 Facility Security and Infrastructure Design

#### 7.2.4.1 Site Surveys & Visits

The Contractor shall conduct design site surveys to gather all information necessary for an integrated PIDS Security Design. Site Survey as well as site Visits will be coordinated with the PIDS Site Project Managers as well as designated Facility Managers. Site surveys and visits will be planned at least two (2) weeks in advance to allow for facility coordination to include escorts as required. This design will address all security system (Software and Hardware) and infrastructure requirements to complete the installation. The effort may also include a temporary installation of sensors with monitoring equipment to verify proper sensor operation in the local environment. Upon completion of the site survey the Contractor shall prepare and deliver a site survey report within thirty (30) days after completion of the survey.

#### 7.2.4.2 Facility 30%, 60%, and 90% Design & Deliverables (Post Award)

##### 7.2.4.2.1 \* Facility (30%, 60%, and 90%) Design

The Contractor shall provide a Facility 30%, 60%, and 90% Systems Design for JFK, LGA, EWR, and TEB. This design will address all security system (Software and Hardware) and infrastructure requirements to complete the installation. The designs shall provide the features and technical specifications of the PIDS system at the 30%, 60%, and 90% complete level. In the course of completing the 30%, 60%, and 90% design, the Contractor shall obtain necessary user input on key open design questions that the Contractor may have and conduct site visits to each facility to collect the necessary data to assist in the development of the design. The design shall include updated PIDS equipment and locations as well as identify communications connectivity, distribution boxes, and power sources. These designs shall include wiring diagrams for power and communications infrastructure. As part of the 60% design, the Contractor shall identify elements (or areas) within the design that can immediately progress to

100% to expedite/initiate construction and installation. The Design Documentation shall include items as described in Book I, Section 7.2.9.

7.2.4.2.2 System Specifications

The Contractor shall provide detailed PIDS Systems Performance Specifications for each facility. This shall include, but not be limited to, all PIDS system components, intrusion detection, access control, assessment, control and display, communications, and power systems.

7.2.4.2.3 Project Schedule

The Contractor shall update the Project Schedule at the 30%, 60% and 90% design submittal, as defined above, for each facility based on a Project Work Breakdown Structure to track and report on infrastructure and security system design, installation, and test activities.

7.2.4.2.4 Project Cost

The Contractor shall update the detailed Project Cost for each facility based on the 30%, 60% and 90% Design. The estimate shall include cost of components, material, labor, and any other costs associated with the software and hardware design, integration, installation, and testing and commissioning of the PIDS System. This cost estimate will be integrated into the overall PIDS Program Cost.

7.2.4.3 Authority Design Reviews

The Contractor shall conduct, with the participation by Authority representatives and Authority support consultants, 30%, 60% and 90% design reviews for JFK, LGA, EWR and TEB. Design Reviews will be conducted at each facility. An Agenda shall be prepared in consultation with the Authority and distributed to all attendees five (5) working days prior to the review. The Contractor shall take minutes for these reviews and the minutes shall contain explicit statements of issues, problems or deficiencies to be corrected, and action items resulting from the discussion. The minutes shall be published to the Authority within ten (10) working days after of review.

7.2.4.4 Systems Integration (CACS and Ex. 4

7.2.4.4.1 Airport Surface Detection Equipment

The Port Authority is involved in a TSA Research & Development (R&D) Grant to modify the existing Ex. 4 system at JFK for detecting and tracking intruders along the Airport Perimeter.

JFK: TSA conducted Ex. 4 Intrusion Detection Demonstration at JFK in March 2005. The Airport Security Display Processor Interface System (ASDP) provides the interface to the existing Ex. 4. The ASDP will be turned over to the Authority after testing. The system will be made available to the PIDS Contractor as Port Authority Furnished Equipment for potential integration. Maintenance of the ASDP will become part of the PIDS Maintenance Contract. Maintenance responsibilities for the RADAR system will remain with the FAA.

LGA, and EWR: The Contractor may acquire and integrate the ASDP Interface System for LGA, and EWR, Maintenance of the ASDP will become part of the PIDS Maintenance Contract. Maintenance responsibilities for the RADAR system will remain with the FAA.

Note: No Ex. 4 Radar is scheduled for TEB

7.2.4.4.2 Lenel International Central Access Control System (CACS), and Verint (Formerly Loronix) CCTV

The Contractor shall integrate the existing Lenel and Loronix systems at each facility to meet the requirements of a single operator controlled PIDS Control and Display System. The Contractor has the option to upgrade the existing system or integrate it into other solutions to meet the single operator controlled PIDS Control and Display for intrusion detection, access control, assessment and notification. Lenel interface control documentation can be found at [http://www.lenel.com/lenel\\_alliances/index.htm](http://www.lenel.com/lenel_alliances/index.htm). The Contractor shall contact Verint Systems to obtain interface control documentation (compatibility matrix) to ensure proper integration.

7.2.4.4.3 Other Integration

The Contractor shall design an open architecture system to allow for technology insertion, interface, and integration upgrades as part of this Contract. These efforts may include studies, design modifications, addition and/or replacement of security system components.

7.2.4.5 Final Project Schedule, Construction and Specification & Drawings

The Contractor shall submit a final Project Schedule, Specifications and Drawing Package for LGA, JFK, EWR, and TEB twenty (20) working days after each facility's 90% Design Review. The package for each facility shall include:

7.2.4.5.1 Construction Drawings

The Contractor shall provide final construction drawings for JFK, LGA, EWR and TEB. These drawings shall be the final design and construction

drawings, products of the 30%, 60% and 90% design reviews and facility visits.

**7.2.4.5.2 Final Specification**

The Contractor shall provide the final PIDS Systems Performance Specifications for each facility. This shall include, but not be limited to, all PIDS system components to include intrusion detection, assessment, control and display, communications, and power systems.

**7.2.4.5.3 Final Project Schedule**

The Contractor shall provide a final Project Schedule twenty (20) working days after the review of the 90% Design, as defined above, for each facility based on a project Work breakdown structure to track and report on infrastructure and security system design, integration, fabrication, procurement, construction, installation, training, and testing activities.

**7.2.4.5.4 Final Project Cost**

The Contractor shall provide a final detailed Project Cost Estimate for each facility twenty (20) working days after the review of the 90% Design. The final estimate shall include cost of components, material, labor and any other costs associated with the installation of the PIDS System. This cost estimate will be integrated into the overall PIDS Program Cost Estimate.

**7.2.4.5.5 Facility Final (100%) Security System and Infrastructure Design**

The Contractor shall provide a final security system and infrastructure design which shall provide the features, functions and technical specifications of the system at a 100% complete level. The design may be a subset of the complete facility design of the elements (or areas) identified during the 60% review that can be expedited to initiate construction and installation. The design shall include final equipment locations as well as detailed connectivity drawing for the communications and power infrastructure. The design documentation shall include items as described in Section 7.2.9

**7.2.5 Facility Installation**

**7.2.5.1 Licensing and Permits**

The Contractor shall acquire all necessary federal, state, local 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.

Please see Book II General Provisions.

#### 7.2.5.2 Pre-Construction Inspections and Approvals

After the 100% Infrastructure and Security Design Approval of the complete facility design or elements (areas) and prior to the commencement of the initial Construction, the Contractor shall conduct a Pre-Construction Meeting(s) with the Authority and Resident Engineer and verify all permits and approvals that have been obtained. This may include any Pre-Construction Authority schedules that may be required.

#### 7.2.5.3 Request for Information (RFI)

The Contractor shall generate RFI as necessary. RFI shall be addressed to the Resident Engineer. The Resident Engineer shall make every effort to answer RFI but may need the assistance of other Authority members and E/A Design Division Staff. The Contractor shall keep a log of RFI for each facility and actions

#### 7.2.5.4 Site Mobilization: Required On-Site Construction Services

##### 7.2.5.4.1 Material Delivery, Storage and Removal

Deliver materials to the construction site at appropriate intervals to ensure uninterrupted progress of work. Materials shall be stored in an area designated or approved by the Engineer. Deliver material in sealed protective packaging.

- A. Store materials in sealed packaging as required in a manner to prevent soiling, physical damage, wetting or corrosion prior to installation.
- B. Movement of material, either at the time of delivery, or subsequently, shall be the sole responsibility of the Contractor. All costs associated with this movement shall also be the responsibility of the Contractor.
- C. Handle in a manner to prevent damage to finished surfaces.
- D. Where possible maintain protective coverings until installation is complete and remove such covers as part of the final clean-up.

- E. Disturbed surfaces shall be patched in a manner approved by the Authority and finishes restored to their original condition.
- F. Costs of all shipping to the site, and of all unusual storage requirements shall be borne by the Contractor. It shall be the responsibility of the Contractor to make appropriate arrangements and to coordinate with authorized personnel at the site for proper acceptance, handling, protection, and storage of equipment so delivered.

The Contractor shall be responsible for safe storage of all equipment. In the event of equipment disappearance from the site, the Contractor shall bear full responsibility and all costs associated with equipment replacement at no additional cost to the Authority.

#### 7.2.5.4.2 Environmental Protection

The Contractor shall perform installation of environmental protection barrier and pollution control structures as required.

#### 7.2.5.5 Security and Infrastructure Installation

##### 7.2.5.5.1 Construction and System Integration and Installation

The Contractor shall perform all site construction, integration and installation activities as required for PIDS. This shall include, but not be limited to:

- 7.2.5.5.1.1 Provide all required labor, tools, materials, and equipment necessary to complete infrastructure and system installation.
- 7.2.5.5.1.2 Provide or manufacture sensor brackets, enclosures for sensors or equipment installation and tamper protection.
- 7.2.5.5.1.3 Provide and install required, electrical and communications infrastructure, conduit, ductbanks, terminal cabinets, electrical circuit breakers as needed.
- 7.2.5.5.1.4 Provide and install, integrate, and configure all PIDS security equipment as required.
- 7.2.5.5.1.5 Perform (or hire to perform) any site-specific adaptation of system software and initial configuration programming to include data base entry.
- 7.2.5.5.1.6 Provide all incidental materials and infrastructure to the installation of PIDS Security Equipment. This includes, but is not limited to, clearing and grading, installation of

environmental protection barrier and pollution control structures, drainage modifications/improvements, modifications of existing fencing, removal of existing fencing as well as installation of new fencing, relocation of existing or installation of new lighting, installation or modification to back-up power systems, installation of foundations and supports for field distribution boxes and CCTV/IR camera poles and if required the construction of assessment towers and the removal of existing security equipment.

7.2.5.5.1.7 Maintain the installed equipment through the turnover of the system to the Authority at the completion of the Test phase.

7.2.5.5.2 Monthly Installation Progress Reports

The Contractor shall prepare and submit an integrated Monthly Progress Report for each facility. The report shall be submitted within five (5) working days after the end of each month. The Progress Report shall contain tasks planned for the reported month, actual tasks completed, and the subsequent month's planned tasks for each facility. The report will also contain the facility project schedules showing task percent complete highlighting any schedule delays. The report will also highlight any major outstanding issues that require action by the Contractor or the Authority.

7.2.5.5.3 Facility Clean up and Restoration

The Contractor shall prepare a Site Restoration Plan to outline the Contractor's actions to restore the facility site to its original or better condition. The Contractor shall repair damage, if any, to Authority property resulting from the Contractor's activities and such property shall be returned to its original or better condition. The Contractor shall remove all debris at the end of each shift or more frequently if required to keep the space safe and usable. This shall include the area in which any Contractor trailers are located. All excess Contractor furnished equipment, materials and debris used or caused by the PIDS installation, including portable offices shall be removed from the installation no later than ten (10) days after completion of Acceptance Testing and commissioning of the security system.

7.2.5.5.4 Migration of Existing Systems

The Contractor shall develop and implement a Migration Plan for any existing systems that will be integrated into the PIDS. The Migration Plan shall be submitted as part of the 30%, 60% and 90% Design submittal for review and approval by the Port Authority. During the migration to PIDS of any existing systems, the Contractor shall ensure that the current and existing systems continue

to operate properly. The Contractor shall provide a comprehensive detailed phasing plan and methodology to accomplish (but not limited to) the following:

7.2.5.5.4.1 Install and Test PIDS

7.2.5.5.4.2 Address migration of infrastructure, network subsystems, communications support

7.2.5.5.4.3 Insure PIDS is functioning 100% before scheduling migration of any existing systems

7.2.5.5.4.4 Provide documentation of all problems and corrective actions that occur while implementing PIDS

7.2.5.5.4.5 Other significant items

The Migration Plan shall address periods of time/duration during the migration process when components of the existing system may be taken out of service. This needs to be held to a minimum. The Contractor shall coordinate with the Project Manager and facilities if and when the need arises for down time of existing systems.

## **7.2.6 PIDS Testing and Acceptance**

### **7.2.6.1 Pre-Acceptance Testing**

The Contractor shall test the software and hardware components individually and as an integrated system to ensure that they perform according to the specifications as set forth herein. The Authority shall have the right to review the Contractor testing and test progress at any time. Test milestones for pre-acceptance testing shall be reflected in the Project Schedule, and testing progress shall be documented in the Contractor's regularly issued project status reports.

### **7.2.6.2 Acceptance Testing and Provisions**

The Contractor shall prepare and deliver to the Authority a comprehensive Acceptance Test Plan that describes all the activities and tasks associated with testing during each test phase - Factory, Field and Operational. This Test Plan shall be submitted sixty (60) Working Days prior to the scheduled Factory Acceptance Test. At a minimum, the Contractor's Acceptance Test Plan shall conform to the requirements of ANSI/IEEE Standard 829-1983 and shall contain the following elements:

- A. A summary statement of the purpose and goal of each test phase, the method of testing, a description of the overall test environment, test equipment details, test equipment configuration sketches and diagrams, including cabling requirements, and a specification of the hardware and software required for the test: including the number and type of devices to be used during the test or the method of simulation,
- B. A test itinerary identifying each individual test to be performed, the anticipated duration, staffing requirements, the purpose of the test, the conditions that shall exist at the start of the test and the conditions/results expected to exist at the conclusion of the test,
- C. A description of the outputs (reports, database listings, statistical analyses, etc.) to be provided to the Authority to document the test results. Test incident report forms and test incident log.

After receipt of each Acceptance Test Plan, the Authority will formally comment on its content, and if necessary, the Contractor shall make appropriate changes to the Acceptance Test Plan and resubmit it for Authority review and approval. The Authority may, at its discretion, observe a portion of, or all of each acceptance test, as it deems necessary.

When all tests for a testing phase have been executed to the satisfaction of the Authority, the Contractor shall prepare and deliver to the Authority an Acceptance Test Report along with the Contractor's written certification that the PIDS has successfully passed all tests for that specific test phase. This report shall be delivered twenty (20) Working Days after completion of each test phase. The Acceptance Test Report shall contain at a minimum the following sections:

- A. Summary of the test phase,
- B. Description of the tests performed to include: Test conditions at start and end of each test, expected test results with Pass/Fail criteria, and actual test results,
- C. Action plan to conduct the next iteration of the test phase or a statement that the phase was completed successfully.

The Authority shall evaluate each Acceptance Test Report and notify the Contractor of its evaluation. No acceptance test phase shall be initiated without the Authority's written approval of the Acceptance Test Plan specific to that phase, and no test phase shall be considered complete, nor may the Contractor proceed to the next step of the project until the Authority has approved, in writing, the Contractor's Acceptance Test Report for the previous phase.

#### 7.2.6.3 Factory Acceptance Test

The Authority, at the Contractor's place of manufacture or development, shall inspect the PIDS. Prior to the initiation of testing, the Contractor shall provide draft copies of all documentation required for system operation.

7.2.6.3.1

The Factory Acceptance Tests for each Facility shall be conducted by the Contractor and observed by the Authority. The Contractor shall perform each test as described in the Factory Acceptance Test Plan in its entirety with the use of actual system equipment and the use of simulated inputs and/or simulated outputs, if necessary and if pre-approved. The Contractor shall determine the detailed results of each test and the Authority shall record the success (pass) or failure of each test.

7.2.6.3.2

The factory test shall involve, at a minimum, the inspection by the Authority of all major physical components of the PIDS as well as the testing of the functionality of the PIDS in a controlled environment in accordance with the Factory Test Plan. The Contractor shall assemble the PIDS, including all major components, at the place of manufacture.

7.2.6.3.3

The Authority, at its own expense, will participate, in one (1) Factory Acceptance Test session for each Facility, which shall be based on the full system implementation. Should it be necessary for the Authority to attend more than one (1) Factory Acceptance Test session for a Facility, for reasons expressly due to Contractor delays, product failure, or failure to implement approved testing procedures, the Contractor shall bear all costs incurred by the Authority for each additional test session. Such costs may include, but not be limited to: Authority staff time, travel costs, food and lodging expenses, and any other costs incurred by the Authority related to its attendance at the test session. Acceptance of the factory test results by the Authority shall not relieve the Contractor of the responsibility for the installed system to meet the Specifications as set forth herein.

7.2.6.4 Field Acceptance Test

If required twenty (20) working days prior to the commencement of Field Acceptance Testing the Contractor shall submit an Updated Acceptance Test Plan to the Authority for review and approval. Contractor shall conduct a Field Acceptance Test at each of the Authority's facilities.

PIDS shall be tested in compliance with the Field Acceptance Test Plan. The Field Acceptance Test shall be conducted with all devices and components integrated as a system at the Authority's Airport Facilities with simulation only used to perform stress and performance testing. The test scripts to be used shall include, but not be limited to, those test scripts used for the Factory Acceptance

Test, and any additions as required to encompass all field devices, e.g., local processors, network components, infrastructure, etc. The Contractor shall perform any repairs, construction, or modifications as required complying with this Section without additional cost to the Authority. The Contractor shall perform Field Acceptance Tests at the facilities as detailed on the project schedule. The Contractor shall provide the Authority with a Field Acceptance Test Report at the conclusion of the test at each airport facility for the purpose of verifying and validating the accuracy and integrity of the PIDS installed. The Authority will review the report and respond, indicating its approval or noting changes required either in the performance of the work or in the report. Contractor shall make changes or perform additional work as the Authority may direct prior to the start of the Operational Test.

#### 7.2.6.5 Operational Test

After the Authority approval of the Field Test Report and Operational Test Plan, the Contractor shall begin a thirty-(30) day operational test at each Facility, at which time the PIDS shall perform in accordance with the approved Operational Acceptance Plan, and within the performance standards set forth in the PIDS Functional and Performance Requirements (availability and reliability), under full operating conditions. In the event of error or other malfunctions, including but not limited to, equipment failures or a failure of the PIDS to comply with the Functional and Performance Requirements, the Contractor shall make the necessary corrections as they occur, at no additional cost to the Authority. ***Contractor shall be required to re-start and continue testing until the objective of thirty (30) consecutive calendar days of continuous performance in accordance with the approved Operational Acceptance Plan and within the performance standards set forth in the Functional and Performance Requirements (Availability and Reliability).*** During the Operational Test phase, the Authority will determine the PIDS standard of performance as described herein:

- A. Performance Period. The Performance Period for operational testing shall begin on the date of notification of the Contractor by the Authority to commence operational testing and shall end when the PIDS has met the technical specifications set forth in this agreement for a period of thirty (30) consecutive days.
  
- B. Failure to Complete Operational Testing Successfully. In the event the PIDS is deemed not to have successfully completed Operational Acceptance Testing within ninety (90) days of the scheduled completion, then the Authority may, at its sole discretion, elect one of the following options, the election of which shall be effective upon written notification to the Contractor by the Authority, the Authority may terminate this Contract.

7.2.6.5.1

The Authority may require the Contractor to install, within such time period as may be mutually agreed in writing by the Authority and the Contractor, a direct substitute of equipment or components. The Contractor shall use due care in the removal and substitution of such equipment or components. Such substitutions shall be subject to Acceptance Testing as provided in this section and, in the event such substitute component fails to successfully complete Acceptance Testing by the agreed-upon date, the provisions of this paragraph shall again be applicable.

7.2.6.5.2

The Authority may permit the Contractor to continue to attempt to cause the PIDS to successfully complete the Operational Testing described in this paragraph; however, the Authority may revoke its election of this alternative at any time upon not less than five (5) days prior written notice to the Contractor, in which event the Authority may, in its sole discretion, elect any one (1) of the prior options specified in this paragraph, the further election of which shall be effective upon written notification of the Contractor by the Authority.

7.2.6.5.3

The Authority may pursue any other remedy hereunder or available at law or in equity or seek to enforce any damages, in addition to those provided in the section entitled "Liquidated Damages" herein.

7.2.6.6 Exchange and Expansion Equipment During Factory, Field and Acceptance Testing

The Contractor shall certify in writing to the Authority when exchange or expansion equipment, devices, or components are installed and ready for use. For the purpose of this section, "expansion" is used to denote equipment, which is not specified in the approved final design Bill of Materials. Contractor shall provide an Installation Date Certificate for the equipment or component. If this occurs during the thirty (30)-day Operational Test, the operational test shall recommence on the first Authority workday following acceptance of the Contractor's Installation Date Certificate.

**7.2.7 System Start-up and Commissioning**

Prior to the Field Acceptance Testing and prior to Operational Testing, the Contractor shall perform all activities necessary to prepare the PIDS for operation, including, but not limited to:

- A. Written instructions for system generation and loading of all initial data and system parameters
- B. Written instruction for Sensor activation, alignment, parameter settings and programming
- C. Data initialization, database and archived data conversion;
- D. Initial database loading,
- E. Initial parameter settings,
- F. Adjustment of system parameters to allow maximum performance and reliability shall be made as soon as practical,
- G. Generation of all reports that are currently generated on the existing system.

The activation of PIDS shall not degrade the performance of the existing Computerized Access Control Security System, Ex. 4 and any other system that may integrate or interface with PIDS at any time or in any manner. The existing CACS will continue to be maintained by the existing system maintainer. Contractor shall be responsible for coordinating interface requirements with the existing system maintainer (HBE) through the Authority. Contractor shall be responsible for any work required by the maintainer resulting from unexpected conditions related to the activation of PIDS. The Contractor shall conform to the following installation requirements:

- 1. All system equipment, including communications network components, shall be fully installed and tested with all data communications paths operational, prior to activating PIDS. All work to be performed in vehicular or aircraft traffic areas shall be performed only with the approval of the Authority.
- 2. Transfers of existing security systems, access controlled doors, access monitored doors or intrusion detection devices shall be staged in a manner which will permit completion during a single work shift, to the maximum extent possible. Contractor shall notify the Authority forty-eight (48) hours prior to scheduled migration work, and the Authority shall provide guard coverage accordingly. The Contractor shall notify the Authority when migration work is expected to continue across shifts. Any transfers shall be performed and completed during the hours of normal operation for the facilities.
- 3. A work activity log shall be submitted to the Authority, with a daily work plan describing any system transfers and work to be accomplished, including, but not limited to, security guard requirements, work to be performed in or above vehicular and aircraft traffic areas.

#### **7.2.8 Training**

The Contractor shall provide a training program in order to provide initial and ongoing training for all users of the PIDS. Contractor shall develop and implement a training database configuration to train staff on the use of the system. This training configuration should address the functions and operation of the PIDS, including real-time simulation of typical alarm events. Contractor shall

conduct the required training at each of the four (4) facilities respectively, at the scheduled times and locations designated by the Authority consistent with the approved Training Plan. The full complement of training courses shall be conducted over time to accommodate shift personnel, vacations and make-up sessions. A detailed schedule for the delivery of all training shall be included in the IMP and Schedule and reported on during the regularly scheduled status meetings. All training shall be completed no later than fourteen (14) calendar days prior to commencement of the thirty (30)-day operational test. The training shall include, but not be limited to, the following groupings of staff with an estimated student population as shown. Also Audit staff should have two (2) seats allocated for training.

#### 7.2.8.1 Operator Training

Operator Training shall include a simulation of actual site conditions at each facility and shall be provided for three groups of fifteen (15) students per course/per facility. Each group shall be trained for the equivalent of two eight (8) hour instructional classes (training must be flexible to accommodate shift workers). Training shall include but not be limited to: means to authenticate to the workstation, view live and recorded video, position the PTZ cameras, generate VHS Tapes and DVDs of specific events sequence of operation review; sign-on/sign-off; selection of all displays and reports; commanding of points, English and graphic mode; modifying English text; selection of all access control functions; reviews of all topics presented in the Operator's Manual. The Contractor shall provide forty-five (45) Operator's Manuals per facility for persons attending these instructional classes and make available an electronic copy for secured online access.

#### 7.2.8.2 Supervisor Training

Supervisor Training shall include, in addition to subjects addressed in the operator training classes, training for two (2) groups of six (6) Authority supervisors per facility. Each group shall be trained for two, eight- (8) hour instructional classes to be held on two separate days. Training shall include but not be limited to: communications system instruction; program upload, download modification; password assignment, modification; operator assignment, modification; operator authority, assignment, modification; point disable/enable; terminal and data segregation/modification; review of all topics presented in the Supervisor's Manual. The Contractor shall provide fifteen (15) Supervisor's Manuals per facility for persons attending these instructional classes and make available an electronic copy for secured online access.

### 7.2.8.3 System Administrator Training

System Administrator and Maintenance Training shall include, in addition to subjects addressed in the Operator training and Supervisor training sessions, training for two (2) groups of six (6) students per course/per facility. Each group shall be trained for four (4) eight (8)-hour instructional classes to be held on four (4) separate days. Training shall include but not be limited to: software review, sequence of operation and flowcharts; modification of control programs and databases; add/delete/modify data points; use of diagnostics and system maintenance procedures; review of initialization; upload/download and off-line archiving of all system software; review of all topics presented in the PIDS Administrator's Manual. The Contractor shall provide fifteen (15) System Administrator's Manuals per facility for persons attending these instructional classes and make available an electronic copy for secured online access. Contractor shall videotape each type of instructional class and shall provide six copies of each instructional class on videocassette for the Authority's use. Contractor shall also provide videotaped instructions for the operation of each and every item of equipment supplied. Upon completion of each training program, the Contractor shall prepare and deliver a training report which shall summarize the results of the training program, including a list of attendees, course evaluation form, and recommendations for follow-up training or modification to the curriculum.

### 7.2.8.4 Training Plan

The Contractor shall provide for the review and approval ninety (90) days prior to Factory Acceptance Test a Training Plan, which shall address Operator Training, Supervisor Training, System Administration Training and Maintenance Training.

The Training Plan shall include at a minimum:

- A. A description of all training courses including identification of the purpose and goals of each course, duration of the course, type of training (presentations, hands on training) and identification of the facility and training equipment provided by the Contractor (e.g., lecterns, overhead projectors, televisions, video cassette recorders, specific PIDS hardware elements, etc.).
- B. A list of classroom instructors who shall conduct the training and a description of their skills, experience and qualifications.
- C. Individual course curricula, course materials, manuals, study guides and workbooks.
- D. Course critique and evaluation forms for students.
- E. Post-training and or on-the-job technical reference guides.

- F. A detailed schedule for the delivery of all training courses.

After receipt of the Training Plan, the Authority will formally comment on its content. Contractor shall make appropriate changes to the Training Plan and resubmit it for Authority review and approval.

Training shall encompass, at a minimum:

- a. Sequence of Operations
- b. Sign-On and Sign-Off
- c. Selection of all displays and reports
- d. Selection of all system functions, including;
  - 1. Event recording
  - 2. Video retrieval
  - 3. Copy video clip to CD
  - 4. Archive specific video clips
- e. Software review
- f. Modification of control parameters
- g. Diagnostics
- h. System Maintenance procedures
- i. Upload / Download and off-line archiving of all systems software
- j. Windows XP and 2000 security, administration and maintenance
- k. Local area network security, administration, maintenance
- l. Review topics in the System Administrator's Manual
- m. Complete configuration backups of all hardware and software

#### 7.2.8.5 Training Program

Upon approval of the Training Plan, the Contractor shall conduct the specified training. The training program shall be implemented through the use of formal classroom training and/or other forms of presentation as recommended by the Contractor. The curriculum shall be designed so that each group of trainees shall be trained in the full repertoire of system commands, which they may have to use in the course of performing their designated functions. Students shall be provided with complete sets of training materials and operating manuals during the training sessions, which they shall retain for use on the job at the completion of training. Formal training shall also include a comprehensive student-testing program for determining that the intended training has been successfully imparted. Contractor shall conduct the required training at scheduled times and locations designated by the Authority. The full complement of training courses shall be conducted over time to accommodate shift personnel, vacations and make-up sessions. A detailed schedule for the delivery of all training must be included in the IMP and Schedule and reported on during the regularly scheduled status meetings. The training shall include, but not be limited to, the following groupings of staff (with an estimated

student population as shown below): Prior to commencement of training the Authority shall formalize the exact number of trainees.

#### 7.2.8.6 Training Materials

Contractor shall provide the Training Manuals and any other associated course materials, study guides and workbooks, as described in the approved Training Plan. These manuals shall be for instructional use during the Training Program, for study and for refresher use to provide training of all the features and functions of the PIDS during normal and emergency operations. These manuals shall also be for Authority use to train new operators, supervisors, system administrators and maintenance staff on an ongoing basis.

### 7.2.9 Documentation

(Note: All Manual three (3) hardcopy sets per facility and 1 electronic copy per facility)

#### 7.2.9.1 System Design Documentation

System Design Documentation shall be provided to the Authority in accordance with the approved project schedule. System Design Documentation has five (5) major components: system documentation, software documentation, hardware documentation, Communications Network Architecture documentation, and Drawing Package as described in the following paragraphs:

##### 7.2.9.1.1 System Documentation

- A. Executive Summary: A summary of documentation material provided in this deliverable, an overview of the entire system describing all major components of the PIDS and special features of PIDS which address performance, expansion, system security, ease of use, and maintainability.
- B. Design Overview: A description of the overall design. This shall include the advantages and disadvantages of the design (e.g., modularity, flexibility, expandability), and an explanation of why the design is the best implementation to meet the Authority's requirements.
- C. System Architecture: A system-level graphic representation of all hardware components and their interconnections. This shall include identification of the interfaces between each device and computer.
- D. System Processing Narratives: Narrative descriptions of each major processing activity to be performed by the PIDS. The narratives

should describe how all equipment and software interact to satisfy the Functional and Performance requirements of PIDS. These narratives shall be a clear and comprehensive explanation of how each of the Authority's Functional and Performance Requirements are supported.

- E. Security Features: A description of all system security features, computer controlled and physical, designed into the PIDS and its components to detect, assess, delay, track and ultimately notify security personnel to defeat the threat. (e.g., hardware, software and data). In addition, describe all features, components and equipment which protect the PIDS components from deliberate attempts to tamper or spoof the system as well as protect it against physical hazards such as fire, flood, electrical power surges, brown-outs and black-outs.
- F. System Reliability: an analysis of system reliability based on the Mean Time Before Failure (MTBF) and expected Mean Time to Repair (MTTR) for each major component and subsystem, including calculation methods and support documentation. If the configuration requires redundant or high availability components or equipment, the Contractor shall also provide a description of the hardware and/or software features incorporated to meet the requirement for high availability in the event of the failure of one or more system components.
- G. Failure Handling and Recovery: a failure / recovery matrix showing the types of failures, the process of reporting these failures and if automatic or semi-automatic. This shall include descriptions of system diagnostics to detect and isolate failures.

#### 7.2.9.2 Software Documentation

- A. Software Architecture: System-level illustrations, such as flowcharts and block diagrams, illustrating the overall structure of the PIDS software. These diagrams shall include the major processing functions performed by each subsystem or major module, their interaction with each other and with the PIDS operators.
- B. Software Configuration: A description of the operating system, application, database/data management, utility, graphical user interface, device drivers and any other software used in the PIDS. The Contractor shall identify which software is to be custom developed and which is third party software. For third party software, the Contractor shall explain the functions to be performed by the product and identify the manufacturer, version and release to be used and shall submit all technical specifications and literature (e.g., user and system documentation, brochures, and any other literature produced or customarily provided by the third party manufacturer). For custom software the Contractor shall identify the

languages, compilers and utilities to be used (including version and release number) in development and operation. Reports shall be made available listing the accounts and access rights for the operating system, application, and the database.

- C. Database and Data Management Structure: A description of the overall organization of the files and/or database to be used in the PIDS. This description shall also include, but not be limited to, full details regarding any third party database products including version, release, functional characteristics, operational requirements, and any other relevant characteristics of the product.
- D. Data Dictionary: A listing and a magnetic media version of all PIDS data elements, including the size, definition, validation rules and other information pertaining to the data elements. If a commercially available data dictionary is to be used, the Contractor shall also submit complete and current information about the product.
- E. Data Storage Analysis: the techniques employed to ensure that the PIDS can meet the storage requirements for on-line and historical data, and expansion capabilities. The analysis shall include identification of all files (e.g., system, message, report files), databases, and their retention cycles.
- F. Operator Interface: Operator and user tools and techniques employed to ensure an easy to use, consistent and efficient interface between the operator and the PIDS. Examples of such techniques are: the use of a graphical user interface, standardization in the formatting of screens and reports, consistent use of program function keys, color coded alarm notification, drop down, pop up menus, data porting and system monitoring of the PIDS.
- G. Program and Module Narrative: A description of major program modules contained in the PIDS and a description of the processing functions, inputs and outputs of these modules. Particular emphasis should be placed on customized application software.
- H. Software Design: Block diagrams, flow charts and/or other software design documentation that describe the design of the PIDS software by major subsystem. This information shall include the details of main processing functions performed by each program or module, including inputs, outputs, and data type definitions.
- I. Inputs and Outputs: a description of all the PIDS inputs and outputs. For inputs, describe all transactions, messages, records, signals, etc. to be received. For outputs, identify screens, reports, menus, etc. that are produced or presented to the end user (operator, supervisor, administrator). Contractor shall provide the documentation for field structures of messages and records and the methodology for redefining menu structures.
- J. System Performance Analysis: An explanation of the capability of the PIDS to meet the performance requirements. Contractor shall fully

describe, explain and document the analysis that was used to support its statements of performance, durability, and availability. Where such documentation relies upon third party manufacturer claims, promises, or warranties, or relies upon the claims, promises, or warranties of the manufacturer's marketing or sales representative, the Contractor shall submit copies, or, as appropriate, original documentation of said promises, representations, and warranties. Contractor shall provide complete product information for any automated tools used in this analysis.

### 7.2.9.3 Hardware Documentation

Hardware Documentation shall include:

#### 7.2.9.3.1 Hardware Specifications

A full bill-of-materials (BOM) and complete specifications (e.g., sensor type, make, model, environmental and power requirements, ratings, communications ports, etc.) for each hardware element of the PIDS. The Contractor's format is acceptable but must include the following as a minimum:

- (1) BOM cover sheet contains:
  - a. All relevant Project Numbers and corresponding Project Titles.
  - b. Authority Project Manger's commercial voice number and e-mail address.
  - c. Contractor Project Engineer commercial voice number and e-mail address
  - d. Brief overall description of Project
  - e. Special shipping/handling instructions
- (2) BOM identifies the following:
  - a. Installation Site Location
  - b. Electronic Security/Parts and Spares, type, quantity, part or stock number, cost.
  - c. Ancillary Support Equipment/Parts, type, quantity, part or stock number, cost.
  - d. Maintenance Support Equipment/Parts, type, quantity, part or stock number, cost.
  - e. Test Equipment, type, quantity, part or stock number, cost.
  - f. Special Tools type, quantity, part or stock number, cost.
- (3) Long Lead Item List:

- a. Identifies any equipment/parts requiring more than one hundred and twenty (120) days for delivery.
- b. Specifies alternative products suitable for use and satisfying critical delivery requirements and specifications.
- c. Provides specification and/or drawing reference for each item listed
- d. Provides rationale or criteria for determining criticality of long lead status.

#### 7.2.9.4 Component Drawings

Drawings that indicate the function of each PIDS hardware component. The drawings shall indicate termination points of devices, and interconnections required for system operation, interconnection between modules and devices, spacing of components, and location, mounting and positioning details.

#### 7.2.9.5 Communications Network Architecture Documentation

The Contractor shall provide detailed diagrams and full technical specifications of communications network components, hardware and software, and communications protocols and network topologies used in the PIDS architecture. Contractor shall also provide a system-level diagram of the communications network and specifications for each major component and identify how the component functions in the network. Network diagrams shall include PIDS communications diagrams detailing the cabling, cable type, termination points, cable labeling inter-cabinet wiring and interconnections between PIDS devices. Contractor shall describe the techniques employed to ensure that the network can meet the volume of transaction traffic to be supported and is capable of meeting performance and expansion requirements.

#### 7.2.9.6 Drawing Package

The drawings shall be prepared in accordance with Authority standards found at <http://www.panynj-cadstandards.com> and CSI standards where applicable. The drawings package shall contain both site specific and standard drawings and details. In general, if a standard drawing is incorporated into a drawing package with only minor changes, the standard drawing title block shall state the originating agency, with revision notes annotated accordingly and the revision agency identified. All drawings must be reflected in the drawing index. The drawing package shall begin by conveying the macro view of the project and progress toward the micro views (e.g., Index and Abbreviations, Vicinity Maps, Base Maps, Site Plans, Floor Plans, Elevations, Sections, Details, Tables, and Part Listings).

7.2.9.7 Concept of Operations (CONOPs)

The Contractor shall provide an updated CONOPs for each facility with the 30%, 60%, 90% and 100% PIDS Design. This document shall be an update from the Concept of Operations provided to the awarded proposer and shall be stamped and signed by a licensed Professional Engineer.

7.2.9.8 Operating Documentation

The Contractor shall provide all documents, manuals, and printed materials necessary for the effective operation of the PIDS. The documents provided shall be in a bound copy, additionally an electronic version shall be provided using an industry standard word processor, such as Microsoft Word for Windows 2000. This documentation shall include, but not be limited to, the following specific Manuals:

7.2.9.8.1 Standard Operating Procedures Manual

A PIDS Operating Procedures Manual shall be provided which contains graphical depictions and explanations of system operation for all operator functions. This manual shall be for instructional, study, and refresher use and shall explain all the features and functions of the PIDS for day-to-day operations (e.g., log-on, monitors, print daily reports). The manual shall also have a troubleshooting section so the operator can resolve common operating problems (e.g., network problems, restart the PIDS in the event of a component failure, clear jams). The manual shall also contain instructions on how to perform normal maintenance (e.g., changing paper for the printer). This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

7.2.9.8.2 Emergency Operating Contingency Manual

An Emergency Operating Contingency Plan shall be provided which contains graphical depictions and explanations of system operations for all emergency functions specified under Operator Training. This manual shall explain all the features and functions of the PIDS for emergency operations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90) days prior to commencement of the formal Training Program.

7.2.9.8.3 System Administrator's Manual

A System Administrator's Manual shall be provided which contains graphical depictions and written descriptions of all functions required for software

modification and development. This manual shall contain all procedures necessary for the proper monitoring and administration of the PIDS. At a minimum, the manual shall contain separate sections that cover the following topics: startup and shutdown procedures, instructions for cold start of system equipment, backup and recovery, performance analysis, scheduled maintenance, user management, audit and control, report production, configuration control, system diagnostics, database integrity, special requests and expendable supplies. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

7.2.9.8.4 Security Administrator's Manual

A separate, removable section of the PIDS Administration Manual shall contain information on the proper administration and control of the security features built into the PIDS. Some of the information to be contained in this section includes: maintenance of user identifiers, password control, and security policy review. Information on appropriate review of security controls for adherence through various types of reporting mechanisms and utilities and/or third party security software. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

7.2.9.8.5 Supervisor's Manual

A Supervisor's Manual shall be provided with graphic descriptions of all functions and procedures required for system modifications specified under supervisor Training. This manual shall contain all the instructions included in the Operator Procedures Manual plus instructions on printing standard and ad hoc reports. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

7.2.9.8.6 Site Specific Manuals

Site Specific Manuals shall be provided which shall include but not be limited to the following: site-specific configuration parameters; detailed system configuration narratives; default parameters, actions, and descriptors; and device and component addresses and locations. This Manual shall be submitted for review with the facility 90% design submittals. The Final document shall be submitted for approval not later than ninety (90)days prior to commencement of the formal Training Program.

### **7.2.10 Systems Administration**

The Contractor shall provide systems administration and configuration control throughout the installation, integration, training and testing of PIDS. The Contractor shall provide systems administration as identified in Book IV Attachment 8, Systems Administration during the Maintenance period. The maintenance period is defined in Book III of this RFP. This shall be priced as an option.

### **7.2.11 Documentation/Procedures Checklist**

- Access request forms authorized.
- Access request forms retained.
- Access request forms are used to assign access.
- Backup, restart and recovery procedures documented.
- Change Management procedures documented.
- Disaster Recovery Plans and Business Resumption Plans documented and comprehensive.
- Documentation is current for System Manuals, Operating Instructions.
- Documentation is up to date for Firewall rule sets, Inventory listings.
- Adequate training.
- Incident Response procedures documented.
- Password reset procedures controlled (Help desk function).
- Procedure for granting, modifying or deleting access to the system are documented.
- Roles and Responsibilities defined and documented.
- Security Administration Procedures documented.
- System Administration procedures documented.
- Test results documented.
- Topologies exist and are up to date (system/network diagrams).

### **7.2.12 Contract Close-Out**

Upon Authority acceptance of the completion of the thirty (30)-day Operational Test and the Warranty Period, the Contractor shall prepare all materials necessary to close out the design, integration, fabrication, procurement, construction, installation, training, and testing contract. This shall include but not be limited to: the delivery of a fully functioning PIDS that meets all functional and performance requirements and that has successfully completed factory, field and operational testing; and has successfully completed the Warranty Period, the delivery and approval of all documentation and; the training of all management, supervisory, operations, system administration and maintenance staff, as specified in the training plan. Contractor shall have transferred to the Authority at the end of the thirty (30)-day Operational Test, all documentation that is necessary for the operation of the PIDS whether or not it has been submitted as part of a previous deliverable. This includes but is not limited to: third party software

documentation and licenses, software executable code, hardware documentation and maintenance manuals. At the end of the thirty (30)-day Operational Test, the Contractor shall have engaged the services of an escrow agent, approved by the Authority, and submitted to the Authority a list of items to be included in the escrow package. The Contractor shall pay any fees incurred to engage the services of an escrow agent, including any annual maintenance fee and all fees associated with escrow deposits, from initiation of this contract through contract close-out.

7.2.13 Exhibit 1

7.2.13.1 Contractor Transmittal Form Instructions

**CHECK**

Make sure you have entered the Transmittal No.

**“To” BOX**

INPUT PROVIDED BY PA - Do not edit.

**“Submittal” Box**

Enter the correct Spec. No., Submittal. No. and Rev (See attached numbering system.), No. of Prints and Submittal Description for each item.

**“Routing” Box**

Complete the section titled **Actions**. The other sections in this box are for PA use.

**“Comment” Box**

Enter any necessary comments in this section.

“Transmittal No.”

“To” Box

“Submittal” Box

“Routing” Box

“Comment” Box

“From” Box

“Signature” Box

**THE PORT AUTHORITY OF NY & NJ** Transmittal No. 001

Contract Title: Holding Area Aircraft Parking South of Terminal A  
**TRANSMITTAL**

Name: Cesar Silva Project Manager Date: 11/20/00  
Address: Port Authority of New York / New Jersey Contract No. LWR 154.218  
City: New York State: NY ZIP: 10018  
Phone: (212) 435-4529 Floor: 72NE

Spec No.	Submittal No.	Rev	Submittal Description	Status
	02150-001	Rev0		

Enter Spec. Sections, Submittal sequence numbers and Revision numbers using the formats above.

**Routing**

PA-Engineering Design Division

Architect  Decking, S  Prints  Actions   
 Civil  Structural  Construction  Shop Drawings Approval   
 Electrical  Mechanical  Welding  (Chicago)  Structural  Drawings for Approval   
 Fire/Alarm  Egress (w/APP)  Arch  Get Your Information (Y/N)   
 Traffic  Signs  Traffic   
 Geotech  Utility Appl.  Leads  Copies To:   
 Asst. I  Leads

Date Received: \_\_\_\_\_ Date to Reviewer: \_\_\_\_\_  
 Date Due to Contractor: \_\_\_\_\_ Date Returned from Reviewer: \_\_\_\_\_

**Comments**

Conti Enterprises, Inc.  
 3001 South Clinton Avenue  
 South Plainfield NJ 07080 Telephone: (908) 755-3185

Contractor's Project Manager: \_\_\_\_\_ Date: \_\_\_\_\_

**“From” Box**

INPUT PROVIDED BY PA - Do not edit.

**“Signature” Box**

Send the file as an attachment via e-mail (if equipped) then Print, sign and date the Transmittal before dispatching them as required by the Contract Documents.

**PLEASE NOTE:** The Transmittal Form, sent via e-mail, is to be used as a communication aid during the submittal process. However, it does not remove the Contractual responsibility of the Contractor's to dispatch required submittals via regular mail or by other means.

# Contractor Transmittal Form Instructions



## *Submittal Numbering Format*

*Spec. Section Number - Submittal Number*

Example: **02500- 006**

The first 5 Digits identify the Specification(Spec. Section) or Package Number as detailed in the Contract Spec. Book. Use "99999" if the submittal does not correspond with any Spec. Section.

The second 3 Digits identify the individual Submittals which are numbered sequentially within a Spec. Section.

*Revision Number*

Example: **Rev0**

A Revision is defined as an individual review cycle for a particular submittal item. The initial submittal shall be identified as "Rev0" with subsequent revisions identified as "Rev1", "Rev2", etc.



**Exhibit 2**

7.2.13.2 RFI Submittal

		No.
<b>REQUEST FOR INFORMATION</b>		
TO:	LOCATION:	
FROM:	LOCATION:	
REFERENC E	VENDOR (OR SUBVENDOR) NAME:	ATTACHMENTS (CIRCLE):
DOCUMENTS:		Yes No
PROBLEM DESCRIPTION:		
REQUESTER DATE:	TELE:	DATE NEEDED BY:
PROBLEM SOLUTION:		
		RESPONSE (CIRCLE):
REPLY BY: DEPT. & DIV.:	Tele: Date:	FULL PARTIAL ATTACHMENTS (CIRCLE)
		YES NO

**7.2.14 Design, Install and Test Deliverables**

“Days” refers to calendar days unless otherwise noted.

Name	Submittal Date/Timeframe
Integrated Management Plan (IMP) <ul style="list-style-type: none"> <li>- Organization</li> <li>- Integrated Schedule</li> <li>- Subcontract Management</li> </ul>	Proposal Submittal
Project Safety Program Plan	60 Days After Contract Award
Site Survey Reports	30 Days after completion of survey
Facility 30% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Design Cost <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Schedule <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Facility 60% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> <li>-</li> </ul>	150 Days after Contract Award

**THE PORT AUTHORITY OF NY & NJ**

Name	Submittal Date/Timeframe
Project 60% Design Cost - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 60% Schedule - JFK - LGA - EWR - TEB	150 Days after Contract Award
Project 90% Design and Specifications - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Design Cost - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Project 90% Schedule - JFK - LGA - EWR - TEB	90 Days after 60% Approval
Design Review Agenda	5 Working Days prior to review
Design Review Minutes	10 Working Days after review
100% Final Specification and Construction Drawings - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review

Name	Submittal Date/Timeframe
Final Project Schedule - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Final Project Cost - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Migration Plan	With 30%, 60%, 90% and 100% Design Submittal
Facility Final 100% Security System and Infrastructure Design - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Site Restoration Plan	In conjunction with 100% Security System and Infrastructure Design.
Contractor Quality Assurances and Control Plan	In conjunction with 30%, 60%, 90% and 100% Design Submittals
Site Safety Provisions and Reports	As required
Monthly Construction & Installation Progress Report	Monthly – Within 5 Working Days after the end of each Month
Comprehensive Acceptance Test Plan	60 Work Days prior to Factory Acceptance Test. Updates - 20 Working Days Prior to Field Acceptance Test and Operational Test
Acceptance Test Report	20 Working Days after completion of each Test Phase (Factory, Field or Operational)
System Start up and Commissioning  - Work Activity Log (Transfers)	Daily
Training Plan	90 Working Days prior to Factory Acceptance Test
Training Manuals	TBD
System Documentation	TBD

<b>Name</b>	<b>Submittal Date/Timeframe</b>
Software Documentation	TBD
Hardware Documentation	TBD
Communications Network Documentation	TBD
Drawing Package	As Required
Operating Documentation - Standard Operating Manuals - Emergency Operating Contingency Manuals - System Administrator Manuals - Supervisor Manual - Site Specific Manual	1 <sup>st</sup> draft with 90% Project design submittals. The Final document ninety (90) days prior to commencement of the formal Training Program.
Software Licenses and Agreement	TBD
Meeting Minutes	As Required
Concept of Operation	With 30%, 60%, 90% and 100% Design Submittal

**7.3 DESIGN INSTALLATION AND TEST PRICING SCHEDULES**

(NOTE: PLEASE SEE BOOK II SECTION 34)

**7.4 WARRANTY AND MAINTENANCE PRICING SCHEDULES**

(NOTE: PLEASE SEE BOOK III ATTACHMENT A)

## **SECTION 9**

**Raytheon**

Network Centric Systems  
Airspace Management and  
Homeland Security  
1001 Boston Post Road  
Marlborough, MA 01752 USA

SPC:PA:05:43  
12 December 2005

Port Authority of New York and New Jersey  
Purchasing Services Division  
One Madison Avenue, 7<sup>th</sup> Fl.  
New York, NY 10010

Attention: Ms. Jeanette Santos

Subject: **THE MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION  
SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION,  
INSTALLATION, INTEGRATION, AND ON-SITE MAINTENANCE,  
CONTRACT MFA-134.308**

Reference: Request For Assumptions 12/9/05 Meeting

Enclosure: 1) Raytheon's Assumptions

Dear Ms. Jeanette Santos:

Per the Port Authority's request, please find the enclosed technical assumptions on which Raytheon based its proposal.

If you have any questions regarding the information being provided, please feel free to contact the undersigned.

Sincerely,



Steven P. Cormey  
Sr. Contracts Negotiator  
[Steven\\_P\\_Cormey@Raytheon.com](mailto:Steven_P_Cormey@Raytheon.com)  
Phone: 508-490-3834  
Fax: 508-490-3377

## Major Raytheon Team PIDS Assumptions

1. The power and communications infrastructure defined by the drawing package provided by PANYNJ forms the basis of our infrastructure design set forth in our offer for PIDS. The information provided by PANYNJ was supplemented with on-site knowledge of the members of the Raytheon team. The connection points to the existing power and communications infrastructure nodes has been identified in the facility drawings included as a part of our offer for PIDS. The location of each of the sensors is also included in the aforementioned drawing package.
2. Raytheon has assumed the use of a T1 type of communications line (PAWANET) for communication of airport PIDS status from each airport to \_\_\_\_\_ as shown in Figure 1 of Book 2, Attachment C of the RFP.
3. Raytheon has included an allowance for each airport to build-out the power, communications and life and safety systems for the primary and secondary CDS and CDW locations.
4. Raytheon has assumed the use of leased communication lines between \_\_\_\_\_ to support the secondary CDS. We have bid the setup, acquisition, and integration of subsystems in our proposal, but not the cost of the on-going communications.
5. Raytheon has assumed the use of and integration of legacy display cubes at JFK and Newark as part of our Audiovisual Subsystem option.
6. Any additional assumptions regarding the JFK airport fiber layout will be provided as part of our BAFO submission on Thursday 12 December.

## **SECTION 10**

**Raytheon**

Network Centric Systems  
Airspace Management and  
Homeland Security  
1001 Boston Post Road  
Marlborough, MA 01752 USA

SPC:PA:05:42  
12 December 2005

Port Authority of New York and New Jersey  
Purchasing Services Division  
One Madison Avenue, 7<sup>th</sup> Fl.  
New York, NY 10010

Attention: Ms. Jeanette Santos

Subject: **THE MULTI-FACILITY AVIATION PERIMETER INTRUSION DETECTION  
SYSTEM (PIDS) SECURITY DESIGN, PURCHASE, CONSTRUCTION,  
INSTALLATION, INTEGRATION, AND ON-SITE MAINTENANCE,  
CONTRACT MFA-134.308**

Reference: Port Authority Letter dated 6 December 2005

Enclosure: 1) Raytheon's Response to Questions

Dear Ms. Jeanette Santos:

Please find the enclosed responses to the Port Authority's questions as provided to Raytheon in the above referenced letter. The pricing data provided in the enclosure will be updated for the BAFO. Per our understanding from last Friday's meeting, we are providing the responses via email today, the due date, and the hard copies will be sent to you by overnight courier.

If you have any questions regarding the information being provided, please feel free to contact the undersigned.

Sincerely,



Steven P. Cormey  
Sr. Contracts Negotiator

Phone: 508-490-3834  
Fax: 508-490-3377

---

**Raytheon**



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**Proposal for**

**Multi-Facility Aviation Perimeter  
Intrusion Detection System (PIDS)  
Security Design, Purchase,  
Construction, Installation, Integration  
and On-Site Maintenance**

**Responses to Questions**

**13 December 2005**

**In Response to**

**Contract Number MFA-134.308  
RFP Number 8162**

<p>This proposal includes data that shall not be disclosed outside PANYNJ and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of – or in connection with – the submission of this data, PANYNJ shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit PANYNJ's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in all pages of this volume.</p>
--

**Prepared for**

**The Port Authority of NY and NJ  
Purchasing Services Division  
1 Madison Avenue, 7th Floor  
New York, NY 10010**

**Prepared by**

**Raytheon Company  
1001 Boston Post Road  
Marlborough, MA 01752-3789**



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## 1. POWER AND COMMUNICATION DISTRIBUTION

All costs associated with the communication network required for the proposed system (network equipment, fiber optic transceivers, etc.) are allocated under the Facility Communication Subsystem, Item B4 for each facility.

All costs associated with communication wiring and conduit, in addition to all power wiring, conduit and distribution equipment, are allocated under the Electrical Subsystem, Item B5 for each facility.

All costs associated with underground conduit and wire installation (trenching, ductbanks, etc.) are allocated under the Communications and Electrical Infrastructure, Item B6 for each facility.

The "Summary – All Airports" table provides a summary by airport of the following information and supporting detail is provided in the subsequent tables:

- a. Total linear footage (LF) of trench excavation by facility
- b. Total LF of ductbank by configuration, separate for power and communications by facility
- c. Quantities, dimensions and spacing of all handholes and manholes by facility; the Jet Net Systems does not use handholes and manholes as in a traditional ductbank system
- d. Total LF of conduit attached to structures (bridges, retaining walls, etc.) by facility
- e. Total square footage of pavement removal and restoration by facility
- f. Total LF of ductbank requiring concrete encasement by facility
- g. Total LF by conduit size for power and communications within a building, separate power and communications by facility

## **SECTION 11**



**THE PORT AUTHORITY OF NY & NJ**

**TITLE: MULTI-FACILITY AVIATION PERIMETER INTRUSION  
DETECTION SYSTEM (PIDS) SECURITY DESIGN,  
PURCHASE, CONSTRUCTION, INSTALLATION, AND  
INTEGRATION AND ON-SITE MAINTENANCE  
PURCHASE ORDER #4500044655 – CONTRACT  
#4600006166**

**CONTRACT# MFA-134.308 and MFA-134.308M  
NUMBER: 8162**

**4g. Raytheon Original Proposal, Volume 2**

Available on Livelink at: Ex. 4

Access Livelink from within Port Authority's network via Ex. 4

Authorized Livelink access available outside Port Authority's network at: Ex. 4

Note: For access to Livelink, personnel must have completed Security Safeguard Training, Livelink training and acquired a Livelink account.

1. For granting of access contact Mr. Angel Martinez
  - (201) 595-4744
2. For Security Safeguarding training contact Mr. Mike Udvardy
  - (201) 595-4753
3. For Livelink training contact Mr. Paul Adams
  - (201) 595-4608

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**THE PORT AUTHORITY OF NY & NJ**

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DETECTION SYSTEM (PIDS) SECURITY DESIGN,  
PURCHASE, CONSTRUCTION, INSTALLATION, AND  
INTEGRATION AND ON-SITE MAINTENANCE  
PURCHASE ORDER #4500044655 – CONTRACT  
#4600006166**

**CONTRACT# MFA-134.308 and MFA-134.308M  
NUMBER: 8162**

**4h. Raytheon Original Proposal, Volume 2 – Appendix E-I.C. Plan  
View Facility**

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**4i. Raytheon Original Proposal, Volume 3 (1 of 2)**

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**4j. Raytheon Original Proposal, Volume 3 (2 of 2)**

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**4k. Raytheon Original Proposal, Volume 4**

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**4I. Raytheon Original Proposal, Volume 5**

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**4c. Raytheon Original Proposal, Responses to Evaluation  
Notices (Ens) – 01 December**

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**CONTRACT# MFA-134.308 and MFA-134.308M  
NUMBER: 8162**

**4d. Raytheon Original Proposal, Responses to Ens – 21  
November 2005**

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**4e. Raytheon Original Proposal, Oral Presentation**

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#4600006166**

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**4f. Raytheon Original Proposal, Volume 1**

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ATTACHMENT C



**THE PORT AUTHORITY OF NY & NJ**

**PERIMETER INTRUSION DETECTION SYSTEM**  
PORT AUTHORITY CONTRACT No. 134-308

**FUNCTIONAL AND PERFORMANCE REQUIREMENTS**

**FINAL**

**1 August 2005**

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# THE PORT AUTHORITY OF NY & NJ

## PIDS Project

### FUNCTIONAL AND PERFORMANCE REQUIREMENTS

01 August 2005

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## 1.0 SCOPE

### 1.1. Identification

This Port Authority of New York and New Jersey (PANYNJ) document, establishes the system functional and performance requirements for the Perimeter Intrusion Detection System (PIDS) Project, hereinafter referred to as the PIDS or the System.

### 1.2. Project Purpose and Objectives [ADDENDUM 8]

The objective of PIDS is detection and assessment of intruders (unauthorized entry) into the Exterior AOA Secure Areas at John F. Kennedy International Airport (JFK) in New York, LaGuardia Airport (LGA) in New York, Newark Liberty International (EWR) Airport in New Jersey and Teterboro Airport (TEB) in New Jersey via exterior segments (non-building areas) of the Alarm/Detection Secure Line as identified in the Perimeter Characterization and Security Upgrade Plans (PCSUP) for each airport. The exterior AOA is defined as the “Blue” hatched area in the facility PCSUP bordered by the exterior AOA secure line. Please see Book IV, Attachment 3, Characterization and Facility Upgrade Plans. The Alarm/Detection Secure Line forms the secure perimeter around each airport (360 degrees), excluding tenant leasehold areas, and is encompassed by waterside and landside areas.

PIDS will enhance Port Authority monitoring and response force ability to detect, observe and identify at the earliest opportunity intruders attempting to gain access to the Exterior AOA Secure Areas, via Ex. 4 The system shall also have the capability to detect and assess unauthorized exiting of the exterior AOA via Ex. 4

PIDS will deter, observe, detect, assess and track intruders attempting to gain access to the Exterior AOA Secure Area in a manner that enhances the efficiency of security personnel to respond, intercept and neutralize the intrusion.

Overall objectives are:

- A 24 hour 7 day/week integrated intrusion detection, assessment, and tracking system.
- A system with a minimum Probability of Detection ( $P_d$ ) of Ex. 4

possible. All proposers shall indicate and guarantee the P<sub>d</sub> for the proposed system and not for the system's individual components.

- A false alarm rate (FAR) and Nuisance Alarm Rate (NAR) of zero (0) but not more than one (1) per zone per five (5) day period. All proposers shall indicate and guarantee the False and Nuisance Alarm Rates for the proposed system.
- A System Operational Availability of no less than .
- A system that is standardized across all four airports.
- An open system capable of encompassing future integration of additional alarm points, communications command and control and assessment technology.
- An integrated control and display system providing event assessment capability, alarm event annunciation and notification to responding security forces.
- Integration of the existing Computerized Access Control and Alarm Monitoring Systems (CACs).
- PIDS will record and archive intrusion attempts.
- PIDS will have the capability for future phased integration of all alarms, signals (communications, sensor, power, tamper) and CCTV on the property.

### 1.3. PIDS Configuration

The PIDS consists of seven subsystems operated and controlled at each airport: The Control and Display Subsystem (CDS), Audiovisual Subsystem, the Intrusion Detection Subsystem, the Assessment Subsystem, the Data Management and Reporting Subsystem, the Facility Communications Subsystem, and the Power Infrastructure Subsystem.

- Control and Display Subsystem. Integral to the PIDS is a Control and Display subsystem that collects, transports, processes, integrates, displays and disseminates alarms to the operator for analysis. The Control and Display Subsystem shall provide complete event information, thus enabling the operator to monitor, record and control all connected security equipment as well as to observe and assess events and initiate an appropriate response.
- Audiovisual Subsystem. Audiovisual technology shall be employed to project, enhance, scale, multiply, and amplify all PIDS video and audio sources utilizing large screen monitors, display walls, and audio to annunciate and view events. Operators shall have the capability to control all the display device contents from any PIDS Control and Display Workstation. Video sources shall include but not be limited to alarm monitoring, system monitoring, ground surveillance radar, live CCTV and recorded video, Facility Grid Map data, system

possible. All proposers shall indicate and guarantee the  $P_d$  for the proposed system and not for the system's individual components.

- A false alarm rate (FAR) and Nuisance Alarm Rate (NAR) of zero (0) but not more than one (1) per zone per five (5) day period. All proposers shall indicate and guarantee the False and Nuisance Alarm Rates for the proposed system.
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management and incident reports, broadcast video, and other component and composite video sources.

- **Intrusion Detection Subsystem.** The Intrusion Detection Subsystem shall consist of multi-layered, industry standard exterior perimeter intrusion sensor technologies including, but not limited to, fence mounted or buried detection devices and/or cables, video motion detection and tracking systems, seismic sensors, break-wire sensors, microwave and infrared sensors, laser sensors, and ground surveillance radar detectors as per these functional requirements and as recommended by the contractor proposing the system design and as approved by the PANYNJ.
- **Assessment Subsystem:** The Assessment subsystem consists of commercially available day/night all weather assessment equipment. Cameras shall be remotely controllable to provide observation, assessment and tracking through the Control and Display Subsystem. This Assessment Subsystem shall be integrated with the Intrusion Detection Subsystem to provide immediate automatic assessment and recording of all alarm points.
- Data Management and Reporting Subsystem – The Data Management and Reporting Subsystem shall permit archiving of events and distribution of vital information to response teams and PANYNJ management[ADDENDUM 6]^
- **Facility Communications Subsystem.** The Communications subsystem shall provide bi-directional, fault tolerant, and self-healing routing of all signals between the Intrusion Detection, Assessment, Control and Display and Data Management and Reporting Subsystems. This includes, but is not limited to routing of alarm, video, tamper, power, and communication signals. The communications infrastructure shall be designed to utilize, wherever possible, existing fiber optical cabling and available access points as indicated on the PCSUP project or existing communication infrastructure drawings. The communications subsystem shall consist of commercially available communications products and shall meet operational availability and reliability requirements in Section 2 of this document.
- **Power Infrastructure Subsystem.** The Power Infrastructure Subsystem shall provide sources for the PIDS that are uninterruptible and battery backed-up. Where available, uninterruptible power supplies shall be powered from emergency power sources to permit

full time operation. All power shall be installed with appropriate grounding and protection against voltage irregularities and lightning strikes. Power shall be drawn from [REDACTED], as identified in the Electrical Infrastructure Memorandums in Book IV, Attachment 4.

#### 1.4. Function

The PIDS shall consist of various security applications and site-specific technologies communicating with PANYNJ aviation operations and security monitoring and control equipment in an interoperable, open architecture environment in order to facilitate a high probability of detection and the assessment of events reliably, and with a minimum of false and nuisance alarms. Each airport PIDS shall communicate over a dedicated communications infrastructure to a Primary Control and Display Subsystem (CDS) as well as to a fully redundant Secondary CDS located at [REDACTED] Ex. 4 [REDACTED] command/dispatch center or other location at their respective airports as identified in these Specifications and on the Contract drawings. Each CDS shall consist of Control and Display Equipment (CDE) including, but not limited to, network communications equipment and interfaces with field devices or other existing systems, servers, software, audiovisual equipment, uninterruptible power supplies, and equipment racks, all of which shall be located in equipment rooms within, adjacent to or near the designated command center and secondary CDS at each airport. There shall be a minimum of (2) Control and Display Workstations (CDWs) for operator interface and control of the PIDS and related subsystems associated with each Primary and each Secondary CDS as indicated in these Specifications and on the Contract drawings. In addition two (2) CDWs capable of monitoring the systems at all four airports, shall be installed at [REDACTED]

[REDACTED] Ex. 4 [REDACTED]

[REDACTED] The PIDS shall be interfaced to and integrated with the existing PANYNJ aviation security and communications systems including, but not limited to, the Computerized Access Control System (CACs), the Closed Circuit Television (CCTV) monitoring and network digital video recording (IP DVR) systems, and intercommunications systems for monitoring and control purposes. PIDS shall also be designed to allow for the integration of future alarm and assessment systems, including, but not limited to Guard Post Upgrades, Fuel Farm Upgrades, Terminal Security Enhancement Project, Tenant/Leasehold Projects, [REDACTED] Ex. 4 [REDACTED] and AOA Unmanned Gate Projects. The primary and secondary SOC shall include a user-friendly operator interface providing system-wide control and display as specified in these functional requirements to

facilitate annunciation of alarm events, accurate analysis and assessment of the incident and initiation of appropriate response procedures. Please see Section 1.12, Figures 1 and 2.

**1.5. Technology**

The PIDS shall utilize Commercial Off-The-Shelf (COTS) equipment, Non-Developmental Items (NDI) and software designed specifically for the security purposes of monitoring and controlling long property lines. Where required or necessary multiple, fault tolerant, redundant or overlapping technologies shall be applied in order to achieve the objective of 100% operational and detection levels desired by the PANYNJ. To this end the means utilized shall be engineered utilizing the most advanced, field proven technologies available while still meeting or exceeding the parameters specified within these functional and performance requirements and the associated PCSUP drawings. The system shall be upgradeable and designed to accommodate future expansion and the incorporation of new technology hardware, firmware and software where appropriate. Equipment shall be purchased by the contractor at the time of installation to ensure that the most recently available equipment, firmware and software revisions and updates are furnished. Any software that is written shall be in English and written by an American Company.

**1.6. Project Implementation**

The system design and implementation must include complete system integration. During installation, the Contractor shall ensure that the operation of existing integrated security systems is maintained. The PIDS shall perform all required functions with a minimal impact on existing operations and maintenance personnel.

The design effort shall include assessing the existing physical conditions on the perimeter of each airport, as indicated on the PCSUP drawings, Existing Communication Infrastructure plans and as described in the PANYNJ PIDS Design Basis Threat (DBT) and ConOps documents.

The PIDS design shall interface with and integrate the existing electrical and communications infrastructure, wherever possible.

The PIDS design shall include Architectural development of the Control and Display System (CDS) and equipment spaces, for the integrated system design. The design shall include: installation of conduit and field distribution cabinets, drainage and erosion control, grading, trenching below ground for power and signal cabling, and may also require fence,

barrier or facility modifications where necessary for the proper installation of the PIDS equipment.

The project effort includes development of equipment specifications and detail design drawings, plus the purchase, installation, and integration of site-specific software and hardware equipment, system configuration and programming, conduct of system tests, training, and commissioning. See functional system block diagram on next page.

1.7. Resources to be Protected

**Airport Property.** A PIDS shall be implemented for each airport: John F. Kennedy International Airport (JFK) in New York, LaGuardia Airport (LGA) in New York, Newark Liberty International (EWR) Airport in New Jersey, and Teterboro Airport (TEB) in New Jersey. The exterior AOA protection area to be secured by PIDS is noted in the “blue hatched” area on the PCSUP drawings.

1.8. Applicable Documents and References

The performance standards shall, as a minimum, comply with all applicable federal, state and local codes, standards and regulations, the requirements of local authorities which would apply or have jurisdiction if the Authority were a private corporation, whether express or implied herein, as well as with these specifications and related PANYNJ specifications, standards and regulations. Refer to Book IV Attachment 7, Documents and References, for additional requirements and references.

1.9. Acronyms

See Book I, Section 1.2

1.10. Definitions

See Book I, Section 1.3, “Definitions”

**Legend**

-  Communications Link
-  Power & Communications Subsystem
-  PAWANET/Ti Communications
-  Wireless Link
-  Future Project Integration

**Block Diagram Abbreviations**

- AV    Audiovisual
- CACS Computerized Access Control System
- CDS    Control and Display Subsystem
- CDW    Control and Display Workstation
- EOC    Emergency Operations Center
- EWR    Newark International Airport
- IDS    Intrusion Detection Subsystem
- IP DVR      Network Digital Video Recorder
- IVMD Intelligent Video Motion Detector
- JFK    John F. Kennedy International Airport
- LGA    LaGuardia International Airport
  
- Ex. 4
- PIDS Perimeter Intrusion Detection System
- PTR    Printer
- TEB    Teterboro Airport

## 2.0 REQUIREMENTS

### 2.1. General

The following section details the general, technical, operational, installation, and additional requirements for the functions of the PIDS.

### 2.2. Operating System and Relational Database Requirements

#### 2.2.1. Relational Database

The PIDS shall utilize a single seamlessly integrated relational database for functionality. The relational database shall be a COTS/NDI product such as Microsoft SQL, Oracle or equivalent capable of receiving uploads from and transmitting downloads to various PIDS subsystems and other PANYNJ security and management systems and of managing the data in an interoperable and logical manner.

#### 2.2.2. Operating System

This integration shall be provided within one operating environment. The PIDS operating environment shall be configured with fully multi-tasking, multi-threading Ex. 4 minimum, Operating Systems or later version and support for all future upgrades. The furnished operating system shall be complete with the latest available service packs and updates as approved by the PANYNJ at the time of purchase. Refer to Maintenance Document for warranty and maintenance requirements.

#### 2.2.3. Applications Servers and Workstations

The PIDS applications shall be capable of running on independent servers and workstations running operating systems including Ex. 4 with the most current compatible and approved service packs. The applications shall interface with the PIDS database and shall be connected to the PIDS Control and Display Subsystem and Control and Display Workstations as required. In order to maintain the specified levels of system reliability and availability, where PIDS applications run on independent servers, these servers shall be fault tolerant and redundant.

#### 2.2.4. Closed Loop

All field hardware, including PIDS controllers, Alarm Input Panels, and Control Output Panels shall be connected in closed loop configuration.

2.2.5. Baseline/Benchmarking

Baseline tools shall be used to establish benchmarks, monitor and check the consistency & integrity of the database, files and directories.

2.2.6. System Vulnerability Checks

Security compliance software and vulnerability assessment scanning tools shall be used to check for system exploits.

2.3. Technical Requirements

2.3.1. Control and Display Subsystem

All alarm points, assessment, access control and related PIDS security systems information shall be routed to a primary and fully redundant secondary Control and Display Subsystem (CDS), each equipped with appropriate and sufficient Control and Display Workstation(s) (CDW). Access to, display of and control of all system operations and events shall be based on priority and operator level of authority and as required by these specifications. The Control and Display Workstations (CDW) spaces shall be designed with consoles, equipment racks and displays configured to meet ergonomic requirements. The CDS shall promote the rapid annunciation and display of alarms to facilitate evaluation and assessment by the CDW operator. This system shall also provide a means to store, update, and access reference material such as instructions, procedures, checklists, and report format.

The primary and fully redundant secondary CDS and CDWs shall be located in the following locations at each facility: (Also please see Book IV, Attachment 5.)

- JFK
  - Primary: Security Operations Center (SOC) Ex. 4
  - Fully Redundant Secondary:
  - Control and Display Workstation(s):

Ex. 4

- LGA

- Primary: [redacted] Ex. 4

- Fully Redundant Secondary: [redacted]

- Control and Display Workstations:

- EWR

- Primary: [redacted] Ex. 4

- Fully Redundant Secondary: [redacted]

- Control and Display Workstations:

- TEB

- Primary: [redacted] Ex. 4

- Fully Redundant Secondary: [redacted]

- Control and Display Workstations:

- [redacted] Ex. 4

- Control and Display Workstations for all airports:

### 2.3.1.1. Primary CDS

The Primary CDS shall provide an integrated capability that enables monitoring and control of all connected equipment, including that which provides capabilities for detection, assessment, notification, entry control, communications and power functions by a single operator. The system shall automatically transfer all monitoring and control functions to the fully redundant secondary CDS, should the primary become unavailable due to some type of system failure. There shall also be the ability to manually transfer these control functions, from the primary to the fully redundant secondary CDS. Upon restoration of the Primary CDS to full operation there shall be both an automatic and a manual utility to update the Primary

CDS database and historical log and return it to its primary operation (monitoring, command and control) status.

2.3.1.2. Fully Redundant Secondary CDS

The Secondary CDS shall be fully redundant to the primary. The secondary shall duplicate all functions of the primary CDS in the event the Primary CDS becomes unavailable or if it is appropriate to transfer control for incident purposes. CDS redundancy is defined as 2N, (i.e., if N components or systems are required to perform system functions, the system is configured with a second set of duplicate components (2) or systems). Capabilities must also include the ability to automatically or manually transfer control back to the Primary CDS without the loss of data.

2.3.1.3. Control and Display Workstations (CDW)

The Control and Display Workstation (CDW) shall be a Microsoft Windows based workstation connected to the Primary and Secondary CDS via the Communications Subsystem that permits control and display of PIDS events; observation and assessment; management and reporting; and systems administration, programming or maintenance as required based upon the level of authorization of the operator or manager assigned to the station and their password.

The CDW shall provide an integrated capability that enables monitoring and control of all connected equipment, including those that provide capabilities for detection, observation, assessment, entry control, audio communications and power functions, by a single operator based on operator password and priority access level.

The CDW operation shall not be interrupted by failover operations between the Primary and Secondary CDS. Failover is defined as the transfer of controls to the secondary CDS should the primary system become unavailable. This includes transfer of control back to the primary CDS.

The CDW shall be configured with the following minimum characteristics.

- Intel Pentium processor sized to highest available speed or bandwidth.
- 2MB RAM
- 180 GB hard drive
- Video graphics controller: Capable of displaying a minimum matrix of sixteen (16) live or recorded video images on a single display without video degradation or video latency. Graphics controller shall also be capable of displaying a single virtual Windows desktop on no less than three (3) video displays
- Two (2) DVD+RW drives
- CDW shall have the capability to be rack mounted remotely from CDW Console

#### 2.3.1.4. CDW Consoles

At each CDW location, a modular console shall be provided to support all PIDS monitoring and operations with spare capacity for future expansion and additional equipment. The console design shall be open in nature utilizing a modular structural system that facilitates placement of 21” LCD displays in close proximity to the operator, creating a ‘cockpit’ around the operator where the view distances and reach distances are optimized to support a variety of tasks being performed at the workstation. The console work surface shall consist of a smooth, level work area. All applicable ergonomic standards shall be taken into consideration, including view and reach distances, keyboard height, and knee-well space to comply with accepted Human Factors of Design and applicable ergonomic standards including ANSI/BIMFA, CSA, and ISO.

The CDW consoles shall be easily accessible for operation, installation, and maintenance of the CDW. An open desktop design shall be utilized. Hinged, sliding, and or removable lower panels will provide access to internally mounted equipment for installation and service. Front and rear slide out access compartments shall be included that offer maximum accessibility while minimizing console depth. Work surface heights shall be fully adjustable.

At a minimum the CDW consoles shall be designed with the following characteristics:

- Accommodate the mounting of a minimum of four (4) UXGA 21” Color LCD Displays on articulating mounting arms.
- Mounting of PA furnished telephone handset with wireless headset
- Mounting of PA furnished radio equipment as required
- Remote Keyboard Video Mouse (KVM) capability to accommodate up to four CDW workstations
- Wire and cable management raceway
- Task lighting
- Duplex receptacles and surge suppression power bars
- Work surface: Min. 1” particleboard, high-pressure laminate surface with rounded polyurethane nosing
- Structure: Steel, powder coated
- Under-counter keyboard and mouse tray
- Under-counter and mobile lockable filing cabinets
- Ventilation fans as required

2.3.1.5. Performance Capabilities

The CDS shall incorporate but not be limited to the following specific capabilities:

- 2.3.1.5.1. Redundancy and Data Integrity. The primary and secondary CDS configuration shall include servers each of which maintains its own copies of system software, application software, and data files. System transactions and other activity that alters system data files shall cause real-time updates to both sets of system files. In the event of a server configuration failure, the other server configuration shall assume control immediately and automatically without loss of data. Error checking procedures shall be automatically enacted to verify and report data integrity and duplication between servers.
- 2.3.1.5.2. Fault Tolerance. Each server configuration shall be fault tolerant and equipped with redundant, hot-swappable power supplies, cooling fans, PCI slots, and hard drives in a minimum RAID 5 configuration.
- 2.3.1.5.3. System Fail-over. System fail-over from one server to another shall have minimal impact on system operators. All current sessions shall be maintained over such a fail-over. Partially complete command may have to be re-started, but the screen display options shall be sustained transparently to the operator, apart from an information message and its associated alarm.

Under NO circumstances shall any operator be required to log in again and/or reset up his/her options.

2.3.1.5.4.

Data Integration.

- The PIDS database shall enable the bi-directional management of data sharing among PIDS subsystems, the PANYNJ Computerized Access Control System (CACCS) manufactured by Lenel Systems International (Lenel), and other airport security systems as may be required including, but not limited to, events and alarms, perimeter intrusion alarms, assessment, and video display and recording.
- The PIDS shall allow integrated configuration to display a near real time, dynamic, iconic status of alarm point indications, overlaid onto a fixed composite type graphic map of the detection area and zone and provide interactive operator control and response. The graphic display shall be overlaid on existing PANYNJ Facility Security Operations Grid Maps.
- The PIDS CDS shall include a textual display showing alarm activity and operator action, including operator procedures, and time/date status.
- The PIDS shall allow the integrated configuration to enable the operator to control the operation of the Assessment Subsystem.
- The PIDS shall allow an integrated configuration, permitting security operators to view digital video scenes, generated by Assessment video cameras and/or digital recording equipment, and to automatically or manually display scenes associated with the location of perimeter alarms, for both selectable live and recorded video scenes.
- The PIDS shall be expandable to incorporate future tenant access points to AOA, tenant alarms, intrusion detection, CCTV, and any future tenant improvements.
- The PIDS system shall be capable of integration of future alarm points as per Section 4.4.6.

2.3.1.5.5.

User Friendly. Minimize the need for operator training, provide step-through screens and have the capability to skip menus. Provide an on-line operator “help” capability.

2.3.1.5.6.

Correct Annunciation. Provide correct annunciation, audibly and visibly displayed, in both text and graphic format of each alarm generated by an associated sensor. Alarm conditions shall result in both audible alarm and visual display to alert the operators of the CDE. A single audible alarm acknowledgement control shall

- silence all audible signals. Audible alerts shall be customizable as either tone or .wav files as determined by the PA.
- 2.3.1.5.7. Graceful Degradation. Ensure loss of individual devices does not result in degradation/failure of security operations, prevent reporting and monitoring of other devices or affect overall system operation.
- 2.3.1.5.8. Hardware Modularity. Provide a modular system architecture that accommodates a console and/or desktop configuration.
- 2.3.1.5.9. Display Characteristics. Provide the capability to import or create, modify, select and display: icons for sensors, sensor fields, or coverage areas; sensor zones; Facility Grid Maps and grid map sectors; PIDS installation maps; map overlays; AOA landmarks; and other information when required without obstructing the view of underlying map features.
- 2.3.1.5.10. Geographical/Text Displays. Provide the capability for both geographic Facility Grid Map and text displays of alarm data.
- 2.3.1.5.11. Alarm Display Prioritization and Queuing. Prioritize and simultaneously display multiple alarms and status conditions according to user-defined parameters. Always display the highest priority alarm and associated video in the queue as the default, regardless of the arrival sequence. Place each subsequent alarm in a queue according to user-defined priorities. CACS alarms shall take priority over all other Intrusion Detection Alarms with Duress Alarms assigned to the highest priority level. Subsequent alarms shall not replace the first, highest priority alarm, until it is acknowledged and appropriate operator response complete. Indicate the alarm type, physical location (building/structure/ boundary/etc.) and alarm area, for each alarm. Provide a scrolling capability for selection of queued alarms. Display all alarms in the Facility Grid Map display. The CDS shall handle multiple alarms simultaneously and shall display the highest priority security events before any others.
- 2.3.1.5.12. Alarm Types. Alarm types that may be reported include, but are not limited to, Sensor Alarm, Tamper, Communications Failure, Power Failure, Low Battery, etc.
- 2.3.1.5.13. Alarm Reporting. Automatically report by user-defined priorities, the status (secure/alarm/access) and status changes of each alarm point (structure or sensor sector or sensor zone), line supervision, power source in use and tamper switch. Alarm reporting shall be in both text format and on a map display that depicts each alarm point or sensor sector or zone in relation to the restricted area configuration, roads, area perimeter, and

- facilities in the area. The time of alarms shall include calendar date, hours, minutes, and seconds, using a 24-hour clock.
- 2.3.1.5.14. Addressable Points. All alarm sensor and relay control points and associated devices shall be individually addressable and programmable to permit electronic indexing and identification of zone type and status, panel input/output point number and cable tag number. Each point shall be adjustable for threshold sensitivity, where applicable.
- 2.3.1.5.15. Distributed Alarm Processing. Allow processing of alarm signals to primary and fully redundant secondary CDS locations based on priority, time of day and operator level of authority. Allow manual override and control of alarm routing programming by system administrators with proper authority. Processing and routing of Duress Alarms, transmitted via the CACS interface, and certain intrusion alarms as determined by the PANYNJ shall be routed to designated Police Displays as the top priority to facilitate the proper immediate response.
- 2.3.1.5.16. Alarm Bumping. In the event that an alarm is not responded to within a programmable time period the alarm shall be redirected to a back-up CDW at a Secondary CDS to any other designated CDW.
- 2.3.1.5.17. System Administration. Allow authorized system administrator to configure all alarm priorities, text and graphics information, locate display alarm points, video displays/video recording and playback characteristics, password management, report generation and configuration and other related information. Refer to Data Management and Reporting Subsystem, Section 2.3.5, and PANYNJ System Administration Overview for Capital Programs for additional requirements. Specific System Administration requirements are identified in Book IV Attachment 8.
- 2.3.1.5.18. System Protection. Protect all system components with tamper detection devices when not otherwise protected. Detect and display alarms for all attempts to access, bypass, spoof, or sabotage the system regardless of system status or mode of operation.
- 2.3.1.5.19. Simultaneous Alarms. Process and display a minimum of five (5) alarms occurring within three (3) seconds.
- 2.3.1.5.20. Archiving. Provide a capability to archive, retrieve and produce reports in electronic and paper media of all system events and operator actions by event type, date and time, or location. This includes maintenance periods, operator passwords and access levels, alarms received/alarm status, accessing/securing sensors, sensor access attempts, response device status, entry control,

battery/line power source status/change, automatic test, self-test, fail safe information, line supervision status, configuration data, configuration file changes and any other system events that occur.

Ex. 4

The system shall alert the operator and Systems Administrator prior to archive capacity being exceeded at 80% and 90% of full capacity. Download archived files automatically to permanent storage media on a minimum of once per day (adjustable). Provide methodology to download archived files to a portable storage media such as tape or writeable CD as well as to long term storage as required.

2.3.1.5.21. Expansion Flexibility and Capacity. The system shall be able to sustain frequent change as a result of the dynamic airport environment. The system shall accommodate new intrusion detection sensors, cameras and access control elements easily. All subsystems, including the communications network, must have expansion capability of at least 100%. Future projects that will require intrusion and access control alarms, CCTV monitoring and assessment functions to be integrated into the system shall include, but are not limited to, Guard Posts, Fuel Farms, Tenant/Leasehold, Terminal, and Unmanned Gates.

2.3.1.5.22. Event Logs. The system shall contain a computerized event log to record all events that occur on the PIDS. An event is any sensor change, operator command, operator assessment, or system failure.

Ex. 4

2.3.1.5.23. Event and Logging Printers. The system shall have the capability to print out events, logs, reports and any other selected activity upon request from current files and from files archived on other media.

2.3.1.5.24. Configuration. All initial configuration requirements, (i.e. alarm point names, mapping, operator instructions, etc.) are the contractor's responsibility until system acceptance. The system shall be capable of allowing an authorized PA Administrative Supervisor to re-configure the system point names, add or delete points, etc.

2.3.1.5.25. Disaster Recovery. Provide a written plan for disaster recovery with testing scenarios.

2.3.1.5.26. Security Administration. Allow a PANYNJ authorized security administrator to be responsible for establishing and approving

levels of access for users, development of security procedures to safeguard the integrity of data and applications, review of security logs, and regularly reviewing the appropriateness of user access levels. Also the responsibility for virus protection, Phishing, Spam and Popup bug controls.

**SECURITY SYSTEM ADMINISTRATION ACCESS CONTROL**

- Account expiration for contractors and consultants.
- Account password is not the same as account name.
- No concurrent login capabilities.
- No accounts assigned to individuals who no longer require the account.
- Accounts never logged into are removed.
- Accounts adequately identify the user.
- Accounts not used by multiple individuals.
- Admin. password adequately secured.
- Disabled accounts are deleted.
- No excessive privileges on accounts.
- Firewalls in place.
- Disable Guest Accounts.
- Inactive accounts are removed.
- Separate accounts for System and Security Administrator.
- Retention of unsuccessful login attempts and length of account lockout time set to Standards.
- No test accounts on production.
- Requirement for Username and Password.
- Secured and authorized remote access, approved by the PANYNJ.
- No generic accounts.
- Warning message/banner identifying Proprietary/Port Authority of NY & NJ System.

**PASSWORDS**

Ex. 4

### SYSTEM CONFIGURATION

- Administrative Account renamed.
- Not display last user who signed on.
- No excessive administrative privileges assigned.
- Access violation reports.
- Account lockout function enabled and set according to standards.
- Audit trails for operating, application and database systems.
- Data encryption capability.
- All default settings or passwords changed.
- Unnecessary services removed.
- Controlled use of the Administrator Account.
- Virus software implemented and up to date.

2.3.1.6. Operator Failure to Acknowledge. In the event that an operator fails to acknowledge an alarm event within the programmed period of time, the alarm shall be rerouted to a Secondary CDS CDW or to any other designated CDS and notification shall be transmitted to a supervisor and/or the System Administrator.

2.3.1.7. Operator Response Test. The system shall have the capability to randomly interrogate the operator at the Primary and Secondary Control and Display locations for the purpose of checking the operator status and response. If an operator at any location does not provide the correct response within one (1) minute (adjustable), the system shall automatically send an operator failure notification to a designated back-up CDW and/or an assignable alternative location. The back-up CDW location for the Primary CDS shall normally be the Secondary CDS and the CDW back-up for the Secondary CDS shall normally be the Primary CDS at each airport. However, the system shall be designed to accommodate routing of operator failure alarms to any other Control and Display Workstation within the system as determined by the Port Authority.

### 2.3.2. Audiovisual Subsystem

Audiovisual technology shall be included in the rooms supporting Control and Display Workstations. The Audiovisual Subsystem will be comprised of equipment designed to project, enhance, scale, multiply, and amplify all PIDS operator console displayed video and audio sources onto ancillary direct view display devices and loudspeakers to be located around each primary and secondary monitoring locations. Operators shall have the capability to control all the display device

contents from any PIDS CDS console. Video sources shall include but not be limited to alarm monitoring, system monitoring, ground surveillance radar, live CCTV and recorded video, Facility Grid Map data, broadcast video, and other component and composite video sources. The audiovisual systems shall be designed for 24 hours a day, 7 days a week, 365 days a year operation.

The following audiovisual systems shall have the following minimum characteristics.

2.3.2.1. Video Systems

- 2.3.2.1.1. LCD Displays
- 2.3.2.1.2. Screen Size: 42" (106 cm) diagonal
- 2.3.2.1.3. Screen Aspect Ratio: 16:9 Wide
- 2.3.2.1.4. Native Resolution: 1280 x 1024 (WXGA)
- 2.3.2.1.5. Displayable Colors: 16.77 million colors
- 2.3.2.1.6. Refresh rate: H: 15.6 - 110 kHz; V: 48- 120 Hz
- 2.3.2.1.7. Contrast: 600:1
- 2.3.2.1.8. Brightness (panel): 650 cd/m2

2.3.2.2. Display Walls

- 2.3.2.2.1. Each Display Wall module shall consist of a steel-constructed fully enclosed light tight cabinet, first surface mirror, black bead screen and modular Digital Light Processing (DLP) projection engine. The cabinet shall be of all-steel construction with dedicated removable panels for access to the lamps (redundant), power supply, and projection engine
- 2.3.2.2.2. Display Wall modules shall be fully enclosed and light tight. Engineered solutions will not be accepted. All modules shall be optimized to work in a multi-screen arrangement with less than 1mm separation between adjacent screens
- 2.3.2.2.3. Each display module shall include a single chip DLP light engine with native resolution of no less than 1280 x 1024. The projection engines shall utilize Digital Visual Interface (DVI) technology to connect to the display wall controller
- 2.3.2.2.4. Each wall module shall have a contrast ratio of 750:1
- 2.3.2.2.5. Each display module shall maintain at least 95% brightness uniformity

2.3.2.3. Display Wall Processor

- 2.3.2.3.1. Shall be based upon Ex. 4 or equivalent.
- 2.3.2.3.2. Allow multiple applications to be run and be displayed simultaneously from the same system. Control management

software shall be provided such that an operator can complete tasks by means of simple point-and-click menus, without exposing the complexity of the underlying data access and processing. The Graphical User Interface (GUI) will allow to operator to define an unlimited number of scenarios according to personal and common requirements. This software will allow the operators to run and resize any application, video or RGB window via remote mouse control on the Display Wall. Multiple operators shall be able to use this facility at the same time, unless otherwise restricted by the administrator. The software package shall also interface with the hardware already in place, such as video devices, audio and projectors

2.3.2.3.3. Allow for hot-swapping of graphics cards, power supplies, and fan trays

2.3.2.3.4. Video Display Processors shall be capable of scaling video images. The Video Display Processors shall be fully equipped with the required amount of analog, digital, and RGB graphic controllers and input video cards to support the viewing objectives of the project.

2.3.2.4. Video Playback and Recording

Video Playback and Recording Equipment shall include the following:

2.3.2.4.1. Digital Video Disk Recorder (DVD+R)

2.3.2.4.2. SVHS Video Cassette Recorders

2.3.2.4.3. Off-Air TV/CATV/SATV Tuners

2.3.2.4.4. RGBHV and composite video interfaces

2.3.2.4.5. IP DVR Recording System, 30 FPS capable, Ex. 4 recording capability.

2.3.2.5. Audio Systems

Audio Systems shall include the following audio system components supporting the Audiovisual subsystem:

2.3.2.5.1. Power Amplifiers

2.3.2.5.2. Digital Signal Processors (DSP)

2.3.2.5.3. Program Audio

2.3.2.5.4. AM/FM Radio

2.3.2.5.5. Speech Reinforcement with Wireless Microphones

2.3.2.5.6. Loudspeakers

2.3.2.6. Control System

A touch screen control system shall be provided at each primary and secondary CDS to operate all audiovisual systems. The

control system shall operate by stored program control. The operating program shall be fully customizable to allow for user defined panel displays, graphical user interfaces, and operating modes. The control system shall be capable of providing all control functions for each component of the audiovisual subsystem from a table-top touch-screen and graphical user interfaces. The system shall control all video and audio systems equipment and interfaces. A minimum of (10) preset configurations shall be provided.

2.3.2.7. Existing Audiovisual Equipment

Existing audiovisual equipment may be available to utilize in the rooms supporting each primary and secondary CDS. The contractor shall determine if any existing audiovisual equipment can be utilized and what upgrades and additional components will be required to meet the Audiovisual Subsystem objectives. For example, the primary PIDS Control and Display Workstations shall interface with the Display Wall and control systems for EWR located in the Ex. 4 and for JFK located in the   and use of any existing audiovisual system must be approved and coordinated with PANYNJ.

2.3.2.8. Space Limitations

The space available for Display Walls and related equipment is limited at each facility. The Contractor's design team shall recommend appropriate solutions to meet the intent of CDS and Audiovisual Subsystem functional requirements taking advantage of available space in the most efficient manner.

2.3.2.9. Reference Documents

See Airport Upgrade Plans for layout of each primary and secondary CDS room.

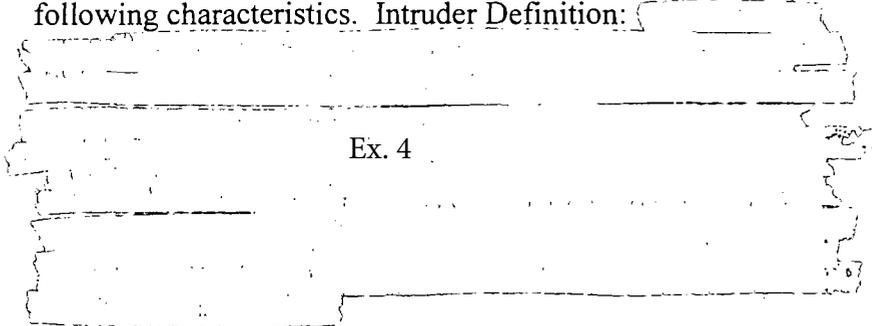
2.3.3. Intrusion Detection Subsystem (IDS)

- 2.3.3.1. The Intrusion Detection Subsystem (IDS) shall detect unauthorized intrusion Ex. 4 into the Detection Zones along the Alarm/Detection Secure Line and Area (not including buildings). First time targets are defined in subsection 2.3.3.13.1 and Observation and Detection demarcation lines and areas are identified

- on the Perimeter Characterization and Security Upgrade Plans (PCSUP).
- 2.3.3.2. The intrusion detection function shall include the performance of electronic remote sensing, via field-located, distributed processing controllers that communicate changes in the state of sensors to the CDS.
- 2.3.3.3. Detection performance as defined herein is essential to effective PIDS functioning. The measures of performance effectiveness are Probability of Detection ( $P_d$ ), Nuisance Alarm Rate (NAR), False Alarm Rate (FAR), operational availability, Mean Time Between Failure (MTBF), and Mean Time To Repair (MTTR).
- 2.3.3.4. A detection zone is defined as an AOA perimeter alarm/detection secure area or an alarm/detection secure line, as indicated on the PCSUPs, extending not more than 100 meters in length and 10 meters in width, located within one or more Facility Grid Map sectors that may be protected by one or more sensors of the same or different technologies (in order to maintain the required  $P_d$ ). Individual sensors and/or sensor technologies functioning within the zone shall not be “and gated” so that each sensor or sensor technology will generate an independent alarm. However, the CDS software shall be capable of employing Boolean logic to link alarm events within the zone as required for correct annunciation and detection performance. There may be more than one zone within a Facility Grid Map sector, within the alarm/detection secure area, or along the alarm/detection secure line.
- 2.3.3.5. An alert/observation area, as indicated on the PCSUPs, is defined as an area beyond the alarm/detection secure line or area within which the PIDS shall provide the capability to observe activity and provide appropriate alerts to enable assessment and notification of the appropriate responders. The alert/observation area shall be divided into sensor zones with functionality equivalent to that of any event as described herein except that the alert shall be assigned, and annunciated as, a lower priority type event than that of an alarm that is generated within the alarm/detection secure area or along the alarm/detection secure line.
- 2.3.3.6. The CDS software shall provide for adjustable sensor and zone sensitivity and coverage areas such that in the event that a sensor or zone is required to encompass an expanded, or contracted, area the system will be able to accommodate the change. This functionality shall be fully programmable by an authorized manager and restricted by level of authorization and password.
- 2.3.3.7. The CDS software shall be able to elevate the priority of the zone in alarm and to adjust the facility threat level, as defined by the PANYNJ, as necessary based on the number of sensor technologies

- within a given zone, as well as the number of zones in the system, that are simultaneously activated.
- 2.3.3.8. The IDS shall include the detection of failures or tampering of power and communications throughout the entire PIDS through built-in diagnostic applications and sensors.
- 2.3.3.9. If a sensor detection zone includes a combination of multiple alarm sensor sources, then the system shall maintain the capability to identify each individual sensor.
- 2.3.3.10. All alarm sensor input points shall be supervised for trouble or line fault conditions utilizing end-of-line resistors or other technology as per manufacturer's recommendations. End-of-line resistors shall be located at the alarm sensor end of the signal communications cable and shall be protected by heat shrink tubing or other approved methodology.
- 2.3.3.11. The IDS detection coverage shall include bi-directional target tracking detecting both incoming from the non-secured areas to the AOA and outgoing from the AOA to the non-secured areas.
- 2.3.3.12. As a minimum, the alarm/detection areas and lines shall be as shown on PCSUPs. If detection gaps occur by a single sensor phenomenology, whether within the alert/observation area, within the alarm/detection area, or along any portion of the restricted area boundary (the alarm/detection line), or within the exterior AOA secure area, another sensor system phenomenology must be provided to compensate for the deficiency.
- 2.3.3.13. Specific detection capability requirements are:

2.3.3.13.1. Target Characteristics. The system shall detect targets with the following characteristics. Intruder Definition:



2.3.3.13.2. Probability of Detection. Probability of Detection ( $P_d$ ) is the likelihood of detecting an intruder within the zone covered by an intrusion detection sensor. The design is intended to achieve the PANYNJ objective of 100% operational and detection levels. As a minimum provide a system that shall deliver intrusion detection with a Ex. 4 Probability of Detection ( $P_d$ ) with a Confidence Level of Ex. 4

2.3.3.13.3. False and Nuisance Alarm Rates (FAR and NAR). The definitions of false and nuisance alarms are:

- *False Alarm* - An alarm which does not result from a valid intrusion by personnel, vehicles, other moving objects, or nuisances, but rather as a result of an internally generated sensor or other system component noise. The false alarm rate objective is zero (0) with a minimum acceptable level of not more than one (1) false alarm per zone, per five (5) days of operation.
- *Nuisance Alarm* - May result from sources external to the system, which provide sensor stimuli similar to those of personnel, vehicles, or moving objects, such as wildlife, weather related (i.e. rain, snow, fog, etc.) and natural phenomena. The nuisance alarm rate objective is zero (0) with a minimum acceptable level of not more than one (1) nuisance alarm per zone, per five (5) days of operation.

FAR and NAR for the entire PIDS shall be tested and calculated based on the average number of alarm events per zone occurring over a 30 day period.

2.3.3.13.4. Algorithm Based Object Recognition. The system shall be capable of “intelligent” rule-based video and video analytics to classify types of targets, discriminate between targets and non-conforming objects such as birds and animals or environmental factors including, but not limited to, wind, rain, snow, fog, waves, tides, and tree movement and generate alarm events. The system shall be able to detect and identify watercraft, land

vehicles or humans that are stationary or moving outside the perimeter alarm/detection secure line, moving toward the line, penetrating the line or inside the line. The system shall identify abandoned objects and discriminate between moving and stationary targets.

2.3.3.13.5. Tracking. The system shall be capable of automatically detecting and tracking intrusion into or movement out of the area of detection, breaks in the sensor line, direction of motion and speed. The system shall be capable of tracking multiple targets with position updates from the point of detection, within the alarm/detection area and both inside of the exterior AOA secure area and outside of the AOA, in the alert/observation area.

2.3.3.13.6. Target Data. The system shall provide target coordinates and tracking information to the system operator on a facility map display with the PANYNJ grid background.

2.3.3.13.7. Masking. The system shall provide a capability to allow masking of nuisance alarm source areas and/or sensor points, and to display masked points, zones or areas to the system operator, to be programmed and enabled by the system administrator only. The system shall be programmed to automatically shunt sensor points or groups that may be susceptible to nuisance alarms because of their proximity to gates during periods of access or egress.

2.3.3.13.8. Self-Test. The system shall have a self-test capability both as a system and for those individual sensors that can be tested.

2.3.3.13.9. Polling. Computer-based systems with inherent capability of constant polling and status display, shall meet the intent of system supervision.

#### 2.3.4. Assessment Subsystem

The CDE shall include components designed and integrated to afford the operator the capability to survey and assess all observation zone, pre-alarm and alarm events, including during inclement weather, in both day and night conditions by means of a Closed Circuit Television (CCTV) subsystem. The Assessment Subsystem shall provide automatic or manual display (alarm call-up) and manual control capability, controllable from a primary or secondary CDS site CDW or from a remote CDW or portable device.

- 2.3.4.1. The alarm Assessment Subsystem shall include video equipment for the assessment of all PIDS alarm and alert events and shall have the capability to rapidly display the video associated with all events, thus avoiding unnecessary dispatch of response forces to an area.
- 2.3.4.2. The Assessment Subsystem shall be a digital system configured to decode and display both analogue and digital video signals as required to interface with both existing and new video surveillance equipment.
- 2.3.4.3. The PIDS shall perform and support operator assessment validation, including whether the alarm(s) is (are) valid (and not a nuisance or false alarm), and details about the alarm(s) (i.e. what, where, when, and how many).
- 2.3.4.4. The assessment display function shall provide a capability of automatically and simultaneously displaying multiple live and/or recorded event scenes, pre-associated or configured with that individual alarm/alert point. The monitor and display system shall automatically and uniquely identify live and recorded video scenes, presented to the operator from each assessment device.
- 2.3.4.5. The Assessment Subsystem shall provide a capability for the system operator to automatically and/or manually select any alarm/detection or alert/observation area for display at any time. If the operator manually selects a video device, when no alarm/alert condition is present, and subsequent alarm/alert(s) occur, the images from the activated sector(s) shall be automatically displayed. When additional alarms/alerts occur, they and the associated live video shall be prioritized and placed in a queue with unlimited buffering. A prompt shall be provided to alert the operator to subsequent alarms/alerts, with thumbnail video clips for fast, high-level assessment.
- 2.3.4.6. The Assessment Subsystem shall display the associated scenes of zones in alarm upon activation of any sensor in that detection zone in a timeframe that enables the operator to assess the alarm/alert cause, including pre-alarm/alert activity for a programmable period prior to the alarm event. Recorded activity from the associated camera shall be displayed in a window or monitor adjacent to the live display.
- 2.3.4.7. The assessment function shall provide a capability for automatic and manual operation of pan, tilt and zoom cameras, based on permissions and priority.
- 2.3.4.8. The Assessment Subsystem shall provide the capability for masking of non-critical viewing areas. Video masking controls shall be accomplished by the System Programmer and Administrator and shall be safeguarded through use of user name and password.

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- 2.3.4.9. The system administrator shall have the capability of locking out or preventing viewing capability to other users of the system, certain cameras or camera groups on a temporary basis.
- 2.3.4.10. The Assessment Subsystem shall provide a capability for digital video transmission, switching, recording, authentication, archiving, and retrieval of all alarm/alert event video. Network Digital Video Recorders communicating via standard TCP/IP protocol (IP DVR) shall be provided. The IP DVR capability shall:
  - 2.3.4.10.1. Enable a minimum of Ex. 4 days of stored video images (not archived) to be selected by the operator for immediate playback.
  - 2.3.4.10.2. Enable stored video associated with subsequent alarm/alerts to be switched to designated monitors when manually selected or automatically when the previous alarm is cleared.
  - 2.3.4.10.3. Enable alarm/alert event recording to automatically begin upon zone sensor point activation and continue until the operator manually terminates the event. The system shall notify the operator periodically that video recording is still on going.
  - 2.3.4.10.4. Enable archiving of recorded alarm event video that shall encompass a programmable pre-alarm/alert time for a minimum of five minutes prior to the initiation of the alarm event.
  - 2.3.4.10.5. Enable a means of authenticating archived video to deter and eliminate the possibility of tampering with recorded images.
  - 2.3.4.10.6. Enable automatic and manual switching of all video.
  - 2.3.4.10.7. Enable automatic and manual forwarding of live and recorded video to selected stations, including mobile wireless devices such as portable PCs or PDAs.
  - 2.3.4.10.8. Enable wireless receipt of video from mobile or fixed cameras.
  - 2.3.4.10.9. Enable all pan, tilt and zoom (PTZ) functions of all PTZ cameras based on configurable operator permissions or level of authority (access level).
- 2.3.4.11. The Assessment Subsystem shall alert the operator when any assessment device (CCTV) loses video signal, communication with the Control and Display or IP DVR, or when an assessment device fails.
- 2.3.4.12. The Assessment Subsystem shall provide a complete and functional system, providing remote visual assessment, detection and classification of threats, assuming target characteristics as defined in Section 2.3.3.13.1 above.
- 2.3.4.13. The Assessment Subsystem shall provide for day/night video assessment in adverse weather conditions utilizing high resolution, low light level video imagers capable of switching between color and black and white based upon changing lighting conditions and

supplemented by infrared illuminators or thermal imagers as required.

- 2.3.4.14. Responding security forces shall be equipped with portable handheld or vehicle mounted video cameras capable of local assessment via portable PCs or PDAs and local recording. Live or recorded video from these cameras shall be capable of being transmitted wirelessly to the CDS.
- 2.3.4.15. Pan Tilt Unit (PTU) Modes of Operation. If PTUs are utilized, they shall have a minimum of three modes of operation: a manual mode, and an automatic mode and a touring mode. The manual mode shall enable direct operator control to manually reposition the PTU, in both elevation and azimuth, using a single controller for all PTUs. The automatic mode shall provide for automatic positioning of the PTU at the highest possible speed to a location associated with an alarm input and presets. The touring mode shall permit a minimum of 256 individual tour sequences per airport that shall include all cameras connected to the system. Tours shall be programmable by camera, time, focal point, and preset position. The software shall support random and fixed touring sequences.
- 2.3.4.16. All cameras and lenses shall be fully adjustable both manually and automatically for focal length, focus, iris and zoom to the maximum extent possible relative to the lens employed for any given camera.
- 2.3.4.17. All CCTV camera enclosures shall be provided with heaters, blowers, sun-shields, wipers and washers and shall be pressurized as required for resistance to harsh environmental conditions as per Section 2.3.4 of this document and relevant PAJYNJ specifications.
- 2.3.4.18. Assessment and PTU Controls. All assessment and PTU functions shall be integrated into a single control unit. These functions shall include: assessment Field of View change (if applicable), assessment focus, PTU operations as noted above, and other functions as appropriate.

### 2.3.5. Data Management and Reporting Subsystem

- 2.3.5.1. PIDS System Management. The PIDS shall be furnished with a full system management and reporting application to include logging, reporting of and printing of reports documenting all system events, incidents, anomalies, operator transactions, service interruptions or outages for each subsystem and component thereof, and maintenance performance.
- 2.3.5.2. Application utilities shall be provided for transfer of system database information to other PANYNJ management applications and systems via standard email and Microsoft programs including, but not limited to, Word, Excel, Access, SQL, Explorer, and Power Point.
- 2.3.5.3. Operator Application Controls. The operator shall be able to click the mouse once or depress a single function (hot) key for major operations within the application software such as acknowledging alarms, controlling cameras, generating an incident report, transmitting emails, or initiating other management software and tools.
- 2.3.5.4. Archiving. All logging of system activity shall be retained on approved storage media for a period of not less than [REDACTED]
- 2.3.5.5. Printing. Provide event and logging printers as required with supplies adequate for at least 365 days of operation at each primary and secondary CDS location.
- 2.3.5.6. Notification. The notification system shall enable remote patrols and managers to view PIDS Alarm and Assessment information via wireless technology from a software compatible end-device, such as a personal digital assistant (PDA), a ruggedized portable PC, a Tablet PC, or a Mobile Vehicle Data Terminal, for assistance in intruder alarm assessment by responding security forces. The notification system shall display intruder classification and track intruder location and movement. The notification system shall permit patrolling PAPD and airport security operations personnel to identify, in addition to the intruder target(s), airport assets, and response forces that may be available to call for assistance and/or direct to the target. The notification system shall permit managers and system administrators to receive system alarm events, diagnostic and operations information either via wireless links or hard wired LAN/WAN network communications on their office PCs.
- 2.3.5.7. Communications Network Management. The communications network management system shall continuously monitor the status of the network for failures to communicate, security breaches, etc.
- 2.3.5.8. Computerized Maintenance Management System (CMMS). Provide a Computerized Maintenance Management System (CMMS) Program to document any and all repairs, adjustments or modifications to any component of the PIDS project both during installation and subsequently during system operation, guarantee and

warranty and maintenance periods. This documentation shall be in the form of a database, residing either on the Authority's Perimeter Intrusion Detection System or on a separate integrated system, that shall track system performance and maintenance and document maintenance activities. PIDS software shall enable event-based requests for maintenance to be tracked as required in the Book III Maintenance and Warranties Requirements Document.

2.3.6. Facility Communications Subsystem (FCS)

The Facility Communications Subsystem (FCS) network shall be designed, built, and installed to support the PIDS to include all hardware and software. The FCS shall interface all PIDS sensor and assessment equipment and the Control and Display and Audiovisual Subsystems equipment including both the primary and secondary CDS and CDW. Whenever possible the FCS shall use technology and equipment already available at the primary CDS and secondary CDS.

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- 2.3.6.1. The Facility Communications Subsystem shall be a redundant, diverse, self-healing, and secure communications design using proven off-the-shelf technologies with open architecture to allow for expansion and growth.
- 2.3.6.2. To the maximum extent possible the system shall be a non-proprietary system using industry standard protocols, such as TCP/IP.
- 2.3.6.3. The minimum bandwidth capability for the FCS shall be 1000BaseT (Gigabit Ethernet), or approved equal.
- 2.3.6.4. For wireless data transfer the system shall meet the latest PANYNJ Wireless Standard and Government/DoD standards, as documented in DoD Directive 8100.2.
- 2.3.6.5. Wireless links, if employed, shall be secured against eavesdropping and shall provide alternative, redundant means of completing transmissions in the event of failure of the primary link.
- 2.3.6.6. Communications between Ex. 4 and/or leased line communications links and shall maintain redundancy, data integrity and security as per these requirements and PANYNJ standards.
- 2.3.6.7. Network Management Software utilities shall be provided to monitor the FCS, equipment, system configuration, and network information so that effects on network operation can be tracked and managed. The Network Management Software utilities shall have the following minimum characteristics:
  - 2.3.6.7.1. Latest SNMP version
  - 2.3.6.7.2. Web-based access
  - 2.3.6.7.3. Inventory, configuration, and software management capabilities.
  - 2.3.6.7.4. Traffic management
  - 2.3.6.7.5. Ability to automatically notify manager of any network alerts, alarms, etc
  - 2.3.6.7.6. Integrated views and reports of network information with built-in access to Internet resources.
  - 2.3.6.7.7. Capability to integrate with the PANYNJ existing Business LAN Network Management programs installed at each Airport.
  - 2.3.6.7.8. Notification to Primary and Secondary CDS of network failures.

2.3.6.8. FCS Network Communication Recovery Requirements

The following are specific recovery requirements in the event of communication failure, over and above those required to meet the performance and operational availability requirements.

- 2.3.6.8.1. PIDS Intrusion Detection and Assessment Subsystems: Shall automatically return to normal after any total network

interruption caused by power loss, major server failure etc. This return to normal shall occur within 10 seconds without any operator action. The system shall automatically annunciate any communication failures to the CDS operators with identification of the communication link that has experienced a partial or total failure. In addition the system communication system shall have the redundancy and reliability required to support the overall system operational availability listed below in subsection 2.4.1.

2.3.6.8.2. Primary and Secondary CDS systems: Shall automatically return to normal after any total network interruption caused by power loss, major server failure, etc. This return to normal shall occur within 20 seconds without any operator action. The system shall automatically annunciate any communication failures to the CDS operators with identification of the communication link that has experienced a partial or total failure. In addition the system communication system shall have the redundancy and reliability required to support the overall system operational availability listed below in subsection 2.4.1.

2.3.7. Power Infrastructure Subsystem

2.3.7.1. The PIDS system shall operate continuously utilizing standard commercial 60 Hz power. The Power Infrastructure Subsystem shall be designed and installed by the contractor utilizing existing power infrastructure if available. The Power Infrastructure Subsystem shall be reviewed by the Port Authority prior to installation.

2.3.7.2. Alternative power sources. Solar, wind, or other sources for field equipment may be considered with the approval of the Port Authority, provided all field power requirements are met.

2.3.7.3. Preliminary power calculations and requests for alternative power sources considerations must be provided in proposal.

2.3.7.4. The Power Infrastructure Subsystem shall include emergency back-up power as indicated below:

Equipment	UPS Run Time	Emergency Power
Primary Control & Display	Ex. 4	
Secondary Control and Display		
Control and Display Workstations		

		CDS locations
Communications Devices	Ex. 4	
Field Device Controllers		

- 2.3.7.5. All field equipment and uninterruptible power supplies shall report loss of primary power and low secondary power (when batteries are running low). Power status alarm messages shall be annunciated at the primary and secondary CDS for all system components that have battery backup power, prior to system shutdown. Switchover from primary commercial power to battery backup shall be automatic and transparent so that operation of the security system is uninterrupted and no data loss occurs. Audible and visual indications of power switching and on-line source(s), shall be provided at the primary and secondary CDS. Batteries used for backup power shall be low maintenance type and be maintained at full charge by automatic charging circuits. All batteries shall be fully recharged within Ex. 4 from a discharged condition. When running on battery power and low battery power is detected, an automatic orderly shut down of the affected subsystems shall be initiated. The system shall broadcast a message to the operator that an automatic shut down procedure is in progress. The operator shall have the ability to override the shutdown if necessary. If the message is not overridden then the systems shall continue the orderly shutdown procedure.
- 2.3.7.6. Uninterruptible Power Supply (UPS) Capacity. Any UPS used in the system shall provide at least 120 percent of the maximum load required by the UPS-serviced equipment.
- 2.3.7.7. Furnish and install make-before-break emergency bypass switches for all uninterruptible power supplies.
- 2.3.7.8. Furnish and install buck-boost and/or step down transformers as required for uninterruptible power supplies and battery back-up systems.
- 2.3.7.9. Line Conditioning and power surges. All equipment shall be properly grounded and protected against lightning, power surges and transient voltage and shall be provided with line conditioning/stabilization, per industry standards.

## 2.4. Operational Requirements

### 2.4.1. Operational Availability [ADDENDUM 8]

Ex. 4

### 2.4.2. Materials, Parts and Processes

Commercial quality components shall be used and shall be subject to all the provisions of this document. Materials resistant to moisture absorption and fungus shall be used throughout.

### 2.4.3. Simulation (Training) Software

Provide a simulation training software program that shall enable operators to practice system operation including alarm acknowledgement, alarm assessment, response force notification and deployment, and response force communications. The PIDS shall continue normal operation during training exercises and the simulation software shall automatically terminate exercises when an alarm signal is received at the console. Training functions shall be possible at any Control and Display Workstation through password control.

### 2.4.4. Integration

It is the Authority's desire to leverage and integrate existing, as well as future, equipment into the PIDS wherever possible. This includes, but is not limited to, the Ex. 4 at LGA, the Airport Surface Detection Equipment, Computerized Access Control System (CACS) (Lenel), the Verint Systems, Inc. (Verint) CCTV System and other existing CCTV systems, unmanned AOA Gate access control and assessment, and current and future Guard Post alarms. This integration shall enhance work efficiency, without disturbing the existing systems' functionality or mission. It is also the Port Authority's desire, to provide similar system functions at all airports. The PIDS shall be designed to allow an existing single centralized access control system operator to handle all functions of the CDE.

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2.4.4.1.

Ex. 4

The ASDP will be turned over to the Authority after testing. The system at JFK will be made available to the PIDS Contractor as Port Authority Furnished Equipment for potential integration. The Contractor may acquire and integrate the ASDP Interface System for LGA, and EWR as well. Maintenance of the ASDP will become part of the PIDS Maintenance Contract. Maintenance responsibilities for the Ex. 4 will remain with the FAA^

2.4.4.2.

**Guard Post Hardening.** The PIDS shall interface with any existing or future Guard Post alarms, video and barrier systems. The PIDS shall have the ability to deploy barrier systems or motorized gates during a Guard Post duress or other designated alarm notification.

2.4.4.2.1.

**Guard Post Estimated Alarm and Video Inputs**

<b>Facility</b>	<b># of Guard Posts</b>	<b>Estimated # of Alarm Points*</b>	<b>Estimated # of Video Inputs</b>
<b>LGA</b>			
<b>JFK</b>		Ex. 4	
<b>EWR</b>			
<b>TEB</b>			

Note 1:

Ex. 4

Note 2:

2.4.4.3.

**Computerized Access Control System (CACs), and the Verint CCTV System.** The Lenel (access control/alarm annunciation) and Verint (Video Monitoring and Control) systems have been selected as the Authority's standard access control, alarm annunciation and video surveillance monitoring and control systems. The PIDS

checkout, shipping and handling, and shall be designed in accordance with all requirements of SEI/ASCE-7-02.

2.5.2. Infrastructure Protection

All buried infrastructure shall be protected against Anti-Icing and De-Icing chemical agents, per NEC and PANYNJ standards.

2.6. Additional Requirements

2.6.1. Security

System components and software shall be protected through both physical and appropriate software security measures.

2.6.1.1. Operations Security. The installed system design must protect information that could reveal system vulnerabilities or weaknesses. The system design itself must be protected, labeled and handled as “Confidential and Privileged” material per the PANYNJ “Handbook for Protecting Security Information”, November 2004.

2.6.1.2. Software Security. Access to the operating system and user maintained configuration applications and tables shall be protected by password. Passwords shall be user definable.

2.6.1.3. Encryption. Data encryption software and hardware shall be used to further enhance network security.

2.6.2. Man Machine Interface

All system operator controls and displays shall provide for ease of use and minimum training requirements. All hardware configurations must be ergonomically designed with the goal that a single operator shall have access to and control of a complete facility PIDS system. Single keystrokes shall initiate system actions. The graphic displayed map shall allow the operator to make a quick assessment of an alarm condition. The contractor shall provide operator and maintenance training as specified in the RFP. All displays and controls shall meet the requirements in ISO 9241, 11064, & 13406.

2.6.3. Wildlife Inhibitors

All equipment in wildlife areas, as designated on PCSUP drawings, shall include wildlife inhibitors (i.e. equipment that does not allow housing of animals or perching of birds, etc.).

2.6.4. Safety

The system must be safe to operate and maintain, and must not present ergonomic hazards, nor create hazards from special materials used in construction or maintenance. System components installed in hazardous areas, such as munitions or fuel storage areas, must conform to electrical safety and applicable explosives safety standards. Personnel shall be fully protected against the effects of electrical shock.

2.6.5. Computer Resources

The contractor shall provide system computer resources and configuration baselines to be established. Include facilities hardware, operating systems, and applications and support software.

2.6.6. System Updates

System updates shall include application release upgrades and new application versions at no additional cost to the PANYNJ for a period of one (1) year after system acceptance.

The contractor shall provide proactive patching of the operating, application and database systems.

Change Management Procedures must also be in place to control program updates, testing and approving program changes.

3.0 VERIFICATION

3.1. Methods of Verification

Methods utilized to accomplish verification shall include but are not limited to the following:

3.1.1. Analysis

An element of verification that utilizes established technical or mathematical models or simulations, algorithms, charts, graphs, circuit diagrams, or other scientific principles and procedures to provide evidence that stated requirements of this project were met, especially with regard to P<sub>d</sub>, NAR, FAR.

3.1.2. Demonstration

An element of verification, which generally denotes the actual operation, adjustment, or re-configuration of items, to provide evidence that the designed functions were accomplished under specific scenarios. The items shall be instrumented and quantitative limits of performance monitored.

3.1.3. Examination

An element of verification and inspection consisting of investigation, without the use of special laboratory appliances or procedures, of items to determine conformance to those specified requirements which can be determined by such investigations. Examination is generally non-destructive and typically includes the use of sight, hearing, smell, touch, and taste; simple physical manipulation; mechanical and electrical gauging and measurement; and other forms of investigation.

3.1.4. Test

An element of verification and inspection, which generally denotes the determination, by technical means, of the properties or elements of items, including functional operation, and involves the application of established scientific principles and procedures.

## Book II

## Attachment D

## Design, Install and Test Deliverables

“Days” refers to calendar days unless otherwise noted.

Name	Submittal Date/Timeframe
Integrated Management Plan (IMP) <ul style="list-style-type: none"> <li>- Organization</li> <li>- Integrated Schedule</li> <li>- Subcontract Management</li> </ul>	Proposal Submittal
Project Safety Program Plan	60 Days After Contract Award
Site Survey Reports	30 Days after completion of survey
Facility 30% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Design Cost <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Project 30% Schedule <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	75 Days after Contract Award
Facility 60% Design and Specifications <ul style="list-style-type: none"> <li>- JFK</li> <li>- LGA</li> <li>- EWR</li> <li>- TEB</li> </ul>	150 Days after Contract Award

Name	Submittal Date/Timeframe
Project 60% Design Cost - JFK - LGA - EWR - TEB [Redacted]	150 Days after Contract Award
Project 60% Schedule - JFK - LGA - EWR - TEB [Redacted]	150 Days after Contract Award
Project 90% Design and Specifications - JFK - LGA - EWR - TEB [Redacted]	90 Days after 60% Approval
Project 90% Design Cost - JFK - LGA - EWR - TEB [Redacted]	90 Days after 60% Approval
Project 90% Schedule - JFK - LGA - EWR - TEB [Redacted]	90 Days after 60% Approval
Design Review Agenda	5 Working Days prior to review
Design Review Minutes	10 Working Days after review
100% Final Specification and Construction Drawings - JFK - LGA - EWR - TEB [Redacted]	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review

Name	Submittal Date/Timeframe
Final Project Schedule - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Final Project Cost - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Migration Plan	With 30%, 60%, 90% and 100% Design Submittal
Facility Final 100% Security System and Infrastructure Design - JFK - LGA - EWR - TEB	30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review 30 Days after 90% Review
Site Restoration Plan	In conjunction with 100% Security System and Infrastructure Design.
Contractor Quality Assurances and Control Plan	In conjunction with 30%, 60%, 90% and 100% Design Submittals
Site Safety Provisions and Reports	As required
Monthly Construction & Installation Progress Report	Monthly – Within 5 Working Days after the end of each Month
Comprehensive Acceptance Test Plan	60 Work Days prior to Factory Acceptance Test. Updates - 20 Working Days Prior to Field Acceptance Test and Operational Test
Acceptance Test Report	20 Working Days after completion of each Test Phase (Factory, Field or Operational)
System Start up and Commissioning - Work Activity Log (Transfers)	Daily
Training Plan	90 Working Days prior to Factory Acceptance Test
Training Manuals	TBD
System Documentation	TBD

Name	Submittal Date/Timeframe
Software Documentation	TBD
Hardware Documentation	TBD
Communications Network Documentation	TBD
Drawing Package	As Required
Operating Documentation <ul style="list-style-type: none"> <li>- Standard Operating Manuals</li> <li>- Emergency Operating Contingency Manuals</li> <li>- System Administrator Manuals</li> <li>- Supervisor Manual</li> <li>- Site Specific Manual</li> </ul>	1 <sup>st</sup> draft with 90% Project design submittals. The Final document ninety (90) days prior to commencement of the formal Training Program
Software Licenses and Agreement	TBD
Meeting Minutes	As Required
Concept of Operation	With 30%, 60%, 90% and 100% Design Submittal

The Port Authority of New York and New Jersey

233 Park Ave South, 7th Floor  
New York, N.Y. 10013

CONTRACT NO. MFA-134.308

APPLICATION FOR PAYMENT

DATE PREPARED 12/06/11

DATED 1/20/2006

PAYMENT NO. 44

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to December 6, 2011

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	736,336.00	78,057,092.00	78,793,428.00	80,579,825.00	78,793,428.00
	Supplemental #1 - LS#1	LS		3,991,005.00	3,991,005.00	3,991,005.00	3,991,005.00
	Supplemental #1 - LS#2	LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS		2,153,211.60	2,153,211.60		2,153,211.60
	NET COST						
001	LGA Relocation of Underground Utilities	LS		485,000.00	485,000.00	485,000.00	485,000.00
001	LGA Relocation of Underground Utilities - LS#2	LS		254,000.00	254,000.00	254,000.00	254,000.00
002	LGA MOT	LS		116,014.92	116,014.92	116,014.92	116,014.92
003	LGA Premium Time for night shift	T&M		77,705.04	77,705.04	77,705.04	77,705.04
004	LGA Removal & Disposal of Soil	T&M		33,650.70	33,650.70	33,650.70	33,650.70
005	LGA Schedule changes	T&M		12,820.40	12,820.40	12,820.40	12,820.40
006	LGA Emergency Delay	T&M		24,902.84	24,902.84	24,902.84	24,902.84
007	JFK Relocation of underground utilities	T&M		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#1	LS		597,000.00	597,000.00	597,000.00	597,000.00
007	JFK Relocation of underground utilities - LS#2	LS		281,000.00	281,000.00	281,000.00	281,000.00
008	JFK MOT	LS		630,000.00	630,000.00	630,000.00	630,000.00
008	JFK MOT LS#2	LS		49,921.81	49,921.81	49,921.81	49,921.81
009	JFK Premium Time	T&M		6,949.28	6,949.28	65.00	451,703.20
010	JFK Removal & Disposal of Soil - UP#1	UP		7,000.00	7,000.00	7,000.00	7,000.00
010	JFK Removal & Disposal of Soil - LS#1	LS		26,567.32	26,567.32	26,567.32	26,567.32
011	JFK Schedule Changes	T&M		211,962.95	211,962.95	211,962.95	211,962.95
012	JFK Emergency Delay	T&M		183,000.00	183,000.00	183,000.00	183,000.00
013	EWR Relocation of Underground Utilities	T&M		43,537.00	43,537.00	43,537.00	43,537.00
014	EWR MOT	LS		2,469.97	2,469.97	2,469.97	2,469.97
015	EWR Premium Time	T&M		10,866.16	22,848.00	33,714.16	33,714.16
016	EWR Removal & Disposal of Soil	T&M		96,000.00	96,000.00	96,000.00	96,000.00
017	EWR Schedule changes	LS		150,048.49	150,048.49	150,048.49	150,048.49
018	EWR Emergency Delays	T&M		352,015.72	382,313.82	382,313.82	382,313.82
019	TEB Relocation of Underground Utilities	T&M		(8,000.00)	(8,000.00)	(8,000.00)	(8,000.00)
020	TEB MOT	LS					
021	TEB Premium Time	T&M					
022	TEB Removal & Disposal of Soil	T&M					
023	TEB Schedule Changes	T&M					
024	TEB Emergency Delay	T&M					
025	Port Authority Security Requirements Change Order 00007	T&M					

TOTAL APPLIED FOR, TO DATE: \$ 89,639,073.22

Less 10 % retained as per contract MAX \$ 4,186,742.00

\$ 4,186,742.00

Balance to date: \$ 85,452,331.22

Less advances under previous applications: \$ 84,674,830.96

To be advanced this application: \$ 777,500.26

CHANGE ORDERS (per attached)

Total to date: \$ 10,444,120.82

Less: Previously advanced: \$ 10,444,120.82

Change Order amount to be advanced on this application: \$

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy): \$ 777,500.26

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or

2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

*[Signature]*  
\*Individually and on behalf of the contractor  
Contract Manager  
Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					777,500.26

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

For Comptroller

*[Signature]*  
Title: RESIDENT ENGINEER

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

**8000571139**  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

DATE PREPARED 01/18/08

CONTRACT NO. MFA-134.308 APPLICATION FOR PAYMENT DATED 1/20/2006 PAYMENT NO. 23  
CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789  
Approximate work performed to January 27, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	2,300,418.00	39,447,893.00	41,748,311.00	80,579,825.00	41,748,311.00
	Supplemental #1	LS	855,592.00	2,641,219.00	3,496,811.00	3,991,005.00	3,496,811.00
	CLASSIFIED WORK	LS					
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS	25,400.00	152,400.00	177,800.00	254,000.00	177,800.00
003	LGA Premium Time for night shift	T&M		53,500.00	53,500.00		53,500.00
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes						
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
008	JFK MOT	LS	56,200.00	112,400.00	168,600.00	281,000.00	168,600.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		54,900.00	54,900.00	183,000.00	54,900.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS	9,600.00	48,000.00	57,600.00	96,000.00	57,600.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements	T&M	4,224.18	65,333.55	69,557.73		69,557.73
	Change Order 00007			(8,000.00)	(8,000.00)		(8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 46,029,569.61

Less 10 % retained as per contract MAX \$ 4,186,742.00

\$ 4,174,831.10

Balance to date : \$ 41,854,738.51

Less advances under previous applications : \$ 38,833,346.13

To be advanced this application : \$ 3,021,392.38

CHANGE ORDERS (per attached)

Total to date : \$ 4,140,807.20

Less: Previously advanced : \$ 3,194,107.20

Change Order amount to be advanced on this application \$ 946,700.00

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 3,968,092.38

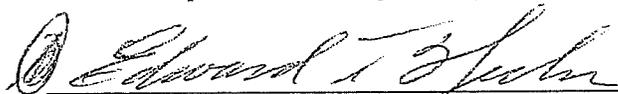
It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

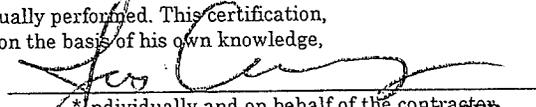
The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					3,968,092.38

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

  
Title: RESIDENT ENGINEER

  
\* Individually and on behalf of the contractor  
JAMES P. CARNEY CONTRACTS MANAGER  
Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
CONSTRUCTION ACCT.

Recommended For Payment:  
Title: ENGINEER OF CONSTRUCTION

Approved For Payment:  
For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 23

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 1/27/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	0.00	28,471.20	0.00	28,471.20
00010	LS	413,000.00	0.00	371,700.00	0.00	371,700.00
00011	LS	211,000.00	0.00	126,600.00	0.00	126,600.00
00012	LS	24,000.00	0.00	0.00	0.00	0.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	374,300.00	0.00	374,300.00
00015	LS	238,000.00	0.00	190,400.00	0.00	190,400.00
00016	LS	105,270.00	0.00	10,527.00	0.00	10,527.00
00017	LS	489,000.00	146,700.00	489,000.00	146,700.00	489,000.00
18	LS	4,000,000.00	800,000.00	2,400,000.00	800,000.00	2,400,000.00
AMOUNTS CARRIED FORWARD					946700.00	4140807.20

**8000575141**  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

DATE PREPARED 03/10/08

**APPLICATION FOR PAYMENT**

CONTRACT NO. MFA-134.308

DATED 1/20/2006

PAYMENT NO. 24

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to February 24, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	2,856,908.00	41,748,311.00	44,605,219.00	80,579,825.00	44,605,219.00
	Supplemental #1	LS	87,513.00	3,496,811.00	3,584,324.00	3,991,005.00	3,584,324.00
		LS	78,096.00		78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS					
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS		177,800.00	177,800.00	254,000.00	177,800.00
003	LGA Premium Time for night shift	T&M		53,500.00	53,500.00		53,500.00
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes						
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
008	JFK MOT	LS		168,600.00	168,600.00	281,000.00	168,600.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		54,900.00	54,900.00	183,000.00	54,900.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		57,600.00	57,600.00	96,000.00	57,600.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements	T&M	3,881.45	69,557.73	73,439.18		73,439.18
	Change Order 00007			(8,000.00)	(8,000.00)		(8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 49,055,968.06

Less 10 % retained as per contract MAX \$ 4,186,742.00

Balance to date : \$ 44,869,226.06

Less advances under previous applications : \$ 41,854,738.51

To be advanced this application : \$ 3,014,487.55

CHANGE ORDERS (per attached)

Total to date : \$ 4,576,507.20

Less: Previously advanced : \$ 4,140,807.20

Change Order amount to be advanced on this application \$ 435,700.00

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 3,450,187.55

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					3,450,187.55

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

*[Signature]*  
\*Individually and on behalf of the contractor

*Manager, AMHS Contracts*  
Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

*[Signature]*  
Title: RESIDENT ENGINEER

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 24 Contract No. MFA-134.308 Sheet 1 of 1

Approximate work performed to 2/24/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	0.00	28,471.20	0.00	28,471.20
00010	LS	413,000.00	0.00	371,700.00	0.00	371,700.00
00011	LS	211,000.00	0.00	126,600.00	0.00	126,600.00
00012	LS	24,000.00	0.00	0.00	0.00	0.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	374,300.00	0.00	374,300.00
00015	LS	238,000.00	35,700.00	226,100.00	35,700.00	226,100.00
00016	LS	105,270.00	0.00	10,527.00	0.00	10,527.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	400,000.00	2,800,000.00	400,000.00	2,800,000.00
AMOUNTS CARRIED FORWARD					435700.00	4576507.20

APPLICATION FOR PAYMENT

CONTRACT NO. MFA-134.308

DATED 1/20/2006

PAYMENT NO. 25

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to March 30, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	3,652,092.00	44,605,219.00	48,257,311.00	80,579,825.00	48,257,311.00
	Supplemental #1	LS	207,185.00	3,584,324.00	3,791,509.00	3,991,005.00	3,791,509.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS					
	NET COST						
001	LGA Relocation of Underground Utilities	LS		177,800.00	177,800.00	254,000.00	177,800.00
002	LGA MOT	T&M		53,500.00	53,500.00		53,500.00
003	LGA Premium Time for night shift	T&M		77,705.04	77,705.04		77,705.04
004	LGA Removal & Disposal of Soil						
005	LGA Schedule changes						
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
008	JFK MOT	LS		168,600.00	168,600.00	281,000.00	168,600.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		54,900.00	54,900.00	183,000.00	54,900.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		57,600.00	57,600.00	96,000.00	57,600.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements	T&M	17,747.93	73,439.18	91,187.11		91,187.11
	Change Order 00007			(8,000.00)	(8,000.00)		(8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 52,932,992.99

Less 10 % retained as per contract MAX \$ 4,186,742.00

\$ 4,186,742.00

Balance to date : \$ 48,746,250.99

Less advances under previous applications : \$ 44,869,226.06

To be advanced this application : \$ 3,877,024.93

CHANGE ORDERS (per attached)

Total to date : \$ 5,017,261.20

Less: Previously advanced : \$ 4,576,507.20

Change Order amount to be advanced on this application \$ 440,754.00

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 4,317,778.93

It is hereby certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor further certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

CORRECT AND IN ACCORDANCE WITH CONTRACT
CONSTRUCTION ACCT.

**JAMES P. CARNEY CONTRACTS MANAGER**

Title

Recommended For Payment:

*Edward J. Spohn*  
Title: **ENGINEER OF CONSTRUCTION**

Approved For Payment:

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					4,317,778.93

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

*Robert M. Ginn*  
Title: **RESIDENT ENGINEER**

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

8000586867  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

DATE PREPARED 05/21/08

CONTRACT NO. MFA-134.308

APPLICATION FOR PAYMENT

DATED 1/20/2006

PAYMENT NO. 26

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to April 27, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	3,235,274.00	48,257,311.00	51,492,585.00	80,579,825.00	51,492,585.00
		LS	449,672.00	3,791,509.00	3,911,181.00	3,991,005.00	3,911,181.00

ORDER NO.	PACC	Description	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS		Percent Complete
					THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE	
00001			LS	12,300.00	0.00	12,300.00	0.00	12,300.00	100%
00002			LS	7,421.00	0.00	7,421.00	0.00	7,421.00	100%
00003			T&M			0.00	0.00	0.00	N/A
00004			T&M			0.00	0.00	0.00	N/A
00005			T&M			0.00	0.00	0.00	N/A
00006			T&M			0.00	0.00	0.00	N/A
00007	0006	LGA Alarm Detection	LS	(8,000.00)	0.00	0.00	0.00	0.00	100%
00008	0013	LGA New AOA	LS	260,176.00	0.00	130,088.00	0.00	130,088.00	50%
00009	0014	LGA New Fence	LS	142,356.00	0.00	28,471.20	0.00	28,471.20	20%
00010	0010	TEB Concrete Encasement	LS	413,000.00	0.00	371,700.00	0.00	371,700.00	90%
00011	0015	EMR Concrete Encase	LS	211,000.00	0.00	126,600.00	0.00	126,600.00	60%
00012	0021	LGA Camera Redesign	LS	24,000.00	0.00	0.00	0.00	0.00	0%
00013	0012	LGA ARFF Bldg	LS	86,000.00	0.00	0.00	0.00	0.00	0%
00014	0020	LGA CDW Police Garage	LS	394,000.00	19,700.00	394,000.00	0.00	394,000.00	100%
00015	0018	JFK Fibre Optic	LS	238,000.00	0.00	226,100.00	0.00	226,100.00	95%
00016	0026	Key to Key for CDW	LS	105,270.00	21,054.00	31,581.00	0.00	31,581.00	30%
00017	0022	JFK Police Desk Relo.	LS	489,000.00	0.00	489,000.00	0.00	489,000.00	100%
00018	0029	4 CIF	LS	4,000,000.00	400,000.00	3,200,000.00	0.00	3,200,000.00	80%
	TBD31	JFK Primary CDW	LS	498,000.00	0.00	0.00	0.00	0.00	100%
	0023		LS	482,000.00	0.00	0.00	0.00	0.00	82%
			LS	189,000.00	0.00	0.00	0.00	0.00	85%
AMOUNTS CARRIED FORWARD				440,754.00	5,017,261.20				

Payment No.

25

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 3/30/2008

CHANGE ORDER PAYMENT APPLICATION DETAIL

1-76

PA 326

The Port Authority of New York and New Jersey

CONTRACT NO. MFA-134.308

APPLICATION FOR PAYMENT

DATED 1/20/2006

PAYMENT NO. 27

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to May 25, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	5,127,782.00	51,492,585.00	56,620,367.00	80,579,825.00	56,620,367.00
		LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00

The Port Authority of New York and New Jersey

CHANGE ORDER PAYMENT APPLICATION DETAIL

Sheet 1 of 1

26 Contract No. MFA-134.308

Payment No.

Approximate work performed to 4/27/2008

ORDER NO.	PACC	Description	TYPE	TOTAL ESTIMATED AMOUNT		ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS		Percent Complete
				TOTAL ESTIMATED AMOUNT		THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE	
00001			LS	12,300.00		0.00	12,300.00	0.00	12,300.00	100%
00002			LS	7,421.00		0.00	7,421.00	0.00	7,421.00	100%
00003			T&M					0.00		N/A
00004			T&M					0.00		N/A
00005			T&M					0.00		N/A
00006			T&M					0.00		N/A
00007	0006	LGA Alarm Detection	LS	(8,000.00)		0.00	0.00	0.00	0.00	100%
00008	0013	LGA New AOA	LS	260,176.00		0.00	130,088.00	0.00	130,088.00	50%
00009	0014	LGA New Fence	LS	142,356.00		0.00	28,471.20	0.00	28,471.20	20%
00010		TEB Concrete Encasement	LS	413,000.00		0.00	371,700.00	0.00	371,700.00	90%
00011	0015	EWR Concrete Encase	LS	211,000.00		0.00	126,600.00	0.00	126,600.00	60%
00012	0021	LGA Camera Redesign	LS	24,000.00		0.00	0.00	0.00	0.00	0%
00013	0012	LGA ARFF Bldg	LS	86,000.00		0.00	0.00	0.00	0.00	0%
00014	0020	LGA CDW Police Garage	LS	394,000.00		0.00	394,000.00	0.00	394,000.00	100%
00015	0018	JFK Fibre Optic	LS	238,000.00		0.00	226,100.00	0.00	226,100.00	95%
00016	0025	Key to Key for CDW	LS	105,270.00		0.00	31,581.00	0.00	31,581.00	30%
00017	0022	JFK Police Desk Relo	LS	489,000.00		0.00	489,000.00	0.00	489,000.00	100%
00018		4 CIF	LS	4,000,000.00		400,000.00	3,600,000.00	400,000.00	3,600,000.00	90%
00019	0029	JFK Primary CDW	LS	498,000.00		498,000.00	498,000.00	498,000.00	498,000.00	100%
00020	0023	JFK Primary CDS	LS	<del>494,774.00</del> 155,274.00		194,774.00	194,774.00	194,774.00	194,774.00	100%
									AMOUNTS CARRIED FORWARD	6,110,035.20

APPLICATION FOR PAYMENT

CONTRACT NO. MFA-134.308

DATED 1/20/2006

PAYMENT NO. 28

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to June 29, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	3,688,504.00	56,620,367.00	60,308,871.00	80,579,825.00	60,308,871.00 ✓
							3,911,181.00 ✓

The Port Authority of New York and New Jersey

CHANGE ORDER PAYMENT APPLICATION DETAIL

Sheet 1 of 1

Contract No. MFA-134.308

27

Payment No.

Approximate work performed to 5/25/2008

ORDER NO.	PACC	Description	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS		Percent Complete
					THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE	
00001	0002	JFK Debris removal	LS	12,300.00	0.00	12,300.00	0.00	12,300.00	100%
00002	0003	LGA Electric Panel	LS	7,421.00	0.00	7,421.00	0.00	7,421.00	100%
00003	0005	LGA UG Obstructions	T&M		0.00	0.00	0.00	0.00	N/A
00004	0007	JFK UG Obstructions	T&M		0.00	0.00	0.00	0.00	N/A
00005	0008	EWR UG Obstructions	T&M		0.00	0.00	0.00	0.00	N/A
00006	0009	TEB UG Obstructions	T&M		0.00	0.00	0.00	0.00	N/A
00007	0006	LGA Alarm Detection	LS	(8,000.00)	0.00	0.00	0.00	0.00	100%
00008	0013	LGA New AOA	LS	260,176.00	0.00	130,088.00	0.00	130,088.00	50%
00009	0014	LGA New Fence	LS	142,356.00	0.00	28,471.20	0.00	28,471.20	20%
00010	0016	TEB Concrete Encasement	LS	413,000.00	0.00	371,700.00	0.00	371,700.00	90%
00011	0015	EWR Concrete Encase	LS	211,000.00	0.00	126,600.00	0.00	126,600.00	60%
00012	0021	LGA Camera Redesign	LS	24,000.00	0.00	0.00	0.00	0.00	0%
00013	0012	LGA ARFF Bldg	LS	86,000.00	0.00	0.00	0.00	0.00	0%
00014	0020	LGA CDW Police Garage	LS	394,000.00	0.00	394,000.00	0.00	394,000.00	100%
00015	0018	JFK Fibre Optic	LS	238,000.00	0.00	226,100.00	0.00	226,100.00	95%
00016	0025	Key to Key for CDW	LS	105,270.00	0.00	31,581.00	0.00	31,581.00	30%
00017	0022	JFK Police Desk Relo	LS	489,000.00	0.00	489,000.00	0.00	489,000.00	100%
00018	0026	4 CJF	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00	90%
00019	0029	JFK Primary CDW	LS	498,000.00	0.00	498,000.00	0.00	498,000.00	100%
00020	0023	JFK Primary CDS	LS	194,774.00	0.00	194,774.00	0.00	194,774.00	100%
AMOUNTS CARRIED FORWARD									
6,110,035.20									

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 28

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 6/29/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
'00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	0.00	28,471.20	0.00	28,471.20
00010	LS	413,000.00	0.00	371,700.00	0.00	371,700.00
00011	LS	211,000.00	0.00	126,600.00	0.00	126,600.00
00012	LS	24,000.00	0.00	0.00	0.00	0.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	226,100.00	0.00	226,100.00
00016	LS	105,270.00	0.00	31,581.00	0.00	31,581.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	52,500.00	52,500.00	52,500.00	52,500.00
00022	LS	465,000.00	0.00	0.00	0.00	0.00
00023	LS	375,000.00	206,250.00	206,250.00	206,250.00	206,250.00
AMOUNTS CARRIED FORWARD					258750.00	6368785.20

8000602149  
**The Port Authority of New York and New Jersey**  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

DATE PREPARED 08/25/08

APPLICATION FOR PAYMENT

CONTRACT NO. MFA-134.308 DATED 1/20/2006 PAYMENT NO. 29

CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to July 27, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	4,304,045.00	60,308,871.00	64,612,916.00	80,579,825.00	64,612,916.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK VEHICLE MOUNTED LAMP @ LGA	M/LS	3 -42,478.65		3 -42,478.65	4,157.55	12,478.65
	NET COST						
001	LGA Relocation of Underground Utilities			203,200.00	203,200.00	254,000.00	203,200.00
002	LGA MOT	LS		53,500.00	53,500.00		53,500.00
003	LGA Premium Time for night shift	T&M		77,705.04	77,705.04		77,705.04
004	LGA Removal & Disposal of Soil	T&M					
005	LGA Schedule changes						
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		505,902.84	505,902.84		505,902.84
008	JFK MOT	LS		224,800.00	224,800.00	281,000.00	224,800.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		54,900.00	54,900.00	183,000.00	54,900.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		76,800.00	76,800.00	96,000.00	76,800.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay		8362.70		115,493.57		115,493.57
025	Port Authority Security Requirements	T&M	-8,095.98	107,123.81	445,219.79		115,219.79
	Change Order 00007			(8,000.00)	(8,000.00)		(8,000.00)
							70,026,855.04

TOTAL APPLIED FOR, TO DATE : \$ -70,026,855.04

Less 10 % retained as per contract MAX \$ 4,186,742.00

Balance to date : \$ 65,840,113.04

Less advances under previous applications : \$ 61,515,219.69

To be advanced this application : \$ 4,324,893.35

CHANGE ORDERS (per attached)

Total to date : \$ 6,645,598.80

Less: Previously advanced : \$ 6,368,785.20

Change Order amount to be advanced on this application \$ 276,813.60

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 4,601,433.23

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or

2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

CORRECT AND IN ACCORDANCE WITH CONTRACT
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					4,601,433.23

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

  
Title: RESIDENT ENGINEER

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

**8000607056**  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

CONTRACT NO. MFA-134.308 APPLICATION FOR PAYMENT DATED 1/20/2006 PAYMENT NO. 30  
DATE PREPARED 09/17/08  
CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to. August 24, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	4,633,991.00	64,612,916.00	69,246,907.00	80,579,825.00	69,246,907.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00

The Port Authority of New York and New Jersey

**CHANGE ORDER PAYMENT APPLICATION DETAIL**

Payment No. 28 *sdk 29* Contract No. MFA-134.308 Sheet 1 of 1

Approximate work performed to 6/29/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
			0.00	12,300.00	0.00	12,300.00
'00001	LS	12,300.00				
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	85,413.60	113,884.80	85,413.60	113,884.80
00010	LS	413,000.00	41,300.00	413,000.00	41,300.00	413,000.00
00011	LS	211,000.00	21,100.00	147,700.00	21,100.00	147,700.00
00012	LS	24,000.00	0.00	0.00	0.00	0.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	226,100.00	0.00	226,100.00
00016	LS	105,270.00	0.00	31,581.00	0.00	31,581.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	7,500.00	60,000.00	7,500.00	60,000.00
00022	LS	465,000.00	46,500.00	46,500.00	46,500.00	46,500.00
00023	LS	375,000.00	75,000.00	281,250.00	75,000.00	281,250.00
AMOUNTS CARRIED FORWARD					276813.60	6645598

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 30

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 8/24/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	0.00	113,884.80	0.00	113,884.80
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	147,700.00	0.00	147,700.00
00012	LS	24,000.00	24,000.00	24,000.00	24,000.00	24,000.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	11,900.00	238,000.00	11,900.00	238,000.00
00016	LS	105,270.00	0.00	31,581.00	0.00	31,581.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	3,750.00	63,750.00	3,750.00	63,750.00
00022	LS	465,000.00	162,750.00	209,250.00	162,750.00	209,250.00
00023	LS	375,000.00	56,250.00	337,500.00	56,250.00	337,500.00
00024	LS	385,000.00	365,750.00	365,750.00	365,750.00	365,750.00
00025	LS	47,000.00	47,000.00	47,000.00	47,000.00	47,000.00
AMOUNTS CARRIED FORWARD					671400.00	7316998.80

8000611454  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

CONTRACT NO. MFA-134.308 APPLICATION FOR PAYMENT DATED 1/20/2006 PAYMENT NO. 31  
 CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789  
 Approximate work performed to September 28, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	2,761,749.00	69,246,907.00	72,008,656.00	80,579,825.00	72,008,656.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS		12,478.65	12,478.65		12,478.65
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS		203,200.00	203,200.00	254,000.00	203,200.00
003	LGA Premium Time for night shift	T&M		53,500.00	53,500.00		53,500.00
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes			29,158.26	29,158.26		29,158.26
006	LGA Emergency Delay			16,694.40			16,694.40
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		465,660.00	465,660.00	597,000.00	465,660.00
008	JFK MOT	LS		224,800.00	224,800.00	281,000.00	224,800.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		54,900.00	54,900.00	183,000.00	54,900.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		76,800.00	76,800.00	96,000.00	76,800.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements	T&M	4,090.01	119,101.00	123,191.01		123,191.01
	Change Order 00007			(8,000.00)	(8,000.00)		(8,000.00)
							77,912,646.94

TOTAL APPLIED FOR, TO DATE : \$ 77,925,110.80  
 Less 10 % retained as per contract MAX \$ 4,186,742.00  
 Balance to date : \$ 73,738,368.80  
 Less advances under previous applications : \$ 70,943,371.53  
 To be advanced this application : \$ 2,794,997.27  
 CHANGE ORDERS (per attached)  
 Total to date : \$ 7,999,343.80  
 Less: Previously advanced : \$ 7,316,998.80  
 Change Order amount to be advanced on this application : \$ 682,345.00  
**TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 3,477,342.27**  
 3,464,878.41

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

*C. DeL...*  
 \*Individually and on behalf of the contractor  
**MANAGER, PROGRAMS CONTRACTS**  
 Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
 CONSTRUCTION ACCT.

Recommended For Payment:  
 Title: **ENGINEER OF CONSTRUCTION**

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					3,477,342.27

Approved For Payment:  
 For Comptroller

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.  
*Edward J. Fisher*  
 Title: **RESIDENT ENGINEER**

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 31

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 9/28/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	0.00	113,884.80	0.00	113,884.80
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	63,300.00	211,000.00	63,300.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	31,581.00	0.00	31,581.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	63,750.00	0.00	63,750.00
00022	LS	465,000.00	186,000.00	395,250.00	186,000.00	395,250.00
00023	LS	375,000.00	37,500.00	375,000.00	37,500.00	375,000.00
00024	LS	385,000.00	0.00	365,750.00	0.00	365,750.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	183,600.00	183,600.00	183,600.00	183,600.00
00027	LS	218,500.00	211,945.00	211,945.00	211,945.00	211,945.00
AMOUNTS CARRIED FORWARD					682345.00	7999343.80

8000618810  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

CONTRACT NO. MFA-134.308

APPLICATION FOR PAYMENT

DATE PREPARED 11/26/08

DATED 1/20/2006

PAYMENT NO. 32

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to October 26, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	3,866,151.00	72,008,656.00	75,874,807.00	80,579,825.00	75,874,807.00 ✓
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00 ✓
		LS		78,096.00	78,096.00	78,096.00	78,096.00 ✓
	CLASSIFIED WORK	LS		12,478.65	12,478.65		12,478.65 ✓
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS	25,400.00	203,200.00	228,600.00	254,000.00	228,600.00 ✓
003	LGA Premium Time for night shift	T&M		53,500.00	53,500.00		53,500.00 ✓
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04 ✓
005	LGA Schedule changes			16,694.40	16,694.40		16,694.40 ✓
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84 ✓
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00 ✓
007	JFK Relocation of underground utilities - LS#2	LS	131,340.00	465,660.00	597,000.00	597,000.00	597,000.00 ✓
008	JFK MOT	LS	28,100.00	224,800.00	252,900.00	281,000.00	252,900.00 ✓
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS	109,800.00	54,900.00	164,700.00	183,000.00	164,700.00 ✓
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00 ✓
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS	9,600.00	76,800.00	86,400.00	96,000.00	86,400.00 ✓
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00 ✓
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements	T&M	5,049.43	123,191.00	128,240.43		128,240.43 ✓
	Change Order 00007			(8,000.00)	(8,000.00)		(8,000.00) ✓

TOTAL APPLIED FOR, TO DATE : \$ 82,088,087.36 ✓  
 \$ 4,186,742.00 ✓  
 Balance to date : \$ 77,901,345.36 ✓  
 Less advances under previous applications : \$ 73,725,904.93 ✓  
 To be advanced this application : \$ 4,175,440.43 ✓

Less 10 % retained as per contract MAX \$ 4,186,742.00

CHANGE ORDERS (per attached)

Total to date : \$ 8,253,793.80

Less: Previously advanced : \$ 7,999,343.80

Change Order amount to be advanced on this application \$ 254,450.00 ✓

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 4,429,890.43 ✓

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

JAMES R. CARNEY CONTRACTS MANAGER

Title

CORRECT AND IN ACCORDANCE WITH CONTRACT  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
4500044655					4,429,890.43

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

For Comptroller

Edward J. Huber  
Title: RESIDENT ENGINEER

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.



## CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 31 Contract No. MFA-134.308Sheet 1 of 1Approximate work performed to 9/28/2008SMB  
3/2

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	0.00	113,884.80	0.00	113,884.80
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	31,581.00	0.00	31,581.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	11,250.00	75,000.00	11,250.00	75,000.00
00022	LS	465,000.00	0.00	395,250.00	0.00	395,250.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	365,750.00	0.00	365,750.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	0.00	183,600.00	0.00	183,600.00
00027	LS	218,500.00	0.00	211,945.00	0.00	211,945.00
00028	LS	304,000.00	243,200.00	243,200.00	243,200.00	243,200.00
AMOUNTS CARRIED FORWARD					254450.00	8253793.80

The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

DATE PREPARED 12/16/08

APPLICATION FOR PAYMENT  
DATED 1/20/2006

PAYMENT NO. 33

CONTRACT NO. MFA-134.308

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to November 23, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	1,210,248.00	75,874,807.00	77,085,055.00	80,579,825.00	77,085,055.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS		12,478.65	12,478.65		12,478.65
	NET COST						
001	LGA Relocation of Underground Utilities	LS		228,600.00	228,600.00	254,000.00	228,600.00
002	LGA MOT	T&M		53,500.00	53,500.00		53,500.00
003	LGA Premium Time for night shift	T&M		77,705.04	77,705.04		77,705.04
004	LGA Removal & Disposal of Soil	T&M		16,694.40	16,694.40		16,694.40
005	LGA Schedule changes						
006	LGA Emergency Delay			24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities	T&M		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#1	LS		597,000.00	597,000.00	597,000.00	597,000.00
007	JFK Relocation of underground utilities - LS#2	LS		252,900.00	252,900.00	281,000.00	252,900.00
008	JFK MOT						
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities	LS		164,700.00	164,700.00	183,000.00	164,700.00
014	EWR MOT						
015	EWR Premium Time	T&M		43,537.00	43,537.00		43,537.00
016	EWR Removal & Disposal of Soil						
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities	LS		86,400.00	86,400.00	96,000.00	86,400.00
020	TEB MOT						
021	TEB Premium Time	T&M		64,345.00	64,345.00		64,345.00
022	TEB Removal & Disposal of Soil						
023	TEB Schedule Changes						
024	TEB Emergency Delay	T&M	5,179.87	128,240.43	133,420.30		133,420.30
025	Port Authority Security Requirements						(8,000)
	Change Order 00007						
TOTAL APPLIED FOR, TO DATE : \$							83,303,515
							\$ 4,186,742
Less 10 % retained as per contract MAX \$ 4,186,742.00							Balance to date : \$ 79,116,773
							Less advances under previous applications : \$ 77,901,345
							To be advanced this application : \$ 1,215,427

CHANGE ORDERS (per attached)

Total to date : \$ 8,670,843.80

Less: Previously advanced : \$ 8,253,793.80

Change Order amount to be advanced on this application \$ 417,050

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 1,632,477

It is hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or

2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					1,632,477.87

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

Edward J. Fisher  
Title: RESIDENT ENGINEER

James P. Carney  
\*Individually and on behalf of the contractor  
Title: CONTRACTS MANAGER

CORRECT AND IN ACCORDANCE WITH CONTRACT  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

\* If contractor is a corporation, certificate must be by an officer, and if a partnership, by a partner

SK  
3/3

CHANGE ORDER PAYMENT APPLICATION DETAIL

Order No. 31 Contract No. MFA-134.308 Sheet 1 of 1

Approximate work performed to 9/28/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
'00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	0.00	113,884.80	0.00	113,884.80
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	31,581.00	0.00	31,581.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	0.00	395,250.00	0.00	395,250.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	365,750.00	0.00	365,750.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	0.00	183,600.00	0.00	183,600.00
00027	LS	218,500.00	0.00	211,945.00	0.00	211,945.00
00028	LS	304,000.00	0.00	243,200.00	0.00	243,200.00
00029	LS	439,000.00	417,050.00	417,050.00	417,050.00	417,050.00
AMOUNTS CARRIED FORWARD					417050.00	8670843.80

8000628267  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

DATE PREPARED 01/29/09

CONTRACT NO. MFA-134.308 APPLICATION FOR PAYMENT DATED 1/20/2006 PAYMENT NO. 34  
CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789  
Approximate work performed to December 31, 2008

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	351,484.00	77,085,055.00	77,436,539.00	80,579,825.00	77,436,539.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS	432,825.00	12,478.65	445,303.65		445,303.65
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS		228,600.00	228,600.00	254,000.00	228,600.00
003	LGA Premium Time for night shift	T&M	30,374.23	53,500.00	83,874.23		83,874.23
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes			16,694.40	16,694.40		16,694.40
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS		252,900.00	252,900.00	281,000.00	252,900.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		164,700.00	164,700.00	183,000.00	164,700.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		86,400.00	86,400.00	96,000.00	86,400.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements	T&M	3,452.32	133,420.30	136,872.62		136,872.62
	Change Order 00007			(8,000.00)	(8,000.00)		(8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 84,121,650.78

Less 10 % retained as per contract MAX \$ 4,186,742.00

Balance to date : \$ 79,934,908.78

Less advances under previous applications : \$ 79,116,773.23

To be advanced this application : \$ 818,135.55

CHANGE ORDERS (per attached)

Total to date : \$ 8,823,670.00

Less: Previously advanced : \$ 8,670,843.80

Change Order amount to be advanced on this application \$ 152,826.20

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 970,961.75

It is hereby certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor further certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

*James P. Carney*  
JAMES P. CARNEY CONTRACTS MANAGER

Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
CONSTRUCTION ACCT.

Recommended For Payment:

*Paul Hayes*  
Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					970,961.75

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

*Edward J. Fisher*  
Title: RESIDENT ENGINEER

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

Approximate work performed to 12/31/2008

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
'00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	130,088.00	0.00	130,088.00
00009	LS	142,356.00	28,471.20	142,356.00	28,471.20	142,356.00
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	31,581.00	0.00	31,581.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,600,000.00	0.00	3,600,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	0.00	395,250.00	0.00	395,250.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	19,250.00	385,000.00	19,250.00	385,000.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	21,600.00	205,200.00	21,600.00	205,200.00
00027	LS	218,500.00	6,555.00	218,500.00	6,555.00	218,500.00
00028	LS	304,000.00	0.00	243,200.00	0.00	243,200.00
00029	LS	439,000.00	21,950.00	439,000.00	21,950.00	439,000.00
00030	LS	55,000.00	55,000.00	55,000.00	55,000.00	55,000.00
AMOUNTS CARRIED FORWARD					152826.20	8823670.00

**80000634196**  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

CONTRACT NO. MFA-134.308 APPLICATION FOR PAYMENT DATED 1/20/2006 DATE PREPARED 02/24/09  
 CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789 PAYMENT NO. 35  
 Approximate work performed to January 25, 2009

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	194,911.00	77,436,539.00	77,631,450.00	80,579,825.00	77,631,450.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS		445,303.65	445,303.65		445,303.65
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS		228,600.00	228,600.00	254,000.00	228,600.00
003	LGA Premium Time for night shift	T&M		83,874.23	83,874.23		83,874.23
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes		5,825.36	16,694.40	22,519.76		22,519.76
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS		252,900.00	252,900.00	281,000.00	252,900.00
008	JFK MOT LS#2	LS	598,500.00		598,500.00	630,000.00	598,500.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		164,700.00	164,700.00	183,000.00	164,700.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		86,400.00	86,400.00	96,000.00	86,400.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements Change Order 00007	T&M	3,015.35	136,872.62 (8,000.00)	139,887.97 (8,000.00)		139,887.97 (8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 84,923,902.49 ✓  
 \$ 4,186,742.00  
 Balance to date : \$ 80,737,160.49 ✓  
 Less advances under previous applications : \$ 79,934,908.78 ✓  
 To be advanced this application : \$ 802,251.71

Less 10 % retained as per contract MAX \$ 4,186,742.00

CHANGE ORDERS (per attached)  
 Total to date : \$ 8,979,836.20  
 Less: Previously advanced : \$ 8,823,670.00  
 Change Order amount to be advanced on this application \$ 156,166.20  
**TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 958,417.91 ✓**

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

\*Individually and on behalf of the contractor  
JAMES H. CARNEY CONTRACTS MANAGER  
 Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
 CONSTRUCTION ACCT.

Recommended For Payment:  
 Title: ENGINEER OF CONSTRUCTION

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					958,417.91

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

Title: RESIDENT ENGINEER

Approved For Payment:  
 \_\_\_\_\_  
 For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 35 Contract No. MFA-134.308 Sheet 1 of 1

Approximate work performed to 1/25/2009

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M			0.00	0.00	0.00
00004	T&M			0.00	0.00	0.00
00005	T&M			0.00	0.00	0.00
00006	T&M			0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	52,035.20	182,123.20	52,035.20	182,123.20
00009	LS	142,356.00	0.00	142,356.00	0.00	142,356.00
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	0.00	0.00	0.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	31,581.00	63,162.00	31,581.00	63,162.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	40,000.00	3,640,000.00	40,000.00	3,640,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	32,550.00	427,800.00	32,550.00	427,800.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	385,000.00	0.00	385,000.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	0.00	205,200.00	0.00	205,200.00
00027	LS	218,500.00	0.00	218,500.00	0.00	218,500.00
00028	LS	304,000.00	0.00	243,200.00	0.00	243,200.00
00029	LS	439,000.00	0.00	439,000.00	0.00	439,000.00
00030	LS	55,000.00	0.00	55,000.00	0.00	55,000.00
AMOUNTS CARRIED FORWARD					156166.20	8979836.20

8000642447  
The Port Authority of New York and New Jersey  
233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

DATE PREPARED 04/02/09

APPLICATION FOR PAYMENT

CONTRACT NO. MFA-134.308 DATED 1/20/2006 PAYMENT NO. 36

CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to February 22, 2009

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	98,699.00	77,631,450.00	77,730,149.00	80,579,825.00	77,730,149.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS	512,551.00	445,303.65	957,854.65		957,854.65
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS	25,400.00	228,600.00	254,000.00	254,000.00	254,000.00
003	LGA Premium Time for night shift	T&M	27,226.68	83,874.23	111,100.91		111,100.91
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes	T&M	6,961.59	22,519.76	29,481.35		29,481.35
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS		252,900.00	252,900.00	281,000.00	252,900.00
008	JFK MOT LS#2	LS	18,900.00	598,500.00	617,400.00	630,000.00	617,400.00
009	JFK Premium Time						
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS	18,300.00	164,700.00	183,000.00	183,000.00	183,000.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS	9,600.00	86,400.00	96,000.00	96,000.00	96,000.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		64,345.00	64,345.00		64,345.00
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements Change Order 00007	T&M	5,787.84	139,887.97 (8,000.00)	145,675.81 (8,000.00)		145,675.81 (8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 85,647,328.60 ✓

Less 10 % retained as per contract MAX \$ 4,186,742.00

\$ 4,186,742.00

Balance to date : \$ 81,460,586.60 ✓

Less advances under previous applications : \$ 80,737,160.49 ✓

To be advanced this application : \$ 723,426.11 ✓

CHANGE ORDERS (per attached)

Total to date : \$ 9,400,747.00

Less: Previously advanced : \$ 8,979,836.20

Change Order amount to be advanced on this application \$ 420,910.80

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 1,144,336.91 ✓

It is hereby certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge as well as by the contractor.

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

JAMES J. ... CONTRACTS MANAGER

Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					1,144,336.91

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

  
Title: RESIDENT ENGINEER

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 36

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 2/22/2009

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M		0.00	0.00	0.00	0.00
00004	T&M		0.00	0.00	0.00	0.00
00005	T&M		0.00	0.00	0.00	0.00
00006	T&M		0.00	0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	78,052.80	260,176.00	78,052.80	260,176.00
00009	LS	142,356.00	0.00	142,356.00	0.00	142,356.00
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	86,000.00	86,000.00	86,000.00	86,000.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	42,108.00	105,270.00	42,108.00	105,270.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,640,000.00	0.00	3,640,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	18,600.00	446,400.00	18,600.00	446,400.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	385,000.00	0.00	385,000.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	0.00	205,200.00	0.00	205,200.00
00027	LS	218,500.00	0.00	218,500.00	0.00	218,500.00
00028	LS	304,000.00	0.00	243,200.00	0.00	243,200.00
00029	LS	439,000.00	0.00	439,000.00	0.00	439,000.00
00030	LS	55,000.00	0.00	55,000.00	0.00	55,000.00
00031	LS	89,500.00	89,500.00	89,500.00	89,500.00	89,500.00
00032	LS	35,500.00	10,650.00	10,650.00	10,650.00	10,650.00
00033	LS	96,000.00	96,000.00	96,000.00	96,000.00	96,000.00
AMOUNTS CARRIED FORWARD					420910.80	9400747.00

8000658221  
**The Port Authority of New York and New Jersey**  
 233 Park Ave South, 7th Floor  
 New York, N.Y. 10013

SHEET 1 OF 1

CONTRACT NO. MFA-134.308

**APPLICATION FOR PAYMENT**

DATE PREPARED 07/20/09

DATED 1/20/2006

PAYMENT NO. 37

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to June 28, 2009

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS	76,943.00	77,730,149.00	77,807,092.00	80,579,825.00	77,807,092.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS		957,854.65	957,854.65		957,854.65
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS		254,000.00	254,000.00	254,000.00	254,000.00
003	LGA Premium Time for night shift	T&M	4,914.01	111,100.91	116,014.92		116,014.92
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes	T&M		29,481.35	29,481.35		29,481.35
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS	28,100.00	252,900.00	281,000.00	281,000.00	281,000.00
008	JFK MOT LS#2	LS	12,600.00	617,400.00	630,000.00	630,000.00	630,000.00
009	JFK Premium Time	T&M	19,065.42		19,065.42		19,065.42
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay						
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		183,000.00	183,000.00	183,000.00	183,000.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		96,000.00	96,000.00	96,000.00	96,000.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M	85,703.49	64,345.00	150,048.49		150,048.49
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements Change Order 00007	T&M	18,669.51	145,675.81 (8,000.00)	164,345.32 (8,000.00)		164,345.32 (8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 85,893,324.03

Less 10 % retained as per contract MAX \$ 4,186,742.00

\$ 4,186,742.00

Balance to date : \$ 81,706,582.03

Less advances under previous applications : \$ 81,460,586.60

To be advanced this application : \$ 245,995.43

CHANGE ORDERS (per attached)

Total to date : \$ 9,475,247.00

Less: Previously advanced : \$ 9,400,747.00

Change Order amount to be advanced on this application \$ 74,500.00

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 320,495.43

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

CORRECT AND IN ACCORDANCE WITH CONTRACT
CONSTRUCTION ACCT.

Individually and on behalf of the contractor  
**JAMES P. CARNEY** CONTRACTS MANAGER  
 Title

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					320,495.43

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

Title: RESIDENT ENGINEER

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 37

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 6/28/2009

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
'00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M		0.00	0.00	0.00	0.00
00004	T&M		0.00	0.00	0.00	0.00
00005	T&M		0.00	0.00	0.00	0.00
00006	T&M		0.00	0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	260,176.00	0.00	260,176.00
00009	LS	142,356.00	0.00	142,356.00	0.00	142,356.00
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	86,000.00	0.00	86,000.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	105,270.00	0.00	105,270.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,640,000.00	0.00	3,640,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	0.00	446,400.00	0.00	446,400.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	385,000.00	0.00	385,000.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	0.00	205,200.00	0.00	205,200.00
00027	LS	218,500.00	0.00	218,500.00	0.00	218,500.00
00028	LS	304,000.00	0.00	243,200.00	0.00	243,200.00
00029	LS	439,000.00	0.00	439,000.00	0.00	439,000.00
00030	LS	55,000.00	0.00	55,000.00	0.00	55,000.00
00031	LS	89,500.00	0.00	89,500.00	0.00	89,500.00
00032	LS	35,500.00	0.00	10,650.00	0.00	10,650.00
00033	LS	96,000.00	0.00	96,000.00	0.00	96,000.00
00034	LS	74,500.00	0.00	74,500.00	0.00	74,500.00
			74,500.00	74,500.00	74,500.00	74,500.00
			AMOUNTS CARRIED FORWARD		74500.00	9475247.00

The Port Authority of New York and New Jersey

233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

CONTRACT NO. MFA-134.308

APPLICATION FOR PAYMENT

DATE PREPARED 09/15/09

DATED 1/20/2006

PAYMENT NO. 38

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to August 23, 2009

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS		77,807,092.00	77,807,092.00	80,579,825.00	77,807,092.00
	Supplemental #1	LS		3,911,181.00	3,911,181.00	3,991,005.00	3,911,181.00
		LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS		957,854.65	957,854.65		957,854.65
	NET COST						
001	LGA Relocation of Underground Utilities						
002	LGA MOT	LS		254,000.00	254,000.00	254,000.00	254,000.00
003	LGA Premium Time for night shift	T&M		116,014.92	116,014.92		116,014.92
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes	T&M	4,169.35	29,481.35	33,650.70		33,650.70
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS		281,000.00	281,000.00	281,000.00	281,000.00
008	JFK MOT LS#2	LS		630,000.00	630,000.00	630,000.00	630,000.00
009	JFK Premium Time	T&M	26,654.50	19,065.42	45,719.92		45,719.92
010	JFK Removal & Disposal of Soil						
011	JFK Schedule Changes						
012	JFK Emergency Delay	T&M	9,773.34		9,773.34		9,773.34
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		183,000.00	183,000.00	183,000.00	183,000.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities						
020	TEB MOT	LS		96,000.00	96,000.00	96,000.00	96,000.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		150,048.49	150,048.49		150,048.49
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements Change Order 00007	T&M	14,269.49	164,345.32 (8,000.00)	178,614.81 (8,000.00)		178,614.81 (8,000.00)

TOTAL APPLIED FOR, TO DATE: \$ 85,948,190.71

Less 10 % retained as per contract MAX \$ 4,186,742.00

\$ 4,186,742.00

Balance to date: \$ 81,761,448.71

Less advances under previous applications: \$ 81,706,582.03

To be advanced this application: \$ 54,866.68

ENTRY SHEET #

8000668837

CHANGE ORDERS (per attached)

Total to date: \$ 9,986,247.00

Less: Previously advanced: \$ 9,475,247.00

Change Order amount to be advanced on this application: \$ 511,000.00

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy): \$ 565,866.68

It is hereby certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or

2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					565,866.68

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

Title: RESIDENT ENGINEER

Individually and on behalf of the contractor  
JAMES P. CARNEY CONTRACTS MANAGER

Title

CORRECT AND IN ACCORDANCE WITH CONTRACT  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 38

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 8/23/2009

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
'00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M		0.00	0.00	0.00	0.00
00004	T&M		0.00	0.00	0.00	0.00
00005	T&M		0.00	0.00	0.00	0.00
00006	T&M		0.00	0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	260,176.00	0.00	260,176.00
00009	LS	142,356.00	0.00	142,356.00	0.00	142,356.00
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	86,000.00	0.00	86,000.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	105,270.00	0.00	105,270.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,640,000.00	0.00	3,640,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	0.00	446,400.00	0.00	446,400.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	385,000.00	0.00	385,000.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	0.00	205,200.00	0.00	205,200.00
00027	LS	218,500.00	0.00	218,500.00	0.00	218,500.00
00028	LS	304,000.00	0.00	243,200.00	0.00	243,200.00
00029	LS	439,000.00	0.00	439,000.00	0.00	439,000.00
00030	LS	55,000.00	0.00	55,000.00	0.00	55,000.00
00031	LS	89,500.00	0.00	89,500.00	0.00	89,500.00
00032	LS	35,500.00	0.00	10,650.00	0.00	10,650.00
00033	LS	96,000.00	0.00	96,000.00	0.00	96,000.00
00034	LS	74,500.00	0.00	74,500.00	0.00	74,500.00
AMOUNTS CARRIED FORWARD					0.00	9475247.00
00035	LS	511,000.00	511,000.00	511,000.00	511,000.00	511,000.00
<u>AMOUNTS CARRIED FORWARD</u>					511,000.00	9,986,247.00

The Port Authority of New York and New Jersey

233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

DATE PREPARED 11/11/09

APPLICATION FOR PAYMENT

CONTRACT NO. MFA-134.308 DATED 1/20/2006 PAYMENT NO. 39

CONTRACTOR Raytheon Company ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to September 27, 2009

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS		77,807,092.00	77,807,092.00	80,579,825.00	77,807,092.00
	Supplemental #1 - LS#1	LS	79,824.00	3,911,181.00	3,991,005.00	3,991,005.00	3,991,005.00
	Supplemental #1 - LS#2	LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS		957,854.65	957,854.65		957,854.65
	NET COST						
001	LGA Relocation of Underground Utilities	T&M					
001	LGA Relocation of Underground Utilities - LS#1	LS	485,000.00		485,000.00	485,000.00	485,000.00
002	LGA MOT	LS		254,000.00	254,000.00	254,000.00	254,000.00
003	LGA Premium Time for night shift	T&M		116,014.92	116,014.92		116,014.92
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes	T&M		33,650.70	33,650.70		33,650.70
006	LGA Emergency Delay						
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS		281,000.00	281,000.00	281,000.00	281,000.00
008	JFK MOT LS#2	LS		630,000.00	630,000.00	630,000.00	630,000.00
009	JFK Premium Time	T&M	4,201.89	45,719.92	49,921.81		49,921.81
010	JFK Removal & Disposal of Soil - UP#1	UP	6,949.28		6,949.28	65.00	451,703.20
011	JFK Schedule Changes						
012	JFK Emergency Delay	T&M	16,793.98	9,773.34	26,567.32		<del>26,570.32</del> 26,567.32
013	EWR Relocation of Underground Utilities						
014	EWR MOT	LS		183,000.00	183,000.00	183,000.00	183,000.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays						
019	TEB Relocation of Underground Utilities	T&M	22,848.00		22,848.00		22,848.00
020	TEB MOT	LS		96,000.00	96,000.00	96,000.00	96,000.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		150,048.49	150,048.49		150,048.49
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements Change Order 00007	T&M	3,758.76	178,614.82 (8,000.00)	182,373.58 (8,000.00)		182,373.58 (8,000.00)

TOTAL APPLIED FOR, TO DATE: \$ 87,012,326.55

Less 10 % retained as per contract MAX \$ 4,186,742.00

Balance to date: \$ 82,825,578.55

Less advances under previous applications: \$ 81,761,448.71

To be advanced this application: \$ 1,064,129.84

PAYMENT REQUEST NO.

8000681257

CHANGE ORDERS (per attached)

Total to date: \$ 9,986,247.00

Less: Previously advanced: \$ 9,986,247.00

Change Order amount to be advanced on this application: \$

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy): \$ 1,064,129.84

It is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or

2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					1,064,132.84

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

*Edward J. Spick*

*C. DeLo*  
\*Individually and on behalf of the contractor  
CONTRACTS MGR  
Title

CORRECT AND IN ACCORDANCE WITH CONTRACT  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

CONTRACT NO. MFA-134.308

APPLICATION FOR PAYMENT

DATED 1/20/2006

PAYMENT NO. 40

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to January 24, 2010

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT	
			This Application	Total For Prev. Application	Total to Date			
1	UNCLASSIFIED WORK	LS	250,000.00	77,807,092.00	78,057,092.00	80,579,825.00	78,057,092.00	X
	Supplemental #1 - LS#1	LS		3,991,005.00	3,991,005.00	3,991,005.00	3,991,005.00	
	Supplemental #1 - LS#2	LS		78,096.00	78,096.00	78,096.00	78,096.00	
	CLASSIFIED WORK	LS		957,854.65	957,854.65		957,854.65	
	NET COST							
001	LGA Relocation of Underground Utilities							
001	LGA Relocation of Underground Utilities - LS#2	LS		485,000.00	485,000.00	485,000.00	485,000.00	
002	LGA MOT	LS		254,000.00	254,000.00	254,000.00	254,000.00	
003	LGA Premium Time for night shift	T&M		116,014.92	116,014.92		116,014.92	
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04	
005	LGA Schedule changes	T&M		33,650.70	33,650.70		33,650.70	
006	LGA Emergency Delay	T&M	12,820.40		12,820.40		12,820.40	
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84	
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00	
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00	
008	JFK MOT	LS		281,000.00	281,000.00	281,000.00	281,000.00	
008	JFK MOT LS#2	LS		630,000.00	630,000.00	630,000.00	630,000.00	
009	JFK Premium Time	T&M		49,921.81	49,921.81		49,921.81	
010	JFK Removal & Disposal of Soil - UP#1	UP		6,949.28	6,949.28	65.00	451,703.20	
010	JFK Removal & Disposal of Soil - LS#1	LS	7,000.00		7,000.00	<del>78,000.00</del> 7,000.00	7,000.00	
011	JFK Schedule Changes							
012	JFK Emergency Delay	T&M		26,570.32	26,570.32		26,570.32	
013	EWR Relocation of Underground Utilities	T&M	40,719.81		40,719.81		40,719.81	
014	EWR MOT	LS		183,000.00	183,000.00	183,000.00	183,000.00	
015	EWR Premium Time							
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00	
017	EWR Schedule changes							
018	EWR Emergency Delays	T&M	2,469.97		2,469.97		2,469.97	
019	TEB Relocation of Underground Utilities	T&M		22,848.00	22,848.00		22,848.00	
020	TEB MOT	LS		96,000.00	96,000.00	96,000.00	96,000.00	
021	TEB Premium Time							
022	TEB Removal & Disposal of Soil	T&M		150,048.49	150,048.49		150,048.49	
023	TEB Schedule Changes							
024	TEB Emergency Delay							
025	Port Authority Security Requirements Change Order 00007	T&M	33,993.61	182,373.58 (8,000.00)	216,367.19 (8,000.00)		216,367.19 (8,000.00)	

Place an X in this column next to any value that is to be included in the Retainage Calculation

TOTAL APPLIED FOR, TO DATE : \$ 87,359,327.34

Less 10 % retained as per contract MAX \$ 4,186,742.00

\$ 4,186,742.00

Balance to date : \$ 83,172,585.34

Less advances under previous applications : \$ 82,825,581.55

To be advanced this application : \$ 347,003.79

PAYMENT REQUEST NO.

CHANGE ORDERS (per attached)

Total to date : \$ 10,012,520.82

Less: Previously advanced : \$ 9,986,247.00

Change Order amount to be advanced on this application : \$ 26,273.82

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 373,277.61

It is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

*[Signature]*  
\*Individually and on behalf of the contractor  
*[Signature]*  
Title

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					373,277.61

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

*[Signature]*  
Title: RESIDENT ENGINEER

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

- 1.) Make entries in the green shaded areas only.
- 2.) Unclassified MUST be indicated by typing LS in the UNIT column for proper calculation to occur.
- 3.) Place an X in the cell to the right of the AMOUNT column if you want the value for line item to be included in the retainage calculation.
- 4.) The Retainage calculation requires that a value to be in the % (percentage) cell AND the MAX\$ (maximum retainage withholding) cell.
- 5.) When submitting for Retainage change either the % (percentage) or the MAX\$ cells to 0 (zero).
- 6.) For optimum viewing set Excel's zoom feature to 70% and tweak until the view is suited to your preference.
- 7.) The Excel Print Area is preset for Legal paper and is formatted to print on 1 page. Shades & Colors will print in B&W
- 8.) Please print and sign the payment application before submitting for payment.

**CHANGE ORDER PAYMENT APPLICATION DETAIL**

Payment No. 40

Contract No. MFA-134.308

Sheet 1 of 1

Approximate work performed to 1/24/2010

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M		0.00	0.00	0.00	0.00
00004	T&M		0.00	0.00	0.00	0.00
00005	T&M	26,273.82	26,273.82	26,273.82	26,273.82	26,273.82
00006	T&M		0.00	0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	260,176.00	0.00	260,176.00
00009	LS	142,356.00	0.00	142,356.00	0.00	142,356.00
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	86,000.00	0.00	86,000.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	105,270.00	0.00	105,270.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	0.00	3,640,000.00	0.00	3,640,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	0.00	446,400.00	0.00	446,400.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	385,000.00	0.00	385,000.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	0.00	205,200.00	0.00	205,200.00
00027	LS	218,500.00	0.00	218,500.00	0.00	218,500.00
00028	LS	304,000.00	0.00	243,200.00	0.00	243,200.00
00029	LS	439,000.00	0.00	439,000.00	0.00	439,000.00
00030	LS	55,000.00	0.00	55,000.00	0.00	55,000.00
00031	LS	89,500.00	0.00	89,500.00	0.00	89,500.00
00032	LS	35,500.00	0.00	10,650.00	0.00	10,650.00
00033	LS	96,000.00	0.00	96,000.00	0.00	96,000.00
00034	LS	74,500.00	0.00	74,500.00	0.00	74,500.00
AMOUNTS CARRIED FORWARD					26273.82	9501520.82
00035	LS	511,000.00	0.00	511,000.00	0.00	511,000.00

AMOUNTS CARRIED FORWARD

26,273.82 #####

8000755501

PASA 12-08

The Port Authority of New York and New Jersey

233 Park Ave. South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

DATE PREPARED

04/04/11  
03/14/11

CONTRACT NO. PO#A500041655 APPLICATION FOR PAYMENT

DATED 1/20/2006

PAYMENT NO. 41

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to March 1, 2011

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS		78,057,092.00	78,057,092.00	80,579,825.00	78,057,092.00
	Supplemental #1 - LS#1	LS		3,991,005.00	3,991,005.00	3,991,005.00	3,991,005.00
	Supplemental #1 - LS#2	LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS	52	957,854.85	1,410,074.85		1,410,074.85
	NET COST						
001	LGA Relocation of Underground Utilities	LS		485,000.00	485,000.00	485,000.00	485,000.00
001	LGA Relocation of Underground Utilities - LS#2	LS		254,000.00	254,000.00	254,000.00	254,000.00
002	LGA MOT	T&M		116,014.92	116,014.92	116,014.92	116,014.92
003	LGA Premium Time for night shift	T&M		77,705.04	77,705.04	77,705.04	77,705.04
004	LGA Removal & Disposal of Soil	T&M		33,850.70	33,850.70	33,850.70	33,850.70
005	LGA Schedule changes	T&M		12,820.40	12,820.40	12,820.40	12,820.40
006	LGA Emergency Delay	T&M		24,902.84	24,902.84	24,902.84	24,902.84
007	JFK Relocation of underground utilities	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#1	LS		597,000.00	597,000.00	597,000.00	597,000.00
007	JFK Relocation of underground utilities - LS#2	LS		281,000.00	281,000.00	281,000.00	281,000.00
008	JFK MOT	LS		630,000.00	630,000.00	630,000.00	630,000.00
008	JFK MOT LS#2	LS		49,921.81	49,921.81	49,921.81	49,921.81
009	JFK Premium Time	T&M		8,949.28	8,949.28	65.00	451,703.20
010	JFK Removal & Disposal of Soil - UP#1	UP		7,000.00	7,000.00	70,000.00	7,000.00
010	JFK Removal & Disposal of Soil - LS#1	LS					
011	JFK Schedule Changes			26,567.32	26,567.32		26,567.32
012	JFK Emergency Delay	T&M		40,719.81	40,719.81		40,719.81
013	EWR Relocation of Underground Utilities	T&M		183,000.00	183,000.00	183,000.00	183,000.00
014	EWR MOT	LS					
015	EWR Premium Time	T&M		43,537.00	43,537.00		43,537.00
016	EWR Removal & Disposal of Soil	T&M					
017	EWR Schedule changes	T&M		2,469.97	2,469.97		2,469.97
018	EWR Emergency Delays	T&M		22,848.00	22,848.00		22,848.00
019	TEB Relocation of Underground Utilities	T&M		96,000.00	96,000.00	96,000.00	96,000.00
020	TEB MOT	LS					
021	TEB Premium Time	T&M		150,048.49	150,048.49		150,048.49
022	TEB Removal & Disposal of Soil	T&M					
023	TEB Schedule Changes	T&M					
024	TEB Emergency Delay	T&M		216,367.19	216,367.19		216,367.19
025	Port Authority Security Requirements Change Order 00007	T&M		(8,000.00)	(8,000.00)		(8,000.00)

TOTAL APPLIED FOR, TO DATE: \$ 87,811,547.35

Less 10 % retained as per contract MAX \$ 4,186,742.00

Balance to date: \$ 83,624,805.35

Less advances under previous applications: \$ 83,172,582.34

To be advanced this application: \$ 452,219.75

PAYMENT REQUEST NO.

8000755501

CHANGE ORDERS (per attached)

Total to date: \$ 10,012,520.82

Less: Previously advanced: \$ 10,012,520.82

Change Order amount to be advanced on this application: \$

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy): \$ 452,219.75

It is hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge as well as by the contractor.

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

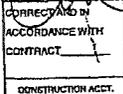
PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					452,219.75

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

Signature: Edward A. Fisher  
Title: RESIDENT ENGINEER

Individually and on behalf of the contractor

Signature: Contract Manager  
Title



Recommended For Payment:

Signature: Engineer of Construction  
Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

Steve,  
Raytheon forgot to correct NC-12 from last payment (#41)  
I made the change Ed

Steve,  
Corrected PAY #41 for your use.  
Ed

actions made by Daidre

The Port Authority of New York and New Jersey

233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

CONTRACT NO. MFA-134.308

APPLICATION FOR PAYMENT

DATE PREPARED 03/14/11

DATED 1/20/2006

PAYMENT NO. 41

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to March 1, 2011

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS		78,057,092.00	78,057,092.00	80,579,825.00	78,057,092.00
	Supplemental #1 - LS#1	LS		3,991,005.00	3,991,005.00	3,991,005.00	3,991,005.00
	Supplemental #1 - LS#2	LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS	452,219.79	957,854.65	1,410,074.44		1,410,074.44
	NET COST						
001	LGA Relocation of Underground Utilities						
001	LGA Relocation of Underground Utilities - LS#2	LS		485,000.00	485,000.00	485,000.00	485,000.00
002	LGA MOT	LS		254,000.00	254,000.00	254,000.00	254,000.00
003	LGA Premium Time for night shift	T&M		116,014.92	116,014.92		116,014.92
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04		77,705.04
005	LGA Schedule changes	T&M		33,650.70	33,650.70		33,650.70
006	LGA Emergency Delay	T&M		12,820.40	12,820.40		12,820.40
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS		281,000.00	281,000.00	281,000.00	281,000.00
008	JFK MOT LS#2	LS		630,000.00	630,000.00	630,000.00	630,000.00
009	JFK Premium Time	T&M		49,921.81	49,921.81		49,921.81
010	JFK Removal & Disposal of Soil - UP#1	UP		6,949.28	6,949.28	65.00	451,703.20
010	JFK Removal & Disposal of Soil - LS#1	LS		7,000.00	7,000.00	70,000.00	7,000.00
011	JFK Schedule Changes						
012	JFK Emergency Delay	T&M		26,570.32	26,570.32		26,570.32
013	EWR Relocation of Underground Utilities	T&M		40,719.81	40,719.81		40,719.81
014	EWR MOT	LS		183,000.00	183,000.00	183,000.00	183,000.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00		43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays	T&M		2,469.97	2,469.97		2,469.97
019	TEB Relocation of Underground Utilities	T&M		22,848.00	22,848.00		22,848.00
020	TEB MOT	LS		96,000.00	96,000.00	96,000.00	96,000.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		150,048.49	150,048.49		150,048.49
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements Change Order 00007	T&M		216,367.19 (8,000.00)	216,367.19 (8,000.00)		216,367.19 (8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 87,811,547.13

Less 10 % retained as per contract

MAX \$ 4,186,742.00

\$ 4,186,742.00

Balance to date : \$ 83,624,805.13

Less advances under previous applications : \$ 83,172,585.34

To be advanced this application : \$ 452,219.79

CHANGE ORDERS (per attached)

Total to date : \$ 10,012,520.82

Less: Previously advanced : \$ 10,012,520.82

Change Order amount to be advanced on this application : \$

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 452,219.79

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge as well as by the contractor.

The Contractor Further Certifies (check one)

1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

*Anthony F. Best*  
\*Individually and on behalf of the contractor

*CONTRACT MANAGER*  
Title

CORRECT AND IN ACCORDANCE WITH CONTRACT \_\_\_\_\_  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

	PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
						452,219.79

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner

The Port Authority of New York and New Jersey

233 Park Ave South, 7th Floor  
New York, N.Y. 10013

DATE PREPARED 04/28/11

APPLICATION FOR PAYMENT

CONTRACT NO. MFA-134.308

DATED 1/20/2006

PAYMENT NO. 42

CONTRACTOR Raytheon Company

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to March 1, 2011

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS		78,057,092.00	78,057,092.00	80,579,825.00	78,057,092.00
	Supplemental #1 - LS#1	LS		3,991,005.00	3,991,005.00	3,991,005.00	3,991,005.00
	Supplemental #1 - LS#2	LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK	LS	743,137.44	1,410,074.16	2,153,211.60		2,153,211.60
	NET COST						
001	LGA Relocation of Underground Utilities	LS		485,000.00	485,000.00	485,000.00	485,000.00
001	LGA Relocation of Underground Utilities - LS#2	LS		254,000.00	254,000.00	254,000.00	254,000.00
002	LGA MOT	T&M		116,014.92	116,014.92		116,014.92
003	LGA Premium Time for night shift	T&M		77,705.04	77,705.04		77,705.04
004	LGA Removal & Disposal of Soil	T&M		33,650.70	33,650.70		33,650.70
005	LGA Schedule changes	T&M		12,820.40	12,820.40		12,820.40
006	LGA Emergency Delay	T&M		24,902.84	24,902.84		24,902.84
007	JFK Relocation of underground utilities	T&M		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#1	LS		597,000.00	597,000.00	597,000.00	597,000.00
007	JFK Relocation of underground utilities - LS#2	LS		281,000.00	281,000.00	281,000.00	281,000.00
008	JFK MOT	LS		630,000.00	630,000.00	630,000.00	630,000.00
008	JFK MOT LS#2	LS		49,921.81	49,921.81		49,921.81
009	JFK Premium Time	T&M		6,949.28	6,949.28	65.00	451,703.20
010	JFK Removal & Disposal of Soil - UP#1	UP		7,000.00	7,000.00	7,000.00	7,000.00
010	JFK Removal & Disposal of Soil - LS#1	LS					
011	JFK Schedule Changes	T&M		26,567.32	26,567.32		26,567.32
012	JFK Emergency Delay	T&M	171,243.14	40,716.81	211,959.95		211,959.95
013	EWR Relocation of Underground Utilities	T&M		183,000.00	183,000.00	183,000.00	183,000.00
014	EWR MOT	LS					
015	EWR Premium Time	T&M		43,537.00	43,537.00		43,537.00
016	EWR Removal & Disposal of Soil	T&M					
017	EWR Schedule changes	T&M		2,469.97	2,469.97		2,469.97
018	EWR Emergency Delays	T&M		22,848.00	22,848.00		22,848.00
019	TEB Relocation of Underground Utilities	T&M		96,000.00	96,000.00	96,000.00	96,000.00
020	TEB MOT	LS					
021	TEB Premium Time	T&M		150,048.49	150,048.49		150,048.49
022	TEB Removal & Disposal of Soil	T&M					
023	TEB Schedule Changes	T&M		216,367.19	216,367.19		216,367.19
024	TEB Emergency Delay	T&M		(8,000.00)	(8,000.00)		(8,000.00)
025	Port Authority Security Requirements Change Order 00007	T&M					

TOTAL APPLIED FOR, TO DATE : \$ 88,725,921.43

Less 10 % retained as per contract MAX \$ 4,186,742.00

Balance to date : \$ 4,186,742.00  
Less advances under previous applications : \$ 84,539,179.43  
To be advanced this application : \$ 83,624,798.85  
914,380.58

CHANGE ORDERS (per attached)

Total to date : \$ 10,012,520.82  
Less: Previously advanced : \$ 10,012,520.82

Change Order amount to be advanced on this application : \$

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 914,380.58

It is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					914,380.58

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

*Edward J. Fisher*  
Title: RESIDENT ENGINEER

*Andrzej Bost*  
\*Individually and on behalf of the contractor  
Title: CONTRACT MANAGER

CORRECT AND IN ACCORDANCE WITH CONTRACT  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

For Comptroller

\* If contractor is a corporation, certificate must be signed by an officer, and if a partnership, by a partner.

The Port Authority of New York and New Jersey

233 Park Ave South, 7th Floor  
New York, N.Y. 10013

SHEET 1 OF 1

CONTRACT NO. MJA-134.308

APPLICATION FOR PAYMENT

DATE PREPARED 08/25/11

CONTRACTOR Raytheon Company

DATED 1/20/2006

PAYMENT NO. 43

ADDRESS 1001 Boston Post Road, Marlborough, MA 01752-3789

Approximate work performed to July 30, 2011

Item No.	DESCRIPTION OF WORK	UNIT	APPROXIMATE QUANTITIES			UNIT PRICE	AMOUNT
			This Application	Total For Prev. Application	Total to Date		
1	UNCLASSIFIED WORK	LS		78,057,092.00	78,057,092.00	80,579,825.00	78,057,092.00
	Supplemental #1 - LS#1	LS		3,991,005.00	3,991,005.00	3,991,005.00	3,991,005.00
	Supplemental #1 - LS#2	LS		78,096.00	78,096.00	78,096.00	78,096.00
	CLASSIFIED WORK						
	NET COST	LS		2,153,211.60	2,153,211.60		2,153,211.60
001	LGA Relocation of Underground Utilities						
001	LGA Relocation of Underground Utilities - LS#2	LS		485,000.00	485,000.00	485,000.00	485,000.00
002	LGA MOT	LS		254,000.00	254,000.00	254,000.00	254,000.00
003	LGA Premium Time for night shift	T&M		116,014.92	116,014.92	116,014.92	116,014.92
004	LGA Removal & Disposal of Soil	T&M		77,705.04	77,705.04	77,705.04	77,705.04
005	LGA Schedule changes	T&M		33,650.70	33,650.70	33,650.70	33,650.70
006	LGA Emergency Delay	T&M		12,820.40	12,820.40	12,820.40	12,820.40
007	JFK Relocation of underground utilities	T&M		24,902.84	24,902.84	24,902.84	24,902.84
007	JFK Relocation of underground utilities - LS#1	LS		481,000.00	481,000.00	481,000.00	481,000.00
007	JFK Relocation of underground utilities - LS#2	LS		597,000.00	597,000.00	597,000.00	597,000.00
008	JFK MOT	LS		281,000.00	281,000.00	281,000.00	281,000.00
008	JFK MOT LS#2	LS		630,000.00	630,000.00	630,000.00	630,000.00
009	JFK Premium Time	T&M		49,921.81	49,921.81	49,921.81	49,921.81
010	JFK Removal & Disposal of Soil - UP#1	UP		6,949.28	6,949.28	65.00	451,703.20
010	JFK Removal & Disposal of Soil - LS#1	LS		7,000.00	7,000.00	7,000.00	7,000.00
011	JFK Schedule Changes						
012	JFK Emergency Delay	T&M		26,567.32	26,567.32	26,567.32	26,567.32
013	EWR Relocation of Underground Utilities	T&M		211,962.95	211,962.95	211,962.95	211,962.95
014	EWR MOT	LS		183,000.00	183,000.00	183,000.00	183,000.00
015	EWR Premium Time						
016	EWR Removal & Disposal of Soil	T&M		43,537.00	43,537.00	43,537.00	43,537.00
017	EWR Schedule changes						
018	EWR Emergency Delays	T&M		2,469.97	2,469.97	2,469.97	2,469.97
019	TEB Relocation of Underground Utilities	T&M		22,848.00	22,848.00	22,848.00	22,848.00
020	TEB MOT	LS		96,000.00	96,000.00	96,000.00	96,000.00
021	TEB Premium Time						
022	TEB Removal & Disposal of Soil	T&M		150,048.49	150,048.49	150,048.49	150,048.49
023	TEB Schedule Changes						
024	TEB Emergency Delay						
025	Port Authority Security Requirements Change Order 00007	T&M	135,648.53	216,367.19 (8,000.00)	352,015.72 (8,000.00)		352,015.72 (8,000.00)

TOTAL APPLIED FOR, TO DATE : \$ 88,861,572.96

Less 10 % retained as per contract MAX \$ 4,186,742.00

Balance to date : \$ 84,674,830.96

Less advances under previous applications : \$ 84,539,182.43

To be advanced this application : \$ 135,648.53

CHANGE ORDERS (per attached)

Total to date : \$ 10,444,120.82

Less: Previously advanced : \$ 10,012,520.82

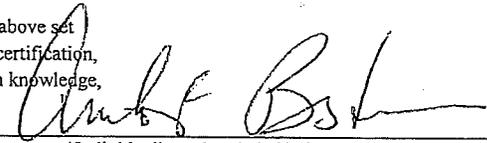
Change Order amount to be advanced on this application : \$ 431,600.00

TOTAL AMOUNT TO BE ADVANCED THIS APPLICATION (as per copy) : \$ 567,248.53

It Is Hereby Certified that the above quantities of work have actually been performed and that the cost plus compensation above set forth, if any, is computed in accordance with the terms of the above Contract on the basis of work actually performed. This certification, if signed by any person on behalf of the contractor, is made by such person in his individual capacity on the basis of his own knowledge, as well as by the contractor.

The Contractor Further Certifies (check one)

- 1. That all subcontractors and suppliers have been paid any amounts due from previous progress payments and shall be paid any amounts due from this progress payment; or
- 2. That payment has been withheld from a subcontractor or supplier because there exists a valid basis under the subcontractor's or supplier's contract to withhold a payment from that subcontractor or supplier. (Attach copies of any withholding notices issued in conjunction with this certification.)

  
\*Individually and on behalf of the contractor  
Contract Manager - Raytheon  
Title

CORRECT AND IN ACCORDANCE WITH CONTRACT  
CONSTRUCTION ACCT.

Recommended For Payment:

Title: ENGINEER OF CONSTRUCTION

Approved For Payment:

PRO/PROJ	ORG	ACT	AREA/SYS	JOB	AMOUNT
					567,248.53

The above estimate of quantities performed is correct and is made from actual inspection and knowledge of work performed.

For Comptroller

CHANGE ORDER PAYMENT APPLICATION DETAIL

Payment No. 43 Contract No. MFA-134.308 Sheet 1 of 1

Approximate work performed to 8/25/2011

ORDER NO.	TYPE	TOTAL ESTIMATED AMOUNT	ESTIMATE OF WORK PERFORMED		TOTAL AMOUNTS	
			THIS ESTIMATE	TO DATE	THIS ESTIMATE	TO DATE
00001	LS	12,300.00	0.00	12,300.00	0.00	12,300.00
00002	LS	7,421.00	0.00	7,421.00	0.00	7,421.00
00003	T&M		0.00	0.00	0.00	0.00
00004	T&M		0.00	0.00	0.00	0.00
00005	T&M	26,273.82	0.00	26,273.82	0.00	26,273.82
00006	T&M		0.00	0.00	0.00	0.00
00007	LS	(8,000.00)	0.00	0.00	0.00	0.00
00008	LS	260,176.00	0.00	260,176.00	0.00	260,176.00
00009	LS	142,356.00	0.00	142,356.00	0.00	142,356.00
00010	LS	413,000.00	0.00	413,000.00	0.00	413,000.00
00011	LS	211,000.00	0.00	211,000.00	0.00	211,000.00
00012	LS	24,000.00	0.00	24,000.00	0.00	24,000.00
00013	LS	86,000.00	0.00	86,000.00	0.00	86,000.00
00014	LS	394,000.00	0.00	394,000.00	0.00	394,000.00
00015	LS	238,000.00	0.00	238,000.00	0.00	238,000.00
00016	LS	105,270.00	0.00	105,270.00	0.00	105,270.00
00017	LS	489,000.00	0.00	489,000.00	0.00	489,000.00
00018	LS	4,000,000.00	360,000.00	4,000,000.00	360,000.00	4,000,000.00
00019	LS	498,000.00	0.00	498,000.00	0.00	498,000.00
00020	LS	194,774.00	0.00	194,774.00	0.00	194,774.00
00021	LS	75,000.00	0.00	75,000.00	0.00	75,000.00
00022	LS	465,000.00	0.00	446,400.00	0.00	446,400.00
00023	LS	375,000.00	0.00	375,000.00	0.00	375,000.00
00024	LS	385,000.00	0.00	385,000.00	0.00	385,000.00
00025	LS	47,000.00	0.00	47,000.00	0.00	47,000.00
00026	LS	216,000.00	10,800.00	216,000.00	10,800.00	216,000.00
00027	LS	218,500.00	0.00	218,500.00	0.00	218,500.00
00028	LS	304,000.00	60,800.00	304,000.00	60,800.00	304,000.00
00029	LS	439,000.00	0.00	439,000.00	0.00	439,000.00
00030	LS	55,000.00	0.00	55,000.00	0.00	55,000.00
00031	LS	89,500.00	0.00	89,500.00	0.00	89,500.00
00032	LS	35,500.00	0.00	10,650.00	0.00	10,650.00
00033	LS	96,000.00	0.00	96,000.00	0.00	96,000.00
00034	LS	74,500.00	0.00	74,500.00	0.00	74,500.00
AMOUNTS CARRIED FORWARD					431600.00	9933120.82

00035	LS	511,000.00	0.00	511,000.00	0.00	511,000.00
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AMOUNTS CARRIED FORWARD 431,600.00 #####

ValCOArCur
72,565.66
72,923.45
75,913.33
75,723.27
75,626.24
25,296.00
23,664.00
25,214.49
26,054.88
77,483.15
24,480.00
25,296.00
24,480.00
25,296.00
72,303.46
74,963.03
72,060.00
75,528.24
72,193.64
75,533.33
69,193.31
75,702.00
77,505.42
50,385.60
75,711.04
80,070.51
73,319.67
18,127.16
6,634.00
26,622.00
23,024.00
1,787,348.79
<b>1,707,848.79</b>

Name
FJC Security - Mar. 09 # 500003072
FJC - June 09 #500003084
FJC - July 2009 - #500003140
FJC - Aug. 2009 #500003240A
FJC - Jan. 10 - #500003714-A
FJC - Security - Jan 2012 - #500003349
FJC - Security - Feb. 2012 - #500003426
FJC Security - April - #500005549
FJC Security - March 2012 #500005490
FJC Security - June 10, #500004038-A
FJC - EWR - Nov. 2011 #500005205
FJC - Oct. 2011 #500005133A
FJC - Sept. 2011 - #500005061A
FJC - Dec. 2011 #500005279
FJC - April, 2009 #500003149
FJC - May 2009 - #500003208
FJC - Sept. 09 #500003491
FJC Security - Oct. 09 #500003543
FJC Security - Nov. 09 - #500003598
FJC - December 09 #500003560
FJC - Feb. 2010 - #500003772
FJC - Mar 10 - #500003650
FJC - April 10 #5000032907
FJC - May 10 - #500003968A
FJC Security - Aug. 2010 - #500004169A
FJC Security - July 2010 #500004022B
FJC - Sept. 2010 - #500004244
FJC - Oct. 2010 #500004245
FJC Security - June 2011 #500004666-A
FJC - EWR July 2011 - #500004936A
FJC - Aug. 2011 #500005021-A

Vendor name	Paym date
FJC SECURITY SERVICES, INC.	05/05/2009
FJC SECURITY SERVICES, INC.	07/31/2009
FJC SECURITY SERVICES, INC.	08/28/2009
FJC SECURITY SERVICES, INC.	09/30/2009
FJC SECURITY SERVICES, INC.	03/15/2010
FJC SECURITY SERVICES, INC.	03/09/2012
FJC SECURITY SERVICES, INC.	04/12/2012
FJC SECURITY SERVICES, INC.	06/04/2012
FJC SECURITY SERVICES, INC.	06/04/2012
FJC SECURITY SERVICES, INC.	08/12/2010
FJC SECURITY SERVICES, INC.	01/11/2012
FJC SECURITY SERVICES, INC.	12/09/2011
FJC SECURITY SERVICES, INC.	10/28/2011
FJC SECURITY SERVICES, INC.	02/24/2012
FJC SECURITY SERVICES, INC.	06/18/2009
FJC SECURITY SERVICES, INC.	05/20/2009
FJC SECURITY SERVICES, INC.	11/13/2009
FJC SECURITY SERVICES, INC.	12/03/2009
FJC SECURITY SERVICES, INC.	01/05/2010
FJC SECURITY SERVICES, INC.	01/28/2010
FJC SECURITY SERVICES, INC.	04/05/2010
FJC SECURITY SERVICES, INC.	05/26/2010
FJC SECURITY SERVICES, INC.	06/23/2010
FJC SECURITY SERVICES, INC.	06/30/2010
FJC SECURITY SERVICES, INC.	10/08/2010
FJC SECURITY SERVICES, INC.	10/08/2010
FJC SECURITY SERVICES, INC.	10/08/2010
FJC SECURITY SERVICES, INC.	10/29/2010
FJC SECURITY SERVICES, INC.	11/19/2010
FJC SECURITY SERVICES, INC.	07/29/2011
FJC SECURITY SERVICES, INC.	08/23/2011
FJC SECURITY SERVICES, INC.	10/12/2011

Val	COAR	CUE
44,894.11		
64,895.29		
46,426.11		
22,295.24		
1,915.14		
19,385.91		
6,919.67		
16,035.89		
13,052.31		
15,400.45		
1,745.10		
11,651.13		
1,001.51		
17,957.33		
22,005.58		
27,087.94		
22,870.69		
29,599.07		
37,793.93		
30,723.93		
41,335.17		
36,020.29		
26,954.22		
39,280.10		
12,819.45		
612,405.57		
8,636.26		
5,981.74		
14,791.05		
10,309.31		
11,835.80		
2,290.14		
16,100.59		
4,476.21		
6,971.55		
81,352.68		
693,760.25		

Name
JFK - CONSTRUCTION POSTS - FEBRUARY 2009
JFK - CONSTRUCTION POSTS - JANUARY 2009
JFK - CONSTRUCTION POSTS - MARCH 2009
CONSTRUCTION POSTS
CONSTRUCTION POSTS - AUGUST 2009
CONSTRUCTION POSTS - MAY 2009
CONSTRUCTION POSTS - JULY 2009
CONSTRUCTION POSTS - JUNE 2009
CONSTRUCTION POSTS - SEPTEMBER 2009
CONSTRUCTION POSTS - OCTOBER 2009
CONSTRUCTION POSTS - NOVEMBER 2009
CONSTRUCTION POSTS - FEBRUARY 2010
CONSTRUCTION POSTS - DECEMBER 2009
CONSTRUCTION POSTS - JANUARY 2010
CONSTRUCTION POSTS - MARCH 2010
CONSTRUCTION POSTS - APRIL 2010
CONSTRUCTION POSTS - MAY 2010
CONSTRUCTION POSTS - JUNE 2010
CONSTRUCTION POSTS - JULY 2010
CONSTRUCTION POSTS - AUGUST 2010
CONSTRUCTION POSTS - NOVEMBER 2010
CONSTRUCTION POSTS - SEPTEMBER 2010
CONSTRUCTION POSTS - OCTOBER 2010
CONSTRUCTION POSTS - DECEMBER 2010
CONSTRUCTION POSTS - JANUARY 2011
CONSTRUCTION - OCTOBER 2012
CONSTRUCTION - SEPTEMBER 2011
CONSTRUCTION - MARCH 2011
CONSTRUCTION - FEBRUARY 2011
CONSTRUCTION - APRIL 2012
CONSTRUCTION - MARCH 2012
CONSTRUCTION - JUNE 2011
CONSTRUCTION - FEBRUARY 2012
CONSTRUCTION - AUGUST 2011

Vendor name	Paym date
COVENANT AVIATION SECURITY LLC	05/18/2009
COVENANT AVIATION SECURITY LLC	05/18/2009
COVENANT AVIATION SECURITY LLC	08/03/2009
COVENANT AVIATION SECURITY LLC	10/02/2009
COVENANT AVIATION SECURITY LLC	12/08/2009
COVENANT AVIATION SECURITY LLC	10/02/2009
COVENANT AVIATION SECURITY LLC	11/25/2009
COVENANT AVIATION SECURITY LLC	12/20/2009
COVENANT AVIATION SECURITY LLC	02/24/2010
COVENANT AVIATION SECURITY LLC	02/11/2010
COVENANT AVIATION SECURITY LLC	04/02/2010
COVENANT AVIATION SECURITY LLC	05/07/2010
COVENANT AVIATION SECURITY LLC	06/07/2010
COVENANT AVIATION SECURITY LLC	06/30/2010
COVENANT AVIATION SECURITY LLC	10/05/2010
COVENANT AVIATION SECURITY LLC	10/12/2010
COVENANT AVIATION SECURITY LLC	11/05/2010
COVENANT AVIATION SECURITY LLC	11/05/2010
COVENANT AVIATION SECURITY LLC	11/05/2010
COVENANT AVIATION SECURITY LLC	11/10/2010
COVENANT AVIATION SECURITY LLC	03/14/2011
COVENANT AVIATION SECURITY LLC	02/14/2011
COVENANT AVIATION SECURITY LLC	02/14/2011
COVENANT AVIATION SECURITY LLC	02/14/2011
COVENANT AVIATION SECURITY LLC	06/23/2011
FJC SECURITY SERVICES, INC.	07/23/2012
FJC SECURITY SERVICES, INC.	07/23/2012
FJC SECURITY SERVICES, INC.	07/01/2011
FJC SECURITY SERVICES, INC.	07/29/2011
FJC SECURITY SERVICES, INC.	05/23/2012
FJC SECURITY SERVICES, INC.	07/02/2012
FJC SECURITY SERVICES, INC.	07/02/2012
FJC SECURITY SERVICES, INC.	09/10/2012
FJC SECURITY SERVICES, INC.	01/09/2013

Val	COA	Cur	Name	Vendor name	Paym date
7,121.81			COVENANT December 2007 Construction	COVENANT AVIATION SECURITY LLL	04/10/2009
6,566.49			COVENANT December 2010 Construction Fees	COVENANT AVIATION SECURITY LLL	04/25/2011
1,931.14			COVENANT - August 2007 Construction	COVENANT AVIATION SECURITY LLL	04/25/2009
3,025.29			COVENANT - January 2008 Construction	COVENANT AVIATION SECURITY LLL	04/25/2009
7,509.85			COVENANT - February 2008 Construction	COVENANT AVIATION SECURITY LLL	04/25/2009
4,757.62			COVENANT - September 2007 Construction	COVENANT AVIATION SECURITY LLL	04/25/2009
7,272.16			COVENANT January 2011 Construction	COVENANT AVIATION SECURITY LLL	07/01/2011
39,384.82			COVENANT August 2008 Construction	COVENANT AVIATION SECURITY LLL	11/04/2009
9,332.94			COVENANT - November 2007 Construction	COVENANT AVIATION SECURITY LLL	06/03/2009
13,240.31			COVENANT - October 2007 Construction Fee	COVENANT AVIATION SECURITY LLL	06/03/2009
14,754.51			COVENANT March 2008 Construction	COVENANT AVIATION SECURITY LLL	06/03/2009
12,473.24			COVENANT - April 2008 Construction	COVENANT AVIATION SECURITY LLL	06/27/2009
8,625.15			COVENANT May 2008 Construction Fees	COVENANT AVIATION SECURITY LLL	07/21/2009
56,644.75			COVENANT July 2008 Construction	COVENANT AVIATION SECURITY LLL	10/06/2009
34,960.06			COVENANT June 2008 Construction	COVENANT AVIATION SECURITY LLL	11/04/2009
35,250.01			COVENANT September 2008 Construction	COVENANT AVIATION SECURITY LLL	12/08/2009
24,504.86			COVENANT October 2008 Construction	COVENANT AVIATION SECURITY LLL	10/16/2009
31,079.45			COVENANT November 2008 Construction	COVENANT AVIATION SECURITY LLL	01/23/2009
21,975.70			COVENANT December 2008 Construction	COVENANT AVIATION SECURITY LLL	02/05/2009
21,097.25			COVENANT January 2009 Construction	COVENANT AVIATION SECURITY LLL	03/10/2009
15,573.32			COVENANT February 2009 Construction	COVENANT AVIATION SECURITY LLL	04/09/2009
5,820.90			COVENANT March 2009 Construction	COVENANT AVIATION SECURITY LLL	06/18/2009
719.55			COVENANT April 2009 Construction	COVENANT AVIATION SECURITY LLL	07/16/2009
935.92			COVENANT May 2009 Construction	COVENANT AVIATION SECURITY LLL	07/16/2009
4,616.73			COVENANT June 2009 Construction	COVENANT AVIATION SECURITY LLL	08/13/2009
6,179.05			COVENANT July 2009 Construction	COVENANT AVIATION SECURITY LLL	09/22/2009
15,400.79			COVENANT August 2009 Construction	COVENANT AVIATION SECURITY LLL	10/13/2009
13,279.56			COVENANT September 2009 Construction	COVENANT AVIATION SECURITY LLL	11/25/2009
7,664.19			COVENANT October 2009 Construction	COVENANT AVIATION SECURITY LLL	01/06/2010
8,061.86			COVENANT November 2009 Construction	COVENANT AVIATION SECURITY LLL	02/24/2010
16,509.06			COVENANT December 2009 Construction	COVENANT AVIATION SECURITY LLL	02/17/2010
10,478.14			COVENANT January 2010 Construction	COVENANT AVIATION SECURITY LLL	03/19/2010
9,744.14			COVENANT February 2010 Construction	COVENANT AVIATION SECURITY LLL	05/03/2010
13,334.96			COVENANT March 2010 Construction	COVENANT AVIATION SECURITY LLL	05/24/2010
3,239.49			COVENANT June 2010 Training	COVENANT AVIATION SECURITY LLL	09/09/2010
21,417.89			COVENANT April 2010 Construction	COVENANT AVIATION SECURITY LLL	09/31/2010
13,495.35			COVENANT May 2010 Construction	COVENANT AVIATION SECURITY LLL	08/31/2010
16,016.49			COVENANT June 2010 Construction	COVENANT AVIATION SECURITY LLL	09/07/2010
5,902.71			COVENANT July 2010 Construction	COVENANT AVIATION SECURITY LLL	10/13/2010
3,765.12			COVENANT September 2010 Construction	COVENANT AVIATION SECURITY LLL	11/15/2010
304.33			COVENANT July 2010 Training	COVENANT AVIATION SECURITY LLL	11/08/2010
9,656.27			COVENANT August 2010 Construction	COVENANT AVIATION SECURITY LLL	11/10/2010
11,526.76			COVENANT October 2010 Construction	COVENANT AVIATION SECURITY LLL	12/20/2010
15,729.75			COVENANT November 2010 Construction Fees	COVENANT AVIATION SECURITY LLL	01/19/2011
596,402.43					
1,111.64			FJC Security/LGA -Nov 2011 Construction	FJC SECURITY SERVICES, INC.	01/10/2012
11,506.72			FJC Security-Feb 2012 Construction	FJC SECURITY SERVICES, INC.	05/04/2012
12,609.19			FJC Security/LGA - Feb 2011 Construction	FJC SECURITY SERVICES, INC.	05/16/2011
2,589.32			FJC Security/LGA -Dec 2011 Construction	FJC SECURITY SERVICES, INC.	02/29/2012
11,521.75			FJC Security-Mar 2012 Construction	FJC SECURITY SERVICES, INC.	05/03/2012
29,254.47			FJC Security/LGA - Mar 2011 Construction	FJC SECURITY SERVICES, INC.	07/20/2011
18,048.24			FJC Security/LGA - Apr 2011 Construction	FJC SECURITY SERVICES, INC.	07/20/2011
21,996.20			FJC Security/LGA - May 2011 Construction	FJC SECURITY SERVICES, INC.	07/29/2011
14,162.01			FJC Security/LGA - June 2011 Construction	FJC SECURITY SERVICES, INC.	09/29/2011
11,787.66			FJC Security/LGA - July 2011 Construction	FJC SECURITY SERVICES, INC.	10/04/2011
15,587.08			FJC Security/LGA - Aug 2011 Construction	FJC SECURITY SERVICES, INC.	10/04/2011
6,862.79			FJC Security/LGA -Oct 2011 Construction	FJC SECURITY SERVICES, INC.	12/09/2011
16,464.24			FJC Security/LGA -Sept 2011 Construction	FJC SECURITY SERVICES, INC.	12/09/2011
11,232.48			FJC Security/LGA -Jan 2012 Construction	FJC SECURITY SERVICES, INC.	03/08/2012
11,220.52			FJC Security-Apr 2012 Construction	FJC SECURITY SERVICES, INC.	07/30/2012
156,920.76					

ValCOA-Cus

Name

Vendor name

Paym date

783,323.21