Specification for Abatement and Selective Demolition

Abatement and Selective Demolition
130 Cedar Street
New York, NY 10006

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Specification for Abatement and Selective Demolition

1.0 Introduction

The building located at 130 Cedar Street, New York, NY ("the Building") sustained damage as a result of the events of September 11, 2001 (WTC Event), allowing intrusion of dust, smoke, and debris into the Building.

Also, as a result of the events of September 11, 2001, and more recent findings of human remains in and around the WTC Site, the New York City, Office of Chief Medical Examiner, (NYC OCME), has requested that they be allowed to search certain areas of the Building for potential human remains. The search for Potential Human Remains (PHR) in the gap between the Building and 90 West Street will be performed by NYCDEP in conjunction with NYC OCME (See Appendix L). The search for PHR on the Building's roof and terraces will be performed by the project's abatement contractor in conjunction with NYC OCME (See Appendix H). Both searches will start at the same time as Phase I (see below).

Thus, the scope of work for this project is the abatement of all contaminated dust and debris (including all porous materials, paper materials, and sheet rock, included, as asbestos contaminated waste), all asbestos containing materials, (ACM) and all lead-based paints located within the Building (referred collectively as "designated materials"), along with a complete containment dust abatement including certain specified dust contaminated interstitial spaces (defined below), to a level which will permit demolition workers to perform selective demolition without environmental protective equipment.

Of particular concern are the WTC Dust contaminated interstitial spaces in the exterior spandrel walls. Listed below is the procedure that has been and will continue to be utilized to evaluate, and identify WTC Dust contaminated interstitial spaces and procedures to abate such areas under a negative pressure containment.

The exterior walls, bays between the columns and the slab above and below, at 130 Cedar St. are comprised of four general types of construction/cross section.

West Wall - Southern Third and Northern Third (See Subsection 2.9 Appendix I: West Wall Designations)

This wall is comprised of a single layer of terra cotta tile mortared to the columns and both slabs.

Note: These west wall sections will not be demolished but will remain as part of the new construction.

West Wall – Stairwell and Elevator Core (See Subsection 2.9 Appendix I: West Wall Designations)

This wall is comprised of an outer poured concrete wall with an inner terra cotta wall mortared to it and the columns and the slabs above and below.

Note: These west wall sections will not be demolished but will remain as part of the new construction.

North, East and South Walls from floors 4 through 12, and the bay north of the stairwell and elevator core on the West Wall (See Subsection 2.9 Appendix I: West Wall Designations)

The bottom of these walls are comprised of an exterior brick wall supported by a metal shelf angle, mortared to the floor slab and the columns and an interior terra cotta tile wall mortared to the exterior brick wall and to the floor slab and the columns. These two walls are topped by a solid cast concrete cap mortared on the top of this two wall unit. This solid cast concrete cap also serves as the sill for the window assembly that makes up the remaining area of the bay from column to column and from the concrete cap to the floor slab above. After the structural wall construction, a layer or layers of plaster was applied to the interior finish of the terra cotta walls.

North, East and South Walls on floors 1, 2 and 3

These walls are comprised of a poured concrete exterior wall, a red brick spacer wall and an interior terra cotta tile wall mortared to the floor slab and the columns. These two walls and spacer are topped by a solid cast concrete cap mortared to the top of this wall unit. This solid cast concrete cap also serves as the sill for the window assembly that makes up the remaining area of the bay from column to column and from the concrete cap to the floor slab above. A layer or layers of plaster was applied to the interior finish of the terra cotta walls.

There are no visible weeps, vents or drains in any of the wall construction types described above.

None of the wall construction types described above were engineered to have a flow of air through them; rather they were engineered to be a sealed unit to keep the outside environmental factors such as rain, heat, cold etc. from affecting the interior environment.

A visual inspection of the accessible wall units show that due to the WTC Event breaches in either the interior or exterior components on these wall units have occurred. A "breach" is defined, for the purposes of this document, as any damage, that may allow air flow to the interior of the two wall unit spandrel or exterior

wall. This is especially evident on the exterior of floors 10, 11 and 12 on the northern third of the east side and on the north side. (Appendix C). Although not breaches caused by the WTC Event there are areas of the interior spandrel terracotta wall where manmade openings such as investigative probe locations, drill holes, sampling locations, electrical and mechanical system damaged hangers, etc. have left small openings presumably affording air flow to the interstitial space of the two wall unit.

At the time of the drafting of this specification, a visual inspection has been performed on every interior bay and the exterior bays on the entire roof parapet, entire 12th floor, accessible portions of the 11th and 10th floor and the entire 3rd, 2nd and 1st floors (See Bay Damage Diagrams in Appendix C). To date, there is no scaffold planking installed to allow for a complete visual inspection of the exterior bays of the 4th to 11th floors. While performing the "exterior façade clean-up" in Phases IA and B, visual inspections of all remaining exterior bays will be performed and the "Bay Damaged Diagrams" will be updated and provided to the regulators on a weekly basis. The façade clean-up will occur before any abatement of the bay damage areas, therefore, the information gathered during the façade cleanup visual inspection and the previously conducted visual inspection of the roof parapet, entire 12th floor, accessible portions of the 11th and 10th floors and the entire 3rd, 2nd and 1st floors will be used to determine the containment set-up/construction, per the procedures set forth in this specification, for the subsequent abatement phases.

If any bays are found to have been damaged or breached, the entire bay will be considered interstitially contaminated with WTC dust. These walls will be abated under the full negative pressure containments and procedures described in this specification.

For any bays where the interior walls are found to have manmade openings, only the area immediately around the opening will be abated under the full negative pressure containments and procedures described in this specification. This may entail, for example, drilling a 4" core hole over a 1" investigative probe or drill hole and low pressure power washing of the void created by the 4" drill. All internal manmade opening will be performed only after all gross abatement in a given containment. This manmade opening abatement will be the last task before the final cleanings of the containment.

Abatement Option Determination

In bays where the exterior of the spandrel walls below the windows are breached, and therefore are considered to be interstitially contaminated with WTC dust, an Exterior Wall Containment Option #1, #1A or # 2 will be erected as appropriate for abatement and demolition of the windows, window caulking, and spandrel wall into the building containment (Appendix A or B).

In bays where the interior of the spandrel walls below the windows have manmade openings on the interior terra cotta wall, an Exterior Wall Containment Option # 1A to support the exterior brick cladding, will be erected for abatement and demolition of the windows, window caulking, and abatement and demolition of the immediate area around the manmade openings in the interior terracotta spandrel wall into the building containment. (Appendix A).

In bays where the spandrel walls below the windows are found to be intact and not damaged or breached on the exterior or have no manmade openings on the interior and therefore NOT considered interstitially contaminated with WTC dust, an Exterior Wall Containment Option #1B, will be erected to allow for abatement and demolition of the windows and window caulking into the building containment. (Appendix A).

Any bays found NOT to have been damaged or breached on their exterior and have no manmade openings on their interior will be considered free of interstitial WTC dust and only the exposed surfaces of the wall units will be cleaned and encapsulated as describe in this specification. These cleaned wall units will subsequently be demolished during the selective demolition phase.

During the selective demolition phase, the demolition workers will be informed at every tool box safety meeting that they need to be aware of any unanticipated contaminated areas that may be discovered during their work. Should they encounter a potentially contaminated area, they will be informed to stop work immediately and inform their foreman. The foreman will inform the Environmental Consultant who will evaluate the situation. If there is suspect WTC Dust present, the Environmental Consultant will cordon off the area and ensure that all necessary remediation is completed by the project's abatement contractor using certified asbestos handlers under a negative pressure containment before the selective demolition work can continue. The Environmental Consultant shall determine the scope and extent of any work stoppage necessary to identify and eliminate the source of the contamination.

Removal of all designated materials during the project shall be performed utilizing full-containment procedures as required by the New York City Department of Environmental Protection (NYCDEP) and filed under an ACP-7 form with approved variances, and with the New York State Department of Labor (NYSDOL) under ICR 56 and Federal EPA. The contractor shall file and pay all fees associated with the abatement for New York State and United States Environmental Protection Agency or other governmental authorities and any/all other applicable city, state, or federal filings (such as New York State Department of Labor).

Final air clearances for each contaminant delineated herein will be performed in accordance with Section 3.0, Specification for the Removal of the Building from Containment.

During all phases of the project, air monitoring will be performed in accordance with the Specification for Community Air Monitoring which incorporates air monitoring requirements of NYSDOL Code Rule 56 and NYCDEP Title 15. Additionally, personal air monitoring for asbestos and "target metals" delineated in the specification will be performed.

2.0 Project Phasing and Specific Procedures

2.1 Phase I: Abatement to Develop a "Clean Zone"
NYCDEP ACP 7 and 9 Work Areas 1 and 2, Variance TM & DI

Phase I abatement will be performed to establish a "Clean Zone" to construct personnel, ACM/hazardous waste, and non-porous scrap decontamination units and shanty space, and to clean and clear the main stairwell to allow for access to the containments in subsequent phases.

Additionally, during Phase I, the Search for Potential Human Remains (PHR) will be performed. The "Gap" clean-up and PHR search in the "Gap", will performed by the NYCDEP in conjunction with the OCME. (See Appendix L) The PHR search of the roof ballast on the main roof and the roof terraces will be performed by Masterworks/Nova in conjunction with the OCME. (See Appendix H)

The Building is considered contaminated, therefore, all work described herein will be performed in PPE as described in the HASP, by personnel who have had the appropriate medical surveillance and respiratory fit tests and who are properly trained and/or licensed personnel.

Hard walled personnel and waste decontamination units will be erected per New York City Department of Environmental Protection variance Attachment DI at the east main door access to the 1st floor. After construction, these units will be cleaned, visually inspected by the Environmental Consultant, and final air clearance sampling will be performed in accordance with Section 3.0 "Specification for Removal of the Building from Containment"." Upon receipt of acceptable final air results, a site inspection, and approval from the NYCDEP, these units will be utilized to abate the southern third and loading dock area of the first floor, the basement, the basement section of the passenger elevator shaft, the main stairwell from the basement to the roof, and two rooms that connect directly to the main stairwell: the fan room and elevator machine room.

Preparatory abatement and containment set-up:

- A 2" x 4" stud and plywood barrier covered with two layers of 6 mil poly and sealed at all edges with caulk will be erected north of the personal and waste decontamination units from the east exterior wall west to the wall of the elevator lobby.

- Prior to erecting the barrier wall, all floor, wall, and ceiling surfaces that the barrier wall will be sealed to, will be cleaned/abated via tent procedure variance TM and encapsulated with a penetrating encapsulant. This step requires cleaning a minimum 12" strip (58 SF) along the floor and walls using a HEPA vacuum and wet methods, and abating a minimum 12" strip (32 SF) of ACM ceiling plaster.
- Floor 1 slab penetrations to the basement and floor 2 slab penetrations to the floor 1 per NYCDEP Title 15 regulations will be sealed.
- The main elevator lobby will be sealed as necessary to allow for the installation of multiple HEPA units. These HEPA units will be vented to the outside of the Building through the first floor north wall, and will serve as inward airflow, negative pressure, through the personnel, ACM/hazardous waste, and non-porous scrap decontamination units that will be erected once this the "Clean Zone" is established. These units will not be functional until the permanent decons on the loading dock are constructed and are ready to be utilized.
- As was discussed with and approved by the NYCDEP, all freight elevator shaft doors and frames will be HEPA vacuumed and wet wiped to visually clean satisfaction of the Environmental Consultant, then encapsulated with a penetrating encapsulant. These doors will be sealed off with 2" x 4" stud framing and plywood, foam sealed at the edges, and covered with two layers of 6 mil poly. The freight elevator will be utilized as a sealed conduit from the active work areas and the dirty room of the main decontamination chambers on the first floor. The elevator doors will only open on the active abatement floors. The freight elevator shaft will be kept under negative pressure. The freight elevator cars will be pre-cleaned utilizing HEPA vacuuming and wet wiping. The operating car will then be gross cleaned periodically throughout the abatement project. The operating freight car will be final cleaned during Phase III J.
- An access through the wall dividing the main stairwell lobby and the loading dock area will be opened. Each existing access door to every floor in the main stairwell will be removed, and a temporary hard barrier with a kick out panel, foamed and poly sealed as necessary, will be erected. Each door to the men's rooms located north of each main stairwell floor landing will be sealed. These men's rooms will be abated, with each floor containment described herein, by first creating an access from the women's room into the men's room. This will allow the main stairwell to be abated, cleared, and to remain clean throughout the project phases. This stairwell will be utilized for access into the abatement containments of subsequent phases for final cleaning and final air clearances. This will be accomplished utilizing individual single shower three stage dual personnel and waste decons

erected before any abatement activities in each abatement area begins. This procedure has been discussed with and approved by the NYCDEP.

- The southeastern third of the first floor, the loading dock area, the basement, the basement section of the passenger elevator shaft, the main stairwell from the basement to the roof, the elevator machine room (gross abatement only), and the fan room will become the first "Full Containment" that will be constructed, sealed, and abated per NYSDOL Code Rule 56 and NYCDEP Title 15 utilizing only this temporary decon.
- To abate the passenger elevator shaft in the basement, a hard barrier seal in the shaft at the floor 1 deck will be erected. The shaft will cleaned and cleared from the barrier to the bottom of the shaft as part of this work area. , The basement level portion of the passenger elevator shaft will be re-cleaned, and will undergo final visual inspection and final clearance air sampling once again, if water intrusion does occur from any abatement containment area above into the basement level of the passenger elevator shaft after this area had already been cleared during Phase I. Further, any water collected in the passenger elevator shaft will be handled, managed, sampled, and disposed of, as stated in subsection 7.4, Exterior Wash Water, of Section 7.0, Waste Sampling and Management Plan.
- The elevator machine room will be gross abated. Once gross abatement in the elevator machine room is complete, the room will be sealed, and HEPA units installed to provide incoming air for cooling the mechanical equipment for the freight car and filtering and exhausting the cooling air and any air escaping the freight elevator shaft from its piston action to the outside environment.
- A single shower three stage dual personnel and waste decon will be installed to the entrance of the elevator machine room that can be sealed air tight when not in use to allow access for maintenance of the HEPA units.
- Abatement of the remaining areas will be performed per the NYCDEP ACP 7 and 9 and these specifications.
- ACM Window caulking will be abated by removing the entire window frame into the containment.
- All double bagged waste from the gross cleaning of this area will be stored on the north side of the barrier wall for disposal after the permanent decons are constructed on the loading dock. All waste disposal on this project will be in accordance with Section 7.0, Waste Sampling and Management Plan.
- Final cleaning and clearance of the "Clean Zone" will not be performed until the exterior façade wash down in Phases #IA and #IB is complete. Once the façade wash down is complete, the temporary opening, with three

polyethylene curtained doors, in the barrier wall will then be filled with 2" x 4" studs and plywood and sealed with double 6 mil poly. Additionally, the access to the elevator lobby to the north side of the floor, and the access from the elevator lobby to the stairwell will be sealed. Access to the north "dirty area" of floor 1 may needed before, during and past the time of the 'Clean Zone" clearance, for OCME search activities. As described in Appendix L, any debris generated from the "Gap Clean-up" that has not previously been screened by the OCME will be stored in the northern half of the first floor. The OCME will need access to perform their sifting and search of the debris. The access to the northern half of the first floor will be through a sealed three layer 6 mil polyethylene curtain door (to be opened when necessary) in the elevator lobby. After the final cleanings and a visual inspection by the Environmental Consultant, along with EPA and NYCDEP representatives encapsulation will be performed. After the encapsulant is dry, final air clearances will be performed in accordance with Section 3.0 "Specification for Removal of the Building from Containment". Five sets of asbestos and metals samples will be taken on the first floor. Eight sets of samples will be taken in the basement, including one in the passenger elevator shaft. Seven sets of asbestos and metals will be taken in the main stairwell, one on every odd floor landing including the roof landing (i.e. the thirteenth floor), as well as one each in the fan room.

- Once acceptable results of the final clearances are obtained, Phase II will begin.

2.2 Phase I A: North, East and South Exterior Façade Clean Up

NYCDEP ACP 7 and 9 Work Areas 3,4 and 5, Variances EC, R and IC

Concurrent with Phase I and I B, the wash down of the North, East and South exterior façades will be performed per the Building Facade Clean Up procedure (Appendix G) issued by the NYCDEP after the WTC Event.

Once the façade wash down has been performed for a given floor, any stone cap or lintel caulking removal will be removed per the above stated variances.

This work will be performed from the top of the Building down utilizing the pole scaffold surrounding the Building.

- A two stage airlock will be erected inside a door on the west end of the north side of the 1st floor for workers to enter the Building and access the temporary decon through the temporary opening, with three polyethylene curtained doors, in the barrier wall dividing the south "Clean Zone" and the north "dirty area."
- Final cleaning and clearance of the "Clean Zone" will not be performed until the exterior façade wash down in Phases #IA and #IB are complete. Once

the façade wash down is complete, the temporary opening, with three polyethylene curtained doors, in the barrier wall will be filled with 2" x 4" studs and plywood and sealed with double 6 mil poly.

- While the Environmental Consultant performs the visual clearance of the façade cleaning, a determination will also be made on whether the exteriors of the spandrel walls are breached. Based upon this determination, the Environmental Consultant will direct the abatement contractor to erect a hard walled containment barrier as part of this phase per the parameters set forth in Sections 2.1, 2.8, 2.10 and Appendices A and B of this specification.

2.3 Phase I B: West Exterior Façade Clean Up in the 90 West Courtyard, West Parapet Walls (Roof Side) Façade Clean Up and West Parapet Wall Stone Cap Caulking Abatement

NYCDEP ACP 7 and 9 Work Areas 3, 4 and 5, Variances EC, IC and R

The abatement of the 130 Cedar St. west façade and the 90 West St. east façade in The Gap will be performed by the NYCDEP/DDC's abatement contractor concurrent with the PHR search of The Gap commencing in Phase I.

Concurrent with Phase I and IA, the wash down of the Building west exterior façade in the Courtyard of the neighboring 90 West St. building will be performed per the Building Facade Clean Up procedure (Appendix G) issued by the NYCDEP after the WTC Event.

Once the façade wash down has been performed for a given floor, any stone cap or lintel caulking removal will be removed per the above stated variances.

This work will be performed from the top of the building down utilizing a swing scaffold platform erected on the roof.

Areas on the roof that may be affected by the transport and installation of the scaffolding and decons will be pre-cleaned and visually inspected.

The swing scaffold will be lifted from the street with a crane and set on the roof. The scaffold and counterweights will be erected on the roof of the Building above the 90 West courtyard.

The concrete west roof parapet walls have been inspected and found to be undamaged other than normal surface spalling and the exposed surfaces of these walls, roof side and top, will also be cleaned during this phase utilizing the Building Facade Clean Up procedure (Appendix G), These walls will remain as part of the final façade of the building.

The stone cap caulking on the west roof parapet walls will also be removed during this phase via variances IC & R.

- A two stage airlock will be erected inside the floor 2 door to the courtyard for workers to enter the Building to access the temporary decon through the temporary opening, with three polyethylene curtained doors, in the barrier wall dividing the south "Clean Zone" and the north "dirty area."
- As noted previously, while the Environmental Consultant performs the visual clearance of the façade cleaning, a determination will also be made on whether the exterior of the spandrel wall is breached. Based upon this determination, the Environmental Consultant will direct the abatement contractor to erect a hard walled containment barrier as part of this phase per the parameters set forth in Sections 2.1, 2.8, 2.10, and Appendices A and B of this specification.
- The determination of whether or not the exteriors of the spandrel walls are breached and the subsequent hard walled containment options will be reported to the regulators on a weekly basis.
- Final cleaning and clearance of the "Clean Zone" will not be performed until the exterior façade wash down Phases #1A and #1B are complete. Once the façade wash down is complete, the temporary opening, with three polyethylene curtained doors, in the barrier wall will then be filled with 2" x 4" studs and plywood and sealed with double 6 mil poly.

2.4 Phase II: Construction of Decontamination Units, Shanties and Locker Rooms

No Abatement

Personnel, ACM/hazardous waste, and non-porous scrap decontamination units will be erected per NYSDOL Code Rule 56 and NYCDEP Title 15 in the "Clean Zone" with the dirty rooms connecting to the elevator lobby.

Once the decons are erected and sealed to the elevator lobby and are inspected by the Environmental Consultant, the barrier at the elevator lobby will be breached and the HEPA units previously installed will be turned on to provide inward airflow through the personnel, ACM/hazardous waste and non-porous scrap decontamination units. At this time, storage and office space (shanties), and worker locker rooms will also be erected.

2.5 Phase III: Abatement Preparatory Work

No Abatement

Phase III will utilize the personnel, ACM/hazardous waste, and non-porous scrap decontamination units erected in the "Clean Zone." All work areas of the Building will be accessed via the freight elevator. The main stairwell, which was cleaned and cleared in Phase I, will be utilized to access the floors for final cleaning and can serve as emergency egress with hard barrier kick out panels installed.

Previous to the drafting of this specification, all penetrations to the outside of the Building were sealed off to prevent air flow from inside to outside. This work was inspected and approved by representative of the EPA and NYCDEP.

2.6 Phase III A: Abatement of the Penthouse Engineer's Office and Tank Room

NYCDEP ACP 7 and 9 Work Area 6, Variances F.C./Special Conditions

Prior to installing personnel and waste decontamination units and a hard barrier tunnel at the penthouse on the roof to abate the Penthouse Engineer's Office and Tank Room, areas on the roof that may be affected by the transport and installation of the decons and tunnels will be pre-cleaned and visually inspected. The hard barrier tunnel will run from the decontamination units to the doors of the engineer's office and tank room.

- Once containment set-up is complete the engineer's office and tank room in the penthouse at the top of the main stairwell will be abated.
- Final cleaning of the engineer's office, tank room, tunnel, and the personnel and waste decontamination units will be performed. Upon the Environmental Consultant, EPA, and NYCDEP'S visual inspection and approval, encapsulation and final air clearances per Section 3.0, Specification for the Removal of the Building from Containment on all areas described above will be performed. At least five sets of asbestos and metals samples will be taken in this containment. At a minimum, there will be two sets per room and one in the tunnel.
- Upon receipt of acceptable final air clearance results the entrance to the abated rooms will be sealed off. The personnel and waste decontamination units on the roof will be left for Phase III C.

2.7 Phase III A1: Abatement/Demolition of the West Roof Parapet Walls and 90 West St. Façade Clean Up

NYCDEP ACP 7 and 9 Work Area 7, Variance TM and R

The abatement of the 90 West St. facade will be performed by NYCDEP concurrent with the PHR search commencing in Phase I. The stone cap caulking on the west roof parapets will be removed during Phase I A/B, Façade Clean Up. The concrete west roof parapet walls have been inspected and found to be solid poured concrete wall and undamaged and will be will be demolished during Selective Demolition in Phase IV.

2.8 Phase III B: Abatement of Floors 10, 11 and 12

NYCDEP ACP 7 and 9 Work Area 8, Variances F.C./Special Conditions

Before accessing the containment to perform any of the following work, a single shower three stage dual personnel and waste decon will be erected on the 10th floor

landing of the main stairwell. This decon will be sealed to the temporary hard barrier erected during Phase I.

At the time of the drafting of this specification, a visual inspection has been performed on every interior bay and the exterior bays on the entire roof parapet, entire 12th floor, accessible portions of the 11th and 10th floor and the entire 3rd, 2nd and 1st floors (See Bay Damage Diagrams in Appendix C). To date, there is no scaffold planking installed to allow for a complete visual inspection of the exterior bays of the 4th to 11th floors. While performing the "exterior façade clean-up" in Phases IA and B, visual inspections of all remaining exterior bays will be performed and the "Bay Damaged Diagrams" will be updated. This updated information will be reported to the regulators weekly.

The initial inspection of the exterior bay damage indicates that there are areas of damage that extend from the roof parapets down the side(s) of the building through floors 12, 11, and into the 10th floor. Floors 12, 11, and 10 are to be grouped together in one containment and will be abated, cleaned, visually inspected and final cleared as one work area.

For sections where the exterior damage is such that hard walled containments proposed in Option #1 (Appendix A) is not feasible, a hard walled containment will be erected on the scaffold on most of the north side and the north end of the east side of the Building per Exterior Wall Containments Option #2 (Appendix B) to allow for abatement and demolition of these damaged sections of the parapet, exterior wall, and windows under containment. This containment will extend above the roof parapet above the floor 12 and on to the roof.

Access to this containment from the floors will initially be made by removing one of the windows, and subsequently through the first section of wall that is abated and demolished.

All waste from the parapet abatement and selective demolition will be taken down the scaffold stairs and out through the floor 12 access to the main floor containment.

Where there is no damage to the brick cladding on either side of a bay where the spandrel wall is damaged or breached, an Exterior Wall Containment, Option #1 or #1A. (Appendix A), will be erected.

For the undamaged, not breached, sections of the exterior walls, containment set-up will be performed as follows:

- In bays where the exterior of the spandrel walls below the windows are found to be intact and not damaged or breached and there are no manmade openings on the interior of the spandrel walls and therefore NOT considered interstitially contaminated with WTC dust, an Exterior Wall Containment Option #1B. (Appendix A) will be erected.

The abatement and selective demolition of the exterior spandrel walls will be performed under NYCDEP **Full Containment** procedures with special conditions as listed on Nova Development Group, Inc.'s NYCDEP petition for variance, more specifically, "APPENDIX A" which details the work area preparation, ACM removal procedures, Clean up procedures and lockdown and encapsulation procedures in connection with abatement selective demolition procedures. The walls, if breached, will be demolished from the top-down and pulled into the containment area using pneumatic tools. Dust will be controlled using wet-methods and all debris will be HEPA vacuumed, bagged, transported to the decon, double-bagged as ACM at a minimum and loaded into a waste container on site. More stringent disposal requirements will be determined via sampling analysis in accordance with Section 7.0 of this specification. The elevator will be utilized to transport the push carts to ground level where they can be unloaded into the waste container located inside the loading dock area.

As a contingency the following plan/procedure will be followed in areas of these floors that the OCME may request to inspect during the project.

Should it become necessary, abatement will begin at the top of the wall on the upper most floor of the containment, in the case of this Phase IIIB that will be floor 12. For HEPA vacuuming of the brick and concrete, the HEPA Vacuum labeled and dedicated for the use only in areas of interest to the OCME will be used. The debris from this vacuum will be stored in a designated area until such time as an OCME representative inspects the debris. At present, plans are to store this bagged debris in a secure area on the north side of the 1st floor in an area under containment."

To abate the back stairwell, an access from the women's room hallway into the back stairwell will be created and a hard walled barrier will be erected in the stairwell between floor 9 and floor 10. The top of this stairwell is in a sealed penthouse on the roof.

To abate the passenger elevator shaft, a hard barrier seal in the shaft at the floor 10 deck will be erected. The shaft will cleaned and cleared from the top of the shaft above floor 12 to the 10th floor deck barrier as part of this work area.

A gross abatement on the remainder of the floors will be performed as described in this specification. Once gross abatement is complete on all three floors, the temporary hard barrier to the 10th floor will be removed to allow for final cleaning, final air clearance sampling and encapsulation of this work area through the single shower three stage dual personnel and waste decon erected earlier. Access to the upper floors will be through the scaffold stairs of the hard walled containment on the exterior scaffold on the north side of the Building.

Upon approval from the Environmental Consultant, EPA, and NYCDEP after a visual inspection of the entire containment, including those portions of the passenger elevator shaft and the back stairwell in the containment, encapsulation

and final air clearance will be performed (See Appendix J for typical sample locations).

Upon receipt of acceptable final clearance results, the access will be sealed and the three stage dual decon on floor 10 in the main stairwell will be removed.

2.9 Phase III C: Roof Abatement (Main Roof, Bulkhead Roofs, 10, 11, 12 Floor Terraces) NYCDEP ACP 7 and 9 Work Area 9, Variances FR, FT and R

The OCME investigation (PHRsearch) of the debris/ballast on these roofs, (See Appendix H) will have taken place during Phase I, before this layered roofing material abatement occurs.

Critical barriers will be erected as necessary per NYCDEP variances to seal off the terrace from the 10th floor interior.

After the final clearance of Phase III B, an EPDM rubber roofing or similar material will be installed on floor 10 concrete interior deck. This work will be performed on the "cleared" floor 10 by general construction workers without PPE.

Once the temporary roof/impermeable barrier is installed on floor 10, abatement will be performed by utilizing the fully functional personnel and waste decontamination units on the roof previously utilized for the penthouse abatement in Phase III A by NYCDEP variance Attachment FR, FT and R per the ACP-9.

Prior to the completion of each shift workers will remove one suit, which will be double bagged and treated as ACM, and proceed to the decontamination unit located on the roof. Workers will proceed to the roof from the 10th, 11th, and 12th floor terraces via the stairs on the pipe scaffolding located on the exterior of the Building.

Removed roof debris will be double-bagged as ACM at a minimum. The double bags will be passed through the waste decontamination unit and washed down. More stringent disposal requirements will be determined via sampling analysis in accordance with Section 7.0 of this specification. The clean bags will then be transported to the ground via the exterior hoist described in Phase IV and put into a lined container.

Upon an acceptable visual inspection of the roof slab and the personnel and waste decontamination units by the Environmental Consultant, EPA, and NYCDEP, final air clearances in the personnel and waste decontamination unit will be performed.

After abatement of the 10th floor terrace roofing material and an acceptable visual inspection of the slab by the Environmental Consultant, EPA, and NYCDEP an EPDM rubber roofing or similar material will immediately be installed on each terrace slab.

Personnel and waste decontamination units will be cleaned, visually inspected and final air clearance testing performed. Upon receipt of acceptable final clearance results, they will be torn down.

2.10 Phase III D: Abatement of Floor 9 and Floor 8

NYCDEP ACP 7 and 9 Work Area 10, Variances F.C./Special Conditions

Before accessing the containment to perform any of the following work, a single shower three stage dual personnel and waste decon will be erected on both the 8th and 9th floor landing of the main stairwell. This decon will be sealed to the temporary hard barrier erected during Phase I.

Perform containment set-up as follows:

- In bays where the exterior of the spandrel walls below the windows are damaged or breached and therefore are considered to be interstitially contaminated with WTC dust, an Exterior Wall Containment Option #1, #1A or # 2 will be erected as appropriate. (Appendix A or B).
- In bays where the exterior of the spandrel walls below the windows are found to be intact and not damaged or breached and there are no manmade openings on the interior of the spandrel walls therefore NOT considered interstitially contaminated with WTC dust, an Exterior Wall Containment Option #1B. (Appendix A) will be erected.

The abatement and selective demolition of the exterior spandrel walls will be performed under NYCDEP **Full Containment** procedures with special conditions as listed on Nova Development Group, Inc.'s NYCDEP petition for variance, more specifically, "APPENDIX A," which details the work area preparation, ACM removal procedures, Clean up procedures, and lockdown and encapsulation procedures in connection with abatement selective demolition procedures. The walls, if breached, will be demolished from the top-down and pulled into the containment area using pneumatic tools. Dust will be controlled using wet-methods and all debris will be HEPA vacuumed, bagged, transported to the decon, double-bagged as ACM at a minimum and loaded into a waste container on site. More stringent disposal requirements will be determined via sampling analysis in accordance with Section 7.0 of this specification. The elevator will be utilized to transport the push carts to ground level where they can be unloaded into the waste container located inside the loading dock area.

As a contingency the following plan/procedure will be followed in areas of these floors that the OCME mayt request to inspect during the project.

Should it become necessary, abatement will begin at the top of the wall on the upper most floor of the containment, in the case of this Phase IIIB that will be floor 9. For HEPA vacuuming of the brick and concrete, the HEPA Vacuum labeled and dedicated for the use only in areas of interest to the OCME will be used. The debris from this vacuum will be stored in a designated area until such time

as an OCME representative inspects the debris. At present, plans are to store this bagged debris in a secure area on the north side of the 1st floor in an area under containment."

To abate the back stairwell, an access from the women's room hallway into the back stairwell will be created and a hard walled barrier in the stairwell between floor 7 and floor 8 will be erected. The hard barrier from the back stairwell work on the 10th, 11th and 12th floors above will remain in place.

Gross abatement will be performed on the remainder of the floors as described in this specification. Once gross abatement is complete, the temporary hard barriers to the 8th and 9th floors will be removed to allow for final cleaning, final air clearance sampling and encapsulation of this work area through the single shower three stage dual personnel and waste decon erected earlier.

To abate the passenger elevator shaft, a hard barrier seal will be erected in the shaft at the 8th floor deck and the shaft will be cleaned and cleared as part of this work area. The hard barrier from the 10th floor abatement of the shaft will be utilized as the top seal.

Follow entry and exit procedures for final cleaning, final visual inspection and final air clearance sampling as described in sub section 2.8 Phase III B.

Upon approval from the Environmental Consultant, EPA, and NYCDEP after a visual inspection of the entire containment including the passenger elevator shaft and the back stairwell, encapsulation and final air clearances will be performed (See Appendix J for typical sample locations).

Upon receipt of acceptable final clearance results, the three stage dual decons on floors 8 and 9 in the main stairwell will be removed.

2.11 Phase III E, F, G, H, I: Abatement from Floor 1 through Floor 7

NYCDEP ACP 7 and 9 Work Areas 11-15, Variances F.C./Special Conditions

Abatement on floors 7 through the remainder of floor 1 will be performed utilizing the procedures described in Phase III D. These phases are scheduled to be performed in an overlapping schedule to complete phases from the top of the building down. (See Section 2.0, Appendix E, Schedule)

- Phase III E: No work to be performed during this phase
- Phase III F: Abatement of Floors 5, 6 and 7
- Phase III G: Abatement of Floors 2, 3 and 4
- Phase III H: No work to be performed during this phase
- Phase III I: Abatement of Balance of the 1st Floor. Five sets of asbestos and metals samples will be taken in the balance of the first floor.

2.12 Phase III J: Freight Elevator

NYCDEP ACP 7 and 9 Work Area 16, Variances F.C./Special Conditions

Once the gross abatement has been performed, concurrent with the final cleanings, and before the final air clearances of Phase III I, the washdown of the Freight Elevator Shaft will be performed.

Before washdown, single shower three stage personnel and waste decons will be constructed at the door to the freight elevator shaft in the basement and the seal at the door will be removed. These decons will be used to access the bottom of the shaft from the clean basement.

All horizontal surfaces shall be cleaned of large bulk material by wetting and hand brushing or scraping with non-metallic bristle brushes or non-metallic scrapers, by wet wiping and/or HEPA vacuuming from top to bottom. Only water shall be used for wet wiping and low-pressure washing, detergents, solvents, additives, and any other chemical-cleaning agents are prohibited. The removed material shall be immediately placed into containers (e.g. bags). Free running water shall not be evident during this procedure. Power for HEPA vacuums shall be supplied through ground fault interrupters.

After completion of debris removal, the specified area shall be carefully washed. A low pressure washing technique, moving from top to bottom shall be employed to minimize water bounce-back. Shafts shall be washed with a low-pressure wash not to exceed 250 psi. If a significant accumulation of water build up is apparent, spraying will cease until the accumulation can be controlled.

A catch-basin will be constructed at the bottom of the freight elevator shaft to collect any run-off water. The collected water will be suctioned via sump pump, filtered through a 5 micron filter to remove any asbestos fibers per the NYCDEP and discharged into clean 55 gallon drums. Sampling analysis will be performed per Section 7.4 of the Waste Sampling Management Plan. Based upon these analyses the water will be discharged to the city sewer system or disposed of properly.

HEPA Units will be installed in basement access to the shafts and in the elevator machine room in the penthouse.

Access to the shaft from the basement decons and 1st Floor, already under containment, will be utilized. Workers will proceed up and down the freight elevator shaft utilizing the functional elevator car. Once the workers reach their destination they will clean all interior surfaces of the elevator shaft by standing on top of the elevator car. Scaffold planks will be utilized to reach the full perimeter of the shaft as necessary.

At any time, if the elevator is out of service, work will be put on hold until the elevator is operational.

All four elevator cars, (the operable freight car and the inoperable freight car and the two inoperable passengers cars locked out in the first floors), will be abated after the abatement of the freight elevator shaft is complete.

Final cleanings on the elevator machine room will be performed.

Once the final cleanings are complete for Phase III I, the elevator machine room, the freight elevator lobby, personal and waste decons, and wash down of the freight elevator shaft is complete, the Environmental Consultant, EPA, and NYCDEP will perform final visual inspection of these areas.

Upon approval of the visual inspection, encapsulation will be performed on these areas and final air clearances will be performed. Seven sets of asbestos and metals samples will be taken in the Freight Elevator Shaft and five sets of asbestos and metals samples will be taken in the Elevator Machine Room.

Upon receipt of acceptable final clearance results, the personnel, ACM/hazardous waste, and non-porous scrap decontamination units will be removed.

2.13 Phase IV: Selective Demolition

Prior to any non-abatement demolition work, an exterior hoist will be erected on Washington St. The hoist will be tied into the Building without breaching containment on any floor. This will be accomplished by exposing spandrel area of concrete slab and/or column at each tie-in location by removing the attached brick from the outside.

There will be a tie-in on every other floor beginning on floor 2. A Hilti or Powers cutting bolt that is ¾" x 6" with a 5" embedment will be used. This will provide adequate support for the hoist without disturbing the interior of the Building. Erection will be completed in time to support the Phase III C roof abatement.

The spandrels affected by the hoist tie in that may be damaged and need abatement before the tie-ins occur will be on the 4th, 6th, and 8th floors because there is no exterior breaches on the 2nd floor and floors 10 and 12 will have been abated by the scheduled time of installation. If after the façade cleaning and visual inspection, to update the Bay Damage Diagrams, it is determined that there are no breaches in the spandrel wall, no abatement will be performed to facilitate this activity. If any of the spandrel walls on the 4th, 6th or 8th floors are found to be breached the damaged brick cladding on the spandrel wall covering the slab will be removed in a modified tent per NYCDEP variance Attachment TM.

Remaining demolition will commence on the roof and move down the Building following the abatement work in accordance with the schedule (Appendix E). The exception is the core of the Building containing the main stairway and freight

elevator which will be maintained until the abatement phase (Phase III) is complete. A buffer zone of no less than four floors between abatement and demolition shall be maintained (See Table 1). While abatement is ongoing, demo work will be confined to one floor at a time. Personnel access to the floor being demolished shall be by the exterior hoist and/or main (clean) stairway.

Table 1 Abatement and demolition sequencing

Floor Under Demo	Abatement Phase(s)
Roof	III F
12	III F and III G
11	III G and III H
10	III H and III I
9	III I
8	III I
7	III I and III J
6	III J
1-5 and core	Abatement Complete

The Demo Plan Filing Set (Appendix D) details the scope of the demolition. In general, only the structural concrete skeleton will remain (including existing brick cladding on the exterior of the columns). When abatement work is complete on a given floor, the items remaining to be demolished will include:

- any full or partial spandrel walls not removed during abatement
- any cleaned equipment (rendered inoperable)
- any cleaned, non-porous materials such as pipe, porcelain fixtures, conduit, etc.

The Building's core, containing the elevator shafts and main stairwell, will be demolished last after the entire structure has been abated.

The equipment to be used during demolition consists entirely of hand-held tools. Chipping guns, sledgehammers, etc. will be used to break any remaining spandrel walls into pieces for removal. Torches, sawzalls, etc. will be used to cut any lengths of pipe or other metal down to a manageable size.

All demolition debris shall be manually loaded into mini containers and taken to ground level via the exterior hoist. No heavy machinery will be required. Materials removed from a floor and taken down the hoist shall be placed onto trucks for removal from the Building to the appropriate disposal site.

All necessary measures for dust control shall be taken, including:

- water will be provided to the floor under demolition by hoses attached to the water riser in the main (clean) stairwell
- laborers will be positioned near all potential sources of dust to wet down the areas with the hoses that will be equipped with fogging nozzles to keep airborne particles to a minimum
- water usage will be monitored throughout Phase IV to ensure that only the smallest amount necessary for dust control is used
- added protection (such as dams and/or other impermeable barriers) will be installed as required to prevent water infiltration from the demolition area to the areas under abatement below
- during and at end of the work day, no light or loose materials will be left in the open

The demolition workers will be informed at every tool box safety meeting that if any unanticipated contaminated items are discovered during their work, they must stop work immediately and inform their foreman. The foreman will inform the Environmental Consultant who will evaluate the situation. If there is suspect WTC Dust present the Environmental Consultant will cordon off the area and assure that all necessary remediation will be completed by the project's abatement contractor using certified asbestos handlers under negative pressure containment before the selective demolition work can continue. The Environmental Consultant shall determine the scope and extent of any work stoppage necessary to identify and eliminate the source of the contamination.

2.14 Phase V: Re-Construction

When Phase IV has reached floor 5, re-construction will begin. At this time, the final phase of the abatement (Phase III J) will be complete, and the entire structure will be abated before construction will begin.

The work will involve structural steel erection and structural concrete. A tower crane will be required for steel erection and will be placed on Washington Street in accordance with the Site Logistics Plan (Appendix F). The crane will be tied in on abated floors only. Worker access to the construction areas will be via the exterior hoist and/or main (clean) stairway.

3.0 Contaminated Materials to be Remediated During Abatement Phase

The following general procedures will be used for contaminated materials to be remediated during the abatement phase of the project. All surfaces shall be cleaned of visible dust or debris by wetting and wiping and/or vacuuming the surface. Pre-abatement preparation of all individual work areas (e.g., floors, elevator shafts) shall proceed as follows:

- Construct a personal and waste decon unit for use during the abatement phase.
- Install negative pressure exhaust machines in the appropriate locations. Remove all asbestos containing pipe insulation within the abatement area.
- Clean and remove all non-porous materials from the work area to the visual satisfaction of the Environmental Consultant and dispose of as provided in the Section 7.0, Waste Sampling and Management Plan.
- Remove all porous materials and dispose of as asbestos waste at a minimum, unless otherwise provided in the Section 7.0, Waste Sampling and Management Plan.
- Remove lead-based paint from all columns, wall surfaces, partitions, painted or stained floors, treads, handrails, and the stairwell utilizing mechanical techniques that minimize generation of lead dust and release of lead dust (e.g., wet scrape shroud attachments).
- Remove all ACM plaster/skim coat.
- All dust detected in mechanical chases, exhaust chases, mail chutes, etc will be low pressure power washed in the same way as the exterior façade. All waste water shall be collected and filtered through a 5 micron filter per the NYCDEP. Sampling analysis will be performed per Section 7.4 of the Waste Sampling Management Plan.
- Remove fluorescent light ballasts from fixtures. Collect ballasts for disposal in accordance with the Section 7.0, Waste Sampling and Management Plan.
- Remove fluorescent light bulbs and place in protective sleeves and dispose of in accordance with Section 7.0, Waste Sampling and Management Plan.
- If the 3' high spandrel exterior walls below the windows are deemed or found to be contaminated with WTC dust and/or the window caulking or glazing is sampled and analyses show either to be asbestos containing, erect an Exterior Wall Containment Option #1 or #2 (Appendix A and Appendix B).
- Perform first, second, and final cleanings of each abatement area.
- The Environmental Consultant, EPA, and NYCDEP shall then perform a final visual inspection of each abatement area. Provided the work area passes the final visual inspection, clearance sampling will then commence in accordance with Section 3.0, Specification for the Removal of the Building from Containment.

4.0 Full Containment Worksite Procedures During Abatement Phase

Contractor shall, at a minimum, perform all functions listed below where applicable during the Abatement Phase.

- Construct full worker and waste decontamination facilities in accordance with the conditions specified in NYCDEP Title 15, Chapter 1 and in accordance with NYCDEP variance attachment DI, where applicable, as well as NYSDOL ICR 56. Decontamination units shall be constructed in the following locations.
- A personnel decon shall be constructed on the 1st floor (or other location, as identified by Owner).
- A waste decon shall be constructed on the 1st floor, leading from the elevators to the loading dock.
- Install HEPA filtration units per floor in accordance with the NYCDEP variance. HEPA filtration and auxiliary air ventilation shall conform to this specification, and shall exhaust in a location designated by and/or acceptable to Owner.
- Install critical isolation barriers in accordance with NYCDEP Title 15, Chapter 1 and NYSDOL ICR 56.
- Pre-clean the worksite according to NYCDEP Title 15, Chapter 1, NYSDOL ICR 56 and Section 2.4 of this document.
- Perform asbestos removal in accordance with NYCDEP Title 15, Chapter 1 and NYSDOL ICR 56 including all variance attachment specifications and required special conditions as specified by the NYCDEP.
- Upon completion of the Abatement Phase, clearance criteria shall be met in accordance with the Section 3.0, Specification for the Removal of the Building from Containment.

5.0 Full Containment Worker and Waste Decontamination Facilities

Contractor shall confirm that all decontamination facilities are in compliance with NYCDEP Title 15, Chapter 1 and NYSDOL ICR 56. HEPA ventilation equipment shall be placed in a manner to provide an even distribution of airflow through both the worker and the waste decontamination units. The airflow patterns shall be checked by Contractor via smoke testing at the beginning of each shift.

6.0 Pre-Cleaning Requirements During Abatement Phase

A combination of wet methods and use of HEPA vacuum equipment will be used to pre-clean all objects and surfaces within the proposed access tunnels that will connect the freight and/or passenger elevator lobbies to the work areas. Dry methods, such as dry sweeping, shall not be allowed. When the entire area has

been thoroughly cleaned, Contractor shall request and pass a pre-sealing visual inspection before advancing to the next step in the abatement process.

7.0 Partitions During Abatement Phase

Contractor shall ensure that structural partitions are built to separate the full-containment work areas from non-work areas in all openings larger than 32 square feet except where any one dimension is one foot or less.

Partitions shall be constructed of:

- Conventional 2" x 4" (minimum) non-combustible fire-retardant wood or metal stud framing, maximum 16" center-to-center spacing.
- Fire-retardant plywood or other solid material of at least 3/8" thickness shall be applied to the work side of framing.
- Partitions shall be caulked and sealed at all joints and seams.

Prior to the erection of partitions, the asbestos containing material that will be disturbed during this activity will be treated first with amended water and removed using wet method and/or by tent or glove bag procedures as deemed appropriate by the Environmental Consultant.

- Removal by these procedures is limited to a maximum of a one-foot wide strip running the length of the partition.
- The area will be monitored during this procedure.

8.0 Plasticizing During Abatement Phase

A variance for no plasticization has been filed and accepted by the NYCDEP. The only plasticization required will be critical barriers and tunnels.

9.0 Engineering Controls During Abatement Phase

Prior to mobilization, Contractor shall submit to the Environmental Consultant the manufacturer's specification of each model of HEPA filtered air unit to be utilized on the Project.

Contractor shall provide for and be responsible for the following:

- HEPA filtered units shall be continuously monitored for proper operations and maintenance of filters.
- HEPA filtered air units shall utilize a dedicated power source. Multiple units shall be turned on one by one to ensure that integrity of plastic barriers is maintained.
- HEPA filtered units shall run continuously from beginning of isolation until successful air clearance results have been obtained pursuant to Specification for the Removal of the Building from Containment.

- On each floor, Contractor shall maintain a minimum of four (4) units. Contractor shall also maintain a minimum of two (2) spare units on each floor that can be immediately used in the event of the failure of one or more HEPA filtered air units not resulting from a power outage or other outside cause.
- If loss of electric power should occur, abatement work during the Abatement Phase shall stop immediately until power is restored.

Power failures longer than one-half hour will require:

- Decontamination units sealed after evacuation of workers.
- All adjacent areas will be monitored for fiber contamination by the Environmental Consultant.

10.0 Worker Protection During Abatement Phase

All workers shall be certified asbestos handlers and shall bring to the work area, and present for inspection each day, their handler certificate, copies of documentation indicating successful completion of their initial training courses and any necessary refresher courses, and copies of their most recent medical evaluation.

Asbestos handlers entering the enclosure(s) shall:

- Remove all street clothes and don disposable suits (provided by Contractor) at the worker decontamination facility, then proceed directly to the work area. Suits shall be Tyvek or Tyvek equivalent outer and may be spun poly inner.
- Wear appropriate NIOSH-approved HEPA filter personal respiratory equipment, as deemed necessary by the work being performed. Full-face, positive-pressure air purifying respirators (PAPR) with HEPA filters shall be required in full-containment enclosures. Air purifying half face respirators with P-100 filters will be utilized during preparation activities only.
- Prior to exiting the enclosure(s), asbestos handlers shall remove their disposable suit(s) and proceed directly to the decontamination unit shower room, where full decontamination procedures shall be performed (i.e., showering).
- Personal air monitoring of all workers in accordance with OSHA regulations is the sole responsibility of Contractor. Upon request by the Environmental Consultant, Contractor shall provide written results of this monitoring within 24 hours.

11.0 Disposal Requirements During Abatement Phase

All asbestos waste including the containment plastic, all plastic sheeting utilized in critical barrier construction, disposable suits, and any other debris deemed contaminated by the Environmental Consultant, shall be wetted with amended water then placed in clean, 6 mil plastic asbestos containing waste bags. These bags shall be wet wiped and/or HEPA vacuumed. Each bag shall then be placed in an additional properly labeled, clean 6 mil plastic ACW bag and sealed airtight. All bags shall be affixed with identification labels indicating site of origin, date and Owner's name.

Storage, transport and disposal of the waste shall be in accordance with NYCDEP, NYSDOL, and NYSDOT rules and regulations and in compliance with Section 7.0, Specification for Waste Sampling and Management Plan.

12.0 Ambient Air Monitoring During Abatement and Selective Demolition Phases

Air monitoring shall be conducted by the Environmental Consultant, except OSHA-mandated personal air monitoring of abatement workers which shall be the responsibility of the Contractor. All ambient asbestos abatement air monitoring will be conducted in accordance with applicable sections of NYCDEP Title 15, Chapter 1 and NYSDOL ICR 56. All community air monitoring will be performed in accordance with Section 4.0, Specification for Community Air Monitoring.

13.0 Post Abatement Phase Air Sampling

The work area is considered ready for re-entry when it is visually clean and meets the criteria set forth in Section 3.0, Specification for the Removal of the Building from Containment.

14.0 Appendices