FINAL COMPLIANCE REPORT FOR SUBCHAPTER 8 ASBESTOS ABATEMENT

Metuchen EMS Building
Borough of Metuchen
2 Safety Place, Metuchen, New Jersey

PREPARED FOR:
Borough of Metuchen
50 Main Street
Metuchen, New Jersey, 08840

PREPARED BY:
Montrose Environmental, Inc.
500 Horizon Drive, Suite 540
Robbinsville, New Jersey 08691

MONTROSE PROJECT NO. 14656-06

MONTROSE ENVIRONMENTAL

June 2024

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ASBESTOS REMEDIATION PROJECT
METUCHEN EMS BUILDING

Monitoring Firm: *Monitoring Firm License:*	Montrose Environmental, Inc. 500 Horizon Drive, Suite 540 Robbinsville, New Jersey 08691 (609) 890-7277 NJDCA ASCM: #00131
Montrose Management Team:	Julian Fernandez-Obregon, Project Manager Collin Oriente, Asbestos Safety Technician
Abatement Contractor:	Asbestos & Mold Services, Corp. 70 Stacy Haines Road Lumberton, NJ 08048 (609) 702-0400
Abatement Contractor License:	#00862
Analytical Laboratory:	EMSL Analytical, Inc. 1056 Stelton Road, Suite 5, Piscataway, NJ, 08854
Laboratory License:	AIHA Laboratory ID: #167035 NVLAP Laboratory Certificate: #101048-2
Project Location:	Metuchen EMS Building 2 Safety Place Metuchen, New Jersey
Services Performed by Montrose Environmental, Inc.:	Continuous and final air clearance sampling and laboratory analysis after the unoccupied subchapter-8 compliant removal of asbestos-containing floor tiles, associated mastic and underlying subfloor.

1.0 EXECUTIVE SUMMARY

From May 13 through May 24, 2024, Montrose Environmental, Inc. (Montrose) provided asbestos consulting services for The Borough of Metuchen during the unoccupied subchapter-8 compliant removal of asbestos-containing materials (ACM) on the 1st floor within the Metuchen EMS Building, located at 2 Safety Place, Metuchen, New Jersey. The mobilization concerned removal of ACM floor tiles, associated mastic, and underlying subfloor throughout the first-floor.

Asbestos & Mold Services, Corp. (Contractor), a State of New Jersey licensed asbestos abatement contractor (#00862), performed the abatement services. As the project included abatement of friable ACM in excess of 10 linear feet, N.J.A.C 5:23-8.11 (Subchapter 8) applied. The project was to be done in an occupied setting for both phases.

Montrose provided an Asbestos Safety Technician (AST) to review Contractor worker certifications, perform Contractor oversight, ensure that abatement specifications were followed, collect ambient air samples, identify and quantify all ACM removed, and conduct final air clearance sampling of the abated areas.

As the abatement project progressed, the AST continuously monitored the Contractor's work practices, generating a site log, as well as collecting ambient air samples in areas surrounding the abatement work areas for analysis by Phase Contrast Microscopy (PCM).

Once the Contractor removed all identified ACM from the work area, the AST visually inspected the work area to ensure the area was decontaminated to a level of no visible debris. All site logs are presented in **Appendix A**. Laboratory certifications and sample results are presented in **Appendix B**. Notifications and waste manifests are presented in **Appendix C**. Abatement specifications for the project are included in **Appendix D**.

2.0 PROJECT DESCRIPTION

The materials removed during this project included asbestos-containing flooring. Montrose was present during abatement activities. The following table details the locations and quantities of the removed materials.

WICOFF ELEMENTARY SCHOOL PROJECT-RELATED ASBESTOS-CONTAINING MATERIALS		
Location	**Material**	**Approx. Quantities**
First Floor	Floor Tiles, Mastic, Subfloor	2714 SF

2.1 WORK SEQUENCE

The following lists the sequence for removal and decontamination of the abated materials:

- Scheduling the project for a day with minimal personnel on-premises.
- Mobilized equipment and personnel to job site.
- Performed pre-abatement inspection of Contractor engineering controls.
- Quantified all materials to be removed.
- Collected ambient air samples to monitor airborne fiber levels.
- Oversight of the non-friable abatement of asbestos-containing materials.
- Performed oversight of Contractor work practices.
- Oversight of proper removal and disposal of regulated waste from the work areas.
- Performed visual inspections to ensure no visible debris remaining in work areas.

2.2 ENGINEERING CONTROLS

All ACM work was completed according to all appropriated laws and regulations regarding ACM abatement. The AST was on-site at all times to monitor and oversee the mobilization of the Contractor and appropriate equipment to the work areas, construction and breakdown of each work area engineering controls, removal and disposal of regulated materials, and asbestos air sampling throughout the project. A copy of the site log included in **Appendix A** and sample results in **Appendix B**.

The Contractor employed the following engineering controls during the removal of all identified ACM from the work area:

- Isolating the work area in a full containment.
- Installed an attached decontamination at the entrance of the work area.
- Removing the ACM mechanical means (grinders).

2.3 WORK PROCEDURES

Measures to minimize the release of fibers and dust during removal of abated materials included:

- Transferring waste to an approved work vehicle for transport to a disposal site.

2.4 WORKER PROTECTION

Workers who performed abatement activities wore Tyvek suits, safety gloves, safety glasses, and proper respiratory protection, as needed.

2.5 DECONTAMINATION

Workers performed proper decontamination upon exiting the asbestos work area by:

- Removing and disposing of protective clothing.
- Removing and rinsing respirator.
- Donning street clothing.

2.6 DISPOSAL

The Contractor placed asbestos-containing waste material in doubled, opaque, and impermeable plastic bags. The bags were placed into a designated work vehicle that was driven to a disposal site. The required asbestos waste manifests from the Contractor are included in **Appendix C**.

3.0 AIR MONITORING

3.1 SAMPLE COLLECTION

The AST collected samples of air on twenty-five (25) millimeter, mixed-cellulose ester filter membranes (0.8-micron pores) contained in manufacturer pre-assembled, three-piece cassettes with electrically conductive, extended cowls. Pump flow rates were determined, both at the start and at the end of the sampling period, with a rotameter that is calibrated quarterly. Fibers from ambient air were collected with the filter cassette open-faced and positioned at approximately five feet above the floor.

3.2 SAMPLE ANALYSIS

Ambient air samples were analyzed utilizing the PCM method of analysis. The microscope used for sample analysis was equipped with a phase contrast condenser. Sizing and fiber counts were performed at four hundred times (400X) magnification. Samples were analyzed by EMSL Analytical, Inc. (EMSL), of Piscataway, NJ during abatement activities.

Samples were analyzed by the National Institute of Occupation Safety and Health (NIOSH) Method 7400 using Method "A" counting rules. Method "A" rules count only those fibers that have a length greater than five microns and a length-to-width ratio greater than three-to-one. All fibers, regardless on nature, are counted. All air sample results are reported in fibers per cubic centimeter of air (f/cc).

Final air samples were analyzed utilizing TEM AHERA method. Final laboratory samples were transported to and analyzed by EMSL, of Piscataway, NJ.

3.3 QUALITY ASSURANCE

EMSL participates in the NIOSH/American Industrial Hygiene Association (AIHA) Proficiency Analytical Testing (PAT) Program and the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) to ensure consistency and accuracy in methodology. EMSL maintains a quality control (QC) program for all of its analytical methods.

3.4 LABORATORY QUALIFICATIONS

EMSL is accredited by the NVLAP. Below is a list of the current and relevant certifications and accreditations held by EMSL:

- NVLAP Laboratory Certificate #101048-2

Copies of the laboratory certifications are included in **Appendix B**.

3.5 SAMPLE RESULTS

All daily project samples were analyzed via PCM, and final air samples were collected via TEM. Samples collected exhibited fiber concentrations below the re-occupancy standard. Copies of the asbestos air sample laboratory reports are included in **Appendix B**.

4.0 CONCLUSIONS

Based on project oversight, including results of air sampling, all abatement work completed at the Metuchen EMS Building was completed in accordance with all applicable Local, State, and Federal abatement regulations. All other air sample results were found to achieve the acceptable criteria established by USEPA for re-occupancy during asbestos abatement activities.

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with customary principles and practices in the field of environmental science and engineering. This statement is in lieu of other statements either expressed or implied. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

This report is intended for the use by the Borough of Metuchen, subject to the terms and conditions of Montrose Proposal No. 2024-93. Montrose makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the performance of the work and preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied, unless otherwise agreed to by Montrose and a third party or specified in the above mentioned contract. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations, is at risk of said user.

MONTROSE ENVIRONMENTAL, INC.

Julian Fernandez-Obregon
Director, Industrial Hygiene Services
Senior Industrial Hygienist
Asbestos Safety Technician
AHERA Building Inspector, Management Planner, Project Designer

APPENDIX A

Site Logs

0800

5/9/24 830 am Monday

3Hr Turnaround For all PCM samples 14656-06

Inspections max 2000 AFD capacity

Pre-Conn QCFM) = Velocity x Area of AFD (4SF

call before setup Progress # of units = work area in ft³ x 4 air changes / AFD in low mode Q x 60 min

Pre-Sealing

after setup Cleanup

Final

when final passes

Zero Manometer in morning & afternoon
Check manometer every 2hrs.

Need Specs, Map, Notification Air samples, 2 sets

Check manometer 1800

AMS - Ash

# of units = 24,426 x 4 = 97,704 / 1800 x 60 = 108,000 = .904 = 1 units

- 3 layers of ceiling Poly,

16,28.4 - .904 / 1800

5/13/24 Metuchen Sub-8 EMS Building

Contractor: AMS (Asbestos Mob Services) WasteID # 0035680

Construction Perm.# : 24-0283 ASCM # 00131

Collin Onsite (# 01402) (# 00862)

0825 MES on-site, met with AMS Supervisor Jeff Langley (# 36420). Walked through work area and discussed plan and strategies for removal.

0830 Both parties began unloading equipment

Crew from AMS arrives

Zachary Dashinger (# 38139) Tyler Mullarkey (# 601261)

Nicholas Mullarkey (# 36335)

William Cheez (# 600595)

0845 Parties continued unloading supplies

0905 MES + AMS completed unloading supplies

AMS began work area prep by removing doors and baseboards

0935 AST measured average ceiling height in work area to be approximately 9ft, total work area CF = 24,426

0940 Spoke on the phone with julian fernandez - Oregon MES ASCM. Reported AMS requested to use a pop-up decon, AST told AMS that decon needed to be constructed of wood.

0958 AMS Began construction 4x4 decon chamber

1030 Continued Decon construction and began constructing isolation barriers

5/13/24 Metuchen Sub-8 EMS Building

1100 AMS began lunch break. CO

1057 Jim Heron DCA Inspector On-Site offsite @ 1140

1145 Ralph Carchia + Julian Fernandez-Obregon Onsite. (#0140)
discussed dumpster location needing to be moved.
per jim herons request - proper signage was
placed on all doors. CO

1200 AMS began sealing off critical barriers. using
6mil fire retardant poly. Decon was constructed
using fire-rated wood + 6mil fire retardant poly.
AMS came back from lunch break @ 1200 CO

1245 AMS continues, Decon construction, plasticizing ceilings,
installing 2-layer critical barriers CO

1305 AMS Installed 3 flap weighted doors within decon

1325 AMS began remaing drawers, built in cabinetry

1400 AMS beginning to leave for the day, site secured
by MES & AMS.

1430 AMS + MES Offsite by 1430 CO

5/14/24

0800 AMS + MES onsite @ 0800 AMS Crew
Z. Valhinger (#38139) Juan Lux Vicente (#600090)
N. Mallarkey (#36335)
T. Mallarkey (#601261)
W. Cheaz (#600595)
J. Longley (#36420)

5/14/24 Metuchen Sub-8 EMS Building

0915 AMS continued installing 3-layers of 6mil fire retardant ceiling
poly and 1 layer on walls.

0923 AMS Completed Constructing lockable door for decon,
Continues removing sinks, built in cabinetry + countertops.

1015 AMS Continues plasticizing ceilings in work area,
Decon Structural construction completed, Shower with hot
water, 3 layer weighted doors installed. Manometer installed

1100 AMS + MES take lunch break

1200 Returned from lunch.

1246 Spoke with N. Mallarkey, stated that work area should
be ready for abatement to begin end of
workday-tomorrow, will request precon for thurs
morning 0930

1397 Continued Plasticization, most ceilings complete
2 layers on most walls

1400 AMS offsite

1410 Called for pre-con inspection at 0930 thursday

1415 MES offsite

5/15/24

0800 AMS + MES Onsite CO
AMS Crew
Z. Valhinger (#38139) W. Cheaz (#600595) ~~Not onsite today~~ CO
N. Mallarkey (#36335) J. Longley (#36420)
T. Mallarkey (#601261) J. Vicente (#600090)

5/15/24 — Metuchen Sub-8 EMS Building

0820 AMS Continues plasticization.

0856 Spoke with J. Longley (#36420), stated that truck would be coming today or tommorow to move waste container

0950 Horizon trucking onsite to move waste can, moved can low

1105 AMS begins lunch break

1120 AST C. Oseste offsite to pickup lunch

1130 AST. Corriente returned

1205 AMS back from lunch

1310 AMS Nearing completion of plasticization AFDs set up

AFDs set to low mode

AFD #1 (Top left)

300.	400	325.
350	300	250
200	170	180

2ft (2ft) Unit #1

Average = 263.89 ft/min

$Q_1 = 263.89 \frac{ft}{min} \times 4 ft^2$

$Q_1 = 1055.56$ CFM

$ACH = \frac{1055.56 \times 60}{24,426} = 2.6$ air changes per hour

AFD #2 (Bottom left)

400	400	350
300	300	300
200	300	300

2ft (2ft) Unit #2

Average = 325.5 ft/min

$Q_2 = 325.5 \times 4 ft^2$

$Q_2 = 1302$ CFM

$ACH = \frac{1302 \times 60}{24,426} = 3.2$ air changes per hour

$1055.56 CFM + 1302 CFM = 2357.56 CFM$

$\frac{24,426 CF}{2357.56 CFM} = 10.36$ minutes for change every

5.8 air changes per hour

5/15/24 — Metuchen Sub-8 EMS Bldg

Unit 1 # of units needed = $\frac{24,426 ft^3 \times 4 air changes}{1055.56 CFM \times 60 min} = \frac{97,704}{63,333.6} = 1.5$ units

Unit 2 # of units needed = $\frac{24,426 ft^3 \times 4 air changes}{1302 CFM \times 60 min} = \frac{97,704}{78,120} = 1.25$ units

1330 According to AFD calculations in low mode, 2 Units will be sufficent and will be run in high mode.

1390 N. Mullarkey set up manometer to check negative pressure, pressure at -0.035 under the required unoccupied pressure.

1400 AMS organizing materials preparing to leave.

1420 AMS + MES offsite.

5/16/24 AMS + MES onsite @ 0800

0800

0826 AMS requests pre-com inspection as soon as debris are cleared from work area. State scheduled inspection was set for 0900, if DCA does not show up within 30 mins they have their right for inspection, CO conducted PreCom (given not prev requested by T. Longley)

0843 Turned on manometer + zero cal was preformed. Smoke test also preformed. smoke entered work area confirming negative flow. Manometer reading at -0.035

0924 Began setting up air sampling pumps

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5/16/24

0924 One air sample placed in Clean room, two Out side the clean room adjacent to decon, and One on the other side of seperation barrier.

0935 Air sampling begins, 4 PCM Cassetes. @ 4 LPM

0942 workers enter suited up in tyvek + respirators through decon. Manometer reading -0.040

Air Sampling Table

@ 1145 checked

Sample ID	Cassette #	pump #	start	stop	LPM	L
M-1	DL142534	198238	0935	1145	5	650
M-2	" 553	198309	0935	1145	5	650
M-3	" 557	198308	0936	1146	5	650
M-4	" 558	199405	0936	1146	5	650
M-5	" 554	198238	1145	1345	5	600
M-6	" 548	198309	1145	1345	5	600
M-7	" 528	198308	1146	1346	5	600
M-8	" 550	199405	1146	1346	5	600
M-9	DL142543					
M-10	DL142550					

1000 Removal Begins, manometer @ -0.038

AMS Crew

W. Cheaz (#600595) Z. Valhinger (#38139)

T. Mullarkey (#601261) N. Mullarkey (#601261)

J. Longley (#36420)

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5/16/24

1044 N. Mullarkey relays to MES that 9"x9" FT was discovered underneath Beige 12"x12" FT, they will attempt to use mastic remover and then a grinder if that does not suffice

1050 Workers exit decon for lunch

1052 AMS+MES Lunch Break

1150 AMS+MES Back from lunch

1145-1146 Switched Out 4 PCM Cassetes

1200 Workers suit up + Don respirators + enter Containment

Manometer reading @ -0.039

1320 Workers exit decon after remedy tyveks + respirators

1345-1346 Removed 4 PCM Cassetes, N. Mullarkey stated almost all tile has been removed

1348 AMS Offsite Manometer @ -0.030, zero cal

1355 MES Offsite

5/17/24

0800 AMS+MES On site, Manometer reading 0.034, zero cal and smoke test preformed, 4 PCM Cassetes setup

0815 Workers don tyveks + respirators and enter decon

AMS Crew

W. Cheaz (#600595) Z. Valhinger (#38139)

T. Mullarkey (#601261) N. Mullarkey (#601261)

J. Longley (#36420)

5/17/24 Metuchen Sub-8 EMS Building

Air Sampling Table

Sample ID	Cassette #	pump #	Start	stop	LPM	L total
M-11	DL1425910	198238	0758	0958	5	600L
M-12	" "5536	198309	0758	0958	5	600L
M-13	" "5432	198308	0800	1000	5	600L
M-14	" "533	199405	0800	1000	5	600L
M-15	" "541	198238	0958	1158	5	600L
M-16	" "538	198309	0958	1158	5	600L
M-17	" "537	198309	1000	1200	5	600L
M-18	" "544	199405	1000	1200	5	600L
M-19	" "542					
M-20						

0900 AMS Sets up waste decon and begins bagging bagging out. removed tile

0930 AMS Continues bagging out waste

1000 Switched out 4 PCM cassetes, checked manometer reading @ -0.028, low pressure due to containment being opened + closed while bagging waste

1017 Waste decon sealed - manometer reading @ -0.032

1020 AMS Exits decon, N. Mullarkey stated they progressed to the point that all tile has been removed and they are ready to begin grinding next week.

1045 AMS offsite

5/17/24 Metuchen Sub-8 EMS Building

1140 Manometer reading @ -0.030, Spoke with Jeff longley and said another AFD can be turned on monitor to help stay well above -0.030 requirement

1200 Removed 4 PCM Cassettes

1205 MES Offsite, work site secured

5/20/24

0800 AMS + MES on site, reading of manometer @ -0.030, AMS stated they will be turning on another AFD today.

0820-30 Workers Don respirators and tyvek suits enter decon.

AMS Crew

W. Chear (#600595) Z. Vainkinger (#38139)
I. Mullarkey (#601261) N. Mullarkey (#601261)
J. longley (#36420)

0845 Smoke test preformed, negative air pulled smoke into decon.

0955 N. Mullarkey instructed crew to turn on a third AFD on low mode, pressure reading after turning on AFD @ -0.043. Zero calibrated

0980 AMS continues mastic removal

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Air Sampling Table

Sample ID	cassette #	pump #	start	stop	LPM	Total L
M-21	DL142521	198238	0800	1100	5	900
M-22	DL142517	198309	0800	1100	5	900
M-23	DL142525	198308	0801	1101	5	900
M-24	DL142524	199405	0801	1101	5	900
M-25	DL142522	198238	1100	1900	5	900
M-26	DL142539	198309	1100	1900	5	900
M-27	DL142526	198308	1101	1901	5	900
M-28	DL142529	199405	1101	1401	5	900
M-29	DL142531					
M-30	DL142527					

1045 Manometer reading @ -0.040 AMS continues mastic removal

1100 Replaced 4 PCM Cassettes

1105 AMS Workers exit Decon., Removing tyvek's + respirators

1110 AMS+MES begin lunch break

1200 AMS+MES return from lunch

1212 AMS enters decon

1240 AMS continues Mastic Removal

1322 Manometer reading at -0.042 "

[redacted]

1348 Workers exit decon

1400 4 PCM cassettes removed

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1404 zero cal manometer and smoke tested decon, (passed) Manometer @ -0.044.

1415 AMS + MES offsite

5/22/24

0800 AMS+MES Onsite, Manometer @ -0.038, ZeroCal + Smoketest preformed

0801-AST COriente enters Containment for progress inspection

0804 Mastic around edges of walls mostly removed, using large grinder today to remove bulk of mastic

0805 AMS & MES note that pressure has repeatedly dropped after all doors to garage where air enters the work site is closed. will attempt to crack a door or window to allow for airflow.

0805 4 PCM Cassettes set up., AMS Enters decon after donning tyveks + respirators.

AMS Crew

W. Checz (#600595) N. Mullarkey (#601261)

T. Mullarkey (#601261)

J. Longley (#36420)

0815 AMS Continues Mastic removal.

1053 AMS workers exit decon, begin lunch break, 4 PCM cassettes replaced

1150 AMS Workers return from lunch

1151 Manometer @ -0.050, Smoke test preformed, workers enter decon after donning PPE.

5/22/24

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Air Sampling Table

Sample ID	Cassette #	Pump #	Start	Stop	LPM	Total L
M-31	DL142512	198238	0805	1105	5	900L
M-32	" 11511	198309	0805	1105	5	900L
M-33	" 11513	198308	0806	1106	5	900L
M-34	" 11514	198405	0806	1106	5	900L
M-35	" 11520	198238	1105	1405	5	900L
M-36	" 516	198309	1105	1405	5	900L
M-37	" 11523	198308	1106	1406	5	900L
M-38	" 515	198405	1106	1406	5	900L
M-39	" 11519					
M-40	" 11518					

1245 Manometer reading @ -0.050

1245 AMS Workers exit Decon

1350 C.Oriente Enters work area for progress inspection

1355 C.Oriente exits containment

1355 AMS offsite, Manometer @ -0.045, smoke test + zero cal performed

1405 4 PCM cassettes removed

1415 C.Oriente offsite

5/23/24

AMS + MES Onsite

0800 4 PCM Cassettes setup

0810 Manometer @ -0.040, zero cal + smoke test preformed

5/22/24

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Air Sampling Table

Sample ID	Cassette #	Pump #	Start	Stop	LPM	Total L
M-41	DL142508	198238	0800	1100	5	900L
M-42	" 11507	198309	0800	1100	5	900L
M-43	" 11510	148308	0801	1101	5	900L
M-44	" 11506	198405	0801	1101	5	900L
M-45	" 11509	148238	1100	1400	5	900L
M-46	" 11505	198309	1100	1400	5	900L
M-47	" 11498	198308	1101	1401	5	900L
M-48	" 11504	198405	1101	1401	5	900L
M-49	" 11500	[illegible]				
M-50	" 11501					

0820 AMS Offsite to pickup supplies, will return around 0900

0920 AMS returns to site, unload equipment, don PPE and enter containment.

0930 AMS Continues mastic removal Manometer @ 0.035

AMS Crew

N. McMarkey (#160126)

J. Longley (#36920)

Z. Varnbinger (#39139)

1033 (G) Jim Heron (DCA) onsite

1115 Jim Heron DCA offsite

1218 AMS Crew exits decon, begins lunch break

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5/22/24

1200 AMS returns from lunch, Manometer @ 0.041 reenters decon and resumes removal.

1316 Manometer @ 0.037

1345 AMS exits decon, N. Mullarkey relayed that all grinding is complete except for touch ups. will be onsite @ 0730 tomorrow to begin cleanup an preparation for encap

1350 AMS offsite

1400 Manometer check @ 0.041, zero cal + smoke test preformed

1405 C. Oriente secured jobsite, offsite shortly after

5/23/24

0700 AMS + MES onsite manometer @ 0.031

4 PCM Cassettes setup,

0715 AMS Enters Decon, will be mostly cleaning up dust and debris in prep for encap.

AMS Crew

W. Chevez (600595) — Ivan Baray (601383) David Cuevas (322196)

Ibanpaate ZHiNin (36516) J. Longley (36420)

Anglica Mendez (600112) N. Mullarkey (601261)

0856 Manometer Check @ -0.032, smoke + cstezero, cal preformed, Pressure drops due to bagging out waste

0900 4 PCM Cassettes replaced

0919 Workers begin removing equipment from workarea and continue bagging out

Metuchen EMS Building Sub-8

5/23/24

Air Sampling Table

Sample ID	Pump Cassette #	Cassette Temp #	Start	Stop	LPM	Total L
M-51	198238	DL142947	0700	0900	5	900
M-52	198309	"	976	0700	0900	5	900
M-53	198308	"	992	0701	0901	5	900
M-54	198405	"	995	0701	0901	5	900
M-55	198238		970	0900		5	
M-56	198309		994	0900		5	
M-57	198308	DL143032		0901		5	
M-58	198405	DL143033		0901		5	
M-59		DL142971					
M-60		DL142794					

0951 amended water was sprayed on manometer and caused a +0.050 pressure reading, quickly amended and pressure returned to -0.030, N. Mullarkey requested pre-sealed inspection

0006 Waste and equipment continue to be bagged out and removed, pressure fell to -0.015, quickly corrected

0009 C. Oriente enters Decon and conducts pre-sealed inspection. Contractor passes.

1015 AMS begins encapsulation, but not before loading last couple of waste bags out and cleaning area they were in.

1034 Manometer @ -0.034

1050 AMS completes encapsulation, C. Oriente conducts clean up inspection

1055 contractor pass

Finals Airsampling Table

Sample ID	cassette#	pump #	Start	stop	LPM	total L
MF-1	PBG10511	198239	1320	1520	10	1200
MF-2	" 4516	198309	1320	1520	10	1200
MF-3	" 4521	198308	1320	1521	10	1200
MF-4	" 4489	200255	1321	1521	10	1200
MF-5	" 4490	198405	1321	1521	10	1200
MF-6	" 4525		1322	1522	10	1200
MF-7	" 4484		1322	1522	10	1200
MF-8	" 4520		1322	1522	10	1200
MF-9	" 4491		1323	1523	10	1200
MF-10	" 4496		1323	1523	10	1200
MF-11	" 4506					
MF-12	" 4526					
MF-13	" 4501					

1055 AMS Workers exit decon for lunch break, manometer reading @ -0.032

1107 C.Oriente offsite to pickup lunch

1115 C.Oriente returned from lunch

1155 AMS workers return from lunch, don PPE and re-enter decon, will begin taking down wall poly

1205 AMS Completes plastic removal bags out, exits decon

1210 C.Oriente enters containment and begins aggressive airmovers

1250 Prep for final air sampling complete, waste dcon removed and manometer reading @ -0.032

1258 AMS Offsite

1310 Fans powered off

1320 C.Oriente begins final air sampling, setting up 4 OWA TEM cassettes and 4 IWA Cassettes.

1437 Manometer check @ -0.032, smoke test + zero cal performed

1520 Removed 10 TEM cassettes, manometer @ -0.043

C.Oriente secures jobsite, offsite @ 1525

6/13/24

- 3 samples of potential glazing on ~~door~~ mantins → DR
- 3 samples of any ~~caulking~~ material underneath metal sash
- 3 samples of any material under steel lintel → Lib + LR
- 3 samples of any substrate material behind trim

6/14/24 LBP 11 Terrapin Lane, Hamilton NJ @ 9am

MONTROSE

Client: Boro of Metuchen
Project #: 14656-00
Project: Metuchen EMS Building
Date: 05/13/2024
Contractor: Asbestos + Mold Services
Technician: CO
Work Area: 1st Floor, Floor File Mastic

Task	Date/Time	Signature
Contractor Request for Pre-Commencement Inspection	5/16/24 0845	
Asbestos Safety Technician Notice to Proceed With Abatement	5/16/24 0915	
Contractor Request for Pre-Encapsulation Inspection	5/23/24 0957	
Asbestos Safety Technician Pre-Sealant Inspection Approval	5/23/24 1009	
Contractor Request for Cleanup Inspection	5/23/24 1050	
Asbestos Safety Technician Cleanup Inspection Approval	5/23/24 1055	
Asbestos Safety Technician Notice to Remove Critical Barriers		

Final Air Testing Results:

Phase Contrast Microscopy EACH must be less than 0.010 f/cc	Transmission Electron Microscopy AVERAGE Must be less than 70 s/mm^2
_____ f/cc	< 13.00 s/mm^2
_____ f/cc	< 13.00 s/mm^2
_____ f/cc	< 13.00 s/mm^2
_____ f/cc	< 13.00 s/mm^2
_____ f/cc	< 13.00 s/mm^2

Task	Date/Time	Signature
Contractor Request for Final Inspection		
Asbestos Safety Technician Final Inspection Report		

__ Decontamination unit has been dismantled and the waste has been disposed of properly;
__ Waste dumpster has been removed from the site by a licensed waste hauler;
__ Work area(s) is free of all tape residue, staples, spray glue residue, and encapsulant overspray;
__ Work area(s) has been restored to the original condition prior to abatement
__ Contractor has removed all OSHA danger signs.

List of Damages by Contractor:

MONTROSE ENVIRONMENTAL

REQUEST FOR PRE-COMMENCEMENT INSPECTION

CLIENT: Boro of Metuchen SITE: Metuchen AMS Bldg. WORK AREA: 1st Floor	CONTRACTOR: AMS LICENSE #: 00862 SUPERVISOR: Jeff Longley	DATE: 5/13/24 PROJECT #: 14656-06 AST: CO

PRE-COMMENCEMENT INSPECTION REQUEST

I, Jeff Longley an asbestos abatement supervisor for AMS, am requesting a pre-commencement inspection for the asbestos abatement work area indicated above in accordance with New Jersey Administrative Code (NJAC) 5:23-8.7(a)1.

AST NAME (PRINT): Collin Oriente	**AST SIGNATURE:**
CERT.NO: 01462	**DATE:** 5/10/24
SUPERVISOR NAME (PRINT):	**SUPERVISOR SIGNATURE:**
CERT.NO: 36420	**DATE:** 5/10/24

MONTROSE

PRE-COMMENCEMENT INSPECTION

CLIENT: Boro of Metuchen	CONTRACTOR: AMS	DATE: 5/16/24
SITE: Metuchen EMS Building	LICENSE #: 00862	PROJECT #: 14656-06
WORK AREA: 1st Floor	SUPERVISOR: Jeff Longley	AST: CO

Pre-Con. INSPECTION CHECKLIST	YES	NO
Posting of signs.	✓	
Posting of regulations.	✓	
Posting of emergency phone numbers.	✓	
Existence of emergency plans.	✓	
Shutting down and sealing off of HVAC. Filters should be disposed of as waste.	✓	
Cleaning articles removed from work area.	✓	
Shutting down of electrical service.	✓	
Special precautions in areas in which electricity cannot be shut down.		✓
Ground fault circuit interrupters.	✓	
Adequate # of AFDs & proper placement for adequate air flow, extra unit, vented outside, & tests.	✓	
Assure that none of the preparation activities are causing fiber release.	✓	
Assure that Subchapter 8 is complied with.	✓	
Assure the use of safe work practices.	✓	
Assure the workers/supervisors are permitted.	✓	
Assure that showers have warm water and soap.	✓	
Assure that there is adequate lighting.	✓	

CERTIFICATION OF PRE-COMMENCEMENT INSPECTION

I, Collin Oriente, an asbestos safety technician for Montrose Environmental, have completed the required Pre-Abatement Inspection according to the New Jersey Administrative Code (NJAC) 5:23-8.7(a)2.

AST NAME (PRINT): Collin Oriente	**AST SIGNATURE:** CO
CERT.NO: 01962	**DATE:** 5/16/24
SUPERVISOR NAME (PRINT): Jeff Longley	**SUPERVISOR SIGNATURE:** JL
CERT.NO: 36420	**DATE:** 5/16/24

MONTROSE ENVIRONMENTAL

PROGRESS INSPECTION CHECKLIST

CLIENT: Boro of Metuchen	CONTRACTOR: AMS	DATE: 5/21/24
SITE: Metuchen AMS Building	LICENSE #: 00862	PROJECT #: 14656-06
WORK AREA: 1st Floor	SUPERVISOR: Jeff Longley	AST: CO

PROGRESS INSPECTION CHECKLIST	YES	NO	N/A
Critical barriers properly maintained?	✓		
Amended water being used?	✓		
Removal started nearest to decontamination?	✓		
Proper chutes for high area (over 15')?			✓
Double bagging of waste?	✓		
Sharp edged materials in boxes or drums?			✓
Bags and/or drums properly labeled?	✓		
Free water added to waste or solidified?			✓
Workers carrying valid permits? Log names; numbers?	✓		
Field file up to date with results?	✓		
Administrative authority notified of high fiber count?			✓
Air monitoring in a minimum of three (3) locations?	✓		
Smoke testing performed and results recorded at least once every four (4) hours?	✓		
Decontamination and waste water filter operational?	✓		
Contractor OSHA monitor on site?			✓
Previous shifts TWA results posted?	✓		
Site locked and secured at end of shift?	✓		
Waste container locked and secured at end of shift?	✓		
AFD capacities verified through magnahelic and/or velometer readings and recorded at least twice per shift?	✓		
OSHA warning signs at all points?	✓		
Waste container removed from site? If yes, hauler name and ID#.		✓	
Entry/exit log maintained and up-to-date?		✓	

Comments: Proper Negative pressure, PPE, removal techniques + waste disposal

AST NAME (PRINT): Collin Oriente	**AST SIGNATURE:**
CERT.NO: 01462	**DATE:** 5/21/24
SUPERVISOR NAME (PRINT): Jeff Longley	**SUPERVISOR SIGNATURE:**
CERT.NO: 36420	**DATE:** 5/21/24

MONTROSE ENVIRONMENTAL

PRE-SEALANT INSPECTION

CLIENT: Boro of Metuchen
CONTRACTOR: AMS
PROJECT NO: 146560-06
AST: CO

PROJECT LOCATION: Metuchen EMS Building
WORK AREA: 1st Floor

DATE: 5/23/24
PAGE NO: 1 of 1

OBSERVATION CHECKLIST

WORK ITEMS	PASS	FAIL	N/A	CORR	WORK ITEMS	PASS	FAIL	N/A	CORR
(If initialed, explain below)					(If initialed, explain below)				
Barriers/isolation/containment	✓				Emergency/lights-temp. power			✓	
Decontamination system	✓				Worker protection	✓			
Power shut down – locked out	✓				Proper procedures	✓			
HVAC shut down – sealed	✓				Waste-packaging/labeling/store	✓			
Adequate negative pressure	✓				Product-equipment verification	✓			
Proper signage posted	✓				Product storage conditions	✓			
Emergency/exits clear	✓				Replacement materials installed			✓	
Fire extinguishers	✓				Air monitoring	✓			
Work area cleanliness	✓				Other				
Work practices	✓				Other				

OBSERVATION LOG NOTES

Work area clean of dust and debris, waste removed, equipment removed. Two remaining waste bags were discovered at the rear of building near the waste decon, AST instructed workers to remove bags and clean area after incapsulation.

NAME (PRINT): Collin Orienzo
SIGNATURE:

CERT.NO: 01462
DATE: 5/23/24

MONTROSE ENVIRONMENTAL

REQUEST FOR CLEAN-UP INSPECTION

CLIENT: Boro of Metuchen	CONTRACTOR: AMS	DATE: 5/23/24
SITE: Metuchen EMS Building	LICENSE #: 00862	PROJECT #: 14656-06
WORK AREA: 1st Floor	SUPERVISOR: Nick McMarkey	AST: CO

CLEAN-UP INSPECTION REQUEST

I, Nick McMarkey an asbestos abatement supervisor for AMS, am requesting a clean-up inspection for the asbestos abatement work area indicated above in accordance with New Jersey Administrative Code (NJAC) 5:23-8.7(a)1.

AST NAME (PRINT): Collin Oriente	**AST SIGNATURE:**
CERT.NO: 01462	**DATE:** 5/23/24
SUPERVISOR NAME (PRINT): X	**SUPERVISOR SIGNATURE:** X
CERT.NO: 601261	**DATE:** 5/23/24

MONTROSE ENVIRONMENTAL

CLEAN-UP INSPECTION

CLIENT: Boro of Metuchen SITE: Metuchen EMS Building WORK AREA: 1st Floor	CONTRACTOR: AMS LICENSE #: 00862 SUPERVISOR: Nick Mallarkey	DATE: 5/23/24 PROJECT #: 14656-06 AST: CO

CLEAN-UP INSPECTION CHECKLIST	PASS	FAIL
Check waste containers.	✓	
Decontamination unit should be intact and fully operational.	✓	
Air differential unit(s) still operating.	✓	
All critical seals still intact.	✓	
Fixtures should be unwrapped and thoroughly cleaned.	✓	
Sealing is complete – distinguishable colored sealant must be used.	✓	
All areas are clean – after repeated cleaning, problem areas may need extra sealant.	✓	

If area fails the cleaning inspection the entire area must be:

1. Recleaned; and
2. Resealed

CERTIFICATE OF CLEAN-UP INSPECTION

I, Collin Oriente, an asbestos safety technician for Montrose Environmental, have performed a clean-up inspection and found the contractor to be in compliance in accordance with New Jersey Administrative Code (NJAC) 5:23-8.7(c).

AST NAME (PRINT): Collin Oriente	**AST SIGNATURE:**
CERT.NO: 01402	**DATE:** 5/23/24
SUPERVISOR NAME (PRINT): X	**SUPERVISOR SIGNATURE:** X
CERT.NO: 001201	**DATE:** 5/23/24

MONTROSE ENVIRONMENTAL

NOTICE TO REMOVE CRITICAL BARRIERS

CLIENT: Boro of Metuchen SITE: Metuchen EMS Building WORK AREA: 1st Floor	CONTRACTOR: AMS LICENSE #: 00862 SUPERVISOR: Nick Mullerkey	DATE: 5/24/24 PROJECT #: 14656-06 AST: JFO

NOTICE TO REMOVE CRITICAL BARRIERS

In accordance with the Uniform Construction Code, Asbestos Hazard Abatement Subcode NJAC 5:23-8 ~~Collin Oriente~~ John Fernandez-Arroyo of Montrose Environmental has monitored the above referenced Asbestos Abatement Project.

All required inspections reveal no visible asbestos, and final air samples indicated less than 0.010 fibers/cc or 70 structures/mm^2, under Transmission Electron Microscopy (TEM AHERA) in accordance with NJAC 5:23-8.21.

In accordance with 5:23-8.7(c)4, the Asbestos Safety Technician Hereby gives notification to remove all critical barriers from the above-mentioned work area(s)

AST NAME (PRINT): John Fernandez-Arroyo	**AST SIGNATURE:**
CERT.NO: 01401	**DATE:** 5/24/24
SUPERVISOR NAME (PRINT): Jeff Langley	**SUPERVISOR SIGNATURE:**
CERT.NO: 36420	**DATE:** 5-24-24

MONTROSE ENVIRONMENTAL

FINAL INSPECTION CHECKLIST

CLIENT: Boro of Metuchen SITE: Metuchen EMS Building WORK AREA: 1st Floor	CONTRACTOR: LICENSE #: 00868 SUPERVISOR: Nick Mallarkey	DATE: 5/23/24 PROJECT #: 14656-06 AST:

FINAL INSPECTION CHECKLIST	YES	NO
Has a "notice to Remove Critical Barriers" been issued?	✓	
Have critical barriers been removed and cleaned behind?		
Residual duct tape and poly removed?		
Has waste container been removed from the site? List hauler, time, and date in comments.		
Are final air test results all less than 0.010 fibers/cc?	✓	
Are written results to final air samples on-site?	✓	
Drawings reviewed to ensure completion of entire scope of work?	✓	

COMMENTS

AST NAME (PRINT): John Fernandez-Vargas	**AST SIGNATURE:**
CERT.NO: 01407	**DATE:** 5/24/24
SUPERVISOR NAME (PRINT): Jeff Langley	**SUPERVISOR SIGNATURE:**
CERT.NO: 36920	**DATE:** 5-24-24

MONTROSE ENVIRONMENTAL

FINAL INSPECTION CERTIFICATE

CLIENT: Boro of Metuchen	CONTRACTOR: AMS	DATE: 5/24/24
SITE: Metuchen EMS Building	LICENSE #: 00862	PROJECT #: 14657-06
WORK AREA: 1st Floor	SUPERVISOR: Nick Mallarkey	AST: JFO

FINAL INSPECTION CERTIFICATE

I, JFO, an asbestos safety technician for Montrose Environmental, have performed a final inspection and found the contractor to be in compliance in accordance with New Jersey Administrative Code (NJAC) 5:23-8.7(d).

AST NAME (PRINT): John Fernandez-Bravo	**AST SIGNATURE:**
CERT.NO: 01449	**DATE:** 5/24/24
SUPERVISOR NAME (PRINT): Jeff Longley	**SUPERVISOR SIGNATURE:**
CERT.NO: 36420	**DATE:** 5-24-24

MONTROSE ENVIRONMENTAL

CERTIFICATE OF COMPLETION

CLIENT: Boro of Metuchen	CONTRACTOR: AMS	DATE: 5/29/12
SITE: Metuchen EMS Building	LICENSE #: 00862	PROJECT #: 14656-06
WORK AREA: 1st Floor	SUPERVISOR: Jeff Langley	AST: ~~CO~~ JFO

CERTIFICATE OF COMPLETION

Pursuant to the requirements of the Project Specification and in accordance with applicable federal, state, and local regulations, the asbestos abatement project conducted herewith at Metuchen EMS Bldg is deemed complete.

Julian Fernandez-Obregon

The Final Inspection, conducted by ~~Collin Oriente~~ of Montrose Environmental revealed no visible asbestos dust remaining in the work area. All Final Air Monitoring results have met the regulatory standards Post-Abatement Limit of 0.01 fibers per cubic centimeter by Phase Contrast Microscopy (PCM) or analysis performed according to the protocol listed in Appendix A to the Subpart of 40 CFR 769 (AHERA) for Transmission Electron Microscopy (TEM).

The final air monitoring results are attached to this Certificate of Completion for the following work area(s);

1: 1st Floor

AST NAME (PRINT): Julian Fernandez-Obregon	**AST SIGNATURE:**
CERT.NO: 01401	**DATE:** 5/29/12

APPENDIX B

Laboratory Sample Results & Certifications

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101048-2

EMSL Analytical, Inc.

Piscataway, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2023-07-01 through 2024-06-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
1056 Stelton Rd.
Piscataway, NJ 08854
C. Michael Slattery
Phone: 732-981-0550
Email: cslattery@emsl.com
http://www.emsl.com

ASBESTOS FIBER ANALYSIS **NVLAP LAB CODE 101048-2**

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

Code	*Description*
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program

OrderID: 042410494

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 042410494

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL ANALYTICAL, INC.
200 ROUTE 130 N
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5973

Company : Montrose Environmental Inc.

EMSL-Bill to: ☒ Same ☐ Different
If Bill to is Different note instructions in Comments**
Third Party Billing requires written authorization from third party

Street: 500 Horizon Drive, Suite 540

City: Robbinsville **State/Province:** NJ **Zip/Postal Code:** 08691 **Country:** USA

Report To (Name): Julian Fernandez-Obregon (collin orzente)

Fax #: 609-890-9116

Telephone #: 609-890-7277

Email Address: jfernandez@montrose-env.com (corzente@montrose-env.com)

Project Name/Number: Metuchen EMS Building Sub-8 Finals

Please Provide Results: ☐ Fax ☒ Email **Purchase Order:** 4650-06 **U.S. State Samples Taken:** NJ

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☒ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ 4-4.5hr TAT (AHERA only)
- ☒ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Collin Orzente **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	See Attached		

RECEIVED EMSL CINNAMINSON, NJ 2024 MAY 23 P 5:00

Client Sample # (s): - **Total # of Samples:** 13

Relinquished (Client): **Date:** 5/23/24 **Time:**

Received (Lab): Jenni W **Date:** 5/23/24 **Time:** 5:00p

Comments/Special Instructions:

MONTROSE ENVIRONMENTAL

Air Chain of Custody
Montrose Environmental, Inc.
Collin Oriente

RECEIVED
EMSL
CINNAMINSON, N.J.
2024 MAY 23 P 5:08

Project Location: Metuchen EMS Building
Date: 5/23/24
TAT: 6 Hour

042410494

Sample ID #	Analyte	Sample Location	LPM Start	LPM End	Average LPM	Start Time	End Time	Volume
MF-1	Asbestos	OWA #1	10	10	10	1320	1520	1200L
MF-2	↓	OWA #2	↓	↓	↓	1320	1520	1200L
MF-3	↓	OWA #3	↓	↓	↓	1320	1520	1200L
MF-4	↓	OWA #4	↓	↓	↓	1321	1321	1200L
MF-5	↓	OWA #5	↓	↓	↓	1321	1521	1200L
MF-6	↓	IWA #1	↓	↓	↓	1322	1522	1200L
MF-7	↓	IWA #2	↓	↓	↓	1323	1522	1200L
MF-8	↓	IWA #3	↓	↓	↓	1322	1522	1200L
MF-9	↓	IWA #4	↓	↓	↓	1323	1523	1200L
MF-10	↓	IWA #5	↓	↓	↓	1323	1523	1200L
MF-11	↓	Blank #1 OWA						
MF-12	↓	Blank #2 IWA						
MF-13		Blank #3 Lab						

Project Number: 14656-06

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order: 042410494
Customer ID: PARS51
Customer PO: 14656-06
Project ID:

Attention: Julian Fernandez-Obregon
Montrose Environmental Solutions
500 Horizon Drive
Suite 540
Robbinsville, NJ 08691
Project: Metuchen EMS Building Sub-8 Finals

Phone: (609) 890-7277
Fax: (609) 890-9116
Received Date: 05/23/2024 17:10 PM
Analysis Date: 05/23/2024
Collected Date: 05/23/2024

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm²)	Non Asb	Asbestos Type(s)	#Structures ≥0.5µ < 5µ	#Structures ≥5µ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm²)	Asbestos Concentration (S/cc)
MF-6	IWA #1	1200.00	0.0768	0	None Detected	0	0	0.0042	<13.00	<0.0042
042410494-0001										
MF-7	IWA #2	1200.00	0.0768	0	None Detected	0	0	0.0042	<13.00	<0.0042
042410494-0002										
MF-8	IWA #3	1200.00	0.0768	0	None Detected	0	0	0.0042	<13.00	<0.0042
042410494-0003										
MF-9	IWA #4	1200.00	0.0768	0	None Detected	0	0	0.0042	<13.00	<0.0042
042410494-0004										
MF-10	IWA #5	1200.00	0.0768	0	None Detected	0	0	0.0042	<13.00	<0.0042
042410494-0005										

Analyst(s)

Debbie Little (5)

Samantha Rundstrom, Laboratory Manager
or other approved signatory

Initial report from: 05/23/2024 22:07 PM

EMSL Analytical, Inc.

1056 Stelton Road Piscataway, NJ 08854
Tel/Fax: (732) 981-0550 / (732) 981-0551
http://www.EMSL.com / piscatawaylab@emsl.com

EMSL Order: 052402184
Customer ID: PARS51
Customer PO:
Project ID:

Attention: Julian Fernandez-Obregon
Montrose Environmental Solutions
500 Horizon Drive
Suite 540
Robbinsville, NJ 08691
Project: Metuchen EMS Building Sub-8 Abatement

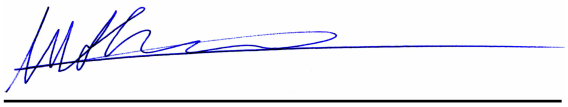
Phone: (609) 890-7277
Fax: (609) 890-9116
Received Date: 05/16/2024 01:55 PM
Analysis Date: 05/16/2024
Collected Date: 05/16/2024

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/14/2019

Sample	*Location*	*Sample Date*	*Volume (L)*	*Fibers*	*Fields*	*LOD (fib/cc)*	*Fibers/mm²*	*Fibers/cc*	*Notes*
M-1 *052402184-0001*	Outside Seperation Barrier	05/16/2024	650	6	100	0.0041	7.64	0.0045	
M-2 *052402184-0002*	Adj To Decon #1	05/16/2024	650	11	100	0.0041	14.0	0.0083	
M-3 *052402184-0003*	Clean Room	05/16/2024	650	<5.5	100	0.0041	<7.01	<0.0041	
M-4 *052402184-0004*	Adj To Decon #2	05/16/2024	650	12.5	100	0.0041	15.9	0.0094	
M-5 *052402184-0005*	Outside Serpation Barrier	05/16/2024	600	8	100	0.0045	10.2	0.0065	
M-6 *052402184-0006*	Adj To decon #1	05/16/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
M-7 *052402184-0007*	Clean Room	05/16/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
M-8 *052402184-0008*	Adj To Decon #2	05/16/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
M-9 *052402184-0009*	Lab Blank	05/16/2024		<5.5	100		<7.01		Field Blank
M-10 *052402184-0010*	Field Blank	05/16/2024		<5.5	100		<7.01		Field Blank

The results reported have been blank corrected as applicable.

Analyst(s):
Colin Slattery PCM 10



C. Michael Slattery, Lab Manager
or other Approved Signatory

Initial report from: 05/16/2024 03:05 PM

MONTROSE ENVIRONMENTAL

Air Chain of Custody
Montrose Environmental, Inc.
Collin Oriente

RECEIVED
EMSL
CINNAMINSON, N.J.
2024 MAY 23 P 5:08

Project Location: Metuchen EMS Building
Date: 5/23/24
TAT: 6 Hour

042410494

Sample ID #	Analyte	Sample Location	LPM Start	LPM End	Average LPM	Start Time	End Time	Volume
MF-1	Asbestos	OWA #1	10	10	10	1320	1520	1200L
MF-2	↓	OWA #2	↓	↓	↓	1320	1520	1200L
MF-3	↓	OWA #3	↓	↓	↓	1320	1520	1200L
MF-4	↓	OWA #4	↓	↓	↓	1321	1321	1200L
MF-5	↓	OWA #5	↓	↓	↓	1321	1521	1200L
MF-6	↓	IWA #1	↓	↓	↓	1322	1522	1200L
MF-7	↓	IWA #2	↓	↓	↓	1323	1522	1200L
MF-8	↓	IWA #3	↓	↓	↓	1322	1522	1200L
MF-9	↓	IWA #4	↓	↓	↓	1323	1523	1200L
MF-10	↓	IWA #5	↓	↓	↓	1323	1523	1200L
MF-11	↓	Blank #1 OWA						
MF-12	↓	Blank #2 IWA						
MF-13		Blank #3 Lab						

Project Number: 14656-06

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order: 042410497
Customer ID: PARS51
Customer PO: 14656-06
Project ID:

Attention: Julian Fernandez-Obregon
Montrose Environmental Solutions
500 Horizon Drive
Suite 540
Robbinsville, NJ 08691
Project: Metuchen EMS Building Sub-8

Phone: (609) 890-7277
Fax: (609) 890-9116
Received Date: 05/23/2024 05:10 PM
Analysis Date: 05/23/2024
Collected Date: 05/23/2024

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/14/2019

Sample	*Location*	*Sample Date*	*Volume (L)*	*Fibers*	*Fields*	*LOD (fib/cc)*	*Fibers/mm²*	*Fibers/cc*	*Notes*
M-51 *042410497-0001*	Outside of Separation Barrier	05/23/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
M-52 *042410497-0002*	Adj to Decon #1	05/23/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
M-53 *042410497-0003*	Clean Room	05/23/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
M-54 *042410497-0004*	Adj to Decon #2	05/23/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
M-55 *042410497-0005*	Outside of Separation Barrier	05/23/2024	900	12	100	0.0030	15.3	0.0065	
M-56 *042410497-0006*	Adj to Decon #1	05/23/2024	900	16	100	0.0030	20.4	0.0087	
M-57 *042410497-0007*	Clean Room	05/23/2024	900	11	100	0.0030	14.0	0.0060	
M-58 *042410497-0008*	Adj to Decon #2	05/23/2024	900	19	100	0.0030	24.2	0.0104	
M-59 *042410497-0009*	Lab Blank	05/23/2024		<5.5	100		<7.01		Lab Blank
M-60 *042410497-0010*	Field Blank	05/23/2024		<5.5	100		<7.01		Field Blank

The results reported have been blank corrected as applicable.

Analyst(s):
Krysta Pestridge PCM 10

Samantha Rundstrom, Laboratory Manager
or other Approved Signatory

Initial report from: 05/23/2024 09:31 PM

OrderID: 042410497

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 042410497

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL ANALYTICAL, INC.
200 ROUTE 130 N
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5973

Company : Montrose Environmental Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 500 Horizon Drive, Suite 540	
City: Robbinsville **State/Province: NJ**	**Zip/Postal Code: 08691** **Country: USA**
Report To (Name): Julian Fernandez-Obregon Collin Orient	**Fax #: 609-890-9116**
Telephone #: 609-890-7277	**Email Address:** jfernandez@montrose-env.com Clorient@montrose-eak.com
Project Name/Number: Metuchen EMS Building Sub-8	
Please Provide Results: ☐ Fax ☒ Email **Purchase Order:** 140560-06	**U.S. State Samples Taken: NJ**

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☒ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
- ☒ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Collin Orient **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	See Attached		

RECEIVED EMSL CINNAMINSON, N.J. 2024 MAY 23 P 5:07

Client Sample # (s): - **Total # of Samples:** 10

Relinquished (Client): **Date:** 5/23/24 **Time:**

Received (Lab): **Date:** 5/23/24 **Time:** 5:10p

Comments/Special Instructions:

MONTROSE ENVIRONMENTAL

Air Chain of Custody
Montrose Environmental, Inc.
Collin Oriente

RECEIVED
EMSL
CINNAMINSON, N.J.
2024 MAY 23 P 5:07

Project Location: Metuchen EMS Building
Date: 5/23/24
TAT: ~~Hr~~ or 6 Hr

042410497

Sample ID #	Analyte	Sample Location	LPM Start	LPM End	Average LPM	Start Time	End Time	Volume
M-51	Asbestos	Outside of Separation Barrier	5	5	5	0700	0900	900L
M-52	↓	Adj to Decon #1	↓	↓	↓	0700	0900	900L
M-53	↓	Clean Room	↓	↓	↓	0701	0901	900L
M-54	↓	Adj to Decon #2	↓	↓	↓	0701	0901	900L
M-55	↓	Outside of Separation Barrier	↓	↓	↓	0900	1200	900L
M-56	↓	Adj to Decon #1	↓	↓	↓	0900	1200	900L
M-57	↓	Clean Room	↓	↓	↓	0901	1200	900L
M-58	↓	Adj to Decon #2	↓	↓	↓	0901	1201	900L
M-59	↓	Lab Blank	—	—	—	—	—	—
M-60	↓	Field Blank	—	—	—	—	—	—

Project Number: 14656-06

EMSL Analytical, Inc.

1056 Stelton Road Piscataway, NJ 08854
Tel/Fax: (732) 981-0550 / (732) 981-0551
http://www.EMSL.com / piscatawaylab@emsl.com

EMSL Order: 052402184
Customer ID: PARS51
Customer PO:
Project ID:

Attention: Julian Fernandez-Obregon
Montrose Environmental Solutions
500 Horizon Drive
Suite 540
Robbinsville, NJ 08691
Project: Metuchen EMS Building Sub-8 Abatement

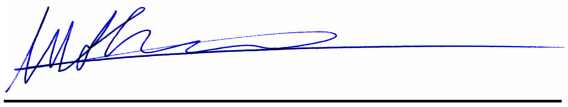
Phone: (609) 890-7277
Fax: (609) 890-9116
Received Date: 05/16/2024 01:55 PM
Analysis Date: 05/16/2024
Collected Date: 05/16/2024

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/14/2019

Sample	*Location*	*Sample Date*	*Volume (L)*	*Fibers*	*Fields*	*LOD (fib/cc)*	*Fibers/mm²*	*Fibers/cc*	*Notes*
M-1 *052402184-0001*	Outside Seperation Barrier	05/16/2024	650	6	100	0.0041	7.64	0.0045	
M-2 *052402184-0002*	Adj To Decon #1	05/16/2024	650	11	100	0.0041	14.0	0.0083	
M-3 *052402184-0003*	Clean Room	05/16/2024	650	<5.5	100	0.0041	<7.01	<0.0041	
M-4 *052402184-0004*	Adj To Decon #2	05/16/2024	650	12.5	100	0.0041	15.9	0.0094	
M-5 *052402184-0005*	Outside Serpation Barrier	05/16/2024	600	8	100	0.0045	10.2	0.0065	
M-6 *052402184-0006*	Adj To decon #1	05/16/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
M-7 *052402184-0007*	Clean Room	05/16/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
M-8 *052402184-0008*	Adj To Decon #2	05/16/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
M-9 *052402184-0009*	Lab Blank	05/16/2024		<5.5	100		<7.01		Field Blank
M-10 *052402184-0010*	Field Blank	05/16/2024		<5.5	100		<7.01		Field Blank

The results reported have been blank corrected as applicable.

Analyst(s):
Colin Slattery PCM 10



C. Michael Slattery, Lab Manager
or other Approved Signatory

Initial report from: 05/16/2024 03:05 PM

OrderID: 052402184

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 052402184

EMSL ANALYTICAL, INC.
200 ROUTE 130 N
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5973

Company : Montrose Environmental Inc.		**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments**	
Street: 500 Horizon Drive, Suite 540		*Third Party Billing requires written authorization from third party*	
City: Robbinsville	**State/Province: NJ**	**Zip/Postal Code: 08691**	**Country: USA**
Report To (Name): Julian Fernandez-Obregon, Collin Oriente		**Fax #: 609-890-9116**	
Telephone #: 609-890-7277		**Email Address:** coriente@montrose-env.com jfernandez@montrose-env.com	
Project Name/Number: Metuchen EMS Building Sub-8 Abatement			
Please Provide Results: ☐ Fax ☒ Email	**Purchase Order:** 19656-06	**U.S. State Samples Taken: NJ**	

Turnaround Time (TAT) Options* – Please Check

☒ 3 Hour | ☐ 6 Hour | ☐ 24 Hour | ☐ 48 Hour | ☐ 72 Hour | ☐ 96 Hour | ☐ 1 Week | ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
- ☒ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Collin Oriente **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	See Attached		

Client Sample # (s): - **Total # of Samples:** 10

Relinquished (Client): **Date:** 5/16/24 **Time:**

Received (Lab): **Date:** **Time:**

RECEIVED
MAY 16 2024
By
EMSL DISTAWAY

Comments/Special Instructions: 1553

MONTROSE ENVIRONMENTAL

Air Chain of Custody
Montrose Environmental, Inc.
Collin Oriente

052402184

Project Location: Metuchen EMS Building

Date: 5/16/24

TAT: 3 Hour

OrderID: 052402184

Sample ID #	Analyte	Sample Location	LPM Start	LPM End	Average LPM	Start Time	End Time	Volume
M-1	Asbestos	Outside Seperation Barrier	5	5	5	0935	1145	650L
M-2		Adj to Decon #1	5	5	5	0935	1145	650L
M-3		Clean Room	5	5	5	0936	1146	650L
M-4		Adj to Decon #2	5	5	5	0936	1146	650L
M-5		Outside Seperation Barrier	5	5	5	1145	1345	600L
M-6		Adj to Decon #1	5	5	5	1145	1345	600L
M-7		Clean Room	5	5	5	1146	1346	600L
M-8		Adj to Decon #2	5	5	5	1146	1346	600L
M-9		Lab Blank						
M-10		Field Blank						

RECEIVED
MAY 16 2024
BY
EMSL

Released by:

Project Number: 146566

EMSL Analytical, Inc.

1056 Stelton Road Piscataway, NJ 08854
Tel/Fax: (732) 981-0550 / (732) 981-0551
http://www.EMSL.com / piscatawaylab@emsl.com

EMSL Order: 052402215
Customer ID: PARS51
Customer PO:
Project ID:

Attention: Julian Fernandez-Obregon
Montrose Environmental Solutions
500 Horizon Drive
Suite 540
Robbinsville, NJ 08691
Project: 14656-06 / Metuchen EMS Building Sub-8 Abatement

Phone: (609) 890-7277
Fax: (609) 890-9116
Received Date: 05/17/2024 12:21 PM
Analysis Date: 05/17/2024
Collected Date: 05/17/2024

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/14/2019

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm²	Fibers/cc	Notes
M-11	Outside Serpation Barrier	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0001									
M-12	Adj To Decon #1	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0002									
M-13	Clean Room	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0003									
M-14	Adj To Decon #2	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0004									
M-15	Outside Seperation Barrier	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0005									
M-16	Adj To Decon #1	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0006									
M-17	Clean Room	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0007									
M-18	Adj To Decon #2	05/17/2024	600	<5.5	100	0.0045	<7.01	<0.0045	
052402215-0008									
M-19	Lab Blank	05/17/2024		<5.5	100		<7.01		Field Blank
052402215-0009									
M-20	Field Blank	05/17/2024		<5.5	100		<7.01		Field Blank
052402215-0010									

The results reported have been blank corrected as applicable.

Analyst(s):
Colin Slattery PCM 10

C. Michael Slattery, Lab Manager
or other Approved Signatory

Initial report from: 05/17/2024 03:16 PM

OrderID: 052402215

EMSL ANALYTICAL, INC.
LABORATORY•PRODUCTS•TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 052402215

EMSL ANALYTICAL, INC.
200 ROUTE 130 N
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5973

Company : Montrose Environmental Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 500 Horizon Drive, Suite 540	
City: Robbinsville **State/Province: NJ**	**Zip/Postal Code: 08691** **Country: USA**
Report To (Name): Collin Orienge Julian Fernandez-Obregon	**Fax #: 609-890-9116**
Telephone #: 609-890-7277	**Email Address:** cjorienge@montrose-env.com jfernandez@montrose-env.com
Project Name/Number: Metuchen EMS Building Sub-8 Abatement	
Please Provide Results: ☐ Fax ☒ Email **Purchase Order:** 146516-06	**U.S. State Samples Taken: NJ**

Turnaround Time (TAT) Options* – Please Check

☒ 3 Hour | ☐ 6 Hour | ☐ 24 Hour | ☐ 48 Hour | ☐ 72 Hour | ☐ 96 Hour | ☐ 1 Week | ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
- ☒ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Collin Orienge **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	See Attached		

RECEIVED
MAY 17 2024
By EMSL RISCATAWAY
1221 PM

Client Sample # (s): - **Total # of Samples:** 10

Relinquished (Client): **Date:** 5/17/24 **Time:**

Received (Lab): **Date:** **Time:**

Comments/Special Instructions:

MONTROSE ENVIRONMENTAL

Air Chain of Custody
Montrose Environmental, Inc.
Collin Oriente

052402215
Project Location: Metuchen EMS Building
Date: 5/17/24
TAT: 3 Hour

OrderID: 052402215

Sample ID #	Analyte	Sample Location	LPM Start	LPM End	Average LPM	Start Time	End Time	Volume
M-11	Asbestos	Outside Seperation Barrier	5	5	5	0758	0958	600L
M-12		Adj to Decon #1	5	5	5	0758	0958	600L
M-13		Clean Room	5	5	5	0800	1000	600L
M-14		Adj to Decon #2	5	5	5	0800	1000	600L
M-15		Outside Seperation Barrier	5	5	5	0958	1158	600L
M-16		Adj to Decon #1	5	5	5	0958	1158	600L
M-17		Clean Room	5	5	5	1000	1200	600L
M-18		Adj to Decon #2	5	5	5	1000	1200	600L
M-19		Lab Blank						
M-20		Field Blank						

RECEIVED
MAY 17 2024
By
EMSL PISCATAWAY

Released by:

Project Number: 14656-06

EMSL Analytical, Inc.

1056 Stelton Road Piscataway, NJ 08854
Tel/Fax: (732) 981-0550 / (732) 981-0551
http://www.EMSL.com / piscatawaylab@emsl.com

EMSL Order: 052402256
Customer ID: PARS51
Customer PO:
Project ID:

Attention: Julian Fernandez-Obregon
Montrose Environmental Solutions
500 Horizon Drive
Suite 540
Robbinsville, NJ 08691
Project: Metuchen EMS Building Sub-8 Abatement

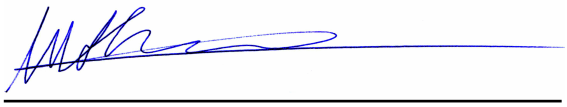
Phone: (609) 890-7277
Fax: (609) 890-9116
Received Date: 05/20/2024 02:36 PM
Analysis Date: 05/20/2024
Collected Date: 05/20/2024

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/14/2019

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm²	Fibers/cc	Notes
M-21	Outside Seperation Barrier	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0001									
M-22	Adj To Decon #1	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0002									
M-23	Clean Room	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0003									
M-24	Adj To Decon #2	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0004									
M-25	Outside Seperation Barrier	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0005									
M-26	Adj To Decon #1	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0006									
M-27	Clean Room	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0007									
M-28	Adj To Decon #2	05/20/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402256-0008									
M-29	Lab Blank	05/20/2024		<5.5	100		<7.01		Field Blank
052402256-0009									
M-30	Field Blank	05/20/2024		<5.5	100		<7.01		Field Blank
052402256-0010									

The results reported have been blank corrected as applicable.

Analyst(s):
Colin Slattery PCM 10



C. Michael Slattery, Lab Manager
or other Approved Signatory

Initial report from: 05/20/2024 04:55 PM

OrderID: 052402256

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 052402256

EMSL ANALYTICAL, INC.
200 ROUTE 130 N
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5973

Company : Montrose Environmental Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 500 Horizon Drive, Suite 540	
City: Robbinsville **State/Province: NJ**	**Zip/Postal Code: 08691** **Country: USA**
Report To (Name): Collin Orlando Julian Fernandez-Obregon	**Fax #: 609-890-9116**
Telephone #: 609-890-7277	**Email Address:** Corlando@montrose-env.com jfernandez@montrose-env.com
Project Name/Number: Metuchen EMS Building Sub-S Abatement	
Please Provide Results: ☐ Fax ☒ Email **Purchase Order:** 14056-06	**U.S. State Samples Taken: NJ**

Turnaround Time (TAT) Options* – Please Check

☒ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
☒ NIOSH 7400
☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
☐ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
Point Count
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/Gravimetric
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
☐ NYS 198.1 (friable in NY)
☐ NYS 198.6 NOB (non-friable-NY)
☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP
☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
☐ Microvac - ASTM D 5755
☐ Wipe - ASTM D6480
☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
☐ PLM CARB 435 - A (0.25% sensitivity)
☐ PLM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - C (0.01% sensitivity)
☐ EPA Protocol (Semi-Quantitative)
☐ EPA Protocol (Quantitative)

Other:
☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Collin Orlando **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	See Attached		

Client Sample # (s): - **Total # of Samples:** 10

Relinquished (Client): **Date:** 5/20/24 **Time:**

Received (Lab): **Date:** **Time:**

RECEIVED
MAY 20 2024
By: 236 pm
EMSL-PISCATAWAY

Comments/Special Instructions:

052402256

MONTROSE ENVIRONMENTAL

Air Chain of Custody
Montrose Environmental, Inc.
Collin Oriente

Project Location:

Date: 5/20/24
TAT: 3 Hour

Sample ID #	Analyte	Sample Location	LPM Start	LPM End	Average LPM	Start Time	End Time	Volume
M-21	Asbestos	Outside Separation Barrier	5	5	5	0800	1100	900L
M-22		Adj to Decon #1	5	5	5	0800	1100	900L
M-23		Clean Room	5	5	5	0801	1101	900L
M-24		Adj to Decon #2	5	5	5	0801	1101	900L
M-25		Outside Separation Barrier	5	5	5	1100	1400	900L
M-26		Adj to Decon #1	5	5	5	1100	1400	900L
M-27		Clean Room	5	5	5	1101	1401	900L
M-28		Adj to Decon #2	5	5	5	1101	1401	900L
M-29		Lab Blank						
M-30		Field Blank						
							RECEIVED	
							MAY 20 2024	
							By EMSL PISCATAWAY	

Released by:

Project Number: 14656-06

EMSL Analytical, Inc.

1056 Stelton Road Piscataway, NJ 08854
Tel/Fax: (732) 981-0550 / (732) 981-0551
http://www.EMSL.com / piscatawaylab@emsl.com

EMSL Order: 052402292
Customer ID: PARS51
Customer PO:
Project ID:

Attention: Julian Fernandez-Obregon
Montrose Environmental Solutions
500 Horizon Drive
Suite 540
Robbinsville, NJ 08691
Project: Metuchen EMS Building Sub-8 Abatement

Phone: (609) 890-7277
Fax: (609) 890-9116
Received Date: 05/22/2024 02:25 PM
Analysis Date: 05/22/2024
Collected Date: 05/22/2024

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 3, 6/14/2019

Sample	Location	Sample Date	Volume (L)	Fibers	Fields	LOD (fib/cc)	Fibers/mm²	Fibers/cc	Notes
M-41	Outside Of Seperation Barrier	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0001									
M-42	Adj To Decon #1	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0002									
M-43	Clean Room	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0003									
M-44	Adj To Decon #2	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0004									
M-45	Outside Of Seperation Barrier	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0005									
M-46	Adj To Decon #1	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0006									
M-47	Clean Room	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0007									
M-48	Adj To Decon #2	05/22/2024	900	<5.5	100	0.0030	<7.01	<0.0030	
052402292-0008									
M-49	Field Blank	05/22/2024		<5.5	100		<7.01		Field Blank
052402292-0009									
M-50	Lab Blank	05/22/2024		<5.5	100		<7.01		Field Blank
052402292-0010									

The results reported have been blank corrected as applicable.

Analyst(s):
Colin Slattery PCM 10

C. Michael Slattery, Lab Manager
or other Approved Signatory

Initial report from: 05/22/2024 03:57 PM

OrderID: 052402292

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 052402292

EMSL ANALYTICAL, INC.
200 ROUTE 130 N
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5973

Company : Montrose Environmental Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 500 Horizon Drive, Suite 540	
City: Robbinsville **State/Province: NJ**	**Zip/Postal Code: 08691** **Country: USA**
Report To (Name): Collin Oriente Julian Fernandez-Obregon	**Fax #:** 609-890-9116 COriente@montrose-env.com
Telephone #: 609-890-7277	**Email Address:** jfernandez@montrose-env.com
Project Name/Number: Metuchen EMS Building Sub-8 Abatement	
Please Provide Results: ☐ Fax ☒ Email **Purchase Order:** 14656-06	**U.S. State Samples Taken:** NJ

Turnaround Time (TAT) Options* – Please Check

☒ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
☒ NIOSH 7400
☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
☐ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
Point Count
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/Gravimetric
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
☐ NYS 198.1 (friable in NY)
☐ NYS 198.6 NOB (non-friable-NY)
☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT** (AHERA only)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP
☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
☐ Microvac - ASTM D 5755
☐ Wipe - ASTM D6480
☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
☐ PLM CARB 435 - A (0.25% sensitivity)
☐ PLM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - C (0.01% sensitivity)
☐ EPA Protocol (Semi-Quantitative)
☐ EPA Protocol (Quantitative)

Other:
☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: Collin Oriente **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
	See Attached		

Client Sample # (s): **Total # of Samples:** 10

Relinquished (Client): **Date:** 5/22/24 **Time:**

Received (Lab): **Date:** **Time:**

Comments/Special Instructions:

RECEIVED
MAY 22 2024
By
EMSL PISCATAWAY

225 pm

MONTROSE ENVIRONMENTAL

Air Chain of Custody
Montrose Environmental, Inc.
Collin Oriente

052402292
Project Location: Metuchen EMS Building
Date: 5/22/24
TAT: 3 Hour

Sample ID #	Analyte	Sample Location	LPM Start	LPM End	Average LPM	Start Time	End Time	Volume
M-41	Asbestos	Outside of Separation Barrier	5	5	5	0800	1100	900L
M-42		Adj to Decon #1	5	5	5	0800	1100	900L
M-43		Clean Room	5	5	5	0801	1101	900L
M-44		Adj to Decon#2	5	5	5	0801	1101	900L
M-45		Outside of Separation Barrier	5	5	5	1100	1400	900L
M-46		Adj to Decon #1	5	5	5	1100	1400	900L
M-47		Clean Room	5	5	5	1101	1401	900L
M-48		Adj to Decon#2	5	5	5	1101	1401	900L
M-49		Field Blank						
M-50		Lab Blank						

RECEIVED
MAY 22 2024
By
EMSL-PISCATAWAY

Released by:

Project Number: 14656-06

APPENDIX C

Regulatory Notifications & Waste Manifests

State of New Jersey
NOTIFICATION OF ASBESTOS ABATEMENT BY ASCM FIRM
(Pursuant to N.J.A.C. 5:23-8.11(c)3.viii.)

Date of Notification (1): 05/01/2024	Name of Building Owner / Operator (2): Borough of Metuchen
Type Notification: ☐ Initial Notification ☒ Amended Notification ☐ Cancellation	Street Address: 50 Main Street
	City, State & Zip Code: Metuchen NJ 08840
	Name of Contact: Ralph Carchia — Telephone Number: (973) 978-5044

FACILITY INFORMATION

Name of Facility Where Abatement is Taking Place (3): Metuchen EMS Building	Type of Facility (4): ☐ School (K-12) ☒ Subchapter 8 (Other than K-12)
Street Address: 2 Safety Place	Square Feet: 75000 — # of Floors: 2 — Bldg. Age: 50+
City (5): Metuchen — County (6): Middlesex — County Code (7):	Current Use (Prior if being demolished): E. Educational-6+ persons thru gr. 12, daycare 5+ children > 2 1/2 yrs.
Name of Monitoring Firm Hired by Building Owner (8): Montrose Envrionmental — ASCM No.: 00131	Name of Abatement Contractor (9): Asbestos & Mold Services, Corp.
Street Address: 500 Horizon Dr, Suite 540	Street Address: 70 Stacy Haines Road
City, State & Zip Code: Robbinsville NJ 08691	City, State & Zip Code: Lumberton NJ 08048
Project Manager for Monitoring Firm: Julian Fernandez-Obregon — Telephone Number: (609) 890-7277	Telephone Number: (609) 702-0400 — License Number: 00862
Scheduled Start Date (10): 05/13/2024 — Scheduled Completion Date (11): 05/24/2024	Name of OSHA Monitor: **NA**
Occupancy Status During Abatement (Check all that apply): ☒ Facility Closed/Vacated During Entire Period of Abatement ☐ Abatement Performed Outside of Normal Hours – 7am to 3pm Describe: ☐ Facility Occupied During Abatement	Street Address: **NA** — City, State & Zip Code: **NA**
Scope of Work (Check all that apply): ☒ Full Containment ☐ Glove Bag	

Location of Asbestos-Containing Material (ACM) TO BE ABATED in Facility (13)	Is Location Normally Used Solely by Maintenance or Custodial Staff? (12)	Description of Asbestos-Containing Material (ACM) (i.e., thermal systems insulation, surfacing, VAT or other miscellaneous)	Enter only Square Footage	Enter only Lineal Footage
First Floor	○ Yes ◉ No	Subfloor Leveler/Mastic	2,714 *sf*	*lf*
	○ Yes ◉ No		*sf*	*lf*
	○ Yes ◉ No		*sf*	*lf*
	○ Yes ◉ No		*sf*	*lf*
	○ Yes ◉ No		*sf*	*lf*
	○ Yes ◉ No		*sf*	*lf*
	○ Yes ◉ No		*sf*	*lf*
	○ Yes ◉ No		*sf*	*lf*
TOTALS			2,714 **SF**	0 **LF**

Completed By (Print or Type)	Title	Signature	Date
Julian Fernandez-Obregon	Director, Health & Safety		05/01/24

APPENDIX D

Abatement Specifications

ASBESTOS ABATEMENT SPECIFICATIONS

Metuchen EMS Building
2 Safety Place
Metuchen, New Jersey 08840

PREPARED FOR:
Borough of Metuchen
44 Jersey Avenue, Metuchen, NJ 08840
Metuchen, NJ 08840

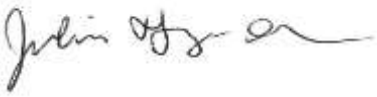
PREPARED BY:
Montrose Environmental, Inc.
500 Horizon Drive, Suite 540
Robbinsville, NJ 08691

MONTROSE PROJECT NO. 14656-06

MONTROSE ENVIRONMENTAL

May 2024

Prepared/ Approved By:



Julian Fernandez-Obregon
Project Manager
AHERA Project Designer
Certification #64897

5/1/2024
Date

Revisions:

Revision 1. Date: _____ Amended By: _____

Revision 2. Date: _____ Amended By: _____

Revision 3. Date: _____ Amended By: _____

Revision 4. Date: _____ Amended By: _____

TABLE OF CONTENTS

1.0 PURPOSE

The purpose of these projects is to safely remove asbestos-containing materials (ACM) within the Borough of Metuchen (Client) Emergency Medical Services (EMS) Building, which is slated for demolition. The EMS building is located at 2 Safety Place, Metuchen, New Jersey, and the ACM being removed is a subfloor underlayment encompassing the entire first floor (Site). These specifications are created to ensure compliance with all applicable regulations, and to prevent the release of friable asbestos fibers. Removal of the identified ACM will be performed in accordance to local, state, and federal regulations regarding asbestos removal, transportation, and disposal. This project will recognize and take all reasonable precautions against the documented biological and occupational dangers of airborne asbestos fibers. The work will be performed in manner that poses no immediate or long-term danger or health threat to the contractor workers and the occupants of the Borough of Metuchen. The project will be done in an unoccupied setting.

2.0 SCOPE OF WORK

Work consists of the removal and disposal of asbestos-containing materials (ACM) listed in the table below. It is the responsibility of Asbestos & Mold Services, Corp. (license #00862), the Asbestos Abatement Contractor (AAC), to identify and remove all of the ACM from the locations listed in the tables below.

Glassboro Intermediate School		
Material	**Location**	**Estimated Quantities**
Subfloor Leveler/Mastic	First Floor	2714 SF

All removal activities will take place within a full containment environment as per Subchapter 8. Due to the unoccupied status of the building during removal, a minimum of one (1) air change every fifteen (15) minutes and -0.03 inches w.c. or greater is required.

2.1 SPECIAL CONDITIONS

A. The AAC shall be responsible for the full compliance of all required governmental regulations in all aspects of these projects for which they are responsible to perform.

B. All ACM will be disposed of at a New Jersey Department of Environmental Protection (NJDEP) landfill, as specified in NJAC 7:26 and 40 CFR Part 61, Subpart M.

C. Following the removal of the ACM, the AAC is responsible to spray encapsulant, in a contrasting color, all surfaces where ACM was removed prior to air clearance testing.

D. The containment and decontamination units will be constructed according to Sub-Chapter 8 requirements. Fire retardant polyethylene sheeting and wood will be required for use in construction of the containment and decontamination units. The AAC is required to construct a personnel and waste decontamination unit attached to each work area.

E. Amounts of material that are provided as part of these specifications are estimates only. The AAC is responsible for determining exact quantities.

F. The AAC is responsible for supplying all materials and labor for non-asbestos work (i.e. plumbing, electrical, carpentry, demolition) that are related to this asbestos abatement project.

G. Re-installation of new flooring, insulation, or other materials is not required as part of the project scope of work.

H. The AAC is responsible for making all the required Municipal, State, and Federal notifications for the projects and obtaining the construction permits, variances, and certificates of occupancy. Any associated filing fees are the contractors' responsibility.

I. The AAC is responsible for providing a minimum of two (2) digital manometers with continuous printout to measure the pressure differential at each work area and to maintain a negative pressure differential between the work area and all adjacent spaces less than or equal to -0.03 inches water column (w.c.) and maintain four (4) air changes per hour (See Appendix A for locations.). These manometers shall be used to monitor pressure at the decontamination chamber and where interior make-up air is drawn into the site.

J. The AAC shall supply a securable waste container (dumpster) in which all the packaged asbestos-containing waste (ACW) will be stored prior to transport. The location of the waste container shall be located as depicted in Appendix A.

K. All electric panels, telephone panels, security systems, windows, etc. shall be protected by covering with plywood and a minimum of two (2) layers of 6 mil polyethylene sheeting, sealed individually with spray adhesive and quality duct tape. Special care shall be taken that no electrical equipment is damaged during the project and/or any other furnishings (i.e. piping, louvers, walls, floors, etc.). If anything is damaged, the AAC will be held financially responsible.

L. It is recommended that the AAC document and photograph all existing damage in and adjacent to the work areas prior to starting any activities.

M. All electrical power to the work areas shall be protected by ground fault circuit interrupters (GFCIs) located outside of the work area.

N. The water sources for each work area shall be located outside of the work areas.

O. The AAC is responsible for Occupational Safety and Health Administration (OSHA) personal air monitoring according to 29 Code of Federal Regulations (CFR) 1926.1101. OSHA samples shall be collected and analyzed using the National Institute for Occupational Safety and Health (NIOSH) 7400 method by an OSHA-defined competent person. The time-weighted average (TWA) results must be received within 24 hours and must be posted at the job site.

P. All license and patent requirements are the sole responsibility of the AAC. Montrose Environmental shall not be held accountable for any patent infringements made by the AAC.

Q. The AAC must protect workers according to OSHA regulations, including 29 CFR

1910.134 and 29 CFR 1926.1101.

R. The AAC must satisfy the Client's insurance requirements.

S. The AAC must fulfill all requirements of United States Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 763.61 Subpart M.

T. Asbestos waste containers must be labeled as required by OSHA (29 CFR 1926.1101 [K] [2] [iii]).

U. Asbestos removal must comply with all applicable Federal, State, and Municipal regulations, codes and ordinances including but not limited to the following:

- USEPA AHERA/ASHARA 40 CFR 763
- USEPA NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLUTANTS – (ASBESTOS 40 CFR 61 SUBPART M)
- NJ DCA ASBESTOS CONTROL ACT NJAC 5:23-8:60 (SUBCHAPTER 8)
- NJ DLWD ASBESTOS LICENSING ACT NJAC 12:120
- NJ DEP DISPOSAL REGULATION NJAC 7:26
- OSHA 29 CFR 1926.1101

V. Negative air pressure units must provide a minimum of four (4) air changes per hour during the course of the abatement projects. Given the size of the work area, it is recommended that a ceiling be installed, as most ceilings are up to twenty feet high. Installation of a ceiling would reduce the volume of the work area, making it easier to meet the minimum number of air changes with fewer AFDs.

W. The AAC shall protect all surfaces within each work area as per 29 CFR 1926.1101 and Subchapter 8.

X. The AAC will be required to install critical barriers on all doorways and windows as well as equipment and fixtures.

Y. The cost for any additional air sampling that may become necessary due to air sample results above 0.01 fibers per cubic centimeter of air (f/cc) (via phase contrast microscopy [PCM]) and 70 structures per square millimeter (structures/mm^2) (via transmission electron microscopy [TEM]) during this project, or at time of air clearance sampling, shall be borne by the AAC. The Asbestos Safety Control Monitor (ASCM) will determine the method of analysis or any additional air samples required.

Z. The contractor shall establish written emergency procedures to be posted within each work area. These procedures shall include plans for medical emergencies, fire evacuation, temporary loss of electrical power or water and procedures for repair

and clean-up following temporary breach of containment barriers.

AA. The AAC must follow all applicable asbestos regulations, including but not limited to, 40 CFR (USEPA), 29 CFR (United States Department of Labor [USDOL]), 49 CFR (United States Department of Transportation [USDOT]), and NJAC 5:23 (NJ Uniform Construction Code).

BB. All abatement procedures listed are recommendations. The AAC must submit, in writing, any alternate abatement procedures that are different from the recommended procedures to the ASCM for approval prior to the start of the project.

CC. All asbestos abatement work activities shall be performed between the hours of 7:00 a.m. and 4:00 p.m., Monday through Friday, except in cases of emergency. Work shift contingency shall be coordinated through the ASCM.

DD. The Client will remove all attached and non-attached furniture, equipment and items stored in various cabinets prior to the commencement of the asbestos abatement work, but all remaining items that prevent access to the ACM will be the responsibility of the AAC to remove and dispose of properly.

EE. The AAC shall be fully responsible for removing any and all items that may be necessary to gain access to ACM, and the required disposal for those removed items.

FF. OSHA warning signs shall be placed on all means of egress to and from the buildings.

GG. The work areas will not be occupied. The building will be unoccupied during the abatement project.

HH. All floors along the path from the work areas to the waste dumpsters shall be protected with Masonite boards or like material.

3.0 DOCUMENTATION

3.1 NOTIFICATIONS

A. The AAC shall notify the following agencies, in writing, 10 days prior to the start of each asbestos removal project:

1. NJ Department of Community Affairs (NJDCA)
   Bureau of Code Services
   Asbestos Safety Unit
   101 S. Broad Street
   P.O. Box 816
   Trenton, New Jersey 08625-0816
   (609) 633-6224

2. NJ Department of Environmental Protection (NJDEP)
   Division of Solid Waste Management
   401 E. State Street, 7th Floor
   PO Box 402
   Trenton, New Jersey 08625-0402
   Attn: Asbestos Coordinator
   (609) 337-5669

3. NJ Department of Labor and Workforce Development (NJLWD)
   Asbestos Control and Licensing Section
   PO Box 494
   Trenton, New Jersey 08625-0949
   (609) 633-3760

4. NJ Department of Health (NJDOH)
   PO Box 360
   Trenton, New Jersey 08625-0360
   (609) 631-6749

5. US Environmental Protection Agency (USEPA)
   USEPA Region II NESHAP
   26 Federal Plaza, Room 1033
   New York, New York 10278
   (212) 264-7307

6. Any other local, state, and/or federal agency that requires notification.

B. Notification to the agencies in Section A above shall include the following information:

1. An indication of whether the notice is the original or a revised notification with the applicable revision number.

2. Name, address, and telephone number of both the Client or its representative and the AAC owner or its representative, including a contact name and phone number and the AAC's license number.

3. The Monitoring Firm hired by the Client is Montrose Environmental Solutions, Inc., 500 Horizon Drive, Suite 540, Robbinsville, New Jersey, (609) 890-7277 (ASCM No. 00131). The Montrose Project Manager is Mr. Julian Fernandez-Obregon.

4. Occupancy status of building during abatement.

5. Type of operation: demolition or renovation.

6. Description of the facility or affected part of the facility, including the size (square feet and number of floors), age, and present and prior use of the facility.

7. Procedures, including analytical methods, employed to detect the presence of friable ACM and Category I and Category II non-friable ACM.

8. Estimate of the approximate amount of friable ACM to be removed from the facility in terms of the length of pipe in linear feet, surface area in square feet on other facility components, or volume in cubic feet if material is detached from the facility components. Also, estimate the approximate amount of Category I and Category II non-friable ACM in the affected part of the facility that will not be removed before demolition.

9. Location and street address (including building number or name and floor or room number, if appropriate), city, county, and state of the facility being demolished or renovated.

10. Scheduled starting and completion dates of asbestos removal work (renovation, demolition, or any other activity, such as site preparation, that would break up, dislodge, or similarly disturb asbestos material). Planned renovation operations involving individual operations shall only include the beginning and ending dates of a report period based on the predicted combined additive amount of ACM to be removed or stripped in that period.

11. Description of planned demolition or renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used and description of affected facility components and type of work

area containment.

12. Description of work practices and engineering controls to be used to comply with the requirements of Subchapter 8, including asbestos removal and waste handling emission control procedures.

13. A certification that at least one person, trained as required by NJ 8:60-5, will supervise the abatement and removal described by Subchapter 8.

14. Description of procedures to be followed in the event that unexpected friable ACM is found or Category II non-friable ACM becomes crumbled, pulverized or reduced to powder.

15. Name, address, and telephone number of the NJDEP Registered Waste Transporter and of the NJDEP Registered Landfill where the asbestos waste will be deposited.

16. The name and address of the ASCM firm retained to perform air monitoring on behalf of the Contractor's employees, as required by 5:23-8:30.

C. Occupant Notices – Unoccupied Project

1. The project is to be conducted under unoccupied settings. No personnel will be allowed access to the building once the project begins, and will not be permitted entry until the project is complete. Emergency personnel will have access as appropriate.

2. The ASCM and AST will confirm unoccupied status prior to the project beginning, daily, and will control access to the building.

3. The Building Owner shall place signage at all points of entry, notating the abatement and closure of the building during abatement activities.

D. Application for a Construction Permit

1. The Building Owner or AAC shall be responsible for obtaining a construction permits from the local building official. The application shall include the following information:

   a. The name, address and license number of the NJLWD licensed AAC.
   b. The asbestos hazard assessment (asbestos survey), prepared by Montrose Environmental, Inc.
   c. The name and address of the private air monitoring firm, hired by the building owner, who shall act as the ASCM.

2. Four (4) sets of plans and specifications indicating:

    a. The scope of proposed work
    b. Type and percentage of asbestos
    c. The total square footage of ACM to be abated.
    d. The provisions proposed to contain the ACM during the abatement work, including but not limited to, separation barriers, critical barriers, and the route of travel for removing asbestos waste form the work areas.
    e. A copy of the site plan
    f. A floor plan indicating exits

3. One (1) set of each approved plans and specifications shall be distributed to the construction official, the ASCM, the building owner, and the project site.

4. Statement of building occupancy limitations, as per the ASCM.

5. The name and address of the NJDEP registered asbestos waste hauler(s) and approved landfill(s) where the waste will be deposited. The waste hauler is Mercer Group (Horizon), located at 1519 Calhoun Street, Trenton, New Jersey 08638. The landfill will be Fairless Landfill, located at 1000 New Ford Mill Road, Morrisville, Pennsylvania 19067 (ph# 866-909-4458).

6. The abatement project schedules.

7. The method of air sample analysis for determining air clearance in order to re-occupy the buildings.

3.2 REGULATORY COMPLIANCE

A. Prior to the start of each asbestos removal project, the AAC shall furnish a copy of their asbestos abatement license issued by the New Jersey Dept. of Labor and Workforce Development, as per N.J.A.C. 12:120, to the monitoring firm employed by the Client.

B. Prior to the start of each asbestos removal project, the AAC shall furnish documentation of the Client or his designated representative that the firm and its employees are familiar with the following regulations of the USDOL, OSHA, and the USEPA relating to the application, removal, disposal and treatment of asbestos:

1. OSHA regulations, namely: 29 CFR 1926.1101 (Asbestos in Construction Standard), 29 CFR 1910.134 (Respiratory Protection Standard) and 29 CFR 1910.20 (Access to Employee Exposure and Medical Records).

2. USEPA regulations, namely: Subparts A and M of 40 CFR Part 61 (NESHAP), and the provisions of EPA 40 CFR 763 (AHERA/ASHARA).

C. The AAC shall provide the Client and/or his designated representative, such as the ASCM, with documentation that all workers on the job (supervisors and asbestos workers) have a valid work permit issued by the New Jersey Department of Labor and Workforce Development (NJDLWD). No permit shall be issued unless the employee has taken a five-day course of training certified by the NJDOH, passed an examination given by the NJDOH, and demonstrated the ability to perform asbestos control and removal safely, in accordance with the current state of the art technology.

D. One copy each of the regulations cited in Article III shall be available in the AAC's business office and one copy of each shall be maintained in view at the job sites, available to both the public and the AAC's employees.

E. The AAC shall display, at each job site, copies of the documents required in articles I.A & B and all documentation required in Article III, below.

F. A list of emergency telephone numbers shall be maintained at each job site and shall include the Architect/Engineer, Building Representative, Monitoring Firm employed by the AAC, ASCM, Local Fire, Police, Emergency, Hospital and Health Departments, and the local administrative authority having jurisdiction.

G. The AAC shall be responsible for controlling access at the work sites and shall maintain a daily log of personnel entering each Work Area. A list of worker names shall be posted with their start and stop times for each day. Copies of daily log forms will be given to the Asbestos Safety Technician (AST) each day along with photocopies of the workers' valid permit.

H. The AAC shall have available at each job site a copy of current NJDEP registration certificate for the collector/hauler who is responsible for transporting asbestos waste materials from the job site to a landfill registered (ID #27) by the NJDEP to accept asbestos waste.

I. The AAC shall post at each job site documentation that all employees have received medical examinations, as required by OSHA, and documentation of respirator training and fit testing, as required by OSHA 1910.134.

J. The AAC shall strictly adhere to all precautions necessary for the safety and health of the workers in accordance with provisions of OSHA Standards 29 CFR Part 1926.

3.3 PRE-CONSTRUCTION MEETING AND SUBMITTALS

A. The AAC shall attend pre-construction meetings scheduled by the Architect/Engineer. The ASCM employed by the Building Owner shall also attend. At this meeting, the AAC shall submit the following documentation:

1. Copies of the AAC New Jersey Asbestos Abatement License and asbestos workers permits.

2. Written copies of the letter of notification required by Chapter 1, Article I, and construction permit and application.

3. A written proposed progress schedule, including commencement and completion dates, work shift hours, and number of employees.

4. Written plans for work site preparation, including diagrams of the locations of critical barriers, decontamination chambers, high efficiency particulate air (HEPA)-equipped air filtration units, bagging chambers, and emergency exits.

5. Safety Data Sheets (SDSs), manufacturer's specifications and examples of protective clothing and approved respirators, a copy of the corporate respirator training program, and proof of respirator fit testing for all employees expected to participate in the project, as required by OSHA 1910.134.

6. A written description of all removal methods to be employed, including the types and numbers of negative filtration units with the calculations and venting arrangement, decontamination sequence, use of glovebags, cleaning procedures, reconstruction, waste disposal (provision of the location of the registered landfill, registration number of the hauler, and landfill receipts and manifests during the project), and daily log forms which will be submitted to the AST at the end of every week or phase, whichever is sooner.

7. Medical records of all on-site employees, as required by OSHA 1926.1101, including physician name, date of most recent exam, and employee number.

8. A written delineation of the AAC's building responsibilities, including security, utilities, and pre-existing site conditions.

9. A written description of emergency procedures to be followed in case of injury or fire. This section must include evacuation procedures, source of medical assistance (name and phone numbers), and procedures to be used for access by medical personnel (Examples: First Aid squad and physician).

10. A written copy of all information presented at this meeting shall be saved and made available upon request to Local, State, and Federal Enforcement Officials.

B. Asbestos work shall not proceed until the Client and AAC agree on the details required in Article V.

C. Emergencies (such as accidents requiring medical attention) shall take priority over all other requirements of these specifications.

3.4 REQUIRED INSPECTIONS

A. Pre-commencement inspections for each work area shall be conducted as follows:

1. Notification to the ASCM's AST shall be made by the AAC to request a pre-commencement inspection at least 48 hours in advance of the desired date of inspection. This inspection shall be requested each time another work site is started in a multi-phase project.

2. The AST shall ensure that:

a. The job site is properly prepared and that all containment measures are in place pursuant to Subchapter 8;

b. All workers shall present to the AST a valid work permit issued by the NJLWD;

c. Measures for the disposal of removed asbestos material are in place and shall conform to the adopted standards;

d. The AAC has a list of emergency telephone numbers at the job site that shall include the ASCM firm employed by the Client and telephone numbers for fire, police, emergency squad, local hospital, and health officer and NJDOL.

e. If all is in order, the ASCM's AST shall issue a written notice to proceed in the field. If the job site is not in order, then any needed corrective action must be taken before any work is to commence. Conditional approvals shall not be granted.

B. Progress inspections for each work area shall be conducted as follows:

1. Primary responsibility for ensuring that the asbestos abatement work progresses in accordance with this specification rests with the AST. The

AST shall continuously be present to observe the progress of work and perform required tests.

2. If the AST observes irregularities at any time, the AST shall direct such corrective action as may be necessary. If the AAC fails to take the corrective action required, or if the AAC or any of their employees habitually and/or excessively violate the requirements of any regulation, then the AST shall order the work stopped in writing. If the AAC fails to comply with the order, then the AST shall notify the administrative authority having jurisdiction and/or the Client who shall issue a Stop Work Order to the AAC, have the work site secured until all violations are abated and assess a penalty, which shall not be waived or settled for any reason.

C. Pre-sealant inspections for each work area shall be conducted as follows:

Upon completion of the removal phase, a visual inspection, performed by the AST and the AAC's supervisor, ensuring that all ACM has been properly removed before encapsulation begins.

D. Clean-up inspections for each work area shall be conducted as follows:

1. Notice for clean-up inspection shall be requested by the AAC to the AST at least 48 hours in advance of the desired date of inspection.

2. The clean-up inspection shall be conducted by the AST and the AAC's supervisor prior to the removal of the critical barriers.

3. The AST shall ensure that:

   a. The work site has been properly cleaned and is free of visible asbestos and ACM.

   b. All removed asbestos has been properly disposed of off-site in accordance with the regulations of the NJDEP, N.J.A.C. 7:26-1 et seq.

   c. Final air quality monitoring meets the requirements of N.J.A.C. 5:23-8 and EPA 40 CFR 763.

E. Final inspections for each work area shall be conducted as follows:

1. Upon notice by the Client or by the AAC and within 48 hours of the removal of the critical barriers, a final inspection shall be performed by the AST and AAC's supervisor to ensure the absence of any visible signs of asbestos or ACM.

F. Certificate of Completion requirements are as follows:

1. Within five (5) days of completion of an asbestos hazard abatement project, the Client/agent shall file for a Certificate of Completion from the ASCM.

2. It shall be unlawful to apply for a Certificate of Occupancy until a Certificate of Completion has been issued by the ASCM.

3.5 REQUIREMENTS FOR ASBESTOS DISPOSAL

All asbestos waste materials destined for disposal in New Jersey shall be wetted and packaged in permanently sealed, leak-tight containers (such as double 6-mil plastic bags) in accordance with 40 CFR 61.20-25 before it can be legally transported and disposed of in New Jersey. No haulage of loose asbestos is permitted in New Jersey. A locked, secure container shall be provided by the AAC if asbestos waste is to be stored unattended outside. The containers or wrapped materials shall be labeled using warning labels specified by OSHA standards as per 29 CFR 1910.1001 or 1926.1101. The labels shall be printed in letters of sufficient size and contrast so as to be readily visible and legible. Labels must also contain the name of the waste generator and the location at which the waste was generated.

A. Prior to disposal, a notification of intent to dispose of asbestos shall be sent to the NJDEP at least ten (10) days prior to actual disposal. The notification shall be sent to the NJDEP, 7th Floor, Division of Solid Waste Management, Enforcement Element, 401 E. State Street, Po Box 402, Trenton, New Jersey 08625-0402, and shall include the following information:

1. Name, address, and telephone number of the generator and physical location of removal project.

2. Quantity and nature of waste materials to be disposed.

3. Name, address, and NJDEP registration number of hauler.

4. Name and address of the disposal facility to be used.

5. Date of proposed disposal.

B. All asbestos waste must be removed from the waste chamber during times when the building is least occupied.

C. Asbestos waste, which is properly packaged and classified as Waste ID #27, non-hazardous industrial waste, can be disposed of at a landfill which is registered by the NJDEP in conformance with the following:

1. The landfill used must be registered by the NJDEP to accept Waste ID #27.

2. The waste hauler must possess a valid solid waste transporter registration issued by the NJDEP. A licensed solid waste transporter shall be a commercial collector/hauler or shall be the removal company if they are so registered.

3. Asbestos waste can be hauled in trucks or dumpster containers provided the load is comprised only of asbestos in bags and does not contain any other wastes or ACW that could compromise the integrity of the permanent containers. If other materials are present in the load that could potentially puncture the permanent containers, then those containers shall be enclosed in temporary fiber or steel containers during loading, transport, and unloading operations. In addition, asbestos wastes shall not be loaded into or hauled with vehicles containing compaction devices as the normal compaction cycle will threaten the integrity of the permanent container - also refer to N.J.A.C. 7:26A.8(1) and N.J.A.C. 7:26-3.5(d).

4. To determine which facility to use for a particular project, contact the Division of Hazardous Waste Management at (609) 426-0700, or consult the New Jersey Waste Flow Regulations (N.J.A.C. 7:26-6.5). A Representative of the NJDEP Division of Waste Management will routinely monitor asbestos transport and disposal operations. They will check for compliance with asbestos handling and disposal directives in addition to the general requirements for waste handling under the Solid Waste Management Act. Violations of the Act and/or regulations promulgated thereunder are punishable by a penalty of $25,000.00 per day per violation.

D. The AAC shall supply to the Client the original "Generator's Copy" of the Waste Manifests within five (5) business days of receipt of the loads at the designated landfill. In addition, the AAC shall supply to the project supervisor high quality copies of the Waste Manifests within five (5) business days of receipt of the load at the designated landfill.

1. USEPA NESHAP requires a notification when asbestos waste is not received by the landfill within 45 days after leaving the site of generation. The transporter and/or owner/operator of the designated landfill must be contacted about the status of the waste shipment within 35 days if the waste has not been received. It is recommended that transporter and/or landfill owner/operator be contacted within 15 days if the waste shipment has not been received.

4.0 METHODS OF REMOVAL

4.1 PROTECTIVE CLOTHING AND EQUIPMENT

A. Clothing: Protective clothing shall consist of disposable full body coveralls, with hoods and booties attached. Separate disposable head covers and foot covering may be substituted if disposable coveralls without attached hoods and booties are used. Additional clothing shall include boots or sneakers and gloves. Eye protection and hard hats shall be available as appropriate.

B. Respirators: The AAC shall provide the required respirators and protective clothing to all workers, and to all official representatives of the Client, State, or other governmental entity, and the AST who may inspect the job site.

C. During the preparation for the work site, AACs may choose between three (3) types of respiratory protection as specified. In order of increasing effectiveness, they are:

1. Half-face or full-face respirators equipped with dual cartridge air purifying, high efficiency filters (P-100) and certified by the NIOSH for use in atmospheres containing asbestos.

2. Powered air-purifying respirators certified by NIOSH for use in atmospheres containing asbestos.

3. Type "C" supplied air respirators, either continuous flow or pressure demand class, as certified by NIOSH.

D. Respiratory protection must comply with the exposure limits described in OSHA 29 CFR 1910.1001 and OSHA 29 CFR 1926.1101. Additional protection must be provided as needed when workers can be exposed to other hazards.

E. The AAC shall require that each person entering the work area wear an approved respirator and protective clothing. THERE SHALL BE NO EXCEPTIONS TO THE RULE.

F. Air Filtration Units: The AAC shall have available air filtering equipment capable of filtering asbestos fibers to 0.3 µm at 99.97% efficiency and of sufficient quantity and capacity to cause a complete air change within the work area once every 15 minutes, exhausting the filtered air to the exterior of the building, so as to maintain a negative pressure inside the work area of sufficient flow through the decontamination chamber and waste exit port so as to prevent escape of airborne fibers. The units shall have been calibrated by the DOP smoke challenge. In addition to the minimal number of required units, the AAC shall also provide one back-up unit of similar capacity and performance for up to every five (5) units.

4.2 CALCULATIONS FOR NEGATIVE AIR FILTRATION UNITS

A. The number of negative air filtration units needed for the application is determined by dividing the required capacity of the ventilation system as measured in cubic feet per minute (ft^3/min) by the rated capacity of the negative air filtration units to be used.

B. In addition, the AAC shall have on site, one back-up negative air filtration unit per every five (5) units in use. These back-up units shall be installed along with the required number of units but shall not become operational unless needed to replace a failed unit, as needed. The CFM output for back-up units will be performed as well.

C. The AST shall measure the CFM output of the negative air filtration units prior to commencement of each project to verify rated capacity and to quantify actual capacity, using a velometer.

D. From the side of the negative air filtration unit, six (6) to nine (9) equidistant readings, approximately 2" in front of the prefilter, shall be taken. The average of the velocity readings is multiplied by the area of the intake face.

E. This calculation shall be performed for each unit that is installed in the work area to obtain an average capacity of the work area.

F. The number of units needed = (total ft^3/min) / Capacity of unit (in ft^3).

1. As filter loading occurs during the removal process, the rated capacity of the negative air filtration system will decrease. The AST shall take initial manometer readings from the units at commencement of each day, and at 4-hour intervals thereafter.

2. Replacement air shall enter each work area through the decontamination facility, in order to reduce the possible escape of contaminated air. The entire alternate ventilating system shall be installed and operating prior to commencement of asbestos removal.

C. Other Equipment

1. Vacuums shall be equipped with HEPA filters capable of filtering asbestos fibers to 0.3 um at 99.97% efficiency.

2. Polyethylene bags shall be 6-mil thick, labeled as per OSHA 1910.1001 and EPA 40 CFR 61, Subpart M, and used for the disposal of asbestos-contaminated waste.

3. All tape shall be a high-quality duct tape. All spray-on adhesives, glue, and

other barrier-securing material shall also be high quality products. If site conditions negate the performance of one type of system for securing barriers, a suitable alternative shall be required. Any alternative procedure must be approved by the ASCM prior to implementation.

4. The AAC shall have available power cables and sources, such as generators, to maintain negative air pressure in each work area in the event of power outage.

5. The AAC shall have available shower stalls and sufficient hose length and drain systems or an acceptable alternate such as a portable decontamination trailer with showers. Waste shower water shall be added to asbestos-contaminated waste before disposal in an approved landfill.

6. The AAC shall have available ladders and/or scaffolds of adequate length and sufficient quantity and maintain them on-site to provide safe conditions and to allow inspection of elevated removal surfaces.

D. The AAC shall have available sufficient inventory of protective clothing, respirators and cartridges, fire retardant plastic sheeting of required size and thickness, duct tape, spray-on adhesives, and filters for air filtration devices. Personal protective equipment inventory shall exceed by a minimum of 100% of the expected daily person-day usage.

4.3 WORK AREA PREPARATION

A. Prior to initiating any preparation work, verify that the NJDOH or the Building Owner's ASCM firm has performed any necessary pretests and that the ASCM firm is on site to monitor all preparation activities.

B. Prior to initiating any preparation work, the Client shall shut-off the HVAC or provide alternative positive pressurization, de-energize all electric, water, gas and pneumatic sources in each work area. The AST shall verify that the HVAC and all energized sources are de-energized prior to the start of preparation work and throughout the duration of the projects.

C. All fire-retardant materials, where applicable, must meet the Uniform Construction Code.

D. The following preparations shall be conducted using approved respirators. However, the use of protective clothing during this phase is optional; the decision to use protective clothing should be based upon the degree of contamination found at the work sites during visual observation and pretesting by the ASCM firm.

1. Inspection of rooms shall be made by the ASCM and the AAC’s supervisor before any work is initiated to inventory and document any existing damage

to components, such as furniture, fixtures, walls, doors, and radiator covers.

2. Asbestos warning signs shall be provided and displayed in accordance with OSHA 29 CFR 1910.1001 (g).

3. Before the work begins, the AAC or, as determined by the ASCM firm, persons employed by the Client, who have successfully completed a two-day maintenance training course approved by the NJDOH, shall clean with wet cloths, or if necessary, with a vacuum cleaner equipped with HEPA filters, all items and equipment which can be removed without disrupting the asbestos material. These items and equipment shall be removed from the work areas and returned after the job has been completed and the work areas has been decontaminated to the satisfaction of the Client's agent. Cloths and filters used for cleaning shall be disposed of as contaminated waste.

4. The AAC shall establish emergency procedures for each work area and shall post written plans in areas readily usable by authorized persons. These plans shall include plans for medical emergencies, fire evacuation and temporary loss of electrical power and temporary breach of containment barriers.

4.4 DECONTAMINATION

A. The AAC shall build approved personal and waste decontamination facilities or install an approved decontamination trailer at all entrances and exits to each isolated work zone. Work shall be divided into convenient work areas, each of which is completed as a unit. If work areas are not physically adjacent, there shall be a separate decontamination unit for each work area.

B. The decontamination unit shall consist of a serial arrangement of rooms, a minimum of four (4) feet in length, adjoining the work area (Article IV.B below). Each space shall be clearly identified and separated from the others by weighted plastic sheet doors, acceptable air locks, or other arrangements designed to minimize fiber and air transfer as people pass between areas. Air locks shall have at least three layers of interlocking 6-mil weighted plastic sheeting. Floors and walls shall be double layers with 6-mil polyethylene sheeting. It is recommended to install double airlocks in the decontamination unit as an added engineering control.

C. The decontamination areas are described below:

1. Personal Clean Room: In this room, persons remove and leave all street clothes and put on clean, disposable coveralls. Approved respiratory protection equipment is also picked up in this area. NO ASBESTOS CONTAMINATED ITEMS ARE PERMITTED IN THIS ROOM.

2. Personal Shower Room: This is a separate room used for transit by cleanly dressed people entering the job site from the Clean Room and for showering by them after they have undressed in the Equipment Room. THIS IS A CONTAMINATED AREA.

3. Personal Equipment Room: Work equipment, footwear, and all other contaminated work clothing shall be stored here. This is also a change and transit room for people. All areas between the Shower Room and Work Area shall be considered part of the Equipment Room. Plastic floor and wall covering is required. THIS IS A CONTAMINATED AREA.

4. Waste Wash Room: Waste containers from the work area shall be moved to this area prior to being sent to the waste disposal container. All waste containers shall be wet-wiped and HEPA-vacuumed in the area. All areas between the Holding Area and Work Area shall be considered part of the Wash Room. Plastic floor and wall covering is required. THIS IS A CONTAMINATED AREA.

5. Waste Holding Area: This is a separate room for the staging of waste containers. Containers will be labeled in this area. NO ASBESTOS CONTAMINATED ITEMS OR WORKERS ARE PERMITTED IN THIS ROOM.

D. Workers and visitors shall observe the following Work Area entry and exit procedures. Except for emergency evacuation, there shall be no exceptions:

1. Worker enters Clean Room and removes street clothing, puts on clean coveralls and respirators, and passes through Shower Room into the Equipment Room.

2. Any additional required clothing and equipment previously deposited in the Equipment Room is put on (when work area is too cold for coveralls only, the worker will usually provide himself/herself with additional warm garments to be worn under the disposable clothing. These must be treated as contaminated clothing and left in the decontamination unit). Under no circumstances shall anyone enter the work area without having protective clothing on.

3. Worker proceeds to work area and performs scheduled work.

4. Before leaving the work area, the worker shall remove all gross contamination and debris from all surfaces of the coveralls using a vacuum with a HEPA filter. In practice, this is usually carried out by one worker assisting another.

5. The worker proceeds to Equipment Room and removes all clothing except

approved respirators. Extra work clothing may be stored in the contaminated end of the unit. Disposable coveralls are placed in a bag for disposal with other asbestos contaminated waste.

6. Naked except for the respirator, the worker then proceeds directly into the shower room. Before removing the respirator, the worker shall shower completely and thoroughly wash off all surfaces of the respirator. The respirator is then removed.

7. After showering, the worker then moves to the Clean Room and dresses in street clothing prior to exiting the decontamination unit.

8. Respirators are picked up, washed thoroughly, disinfected as required by OSHA 29 CFR 1910.134, wrapped, and stored in the Clean Room.

E. Filters in dual cartridge type respirators used during the preparation phase of the job shall be removed, wetted, and discarded as contaminated waste. A new filter shall be in place in the respirator prior to reuse. For powered air purifying respirators or supplied air respirators, the manufacturer shall be consulted about the proper decontamination sequence.

F. There shall be no smoking, eating, or drinking in any contaminated areas (Shower Room, Equipment Room, and work area). Respirators shall be worn in all contaminated areas. Failure to observe these requirements will result in the ejection of the offender from the premises. Failure of the offender to leave will result in a written stop work order.

G. Work footwear (i.e., non-disposable) shall remain inside the contaminated area until completion of the job and shall be thoroughly cleaned or disposed of at the completion of the project.

H. It shall be the AAC's responsibility to ensure all employees follow the appropriate procedures, including the decontamination procedures listed in Article IV. Employees who repeatedly violate proper procedures shall be subject to disciplinary measures by the AAC, including dismissal if necessary. There shall be no exceptions, except for emergency evacuations.

4.5 WORK AREA ISOLATION

A. The following preparations shall be performed in the stated order utilizing protective clothing and respirators. Respirators shall comply with the exposure criteria required by OSHA 29 CFR 1926.1101. If cartridge respirators are used, fit testing must be performed. If powered air-purifying respirators with HEPA filters or supplied air respirators are used, then fit testing is not required.

1. Workers performing work area preparation shall don disposable coveralls

and half-face tight fitting respirators. Work gloves must be available for use.

2. Completely seal off all openings to the work area including, but not limited to, ducts, floor drains, doorways, corridors, windows, and skylights with double 6-mil polyethylene sheeting taped securely in place or fastened by spray-on adhesives, glue beads, or horizontal wood battens, to act as critical barriers to the isolation zone.

3. Where openings are present that will separate occupied areas of the building from the work area, the openings shall be sealed with rigid barriers, comprised of fire-retardant 2"x4" wooden or metal studs, 16" off-center, and covered with fire-retardant ½" plywood or gypsum panels, seams caulked, then covered in two separate layers of fire-retardant 6-mil plastic sheeting on both sides.

4. Wet clean all non-removable items, including built in equipment, in the work area and cover with two thicknesses of 6-mil plastic sheeting taped securely in place.

5. Cover all wall surfaces in the work area with plastic sheeting taped or fastened securely in place and, if instructed by the ASCM, secondary plywood wall panels behind the polyethylene, to protect such surfaces from water damage to prevent contamination of those surfaces. The walls shall then by covered with polyethylene plastic, supported at the top of sufficient length to reach the floor. Wall covering shall be securely fastened to the base of the wall.

6. Plastic sheeting shall be a minimum of fire retardant 6-mil polyethylene for walls. All tape shall be high quality duct tape. In order to avoid the potential tripping hazards created by wet plastic on stairs, the floors in stairway areas may remain unprotected by plastic. However, other methods shall be used to protect and/or decontaminate these surfaces. These alternative methods shall be specified in writing and approved by the ASCM before the work project begins.

7. Floor drains and floor penetrations shall be sealed individually with two (2) layers of 6-mil polyethylene and duct tape followed by a plywood board whose diameter exceeds that of the drain followed by two more layers of 6-mil polyethylene. The drains and penetrations shall also be covered by disposable clean cloths prior to plasticizing that shall be removed at the completion of the asbestos abatement project.

8. In the event that the adhesive material used to secure the plastic sheeting is found to be of insufficient strength to support the weight of the plastic barriers, then the AAC shall so inform the ASCM and receive direction as to a suitable stronger method of securing the plastic sheeting (e.g., spray-on

adhesive, glue beads, horizontal wood battens). All securing procedures shall be of first-class workmanship. The AAC, at his expense, shall restore to original condition any and all damaged areas which occur as a result of barrier securing prior to completion of projects.

9. A single layer of fire-retardant 6-mil plastic sheeting may be attached to an elevated framing to form a ceiling barrier. This barrier seam shall overlap the wall sheeting seam by 6-inches. An optional ceiling layer of sheeting may be erected by the AAC, as it would lessen the total volume of the work area, with all abatement to be conducted on or near the floor, and the regular ceiling near 20 feet in most rooms.

10. Detach and clean removable electrical, heating, and ventilating equipment and other items connected to asbestos surfaces. These items shall be removed from the work area using decontamination procedures and returned to their proper place when the work area has been decontaminated.

11. Remove filters from all HVAC systems and seal them in double 6-mil plastic bags, labeled for disposal as ACM waste. These bags should be handled in the same manner as removed asbestos. The filters should be replaced with new filters as a final step in decontamination process (after the final inspection). All air handling systems serving the work area must be shut down and locked out.

12. As all existing ventilating systems in each work area are to be shut down and sealed throughout the removal operation, an alternate system must be utilized. Install approved negative air filtration units utilizing appropriate HEPA filters to exhaust air from each work area. The air shall enter through the decontamination unit. These units shall be sized to achieve a rate of one air change every 15 minutes. The volume (in ft^3) of the work area is determined by multiplying the floor area by the ceiling height. The required capacity of the ventilation system (in ft^3/min) for the work area is determined by dividing this volume by the minimum air change rate, which shall be one air change every 15 minutes. Thus, the required capacity of ventilation system in ft^3/min=volume of work area (in ft^3) /15 min.

13. The number of negative air filtration units needed for the application is determined by dividing the required capacity of the ventilation system as measured in ft^3/min by the rated capacity of the negative air filtration units to be used.

14. The AAC shall install one back-up negative air filtration unit for every 5 units in operation. This back-up unit shall be installed, but not operating unless needed to replace a unit that is no longer operating.

4.6 SEQUENCE OF ASBESTOS REMOVAL

A. The work for each project shall proceed in the following sequence:

1. The ACM material to be removed is located atop the subfloor, so the entirety of the flooring system will be deconstructed and disposed of as ACM.

2. The asbestos material shall be sprayed with water containing an additive to enhance penetration (amended water). The additive, or wetting agent (surfactant), shall be 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether at a concentration of 1 ounce per 5 gallons of water or approved equivalent. A fine low-pressure spray of this solution shall be applied to prevent fiber disturbance preceding removal. Saturate the material sufficiently to prevent emission of airborne fibers in excess of the exposure limits prescribed in the OSHA regulations. The wetted or amended water shall be sprayed on as many times and as often as necessary to ensure that the asbestos material is adequately wetted throughout (especially that asbestos nearest the substrate), to prevent dust emission as specified in the OSHA regulations. No dry removal of asbestos is allowable.

3. Removal of the asbestos material shall be done in small sections by two-person teams, on staging platforms if needed. The asbestos material shall not be allowed to drop a distance greater than 12 feet. In the event that the drop is greater than 12 feet to the floor, a collection platform or chute must be used.

4. As a method of organizing the asbestos removal work, workers shall begin working on the areas nearest to the decontamination unit and work towards the negative air filtration units. In addition, to the extent possible, workers shall always face the negative air filtration units while removing asbestos materials. In this way asbestos fibers released by the process will be drawn away from the workers' breathing zones and towards the negative air filtration units. The AAC shall have, on site, an emergency power source for the negative pressure units to ensure their continuous function in the event of a power failure.

5. The wet material from each section shall be packed and sealed into labeled 6-mil plastic bags prior to starting the next section to prevent the material from drying. Water soaked fallen material shall not be left out of bags overnight, or for more than four (4) hours, to prevent loss of its water content due to evaporation. However, plastic bags will not be effective when wire lath and similar sharp-edged materials are involved in asbestos removal. Therefore, contaminated material containing sharp edged items shall be cut to size while adequately wet, placed in small cardboard boxes

and double bagged or singly bagged and then placed in temporary fiber drums.

B. Bags and drums shall be marked with the label prescribed by 40 CFR Section 61.22 (c) of the USEPA NESHAP regulations. The outside of all containers shall be wet cleaned or HEPA vacuumed before leaving the work areas. All vacuum cleaners shall be equipped with HEPA filters.

C. 40 CFR 61.22 (j) prescribes a leak-tight container, the integrity of which is the AAC's responsibility until after deposition at a sanitary landfill which is operated in accordance with 40 CFR 61.25. Therefore, caution must be used in the choice of container types, and consideration given to the method of unloading at the landfill. Fragile containers shall be unloaded by hand to prevent rupture and possible airborne emissions.

D. After completion of floor tile removal, the mastic may be removed using a chemical solvent or a Bead Blaster. If chemical solvents are the preferred method of mastic removal, workers shall don additional PPE, such as chemical-resistant boots and gloves and respirator combination cartridges with P-100 filters and protection from organic vapors. Prior to applying the chemical solvent, the floor surfaces must be visually inspected for potential leaks by identifying penetrations, cracks, previous repairs, or seams in the floor slab. Care should be taken to isolate these areas from the overall work so that they can be addressed with more precise attention. Following the use of chemical solvents, the mastic must then be cleaned via the use of a neutralizing agent, as recommended by the manufacturer of the solvent used to dissolve the mastic. All tools and other items that need to be re-used shall be cleaned with the neutralizer as well.

E. After completion of this removal phase (stripping), all surfaces from which asbestos has been removed shall be brushed and or wet sponged or cleaned by an equivalent method to remove all visible ACM. During this work, the surfaces being cleaned shall be kept wet using amended water. All disposable equipment shall be packaged for disposal. Waste containers shall be washed with amended water and shall have all exterior particulate matter removed prior to removal from the contaminated areas.

F. All accessory equipment shall be moved to the Equipment Rooms in sealed containers (6-mil minimum) and decontaminated for removal.

G. All free water in contaminated areas, including shower water, shall be retrieved and added to asbestos-contaminated waste and then placed in plastic lined leak tight drums or double, labeled 6-mil polyethylene bags.

H. Final cleanup of work area may commence.

4.7 FINAL CLEAN-UP OF WORK AREA

A. The following procedures must be accomplished utilizing all previously specified protective clothing and equipment.

B. The AAC shall first clean all surfaces in each work area using disposable cloths wetted with amended water. These cloths shall be disposed of or rinsed thoroughly on a frequency sufficient to eliminate visible accumulation of debris. Then, when these surfaces have been allowed to dry sufficiently, all surfaces shall be cleaned again using a HEPA filtered vacuum. (NOTE: A HEPA vacuum will fail if used on wet material). All radiator covers shall be removed and fin tube radiators shall be vacuumed. There shall be no film left from wet cleaning on any surface. If, after 24 hours a film is seen, the entire process must be repeated.

C. After completion of cleaning all surfaces in each work area, the AAC shall proceed with the following steps:

1. Notify the AST in writing that a pre-sealant inspection is requested. This inspection is required as per N.J.A.C. 5:23-8.10 and shall be conducted as described in New Jersey Sub-Chapter 8, Chapter 4, to ensure that all asbestos material is completely removed and that encapsulant of choice is adequate.

2. Upon receiving a satisfactory pre-sealant inspection, the AAC shall spray coat all dried exposed surfaces with a sealant. The color of this coat shall be separate and distinct from the underlying substrate. The surfaces to be coated shall include surfaces from which ACM have been removed (such as ceilings) and polyethylene, which has been used to cover wall, floors, and non-removable fixtures and equipment. Overspray from ceilings, walls, fixtures, and equipment will usually be sufficient to coat floor coverings.

3. After all surfaces have been sealed, the plastic sheeting used to protect floors, walls, fixtures and equipment (<u>but not critical barriers</u>) shall be carefully removed and rolled up with the contaminated portion to the inside and packaged for disposal. All surfaces in the work area shall be cleaned again, either by wet wiping or HEPA vacuuming.

D. Plastic used to maintain critical barriers between work areas and clean areas, such as those in doorways, windows and air vents, shall be sprayed with encapsulant but <u>shall not be</u> removed until air monitoring is completed and satisfactory air test results have been obtained.

E. Air monitoring within the work area may then proceed.

1. The concentration of asbestos fibers shall not exceed 0.01 fibers/cc using PCM, NIOSH Method 7400, or 70 asbestos structures/mm^2 via TEM) as

may be required under 40 CFR Part 763, Section 763.90. The volume of the air sample shall be sufficient to provide this level of sensitivity.

2. If the test results show asbestos fiber concentrations in excess of 0.01 fibers/cc or 70 structures/mm^2, then clean-up shall be repeated until compliance is achieved. Re-clean all surfaces and operate HEPA-equipped negative air filtration units to exhaust air to the exterior of the building, in order to filter the air.

F. Post removal air monitoring inside and outside the work area can proceed. The clearance criteria are those required by NJAC 5:23-8 and EPA AHERA 40 CFR 763.

4.8 RECONSTRUCTION

A. After each work area is found to be in compliance with Article VII; A-F, the following tasks shall be performed by the AAC:

1. All critical barriers shall be unsealed.

2. Plastic sheeting, tape, and any other debris shall be disposed of in sealed plastic bags labeled as asbestos-contaminated waste.

3. The inside of windows shall be washed.

4. Any walls, floors, trim, doors, furniture, or other items damaged during the work shall be repaired and refinished to match existing material.

5. Woodwork, trim, floor, furniture, plumbing, and electric light fixtures shall be cleaned.

6. Cloths or sponges used in the cleaning operation shall be disposed of as ACM.

7. There shall be no residue left on floors, ceilings, electric light fixtures, or other surfaces.

8. There shall be no residual tape, plastic sheeting, lumber, or other material used for the preparation of the work area.

B. Before reoccupying each area, the following conditions must be observed:

1. Notice for a Final Inspection, as required by NJAC 5:23-8 Article VI, shall be made by the AST.

2. Upon receipt of a satisfactory Final Inspection, application for a Certificate of Completion shall be made, in writing, by the AAC to the ASCM.

3. Upon receipt of a Certificate of Completion from the ASCM, an application for a Certificate of Occupancy may be made.

4.9 AIR MONITORING - CONTRACTOR

A. The AAC shall cooperate fully with all aspects of the monitoring program, which is conducted by an independent air-monitoring firm responsible to the Client.

B. The independent air monitoring firm shall provide a qualified AST to continuously monitor and observe the progress of the work to verify that the AAC's performance meets all State and Federal regulations and is in compliance with this specification. The AST shall have the authority to direct the actions of the AAC verbally, or in writing, to insure compliance.

C. In addition to the independent air monitoring firm hired by the Client, the AAC shall arrange for air monitoring to be conducted in all work areas in accordance with 29 CFR 1926.1101, or OSHA regulations, on behalf of the AAC's employees. The testing laboratory shall be certified as proficient in asbestos analysis by the American Industrial Hygiene Association (AIHA) or NIOSH and employed by the AAC. These personal samples shall be obtained from employees engaged in each of the following operations: asbestos removal (i.e. spraying, scraping and brushing), disposal (i.e. bagging), and clean-up. Representative sampling shall be repeated in the event of major changes in the removal operation. This sampling shall be done with the sampling media and flow rates specified in OSHA 29 CFR 1926.1101. (Samples shall be taken for the determination of the 8-hour TWA airborne concentration.)

D. The results of the AAC's air monitoring results (Article IX.C) shall be returned within two (2) working days; copies shall be provided to each employee monitored as specified by OSHA 29 CFR 1910.20.

The AAC shall examine these results and evaluate the effectiveness of the controls in use (wet methods, exhaust units, and respiratory protection). Copies of these monitoring tests shall be provided to the Client's AST, as part of the documentation that the work has been completed. Copies shall also be made available, upon request, to representatives of Local, State, or Federal enforcement agencies. Copies of these air monitoring results shall also be posted in a plainly visible location at the job site for the purpose of notifying the AAC's employees. These shall be posted within one working day upon receipt of the results from the analytical laboratory.

E. Air monitoring and visual inspection in and adjacent to the work area will be conducted on behalf of the Client throughout the abatement project, and in

accordance with the State's air monitoring protocol by the ASCM firm.

5.0 MONITORING AND SUPERVISION

The specifications of Chapter 3 are provided only as information to the AAC.

All work herein described shall be performed as one single contract responsible to the Client and the services of both an ASCM and AST. The AAC shall be responsible for the removal, transport, and disposal of ACM, as well as the protection of building systems affected by the work, such as mechanical, electrical, communication, fire protection, means of egress, and plumbing. This work shall be in addition to, and independent of, the OSHA-mandated air monitoring conducted on behalf of the AAC's employees.

5.1 QUALIFICATIONS

The analytical testing laboratory and the ASCM shall have the following qualifications:

A. Analytical Requirements

1. The testing laboratory shall be currently enrolled in the AIHA Proficiency Analytical Testing (PAT) Program or an equivalent.

B. On-site analysis (PCM, NIOSH 7400): The services of a testing laboratory, as delineated in N.J.A.C 5:23-8.19 (c).4.i.(3), shall include a microscope and laboratory technician at the project site or the capacity to obtain results within four (4) hours from the start of the sample.

1. The laboratory technician shall be listed in the Asbestos Analyst Registry of the AIHA for PCM analysis.

2. If the laboratory technician is on site, the Building Owner shall provide a safe and clean space for the analysis of samples separate and distinct form the work areas.

C. Off-Site Analysis (TEM): Laboratories shall participate in the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) and shall certify that the analysis they performed was according to the protocol listed in Appendix A to Subpart E of 40 CFR 763 (AHERA).

D. The AST shall have the following qualifications:

1. At least two (2) years of college in academic sciences (i.e. biology, chemistry, industrial hygiene, environmental science or related fields) or one-year experience (which included performing environmental assessment activities) may be substituted for this education requirement.

2. Successful completion of a course in air monitoring methods, or one-year experience in workplace exposure monitoring.

3. Certificate of completion in an approved core-training course for asbestos workers certified by the NJDOH pursuant to N.J.A.C. 12:120 and N.J.A.C. 8.60; or two (2) years of experience in monitoring asbestos abatement activities may be substituted for completion of a certified training course.

4. Certificate of completion of a special course for Asbestos Safety Inspectors approved by the NJDOH.

5. Successfully passing of an Asbestos Abatement Examination administered by the NJDOH (pursuant to N.J.A.C. 12:120-6.12 and 8.60-6.12).

5.2 RESPONSIBILITIES

A. General Duties

The AST shall perform all air sampling specified herein and shall be thoroughly familiar with the Asbestos Removal Specifications. Acting on behalf of the Client, he shall have access to all areas of the asbestos removal project at all times and continuously inspect and monitor the performance of the AAC to verify that said performance meets all Federal and State regulations and is in compliance with the Asbestos Removal Specifications. The AST shall be on-site throughout the entire abatement operation.

B. Authority and Compliance Responsibilities

The AST shall have the authority to direct the actions of the AAC verbally, and followed up in writing, to assure compliance. In the event of continual non-compliance or serious violation, the AST shall notify the Client, the Architect/Engineer (A/E) and, as necessary, appropriate governmental agencies such as the NJDCA. The AST shall order the work stopped in writing if so directed by the Client, the Client's A/E, or an appropriate governmental agency. All directions to the AAC shall be legible, dated, and shall bear the signature of the AST. Copies shall be forwarded immediately to the Client and the A/E. If the AAC fails to comply with the order, the AST shall notify the inspector from the administrative authority having jurisdiction that shall issue a written Stop Work Order to the AAC and have the work site secured until all violations are abated

C. Reporting of Air Sampling and Analysis Data

1. The testing laboratory shall conduct all required analyses within the time frame specified and in conformance with specified analytical procedures and shall report the results of such tests to the AST. The AST, upon receipt of testing results indicating concentrations above 0.01 fibers/cc have occurred outside the containment barriers or above 0.02 f/cc within the Clean Room of the decontamination chamber during the abatement action, shall report these results within one working day verbally or electronically

to the AAC, the Client, and the A/E, so that prompt corrective action may be taken. This communication shall be followed by a written report, a copy of which shall be sent to the administrative authority having jurisdiction.

2. The AST shall keep a daily log of on-site observations concerning the AAC's compliance with activities required under the job specifications, listing all deficiencies encountered and the names of all persons entering the work area. This log shall be made available upon request at all times to the Client, the A/E, and to appropriate Local, State, and Federal agencies. The AST shall report results in a comprehensive final report, including daily logs, required inspection reports, observations, and air monitoring results. The ASCM shall maintain the report as a permanent record and present a copy to the Client and file a copy with the NJDCA within 30 working days.

5.3 SCOPE OF WORK

A. Pretest(s)

Prior to the initial preparation for each asbestos removal project (i.e., before construction of barriers, masking, and sealing), test(s) shall be conducted under normal building occupancy conditions in order to establish baseline air quality data for future reference. The AST shall conduct the pretests, as per the requirements of N.J.A.C. 5:23-8 and EPA 40 CFR 763.

1. Conditions during sampling: Whenever possible, sampling shall be conducted during conditions of normal use occupancy. If an observer cannot be present to ensure the integrity of each sample while the building is occupied, then the air testing technician shall return when the building is not occupied to perform monitoring under conditions of simulated normal use occupancy. The aspect of normal use activity is important to recreate during simulation is the re-entrainment in air fibers, which may have settled out onto horizontal surfaces. To this end, when the building is not occupied, the AST shall supply and place propeller type fans in the environment to be sampled. The fans shall have fan blades with a radius of at least 20 inches and shall be capable of creating a minimum air velocity of 500 feet per minute. These may be of the oscillating type. The sampling pump and sampling media shall be placed 20-40 feet at right angle from the lines of airflow created in front of the fan.

2. Sampling Procedure: Filter cassettes and sampling train shall be assembled as specified in N.J.A.C. 5:23-8. The flow rate shall be between 0.5 and 15 liters per minute. The total volume shall be sufficient to provide a detection limit of 0.01 fibers/cc. Pumps shall be calibrated before and after sampling and a record kept of each calibration.

3. The AST shall perform all air sampling specified in this subchapter and

shall be thoroughly familiar with this subchapter. He shall have access to all areas of the asbestos removal project at all times and shall continuously inspect and monitor the performance of the AAC to verify that said performance complies with this subchapter. The AST shall be on-site throughout the entire abatement operation.

B. Removal Phase

1. A minimum of five samples per eight-hour shift shall be collected (one at the beginning of each shift, one every four hours thereafter, and one at the end of the contractor's work day). One stationary sample shall be collected within the clean room of the decontamination unit and four samples collected adjacent to the work area but remote from the decontamination unit entrance. In the selection of adjacent areas to be monitored, preference shall be given to rooms adjacent to critical barriers and/or work area. Testing results shall not indicate that concentrations above 0.01 fibers per cubic centimeter have occurred outside the containment barrier or above 0.02 fibers per cubic centimeter within the clean room of the decontamination chamber during the abatement project. One sample shall be collected from within the work area during removal activities. The results of this test will not trigger the requirements of the contingency plan.

2. The services of a testing laboratory shall include a microscope and laboratory technician at the project site or the capacity to obtain results within four (4) hours from start of sample. The laboratory technician shall be listed in the Asbestos Analyst Registry of the AIHA for PCM analysis or qualified by other programs recognized by the Department as equivalent. If the laboratory technician is on site, the Building Owner shall provide a safe and clean space for the analysis of samples separate and distinct from the work area. Air samples are to be analyzed via NIOSH 7400 and verbal results made available for a determination regarding continued occupancy. A written record of test results shall be kept at the job site and included in the final report.

3. Monitoring outside each work area shall be provided throughout removal operations to ensure that no outside contamination is occurring.

4. Filter cassettes and sampling train shall be assembled as specified in NIOSH 7400. The flow rate shall be between 0.5 and 15 liters per minute. The total volume shall be sufficient to achieve a detection limit of 0.01 f/cc. Pumps shall be calibrated before and after sampling and a record kept of this calibration.

5. At least three (5) samples per day shall be collected. One stationary sample at the decontamination unit entrance/exit and four (4) samples adjacent to the work area but remote from the decontamination unit entrance. In the

selection of adjacent areas to be monitored, preference shall be given to rooms that may remain occupied by unprotected personnel.

6. If the AAC's barriers or other control methods are observed to malfunction and if the AAC does not correct the problems immediately upon notification, then the work stoppage procedures shall be followed. In such a situation, additional sampling up to three samples per day shall be performed by the AST.

7. Analysis: NIOSH Method 7400.

8. Maximum turnaround time: four (4) hours

9. The evaluation criteria: 0.01 f/cc.

10. A series of smoke tests shall be performed at the decontamination unit entrance/exit and the interior make-up air by the AST to ensure continuous negative air pressure. This test shall be performed before each work shift and every four (4) hours thereafter until the work stops.

11. The AST shall calculate the required number of negative air filtration units for each work area. This calculation shall be made whenever the volume of the work area changes. The AST shall inform the Client, AAC, and the A/E of any discrepancies between the number of units required and those in operation within the work area. If problems are identified and not corrected, then the work stoppage procedures shall be followed.

12. The AST shall test and record the exhaust volume (CFM) of the air pressure differential units prior to commencement of any abatement project. In addition, the AST shall read and record the pressure drop across the filter from the magnehelic gauge or manometer of the air filtration units at the beginning of every shift and every four (4) hours thereafter, to ensure a complete air change a minimum of once every 15 minutes.

13. A record shall be kept in a daily log of all on-site observations, inspections, and required activities of the AAC.

14. The AST shall ensure that all asbestos waste shall be removed from the work site by a NJDEP registered waste hauler.

15. The monitoring firm's primary responsibility is to ensure that the job is being conducted properly using the controls specified in the contract. An important aspect of the monitoring firm's responsibilities is close visual inspection. Recommendations can and shall be made on the basis of visual inspection.

16. Air monitoring does not prevent exposure; air monitoring will measure air levels and document the effectiveness of control efforts. The emphasis of the monitoring firm's activities shall be to control and prevent exposure by a rapid response to observe visual problems.

17. The AST, upon receipt of testing results indicating concentrations above 0.01 fibers/cc have occurred outside the containment barriers or above 0.02 f/cc within the Clean Room of the decontamination chamber during the abatement action, shall report these results within one working day verbally or electronically to the AAC, the Client, and A/E, so that prompt corrective action may be taken. This communication shall be followed by a written report.

5.4 CONTINGENCY PLAN

A contingency plan during each abatement project shall be implemented as described below. These are the minimum requirements which shall be enforced by the ASCM. These requirements shall not limit the ASCM from instituting additional requirements, if necessary, for the protection of the building occupants.

A. If the pressure differential drops below -0.03 inches w.c., the following procedures shall be implemented:

1. The AST and the AAC's supervisor shall investigate and evaluate the engineering controls to determine the source of the pressure loss.

2. The AAC shall institute corrective action such as: additional sealing, critical barrier maintenance and construction, changing of exhaust unit filters, adjustment of make-up air, operation of additional exhaust units, or other necessary measures to reestablish an acceptable pressure differential.

B. If the pressure differential drops below 0.01 inches w.c., the following procedures shall be implemented:

1. The AAC shall cease abatement activity in the work area.

2. The ASCM shall notify the Building Owner to evacuate the pressurized space(s). The pressurized space(s) shall include all space outside the work area which is pressurized to maintain the required pressure differential relative to the work area and is isolated from the rest of the building in terms of air flow. The pressurized space may include the entire building exclusive of the work area or any part of the building that is pressurized to isolate it from the work area.

3. The AST and the AAC's supervisor shall investigate and evaluate the engineering controls and determine the source of the pressure loss.

4. The AAC shall institute corrective action such as: additional sealing, critical barrier maintenance and construction, changing of exhaust unit filters, adjustment of make-up air, operation of additional exhaust units, or other necessary measures to reestablish an acceptable pressure differential.

5. Re-occupancy shall not be permitted in any area unless a pressure differential of -0.03 inches w.c. or greater is reestablished.

6. If a pressure differential of -0.03 inches w.c. or greater is not reestablished within 24 hours of the first reading below 0.01 inches w.c., then the building shall be evacuated.

C. If air levels exceed 0.01 f/cc, the following procedures shall be implemented:

1. The AST and the AAC's supervisor shall investigate and evaluate the engineering controls to determine the source of the high air level.

2. An additional/second PCM air sample shall be collected at each place at which a high air level was obtained. The additional/second PCM sample may be split, and if the result of the air sample is less than or equal to 0.010 f/cc, the contingency plan is terminated. If the result of the air sample exceeds 0.010 f/cc, the AAC, in consultation with the ASCM, shall choose the option of cleaning and retesting by PCM analysis or analyzing the split sample by TEM analysis. If the result of the TEM analysis exceeds 0.010 f/cc, then cleaning shall be undertaken.

3. The decision as to the timing of the cleaning activity shall be made by the ASCM firm in consultation with the Building Owner and the Contractor.

4. Cleaning shall include, but not be limited to, wet wiping and misting the air. Cleaning the affected area shall be continued outside of containment and PCM sampling shall also be continued until the result in the area is equal to or less than 0.010 f/cc by either PCM or TEM analysis.

5. If laboratory analysis of air samples does not yield a reading less than or equal to 0.010 f/cc within 24 hours of receipt of the first test result above 0.010 f/cc, then the building shall be evacuated.

6. Re-occupancy shall not be permitted in any area where PCM analysis reveals results greater than 0.010 f/cc, unless TEM results indicate asbestos fibers are equal to or less than 0.010 f/cc. In the case of re-occupancy, all air samples used to make the determination to allow reentry shall be analyzed by an accredited laboratory.

D. If a power outage occurs during active abatement work, the building occupants shall

be evacuated until the air samples determine that the occupied spaces are safe, and power has been restored. If a power outage occurs when the building is unoccupied, occupancy will not be permitted until air samples determine that the spaces to be occupied are safe and power has been restored.

5.5 POST-REMOVAL TEST

A. The AST shall provide monitoring of work area(s) within 48 hours of final cleaning and before removal of critical barriers. This test is required to establish safe conditions for removal of critical barriers and to permit reconstruction activity to begin. Sufficient time following clean-up activities shall be allowed so that all surfaces are dry during monitoring.

The AST shall notify the NJDOH and NJDCA giving them the option to visually inspect the site prior to final sample collection.

B. Conditions during sampling: Normal occupancy use conditions shall be simulated using fans as specified in Article III.A.1. The AST shall supply and place propeller-type fans in each room to be sampled so as to cause settled fibers to rise and enter the air. The fans shall have fan blades with a radius of 20 inches. Protective clothing during this phase is optional; the decision to use protective clothing should be based upon the degree of contamination found at the work site during visual observation and pretesting by the ASCM firm.

C. Sampling Procedure: Filter cassettes and sampling train shall be assembled as specified in EPA 40 CFR 763. The flow rate shall be between 0.5 and 15 liters per minute. TEM air samples are collected, with a flow rate between 0.5 and 10 liters per minute, and a total volume of at least 1,250 liters. Pumps shall be calibrated before and after sampling and a record kept of this calibration.

D. Sampling Frequency and Location: Collect one representative sample for every 10,000 square feet of floor space where ACM has been removed or abated. Where possible, repeat locations sampled during indoor pretests.

E. Analysis: EPA 40 CFR 763, Appendix A. (TEM AHERA)

F. Time for Laboratory Analysis: Maximum turnaround time upon completion of sampling is six (6) hours.

G. Evaluation Criteria: If test results exceed the criteria set by EPA 40 CFR 763, the AST shall so inform the AAC, the Client, and the A/E.

H. The AAC shall be required to re-clean all surfaces using wet cleaning methods and provide negative HEPA-filtered exhaust air during the re-cleaning process. This process of re-cleaning, allowing surfaces to dry, and re-testing shall be repeated until compliance is achieved.

I. Final Inspection

1. Final inspection shall be conducted by the AST and the AAC's Supervisor upon written notice by the Client or AAC of satisfactory post tests and removal of critical barriers.

2. Following a satisfactory final inspection, the Client/agent shall apply for a Certificate of Completion. The ASCM shall then issue the Certificate of Completion.

3. Certificate of Occupancy: When the evaluation criteria are met in all buildings and a Certificate of Completion has been issued, except in high priority group buildings, the Building Owner may apply for a Certificate of Occupancy from the Hamilton Township Department of Building Code Enforcement.

5.6 FINAL REPORT

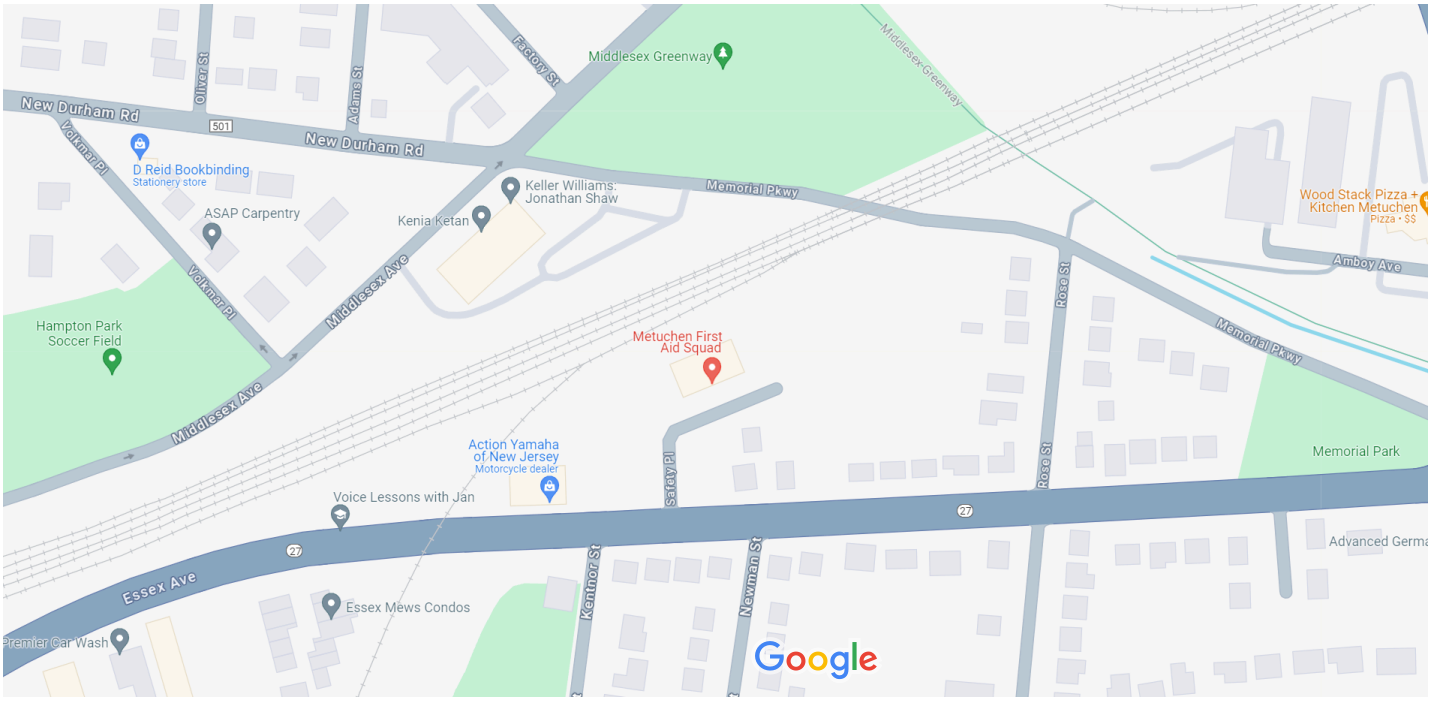
A. Upon satisfactory completion of all asbestos removal work and of all tests, the ASCM shall submit a written final report to all parties identified in Chapter 1 Article I.A of this specification, including copies of all back-up records (charts, logs, calibration results, records, ventilation measurements, etc.) documenting the day-by-day progress of work and related tests. This report shall be presented in logical form, neatly bound, and property titled, dated, and signed. Any deviations from acceptable practice on the part of the AAC, and any unsatisfactory test results reported during the course of the job, shall be highlighted in the report for record purposes.

B. All reports by the AST specified herein may be submitted in legible, handwritten form in the interest of time constraints, to be resubmitted within the specified period in printed or typewritten form.

Appendix A

Site Plan

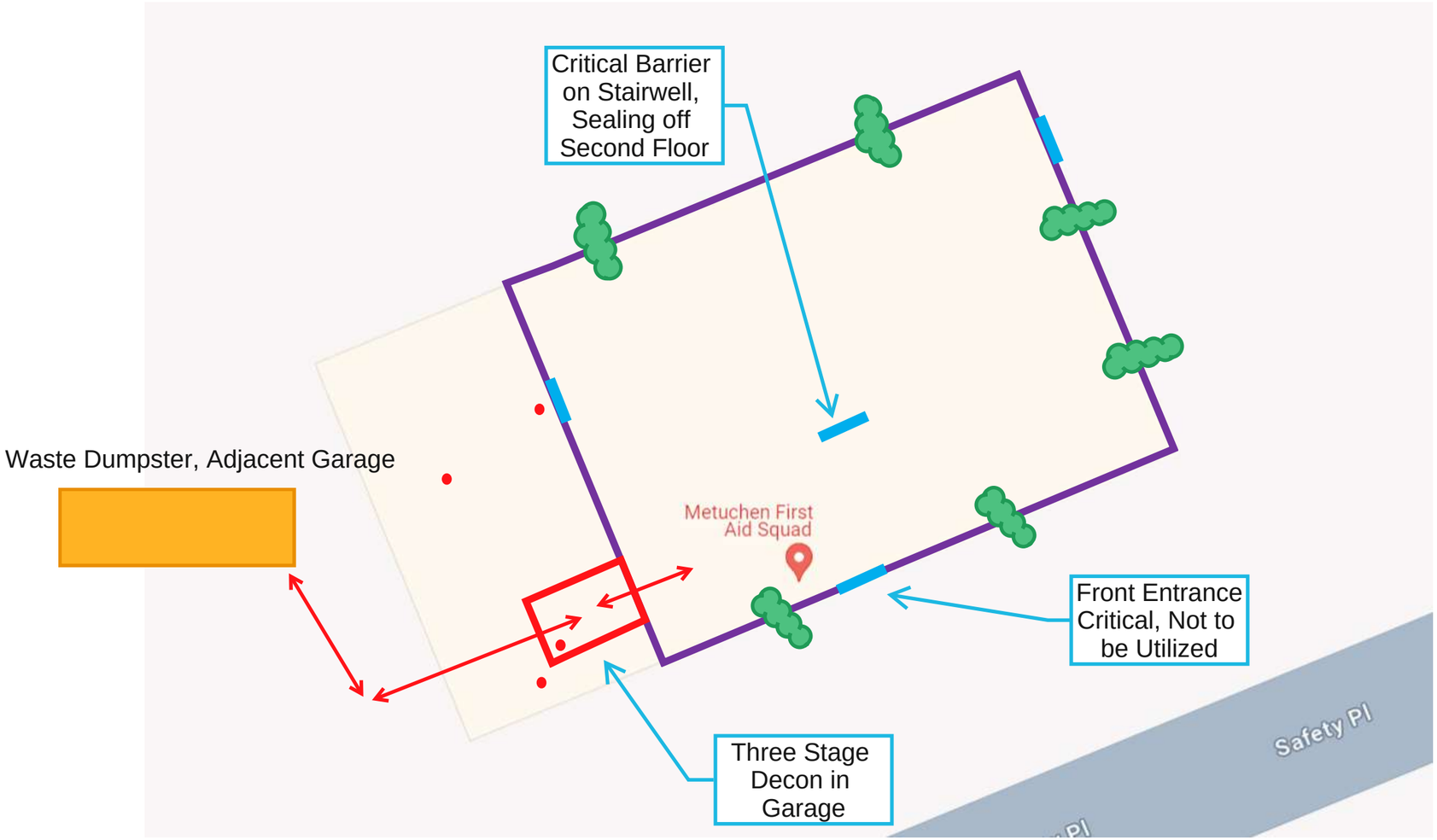
Google Maps



Map data ©2024 Google 100 ft

Appendix B

Proposed Work Area



ACM Type
Subfloor Leveler & Mastic - 5.2% Chrysotile

MONTROSE ENVIRONMENTAL

Legend

= Work Area Outline

= Negative Air Exhaust

= Air Sample Location

= Separation/Critical Barrier

= Waste & Personnel Entry/Exit Pathway

= 3-Stage Decon Unit

Note: Final Air Sample Locations and Work Area Layout to be Determined by Asbestos Safety Technician during project.

Drawn By: JFO	Date: 5/1/2024
Approved By: JFO	Project No. 14656-06

Figure 1
Metuchen EMS Building
Work Area Layout
First Floor
Metuchen, New Jersey

Appendix C

ASCM Certification

State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS
101 SOUTH BROAD STREET
PO BOX 821
TRENTON, NJ 08625-0821

PHILIP D. MURPHY
Governor

TAHESHA L. WAY
Lieutenant Governor

JACQUELYN A. SUÁREZ
Acting Commissioner

TEMPORARY CERTIFICATE OF REAUTHORIZATION

March 28, 2024

Montrose Environmental Solutions, Inc.
500 Horizon Dr. Suite 540
Robbinsville, NJ 08691

Dear Julian Fernandez-Obregon:

This is to certify that the Department of Community Affairs, has **TEMPORARILY** reauthorized your firm to act as an **ASBESTOS SAFETY CONTROL MONITOR.**
Pursuant to N.J.A.C. 5:23-8.11(b)6.ii.

YOUR ASBESTOS SAFETY CONTROL MONITOR number is: **00131**

EXPIRATION DATE: MAY 30, 2024

Pursuant to N.J.A.C. 5:23-8.11(h)2, quarterly fee statements must be sent to this Department no later than one month after the close of each quarter. Please be further advised that the monies obtained from the preparation of plans and specifications and payments for laboratory services shall not be included in the calculation of the quarterly fee. **If no payments are received during any quarter, you must submit a zero statement to this Department.**

Sincerely,

Tex Falajiki

O. Tex Falajiki
Supervisor,
Asbestos Safety Unit