

May 5, 2003

Rock Antonios: lrs
bxc: J. Fiteni
Accounting

USEPA
NYC Response and Recovery Operations
290 Broadway 17th Floor
New York, NY 10007

Attn: Pat Evangelista
Project Manager

RE: Professional Engineering Services
Contract No. CT 826-200300-19825
OCA No. 0000425814

Dear Mr. Evangelista,

Enclosed herewith is our Invoice No. 2 for professional engineering services performed during the period of April 14, 2003 through May 4, 2003, in connection with HVAC consulting services for WTC evaluation and cleaning oversight, along with time sheets summary of work performed during that period.

Percentage of our professional engineering services performed for Quadrants B, C, and D is indicated in Appendix 20 titled Quads Distribution of Work.

Also enclosed are the following:

- 1) Project schedule of work with breakdown of site visits
- 2) Breakdown of weekly timesheets
- 3) Appendix 17 (update) through 20 and the attached table of contents

Very truly yours,

TAMS AN EARTH TECH COMPANY


Rock J. Antonios, P.E.
Project Manager

Cc: Krish Radhakrishnan, P.E.
Director
ECAC Program
59-71 Junction Blvd. 8th Floor
Flushing, NY 11373-5108

May 5, 2003

INVOICE NO. 2
Job No. 66207

USEPA
NYC Response and Recovery Operations
290 Broadway 17th Floor
New York, NY 10007

=====

**RE: PROFESSIONAL ENGINEERING SERVICES – FOR APRIL 14, 2003
THROUGH MAY 4, 2003
CONTRACT NO. CT 826-200300-19825
OCA NO. 0000425814
HVAC CONSULTING SERVICES FOR WTC EVALUATION AND
CLEANING OVERSIGHT**

Per our agreement based on \$110 hourly rate	
82 hours * \$110.00	 \$9,020.00
Total Amount Billed Previously, this Project	 <u>\$15,840.00</u>
Billable Amount, this Project	 \$24,860.00
Balance due, this Invoice	 <u>\$9,020.00</u>

Respectfully submitted,

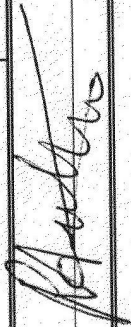
TAMS An Earth Tech Company

Rock J. Antonios, P.E.
Project Manager

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 04/20/03

NAME: **Rock Antonios**

JOB NO.	JOB DESCRIPTION	M	T	W	TH	F	S	SU	TOTAL	NOTES
	Field	14-Apr	15-Apr	16-Apr	17-Apr	18-Apr	19-Apr	20-Apr		
66207 0001	Meeting								0.0	
66207 0001	Site Visit	6.0	6.0	6.0					18.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	18.0
66207 0002	Preparation	1.0							1.0	
66207 0002	Office Work		1.0	1.0					2.0	
66207 0002	Summary of Visits	1.0	1.0	1.0					3.0	
									Office Total	6.0
									Week Total	24.0

EMPLOYEE'S SIGNATURE: 

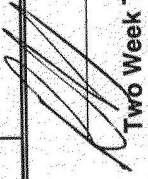
APPROVED BY: 

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 4/27/03

NAME: **Rock Antonios**

JOB NO.	JOB DESCRIPTION	M	T	W	TH	F	S	SU	TOTAL	NOTES
	Field	21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr		
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work								0.0	
66207 0002	Summary of Visits								0.0	
									Office Total	0.0
									Week Total	0.0

EMPLOYEE'S SIGNATURE: 

APPROVED BY: 

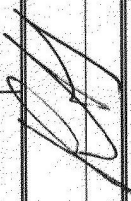
Two Week Total

24.0 HRS

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 04/20/03

NAME: Seth Levine

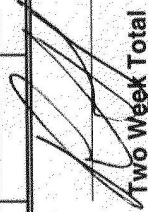
JOB NO.	JOB DESCRIPTION	M 14-Apr	T 15-Apr	W 16-Apr	TH 17-Apr	F 18-Apr	S 19-Apr	SU 20-Apr	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								18.0	
66207 0001	Technical Support	6.0	6.0	6.0					0.0	
	Office								Field Total	18.0
66207 0002	Preparation	1.0							1.0	
66207 0002	Office Work		1.0	1.0	2.0	2.0			6.0	
66207 0002	Summary of Visits	1.0	1.0	1.0					3.0	
									Office Total	10.0
									Week Total	28.0

EMPLOYEE'S SIGNATURE: APPROVED BY: 

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 4/27/03

NAME: Seth Levine

JOB NO.	JOB DESCRIPTION	M 21-Apr	T 22-Apr	W 23-Apr	TH 24-Apr	F 25-Apr	S 26-Apr	SU 27-Apr	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work								0.0	
66207 0002	Summary of Visits								0.0	
									Office Total	0.0
									Week Total	0.0

EMPLOYEE'S SIGNATURE: APPROVED BY: 

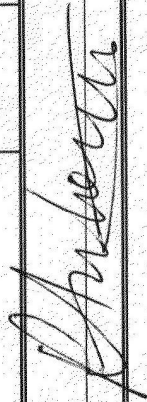
28.0 HRS

Two Week Total

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 05/04/03

NAME: Rock Antonios

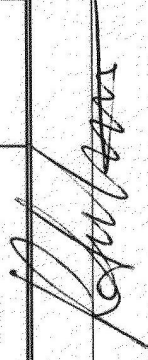
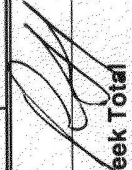
JOB NO.	JOB DESCRIPTION	M	T	W	TH	F	S	SU	TOTAL	NOTES
		28-Apr	29-Apr	30-Apr	1-May	2-May	3-May	4-May		
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work		6.0						6.0	
66207 0002	Summary of Visits								0.0	
									Office Total	6.0
									Week Total	6.0

EMPLOYEE'S SIGNATURE: APPROVED BY: 

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 5/11/03

NAME: Rock Antonios

JOB NO.	JOB DESCRIPTION	M	T	W	TH	F	S	SU	TOTAL	NOTES
		5-May	6-May	7-May	8-May	9-May	10-May	11-May		
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work								0.0	
66207 0002	Summary of Visits								0.0	
									Office Total	0.0
									Week Total	0.0

EMPLOYEE'S SIGNATURE: APPROVED BY: 

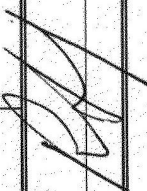
6.0 HRS

Two Week Total

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 05/04/03

NAME: Seth Levine

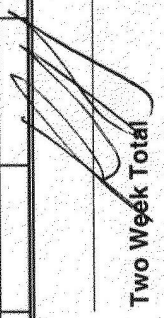
JOB NO.	JOB DESCRIPTION	M 28-Apr	T 29-Apr	W 30-Apr	TH 1-May	F 2-May	S 3-May	SU 4-May	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								12.0	
66207 0001	Technical Support	4.0	4.0	4.0					0.0	
	Office								Field Total	12.0
66207 0002	Preparation	1.0							1.0	
66207 0002	Office Work	1.0	2.0	2.0					5.0	
66207 0002	Summary of Visits	2.0	2.0	2.0					6.0	
									Office Total	12.0
									Week Total	24.0

EMPLOYEE'S SIGNATURE: APPROVED BY: 

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 5/11/03

NAME: Seth Levine

JOB NO.	JOB DESCRIPTION	M 5-May	T 6-May	W 7-May	TH 8-May	F 9-May	S 10-May	SU 11-May	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work								0.0	
66207 0002	Summary of Visits								0.0	
									Office Total	0.0
									Week Total	0.0

EMPLOYEE'S SIGNATURE: APPROVED BY: 

Two Week Total 24.0 HRS

BREAKDOWN OF WTC HVAC Consulting 2003 TAMS EARTH TECH - Schedule of Work
Hours of Site Visits for Invoice #2 May 5, 2003
Billing Period April 14 Through May 4

Quad B

Address	BIN	# of Units	March							March-April							April							April						
			M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su
11130 Water St.	1000884	12																												
17261 Broadway 10E	1001423	42																												
181275 Greenwich St.	1081076	11																												
191295 Greenwich St.	1065187	11																												
2545 Wall St.	1000926	28																												
2650 Pine	1001011	42																												
Meeting																														

Quad C

Address	BIN	Floors	# of Units	March							March-April							April							April							April-May							
				M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	
3447 Beekman St.	1001292	7	28																																				
13176 Broadway	1001100	13	74																																				
21257 Water St.	1001381	6	22																																				
2433 Gold St.	1077403	7	187																																				
3149 Fulton St.	1001290		275																																				
3568 Frankfort St.	1083350	7	55																																				
3975-81 Nassau St.	1078967	6																																					
4080 Beekman St.	1083347	7	55																																				
4380 Beekman St.	1083348	7	63																																				
4490 Gold	1083355	27	340																																				
Meeting																																							

Quad D

Address	BIN	# of Units	March							March-April							April							April						
			M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa	Su
112 South End Ave.	1082813	9																												
4225 Reeler Place	1000053	24																												
5280 Reeler Place	1085198	9																												
61300 Albany St.	1000436	9																												
81333 Reeler Place	1000055	15																												
10350 Albany	1000301	15																												
11355 South End Ave.	1083373	35																												
15380 Reeler Place	1000544	24																												
21250 South End Ave.	1085089	19																												
Meeting																														

BREAKDOWN OF WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 04/20/03

NAME: Rock Antonios

JOB NO.	JOB DESCRIPTION	M 14-Apr	T 15-Apr	W 16-Apr	TH 17-Apr	F 18-Apr	S 19-Apr	SU 20-Apr	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit	6.0	6.0	6.0					18.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	18.0
66207 0002	Preparation	Appendix 19 1.0							1.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations		1.0	1.0					2.0	
66207 0002	Summary of Visits Appendix 19	1.0	1.0	1.0					3.0	
									Office Total	6.0
									Week Total	24.0

BREAKDOWN OF WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 4/27/03

NAME: Rock Antonios

JOB NO.	JOB DESCRIPTION	M 21-Apr	T 22-Apr	W 23-Apr	TH 24-Apr	F 25-Apr	S 26-Apr	SU 27-Apr	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations								0.0	
66207 0002	Summary of Visits Appendix 19								0.0	
									Office Total	0.0
									Week Total	0.0

Two Week Total

24.0 HRS

BREAKDOWN OF WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 04/20/03

NAME: Seth Levine

JOB NO.	JOB DESCRIPTION	M	T	W	TH	F	S	SU	TOTAL	NOTES
		14-Apr	15-Apr	16-Apr	17-Apr	18-Apr	19-Apr	20-Apr		
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit			6.0					18.0	
66207 0001	Technical Support	6.0	6.0						0.0	
	Office								Field Total	18.0
66207 0002	Preparation	Appendix 19 1.0							1.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations		1.0	1.0	2.0	2.0			6.0	
66207 0002	Summary of Visits	1.0	1.0	1.0					3.0	
	Appendix 19								Office Total	10.0
									Week Total	28.0

BREAKDOWN OF WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 4/27/03

NAME: Seth Levine

JOB NO.	JOB DESCRIPTION	M	T	W	TH	F	S	SU	TOTAL	NOTES
		21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr		
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations								0.0	
66207 0002	Summary of Visits								0.0	
	Appendix 19								Office Total	0.0
									Week Total	0.0

Two Week Total

28.0 HRS

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 05/04/03

NAME: Rock Antonios

JOB NO.	JOB DESCRIPTION	M 28-Apr	T 29-Apr	W 30-Apr	TH 1-May	F 2-May	S 3-May	SU 4-May	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations		6.0						6.0	
66207 0002	Summary of Visits Appendix 19								0.0	
									Office Total	6.0
									Week Total	6.0

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 5/11/03

NAME: Rock Antonios

JOB NO.	JOB DESCRIPTION	M 5-May	T 6-May	W 7-May	TH 8-May	F 9-May	S 10-May	SU 11-May	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations								0.0	
66207 0002	Summary of Visits Appendix 19								0.0	
									Office Total	0.0
									Week Total	0.0

Two Week Total

6.0 HRS

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 05/04/03

NAME: Seth Levine

JOB NO.	JOB DESCRIPTION	M 28-Apr	T 29-Apr	W 30-Apr	TH 1-May	F 2-May	S 3-May	SU 4-May	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit	4.0	4.0	4.0					12.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	12.0
66207 0002	Preparation	Appendix 18 1.0							1.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations	1.0	2.0	2.0					5.0	
66207 0002	Summary of Visits Appendix 19	2.0	2.0	2.0					6.0	
									Office Total	12.0
									Week Total	24.0

WEEKLY TIME SHEET PERIOD ENDING SUNDAY, 5/11/03

NAME: Seth Levine

JOB NO.	JOB DESCRIPTION	M 5-May	T 6-May	W 7-May	TH 8-May	F 9-May	S 10-May	SU 11-May	TOTAL	NOTES
	Field									
66207 0001	Meeting								0.0	
66207 0001	Site Visit								0.0	
66207 0001	Technical Support								0.0	
	Office								Field Total	0.0
66207 0002	Preparation								0.0	
66207 0002	Office Work: Invoicing, Coordinating, Scheduling, Phone Conversations								0.0	
66207 0002	Summary of Visits Appendix 19								0.0	
									Office Total	0.0
									Week Total	0.0

Two Week Total

24.0 HRS

Appendix Table of Contents

**Appendix 17 - WTC HVAC Consulting Quad B Summary of Visits
WTC HVAC Consulting Quad C Summary of Visits
WTC HVAC Consulting Quad D Summary of Visits**

Appendix 18 –176 Broadway Inspection Report

Appendix 19 - 33 Gold St. Inspection Report

Appendix 20 - Quads Distribution of Work

HVAC Consulting Services

APPENDIX 17

Invoice #1 and 2

Contract No. CT 826-200300-19825 OCA No. 0000425814

WTC HVAC Consulting Quad B

Summary of Visits

Date	Building	Comments
4/2/03	275 Greenwich St.	Continued cleaning on schedule. Total of 6 exhaust fans and risers have been completed. No one was present to field verify the quantities of cleaned equipment.
4/8/03	295 Greenwich St.	Started cleaning of HV unit and associated ductwork in basement. Correctly used 2 HEPA vacuum units in series for exhausted (cleaned) air. Should complete building by 4/9.
4/9/03	295 Greenwich St.	Started and completed cleaning of exhaust riser. Cleaning of entire building completed.
4/10/03	130 Water St.	Started and completed cleaning of exhaust riser. Cleaning of entire building completed. Anthony Faloduro of Cole Consulting was present for the duration of the cleaning.

WTC HVAC Consulting Quad C

Summary of Visits

Date	Building	Comments
3/25/03	49 Fulton St.	Roof top clean up completed. TX-1 and TX-8 risers cleaned. Apartments connected to risers sealed off.
3/26/03	49 Fulton St.	Continued cleaning of the lower section of the risers. Gained access to apartments, set up tents and cleaned according to procedure.
3/28/03	75-81 Nassau	Started and completed cleaning. Inspected by Tony Gallo from Dust Dusters and was confirmed that scope was met.
3/31/03	275 Water St.	Completed cleaning the 8 roof exhaust fans and risers. Finishing vents and rest of building on 4/1.
4/2/03	66 Frankfort St.	Completed cleaning of compactor exhaust fan.
4/2/03	80 Beekman St.	Completed cleaning of elevator shaft exhaust fan.
4/7/03	90 Beekman St.	Cleaning rescheduled for May 1 or 2 due to Passover and possible strike.
4/7/03	90 Gold St.	Cleaning rescheduled for May 1 or 2 due to Passover and possible strike.
4/14/03	33 Gold St.	Started cleaning of exhaust fans and risers. Used Tement Technologies HEPA Aire 2500 Portable VAC, with Champell Hansfield W261001AJ Compressor (8.1scfm @ 40 psi, 6.1 scfm @ 90 psi, 125 psi max).
4/15/03	33 Gold St.	Continued and completed cleaning of exhaust fans and risers. Started cleaning of apartments in 2 riser lines and then the rest of the affected building on the 7th floor.
4/16/03	33 Gold St.	Continued and completed cleaning of apartments' entire building completed. Witnessed re-inspection. 2 exhausts fans failed re-inspection since they were inaccessible to clean with standard equipment (vacuum or by hand). They will be re-cleaned via power washer at a later date.
4/28/03	176 Broadway	Gained access to all apartments and sealed off the vents. There are two apartments that share an impacted riser that are part of the 11 Maiden Lane apartment complex, totaling 2 bathrooms and 1 kitchen. Scheduled to start exhaust fan cleaning tomorrow and individual apartments on the following day until thurs.
4/29/03	176 Broadway	Completed cleaning 6 exhaust fans and 3 risers. The day was cut short due to rain.
4/30/03	176 Broadway	Completed cleaning of all exhaust fans and risers. Identified one exhaust fan and riser as part of the adjacent building (11 Maiden Ln.) which is not in the scope of work and therefore has been removed.
5/1/03	176 Broadway	Started and completed cleaning of AC unit. Started cleaning of apartments and finished cleaning 3 apartments of the 7th floor through the penthouse floor. Entire building scheduled for completion on 5/2.
5/1/03	176 Broadway	Completed apartment cleaning. Entire building cleaning completed
5/1/03	33 Gold St.	Power washed the remaining 2 exhaust fans that had failed inspection

WTC HVAC Consulting

Quad D

Summary of Visits

Date	Building	Comments
3/26/03	350 Albany St.	Started duct cleaning on west section of building. Ran into some problems due to blockage of ducts on the upper floors (12-14) by construction debris from penthouse renovation. Used two Niro twin vacuum, 5000 cfm (2500 each) HEPA filter, with 3-4" static pressure at outlet with negative pressure at inlet with heavy duty flexible hose.
3/27/03	350 Albany St.	Completed cleaning of ducts on west section of building. Started cleaning on middle section of building.
3/27/03	300 Albany St.	Cleaned HV and AC unit, and associated ducts. No tents used while working in pump room. Vacuum located inside, but exhaust sent outside via flexible hose.
3/28/03	300 Albany St.	Finished cleaning HV and AC unit and associated ductwork in pump room. Vacuum located inside, but exhaust sent outside via flexible hose.
3/31/03	250 South End Ave.	Cleaned HV unit and associated ductwork.
4/3/02	300 Albany St.	Continued with cleaning and completed 4 risers and their associated ductwork. Expected to complete building on 4/4 and inspected on 4/7.
4/3/02	250 South End Ave.	Continued with cleaning and completed 2 risers and their associated ductwork. HV unit and ductwork has been completed.
4/8/02	2 South End Ave.	Cleaned and completed 5 exhaust fans and risers.
4/9/03	2 South End Ave.	Continued with cleaning and completed the remaining 3 exhaust fans and risers.
4/9/03	380 Rector Place	Started and completed cleaning of HV unit and exhaust fan. Entire building completed with the exception of 1 riser.
4/10/03	2 South End Ave.	There were some unresolved issues pertaining to the scope of work. SSC was unsure whether the enclosed area above the gym ceiling was part of the return system. We determined that since this enclosed area was separated from the rest of the gym ceiling but connected to the return plenum that this was indeed an extension of the return air plenum and thus a component of the HV unit. The lobby slotted registers/grilles were the looked at to determine the approximate amount of cleaning required.
4/14/03	2 South End Ave.	Started and finished cleaning of Hv unit, completing cleaning of the building. Witnessed re-inspection of building with Tony Gallo of Duct Dusters. Building passed inspection.
4/15/03	380 Rector Place	Completed cleaning of riser. Entire building cleaned for re-inspection

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HVAC Consulting Services

CONFIDENTIAL - SECURITY INFORMATION

APPENDIX 18

Invoice # 2

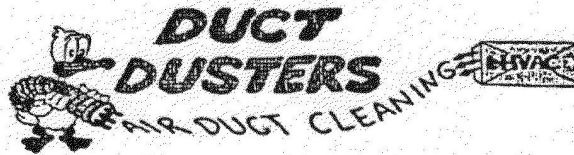
Contract No. CT 826-200300-19825 OCA No. 0000425814

.....
HVAC Consulting Services

APPENDIX 18

Invoice # 2

Contract No. CT 826-200300-19825 OCA No. 0000425814



120 Kimball Terrace
Yonkers, New York 10704

TEL: 914-776-5700
FAX: 914-237-4380

Inspection Report for Warren & Panzer Group
Inspection Address: 176 Broadway., NYC
Inspection Date: 11/15/02

Exhaust Fans

Fan #	Model	Manufacturer	Condition	Comments
1	CBE-18-3	Greenheck	Black	Rooftop Unit
2	CBE-14-3	Greenheck	White	Rooftop Unit - Possible WTC Debris
3	CBE-18-3	Greenheck	White	Rooftop Unit - Possible WTC Debris
4	CBE-14-3	Greenheck	Black	Rooftop Unit
5	CBE-14-3	Greenheck	White	Rooftop Unit - Possible WTC Debris
6	CBE-18-3	Greenheck	White	Rooftop Unit - Not Working - Possible WTC Debris
7	CBE-14-3	Greenheck	White	Rooftop Unit - Possible WTC Debris
8	6B-141-3-X	Greenheck	White	Rooftop Unit - Possible WTC Debris
9	CBE-18-4	Greenheck	Black	Rooftop Unit
10	CBE-18-3	Greenheck	White	Rooftop Unit - Possible WTC Debris
11	CBE-18-3	Greenheck	Black	Rooftop Unit
12	CBE-18-3	Greenheck	Lint	Rooftop Unit - Dryer Exhaust
13	CBE-14-3	Greenheck	White	Rooftop Unit - Possible WTC Debris
	No Information Available	Broan	Lint	Laundry Rm Exhaust

HVAC

Fan #	Model	Manufacturer	Condition	Comments
HV1	EW310-25-E	York	White	Hallway HVAC - Possible WTC Debris
	No Information Available	No Information Available	Black	Fresh Air Intake for Above Unit

Part 1.0 General Information

Date of Evaluation: <u>11/15/02</u>		Building contact name and phone:	
Evaluation Team (list name and affiliation):			
<u>FRANK TROSTI - DUCT DUSTERS</u>		(Environmental Professional)	
<u>TONY GALLI - DUCT DUSTERS</u>		(HVAC/Electrical Professional)	
		(Sheet Metal Professional)	
Building Address:		Type of Facility (check all that apply):	
<u>176 BROADWAY</u>		☒ Residential	
<u>NEW YORK NY</u>		☐ Multi-use	
		☐ Other (describe)	
		Number of residential units:	Number of floors: <u>15</u>
HVAC System Types (check all that apply):			
☐ Unit ventilator (single residence unit)		☐ Wall/window AC unit (single residence unit)	
☐ Fan coil unit (single residence unit)		☒ Central ventilation system	
☐ Heat pump unit (single residence unit)		☒ Passive shaft/duct	
☐ Other (describe)			
Location of outside air intake:			
Outside air intake accessible for inspection <u>Y</u> <u>N</u> (explain)			

Part 2.0 Checklists**2.1 Ventilators, wall air conditioning units and window air conditioning units in common spaces**

Ventilation System Identification: <u>KITCHEN + BATHROOM EXHAUST. - SEE ATTACHED</u>						
Location: <u>ROOF</u>						
Access adequate for inspection of components: <u>YES</u>						
System Components	System Component Substrate Material (sheet metal wrapped) (sheet metal lined) (fiberglass) (flexible connector) (double walled)	Dust/Dirt / Debris			Suspect WTC-Related Dust	
		None	Light (<1/16 inch depth)	Heavy (≥ 1/16 inch depth)	Present? (Y/N)	Estimate % of total dust loading
Outside air intake louvers, grates and/or screens						
Outside air duct						
Outside air damper(s)						
Return air grille						
Return air plenum						
Filter rack						
Filter media						
Coils (evaporator)						
Blower assembly						
Condensate drain pan						
In-line electrical resistance strip heaters (in supply ducts connected to unit ventilators)						
Fire dampers						
Turning vanes						
Supply air plenum or supply duct						
Supply air plenum or supply duct liner						
Supply air diffuser						

2.1 Ventilators, wall air conditioning units and window air conditioning units in common spaces (cont.)

ATTACHMENT A - SCOPE OF WORK

Other Information:

☒ Unit cycled prior to inspection	☐ Color of dust/dirt/debris
☐ Filter loading (general impression)	☐ Water damage
☐ Filter bypass (describe)	☐ Visible suspect mold growth
☐ Abraded/delaminated acoustical lining	☐ Evidence of animal incursion (carcasses, feathers, fecal matter)

General Impression:

2.2 Fan coil/ heat pump units in common spaces

Ventilation System Identification:

Location:

Access adequate for inspection of components:

System Components	System Component Substrate Material (sheet metal wrapped) (sheet metal lined) (fiberglass) (flexible connector) (double walled)	Dust/Dirt/Debris			Suspect WTC-Related Dust	
		None	Light (<1/16 inch depth)	Heavy (≥ 1/16 inch depth)	Present? (Y/N)	Estimate % of total dust loading
Return air grille						
Return air plenum						
Filter rack						
Filter media						
Blower assembly						
Thermal coils						
Supply air plenum						
Supply air diffuser						

Other Information:

☐ Unit cycled prior to inspection	☐ Color of Dust/Dirt/Debris
☐ Filter loading (general impression)	☐ Water damage
☐ Filter bypass (describe)	☐ Visible suspect mold growth
☐ Abraded/delaminated acoustical lining	☐ Evidence of animal incursion (carcasses, feathers, fecal matter)

General Impression:

2.3 Central ventilation systems

Ventilation System Identification:

HVAC FOR HALLWAYS	
Location: 15TH FL.	Area Served:
Mechanical room: clean <u>Y</u> ☒ N ☐ dry <u>Y</u> ☒ N ☐ stored chemicals/refuse <u>Y</u> ☒ N ☐	
Access adequate for inspection of components:	YES
AHU interior surfaces are visibly accessible:	YES

2.3 Central ventilation systems (continued) ATTACHMENT A - SCOPE OF WORK

System Components	System Component Substrate Material	Dust/Dirt/Debris			Suspect WTC-Related Dust	
		None	Light (<1/16 inch depth)	Heavy (≥ 1/16 inch depth)	Present? (Y/N)	Estimate % of total dust loading
Outside air intake louvers, grates and/or screens				X	N	
Outside air duct				X	N	
Outside air damper(s)				X	N	
Return air grilles			X		N	
Return air plenum			X		N	
Return air plenum damper					N	
Return air ducts			X		N	
Turning vanes					N	
Mixing chambers						
Filter rack(s)			X		N	
Filter banks/media						
Pre-heat coils			X		N	
Cooling coils			X		N	
Re-heat coils					N	
Humidification and/or air cleaning equipment						
Fire dampers						
In-line re-heat coils						
Acoustical blower housing lining			X		N	
Duct connectors						
Blower assembly including blower wheel, blower housing, air vanes, in-line noise attenuators, acoustical treatments (e.g. baffles, duct linings)			X		N	
Condensate drain pan						
Condensate accumulator						
Supply air plenum						
Supply air plenum damper(s)						
Supply air ducts			X		N	
-High pressure - main trunk						
-Low pressure - branches						
Supply plenum or supply duct linings			X		N	
Supply air duct damper(s)						
Supply air diffusers						
Terminal boxes						
Open or ducted passive ventilation shaft(s)						
Other Information:						
☐ Unit cycled prior to inspection			☐ Color of Dust/Dirt/Debris			
☐ Filter loading (general impression)			☐ Water damage			
☐ Filter bypass (describe)			☐ Visible suspect mold growth			
☐ Abraded/delaminated acoustical lining			☐ Evidence of animal incursion (carcasses, feathers, fecal matter)			

* WTC DEBRIS FOUND ALL AROUND DOORS TO ACCESS HVAC ROOM.

ATTACHMENT A - SCOPE OF WORK

2.4 Sampling

Sampling is required if light to heavy dust is present that is not visually identified as WTC related (maximum 5 samples).

Samples Collected: <u>Y</u> <u>N</u>
Sample Locations:
Location 1:
Location 2:
Location 3:
Location 4:
Location 5:

HVAC Consulting Services

APPENDIX 19

Invoice # 2

Contract No. CT 826-200300-19825 OCA No. 0000425814

VENTILATION SYSTEM EVALUATION FORM

Please complete this form in accordance with instructions in the accompanying guidance document

Part 1.0 General Information

Date of evaluation: <u>1/20/03</u>	Building contact name and phone:
Evaluation team (list name and affiliation):	
<u>TONY GALLO - Duct Dusters</u>	
(Environmental professional)	
(HVAC professional)	
Building address:	Type of Facility (check all that apply):
<u>33 GOLD ST.</u>	☒ Residential
<u>NEW YORK, N.Y.</u>	☐ Multi-use
	☐ Other (describe)
Date of construction:	
Number of residential units:	Number of floors: <u>8</u>
Prior inspection report/maintenance records available for review?:	
<u>NO</u>	
Other comments	
Ventilation system types (check all that apply and indicate total no. of units)	
Central ventilation system	Mechanical exhaust system
Est. no. of units	Est. no. of units <u>39</u>
Mechanical make-up air system	Passive shaft/duct
Est. no. of units	Est. no. of units
Other (describe)	

I certify that to the best of my knowledge, the information and observations recorded on this form including all attachments are a true and accurate representation of site conditions.

Ventilation System (HVAC) Evaluator

Date 1/20/03

Part 2.0 Visual Inspection Forms

Use the attached forms to document visual inspections. Complete the forms in accordance with instructions in the accompanying guidance document.

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: #1			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	Y
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	Y
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>87</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>87</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
<u>WTC DUST PRESENT. CLEANING OF THIS UNIT IS RECOMMENDED</u>			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: <u>#2</u>			
Location: <u>ROOF</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	Y
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	Y
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty <u>7</u> No. locations inspected <u>0</u>			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
<u>WTC DUST PRESENT. CLEANING OF THIS UNIT IS RECOMMENDED.</u>			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: <u>#3</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]	Surface Dust/Debris Present?	WTC Dust Present?	Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct	Y	Y	
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators	Y	Y	
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution: Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u> Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information: <u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust): <u>WTC DUST PRESENT. CLEANING OF THIS UNIT IS RECOMMENDED.</u>			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: #4			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty <u>7</u> No. locations inspected <u>0</u>			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING.</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: <u>#5</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	Y
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	Y
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
<u>WTC DUST PRESENT. CLEANING IS RECOMMENDED.</u>			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: #6

Location:

Roof

Area Served:

Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N

System Components

[NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]

Surface
Dust/
Debris
Present?WTC
Dust
Present?Component
ξ not
present
ξ not
found
ξ
Inaccessible

Exhaust air outlet: Location:

Accessible for inspection? Y ☒ N ☐ (explain):

louvers, grates and/or screens

outside air duct

outside air damper(s)

Exhaust fan unit:

blower assembly incl. blower wheel, housing, air vanes, in-line noise
attenuators

blower housing acoustical lining

vibration collars

Exhaust air distribution:

Exhaust air ducts Est. total ln ft 80 No. locations
inspected 1Specify type (circle): metal fibrous glass lined metal masonry fibrous glass board
flex-duct woodAccessible in-line fire dampers Est. total qty 7 No. locations inspected 0

Accessible turning vanes Est. total qty No. locations inspected

Exhaust air grilles Est. total qty 7 No. locations inspected 0

Other (specify):

Other Information:

NOT WORKING

General impression (indicate recommendations for cleaning based on finding of WTC dust):

KEY: NP = not present; NF = not found; I = inaccessible; U = unknown

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: #7			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: <u># 8</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean ☐ Y ☐ N dry ☐ Y ☐ N stored chemicals/refuse ☐ Y ☐ N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component E: not present E: not found E: inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty <u>7</u> No. locations inspected <u>0</u>			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: <u>#9</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	Y
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	Y
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING.</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
<u>WTC DUST PRESENT. CLEANING OF THIS UNIT IS RECOMMENDED</u>			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: #10			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

MAR-10-2000 06:37A FROM:SERVICE 9146634160

TO:912126373105

P:3/3

2.2 Mechanical Exhaust System Visual Inspection Form

Page 1 of 1

Mechanical Exhaust System Identification: # <u>11</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/ Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccess(ible)
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	Y
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	Y
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			NP
Other (specify):			I
Other Information:			
General Impression (indicate recommendations for cleaning based on finding of WTC dust):			
<u>WTC DUST FOUND IN SYSTEM. CLEANING IS RECOMMENDED</u>			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #12

Location:

Roof

Area Served:

Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N

System Components

[NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]

Surface
Dust/
Debris
Present?WTC
Dust
Present?Component
X not
present
X not
found
X
inaccessible

Exhaust air outlet: Location:

Accessible for inspection? Y ☒ N (explain):

louvers, grates and/or screens

outside air duct

outside air damper(s)

Exhaust fan unit:

blower assembly incl. blower wheel, housing, air vanes, in-line noise
attenuators

blower housing acoustical lining

vibration collars

Exhaust air distribution:

Exhaust air ducts Est. total in ft 80 No. locations
inspected 1Specify type (circle): metal fibrous glass lined metal masonry fibrous glass board
flex-duct wood

Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0

Accessible turning vanes Est. total qty No. locations inspected

Exhaust air grilles Est. total qty 7 No. locations inspected 0

Other (specify):

Other Information:

General impression (indicate recommendations for cleaning based on finding of WTC dust):

KEY: NP = not present; NF = not found; I = inaccessible; U = unknown

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #13			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]	Surface Dust/Debris Present?	WTC Dust Present?	Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct	Y	N	
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators	Y	N	
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #14			
Location: ROOF		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]	Surface Dust/Debris Present?	WTC Dust Present?	Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct	Y	N	
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators	Y	N	
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #15			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #16			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/ Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #17			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/ Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>(metal)</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #18			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #19			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	Y
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	Y
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
WTC DUST PRESENT. CLEANING OF THIS UNIT IS RECOMMENDED.			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #20			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]	Surface Dust/Debris Present?	WTC Dust Present?	Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			ND
outside air duct	Y	N	
outside air damper(s)			NP
Exhaust fan unit:			ND
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators	Y	N	
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution: Exhaust air ducts Est. total ln ft 80 No. locations inspected 1 Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information: NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: <u>#21</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean ☐ Y ☐ N dry ☐ Y ☐ N stored chemicals/refuse ☐ Y ☐ N			
System Components [NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ☐ not present ☐ not found ☐ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			NP
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #22			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			NP
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #23			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]	Surface Dust/Debris Present?	WTC Dust Present?	Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct	Y	N	
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators	Y	N	
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #24			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			NP
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft 80 No. locations inspected 1			
Specify type (circle): metal fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: # 25			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/ Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			NP
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft <u>80</u> No. locations inspected <u>2</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #26			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean ☐ Y ☐ N dry ☐ Y ☐ N stored chemicals/refuse ☐ Y ☐ N			
System Components [NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ☐ not present ☐ not found ☐ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			NP
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: <u>#21</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component § not present § not found § inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #28			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft. 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #29			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #30			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: # 31

Location: <u>Roof</u>		Area Served: <u>LAUNDRY RM / DRYER EXH.</u>	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>3</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>2</u>		Y	N
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>2</u>		Y	N
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #32			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]	Surface Dust/Debris Present?	WTC Dust Present?	Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct	Y	N	
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators	Y	N	
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #33			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	U
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	U
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> <u>fibrous glass lined metal</u> <u>masonry</u> <u>fibrous glass board</u> <u>flex-duct</u> <u>wood</u>			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General Impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: <u>#34</u>			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln-ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #35			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> <u>fibrous glass lined metal</u> <u>masonry</u> <u>fibrous glass board</u> <u>flex-duct</u> <u>wood</u>			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #36			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean ☐ Y ☐ N dry ☐ Y ☐ N stored chemicals/refuse ☐ Y ☐ N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ☐ not present ☐ not found ☐ inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	Y
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	Y
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>NOT WORKING</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
<u>WTC DUST PRESENT. CLEANING OF THIS UNIT IS RECOMMENDED.</u>			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #37			
Location: Roof		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component ξ not present ξ not found ξ Inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft 80 No. locations inspected 1			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty 7 No. locations inspected 0			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty 7 No. locations inspected 0			I
Other (specify):			
Other Information:			
NOT WORKING			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: #38			
Location: <u>Roof</u>		Area Served:	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: if component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens			NP
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total in ft <u>80</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty <u>7</u> No. locations inspected <u>0</u>			I
Other (specify):			
Other Information:			
<u>Not working</u>			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

2.2 Mechanical Exhaust System Visual Inspection Form

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Mechanical Exhaust System Identification: <u>AIR INTAKE FOR BOILER RM</u>			
Location: <u>BASEMENT</u>		Area Served: <u>BOILER RM</u>	
Associated mechanical room: clean Y N dry Y N stored chemicals/refuse Y N			
System Components [NOTE: If component not present (NP), not found (NF) or inaccessible (I) please indicate in last column]		Surface Dust/Debris Present?	WTC Dust Present?
			Component X not present X not found X inaccessible
Exhaust air outlet: Location:			
Accessible for inspection? Y ☒ N ☐ (explain):			
louvers, grates and/or screens		Y	N
outside air duct		Y	N
outside air damper(s)			NP
Exhaust fan unit:			
blower assembly incl. blower wheel, housing, air vanes, in-line noise attenuators		Y	N
blower housing acoustical lining			NP
vibration collars			NP
Exhaust air distribution:			
Exhaust air ducts Est. total ln ft <u>4</u> No. locations inspected <u>1</u>			
Specify type (circle): <u>metal</u> fibrous glass lined metal masonry fibrous glass board flex-duct wood			
Accessible in-line fire dampers Est. total qty No. locations inspected			NP
Accessible turning vanes Est. total qty No. locations inspected			NP
Exhaust air grilles Est. total qty No. locations inspected			NP
Other (specify):			
Other Information:			
General impression (indicate recommendations for cleaning based on finding of WTC dust):			
KEY: NP = not present; NF = not found; I = inaccessible; U = unknown			

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HVAC Consulting Services

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APPENDIX 20

Invoice # 2

Contract No. CT 826-200300-19825 OCA No. 0000425814

Quads Distribution of Work

Quad	Duration of Professional Services by Number of Hours			Percentage of Work
	Site Visits	Office Work	Subtotal	
B	16	11	27	12%
C	61	43	104	46%
D	55	40	95	42%
Total	132	94	226	100%