

STATE OF NORTH CAROLINA/ASHEVILLE CITY SCHOOLS

REQUEST FOR PROPOSALS

#148-MAINT-053

PROJECT: Asheville High Asbestos Abatement at CTE Building PROJECT

USING AGENCY: Asheville City Schools

ISSUE DATE: 3/30/2026

Proposals subject to the conditions made a part hereof will be received until **2:00 pm, April 16, 2026**, for furnishing all labor, materials, equipment, and services incidental and implied, for completion of the project described herein.

THE PROCUREMENT PROCESS

The following is a general description of the process by which a firm will be selected to provide services.

1. Request for Proposals is issued to prospective contractors.
2. Site Visits may be scheduled by contacting Tim Shelton, ACS Maintenance Director, at (828) 713-6430. While not required, it is highly recommended that all contractors familiarize themselves with the project. Proposer is responsible for measuring actual square footage.
3. The deadline for written questions is three (3) days prior to the due date.
Chris Pohlman, Purchasing Specialist
Phone: 828-350-6101
Email: chris.pohlman@acsgmail.net
4. All Proposals must be received by the Purchasing Specialist not later than the due date and time specified above, at which point all proposals will be immediately thereafter opened. Attendance by Proposers at the Public Opening is not required. Tabulations of proposals and award information may be obtained by written request.
 - a. All Proposals must be fully sealed and reference RFP# 148-MAINT-053 on the outside of the package. Providing one original Proposal is sufficient. Additional copies of Proposals are not necessary. Emailed proposal submissions will NOT be accepted. All sealed proposals should be clearly labeled with the following:

Asheville City Schools
Attn: 148-MAINT-053
c/o Chris Pohlman
85 Mountain Street
Asheville, NC 28801
 - b. Proposal Forms must be signed and dated by an official authorized to bind the firm. Unsigned proposals will not be considered.
 - c. Proposals must include Identification of HUB Certified/Minority Business Participation, as well as either Affidavit A or Affidavit B, as applicable. Required forms and instructions are included as [Exhibit A](#) to this solicitation.
5. Proposals will be evaluated according to completeness, content, experience with similar projects, ability of the offeror and its staff, and cost. Award of a contract to one offeror does not mean that the other proposals lacked merit, but that, all factors considered, the selected proposal was deemed most advantageous to the State.
6. Asheville City Schools reserves the right to reject any or all offers when such rejection is deemed to be in the best interest of Asheville City Schools.

(NOTE: THE PROPOSAL FORM MUST BE FULLY EXECUTED AND RETURNED FOR CONSIDERATION)

PROPOSAL FORM

#148-MAINT-053

Asheville High Asbestos Abatement at CTE Building PROJECT

DUE DATE: 4/16/2026 at 2:00 pm

The undersigned having carefully read and considered the terms and conditions of the Contract Documents for the Asheville High Asbestos Abatement at CTE Building Project for Asheville City Schools, North Carolina, does hereby offer to perform such services on behalf of the District, of the type and quality and in the manner described, and subject to and in accordance with the terms and conditions set forth in the Contract Documents at the rates on the Proposal Forms hereinafter set forth.

Proposer: _____

Address: _____

City/State/Zip: _____ Phone: _____

MBE Status: _____ Fax: _____ Email: _____

By: (Signature) _____ Date: _____

Printed Name _____ Title: _____

Number of Years in Business: _____

Number of Years Experience in commercial asbestos abatement projects: _____

Estimated Start Date: _____

Estimated Duration: _____

Required: At least three (3) references for similar projects. (Please attach extra sheets as needed).

Required: Identification of Minority Business Participation form, including either Affidavit A or Affidavit B, as applicable.

Therefore, in compliance with this Request for Proposals, and subject to all conditions herein, the undersigned offers and agrees, if this proposal is accepted, to furnish the subject services for a cost not to exceed:

\$ _____ Total

END OF PROPOSAL FORM

1. PURPOSE

Asheville City Schools invites qualified and experienced contractors to submit proposals for asbestos removal for multiple rooms in the “CTE Building” at Asheville High School, located at 419 McDowell St, Asheville, NC 28803, within Asheville City Schools (“ACS”), as per the specifications described herein.

2. SCOPE OF WORK

A survey map for the third floor of the CTE Building of Asheville High School is added as [Exhibit B](#) to this solicitation.

Scope of work applies to the following rooms: 600, 601, 602, 603, 604, 605, 606, 611, and hallway areas indicated on the Exhibit B map.

For all rooms and areas, utilize non-friable abatement methods to remove asbestos-contaminated floor tile and tile adhesive. Friable abatement will be done within negative pressure enclosures with HEPA filtered exhaust. All abatement will be followed by prompt cleanup. The total area is approximately 13,100 square feet; however, Proposer is responsible for verifying exact square footage.

All waste is to be transported off site and disposed of at an approved site. All permits and any fees associated with this project must be included in the Proposal.

The Design of Asbestos Abatement is provided by Reliant Environmental and is added as [Exhibit C](#) to this solicitation.

3. AIR TESTING

Following the removal, the air testing will be the responsibility of Asheville City Schools.

4. SITE VISIT

Site Visits may be scheduled by contacting Tim Shelton, ACS Maintenance Director, at (828) 713-6430. While not required, it is highly recommended that all contractors familiarize themselves with the project. Proposer is responsible for measuring actual square footage.

5. EXPERIENCE WITH SIMILAR PROJECTS

The requirements and specifications include the following:

Experience: Contractor must have at least three (3) years’ commercial asbestos abatement projects.

References: At least three (3) references for similar projects.

6. TIMELINE

Work shall start on or approximately June 15, 2026 and shall be completed no later than June 30, 2026.

7. CONDITIONS

Each Proposer shall fully acquaint itself with conditions relating to the scope and restrictions attending the execution of the work under Contract. Proposers shall thoroughly examine and be familiar with the Specifications.

It is also expected that the Proposers will obtain information concerning the conditions at locations that may affect its work. The failure or omission of any Proposer to receive or examine any form, instrument, addendum or other document, or to acquaint itself with existing conditions, shall in no way relieve it of any obligations with respect to its Proposal or to the Contract.

The Proposer shall make its own determination as to conditions and shall assume all risk and responsibility and shall complete the work in and under conditions it may encounter or create, without extra cost to Asheville City Schools.

8. SAFETY REGULATIONS:

The Contractor shall adhere to the rules, regulations, and interpretations of all state, federal, and local laws that pertain to workers and site safety. This to include OSHA 1910, General Construction, or those regulations mandated by these specifications.

9. CONFIDENTIAL INFORMATION

As provided by statute and rule, ACS will consider keeping trade secrets which the offeror does not want disclosed, confidential. Each page shall be identified in boldface at the top and bottom as "CONFIDENTIAL". Cost information shall not be deemed confidential. In spite of what is labeled as a trade secret, the determination whether it is or not will be determined by North Carolina law.

10. HISTORICALLY UNDERUTILIZED BUSINESSES

Pursuant to General Statute 143-48 Executive Order #150, Asheville City Schools invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled.

Pursuant to 2 CFR 200.321, affirmative steps are required to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. The proposer shall identify on its bid/proposal the minority business participation it will use on the project (Identification of Minority Business Participation) form and shall include either Affidavit A or Affidavit B as applicable. Required forms and instructions are included as [Exhibit A](#) to this solicitation.

11. NONDISCRIMINATION

Contractor and any subcontractors employed by Contractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

12. DEBARMENT

Proposer certifies by submitting a Proposal that the Proposer and/or any of its Principals are not presently debarred, per the State's website: <http://ncadmin.nc.gov/government-agencies/procurement/contracts/debarred-vendors> ; and are not presently debarred, per the Federal Excluded Parties List: www.sam.gov/portal/public/SAM ; and are not listed on the Final Divestment List and Parent and Subsidiary List located at <https://www.nctreasurer.com/inside-the-department/OpenGovernment/Pages/Iran-Divestment-Act-Resources.aspx> which was created by the NC State Treasurer pursuant to N.C.G.S. 147-86.58, Iran Divestment Act; and are not suspended, proposed for debarment, declared ineligible or voluntarily excluded from entering into this Agreement by any federal agency or by any department, agency or political subdivision of the State.

13. COMPLIANCE

The Contractor shall comply with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business, including those of federal, state, and local agencies having jurisdiction and/or authority.

The Contractor shall obtain all licenses and permits required to execute a contract by authorities that have jurisdiction.

The Contractor shall comply with all relevant ACS Policies and Procedures applicable to its provision of the services described hereunder during the term of the Agreement. All Asheville City Schools Board Policies can be found at https://www.boardpolicyonline.com/bl/?b=asheville_city

14. SPECIFICATIONS

Any deviation from the specifications indicated herein must be clearly pointed out and explained in detail. Otherwise, it will be considered that items offered are in strict compliance with these specifications, and the offeror will be held responsible therefore. The proposer shall not construe this paragraph as inviting deviation or implying that any deviation will be acceptable.

15. AWARD OF CONTRACT

It is the intent to award this contract to a single overall offeror. The right is reserved, however, to make award on the basis of individual items or groups of items, if such shall be considered to be most advantageous or constitute the best interest of ACS. Best value procurement to the lowest responsive and responsible bidder is the procurement goal of ACS.

This may be determined upon consideration of such factors as: prices offered; the quality of the articles offered; the general reputation and performance capabilities of the offerors; the substantial conformity with the specifications and other conditions set forth in the proposal; the suitability of the articles for the intended use; the related services needed; the date or dates of delivery and performance; and such other factors deemed by ACS to be pertinent and peculiar to the purchase in question. Unless otherwise specified by ACS or the offeror, ACS reserves the right to accept any item or group of items on a multi-item proposal. In addition, on term contracts, ACS reserves the right to make partial, progressive or multiple awards: where it is advantageous to award separately by items; or where more than one supplier is needed to provide the contemplated requirements as to quantity, quality, delivery, service, geographical areas; other factors deemed by ACS to be pertinent or peculiar to the purchase in question.

16. PROTEST PROCEDURES

A party wanting to protest a contract awarded pursuant to this solicitation, must submit a written request to the Chief Finance Officer of ACS using the contact information below. This request must be received by the Chief Finance Officer within five (5) consecutive calendar days from the date of the contract award and must contain specific sound reasons and any supporting documentation for the protest.

Heidi Kerns, Chief Finance Officer
Asheville City Schools
85 Mountain St, Asheville, NC 28801
Email: heidi.kerns@acsgmail.net

17. JESSICA LUNSFORD ACT

Under North Carolina law, certain sex offenders are prohibited from coming onto school campuses. Proposer agrees to conduct an annual check of the N.C. Sex Offender and Public Protection Registration Program, the N.C. Sexually Violent Predator Registration Program, and the National Sex Offender Registry for all of its employees involved in this project. ACS prohibits any personnel listed on such registries from being on any property owned or operated by ACS and from having any direct interaction with students. As a term of the Agreement, said checks must be performed by the Contractor and reported to the ACS Superintendent or Designee, upon request. Under provisions set forth in the Jessica Lunsford Act under North Carolina law, my signature below certifies that neither I nor any employee or agent of Contractor that is involved with project is listed as a sex offender on the NC Sex Offender and Public Protection Registration Program, the Sexually Violent Predator Registration Program, and/or the National Sex Offender Registry.

18. E-VERIFY

Service Provider shall comply with the requirements of G.S. Chapter 64, Article 2 (the "E-Verify Requirements").

19. INDEMNITY

Proposer will indemnify and save harmless ACS, its officers, agents, and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses, and attorneys' fees to the extent resulting from a willful or negligent act or omission of the Proposer, its officers, or agents; provided, however, that the Contractor shall not be liable for any suits, actions, legal proceedings, claims, demands, damages, costs, expenses and attorneys' fees to the extent resulting from a willful or negligent act or omission of the ACS, its officers, agents, or employees.

20. INSURANCE

If awarded a contract, the Proposer will provide a Certificate of Liability Insurance naming the District as additional insured. The issuing insurer must provide 30 days written notice to the District of the expiration of the insurance. As a minimum, the Contractor shall provide and maintain the following coverage and limits:

- Workers' Compensation Insurance, including Employer's Liability with limits of \$250,000 each accident. The Aggregate Limit will not be less than \$2,000,000.
- Property Damage Insurance, including Liability Coverage, with a per occurrence limit of \$1,000,000. The Aggregate Limit will not be less than \$2,000,000

Providing and maintaining adequate insurance coverage is a material obligation of the contractor and is of the essence of this contract. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized by the Commissioner of Insurance to do business in North Carolina. The Contractor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or this contract. The limits of coverage under each insurance policy maintained by the contractor shall not be interpreted as limiting the contractor's liability and obligations under the contract.

To the extent permitted by law, all or any part of any required insurance coverages may be provided under a plan or plans of self-insurance. The coverages may be provided by the Contractor's parent corporation.

21. TERMINATION

ACS may terminate this agreement at any time by 15 days' notice in writing to the Contractor. If the contract is terminated by ACS as provided herein, the Contractor shall be paid for services satisfactorily completed, less payment or compensation previously made.

22. AVAILABILITY OF FUNDS

Any and all payments to the contractor are dependent upon and subject to the availability of funds. All contracts are subject to annual renewal. Price adjustments may be considered at that time but none are automatic unless spelled out in the bid/proposal and agreed upon by both parties.

23. CONTRACTS PAID THROUGH FEDERAL FUNDS

In the event that the Board provides compensation for services performed under this Agreement from a qualifying federal funding source, either in whole or in part, Service Provider herewith accepts responsibility for complying with applicable provisions of federal law, including, but not limited to, the Equal Employment Opportunity (41 C.F.R. Part 60); Davis-Bacon Act (40 U.S.C. 3141-3148); Copeland "Anti-Kickback" Act (40 U.S.C. 3145); Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708); Clean Air Act (42 U.S.C. 7401-7671q.) and Federal Water Pollution Control Act (33 U.S.C. 1251-1387); Debarment and Suspension

(Executive Orders 12549 and 12689); Byrd Anti-Lobbying Amendment (31 U.S.C. 1352); Procurement of Recovered Materials (2 C.F.R. § 200.322); and, Record Retention Requirements (2 CFR § 200.324).

24. SALES AND USE TAX

NC public school systems are entitled to refunds from the State of North Carolina of certain sales and/or use taxes paid to the State of North Carolina. This refund provision includes taxes paid by construction contractors on materials which have become permanently affixed to buildings owned or leased by the school system, accordance with the provisions of G.S. 105-164. 14(c).

- Sales Taxes that are refundable to school systems include sales taxes paid in North Carolina by the school system's contractors on purchases of building materials, supplies, fixtures and equipment which become a part of or are annexed to any building or structure being erected, altered or repaired under contract with the school system. Since contractors are required to pay tax on purchases of materials, ACS requires Contractors to complete a Contractor's Statement of NC Sales and Use Tax Paid, which must include all of the following:
 - a. the date the property was purchased;
 - b. the type of property purchased;
 - c. the project for which the property was used;
 - d. if the property was purchased in this State, the county in which it was purchased;
 - e. if the property was not purchased in this State, the county in which the property was used; and
 - f. the amount of sales and use taxes paid.
- Sales Taxes that are not refundable to schools include, but are not limited to, scaffolding, forms for concrete, fuel for the operation of machinery and equipment, tools, equipment repair parts and equipment rentals, blueprints, etc., or any other items which do not become a part of or are not annexed to the building or structure being erected, altered, or repaired.
- Sales Taxes paid by a subcontractor must follow the guidelines as listed above for the contractor, the only difference being that the subcontractor must submit their certification and accompanying documentation to the contractor for the contractor to submit to the school system, as stated above.

25. QUALITY OF WORK

All work shall be performed in a good and professional manner by skilled, experienced workers. ACS shall be responsible for determining the quality of work, and may notify the Contractor of the same.

26. PERFORMANCE AND DEFAULT

If, through any cause, the Contractor shall fail to fulfill in timely and proper manner the obligations under this agreement, ACS shall thereupon have the right to terminate this contract by giving written notice to the Contractor and specifying the effective date thereof. In that event, all finished or unfinished deliverable items under this contract prepared by the Contractor shall, at the option of ACS, become its property, and the Contractor shall be entitled to receive just and equitable compensation for any satisfactory work completed on such materials.

In case of default by the Contractor, ACS may procure the services from other sources and hold the Contractor responsible for any excess cost occasioned thereby.

Upon the entering of a judgment of bankruptcy of insolvency by or against the Contractor, the Agency may terminate this contract for cause. Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by any act of war, hostile foreign action, nuclear explosion, riot, strikes, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God.

27. TRANSFERABILITY OF CONTRACT

Other than by operation of law, no assignment of the Contract or any right accruing under this Contract shall be made in whole or in part by the Contractor without the express written consent of ACS, which consent shall not be unreasonably withheld; however, in the event of an assignment, the assignee shall assume the liability of the Contractor.

State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of _____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- 1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- 2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- 3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- 4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- 5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- 6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- 7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- 8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- 9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- 10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

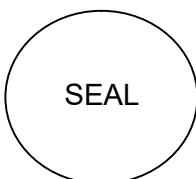
The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.

County of _____

Affidavit of _____

(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____

_____ contract.

(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



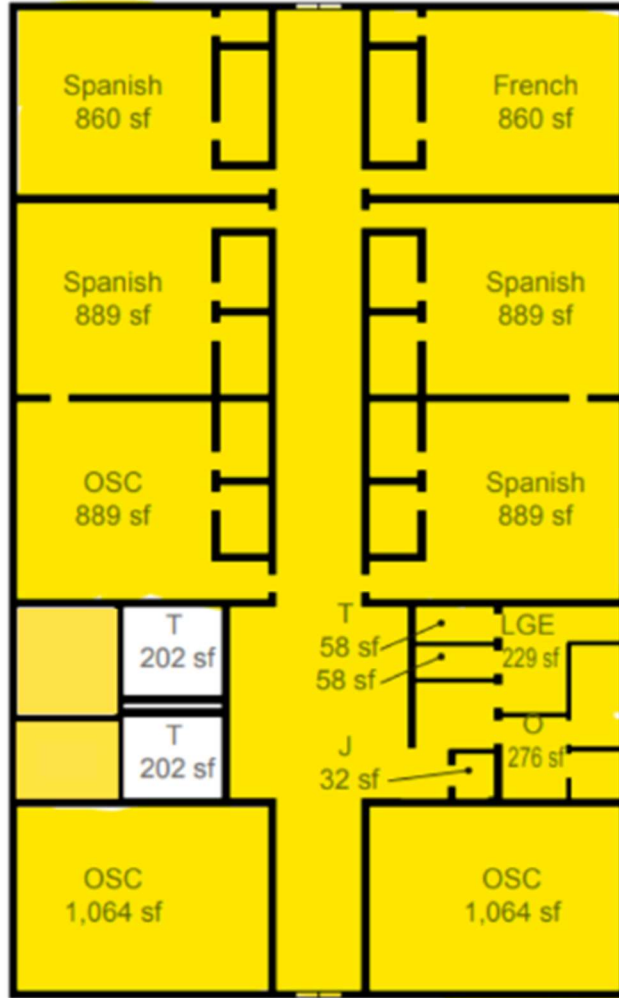
State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20__

Notary Public _____

My commission expires _____

Asheville High School
419 McDowell St, Asheville, NC 28803
CTE Building, Third Floor (600 Hall)



Upper Floor Plan

DRAWING AA01



- Contractor to remove & dispose of all asbestos floor tile & mastic.

**DESIGN OF ASBESTOS ABATEMENT
for
REMOVAL OF ASBESTOS
FLOOR TILE & MASTIC**

**BUILDING CTE 600
ASHEVILLE HIGH SCHOOL
419 MCDOWELL ST.
ASHEVILLE, NC**

Prepared For:

*Mr. Tim Shelton
Asheville City Schools
441 Haywood Rd.
Asheville, NC 28806*

Designed and Prepared By:

**DESIGNER: Terry L. LaDuke
ACCREDITATION NO.: 40099**

The logo for Reliant Environmental features the word "Reliant" in a serif font above the word "Environmental" in a similar serif font. A green wavy line is positioned above the word "Environmental".

**RELIANT ENVIRONMENTAL
4 ELAINE DR.
CANTON, NORTH CAROLINA**

March 20, 2026

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Drawing AA01

SECTION 1.0 - ASBESTOS CONTRACTOR REQUIREMENTS

A. General Requirements

The contractor shall furnish all labor, materials, services, insurance, and equipment necessary to carry out the abatement operations and disposal of approximately **12,700 square feet of asbestos floor tile and mastic on the Upper Floor of the CTE Building (CTE 600) located at Asheville High School, 419 McDowell St., Asheville, North Carolina** in accordance with the Specifications, the EPA (ASHERA) and OSHA regulations, and any applicable state and local government regulations.

All supervisors will be accredited by the North Carolina Department of Health and Human Services, Health Hazard Control Unit (HHCUC). All workers shall be accredited by the HHCUC.

The contractor/employer has and assumes the responsibility of proceeding in such a manner that he offers his employees a workplace free of recognized hazards causing or likely to cause death or serious injury. The contractor shall be responsible for performing this abatement and disposal so that significant fiber release levels do not develop.

1. The General Conditions of the Contract, and the Supplementary General Conditions, contained herein, are a part of these specifications.
2. The Contractor shall have at all times in his possession at his on-site office one copy of each of the following:
 - a. Asbestos Removal Permit/NESHAP Notification
 - b. Accreditation documents for all workers and supervisors
 - c. Plans and Specifications
 - d. All Air Monitoring Data
 - e. Waste Shipment Records
 - f. Copies of all correspondence
 - g. Sign-in sheets



3. The Contractor shall have at his office and at the job site, one copy of each of the programs, lists, schedules, etc. submitted under the requirements of Section B, Prewrite Submittal Requirements of this specification as well as copies of memos, letters and all specification changes (etc.) that relate to this project.
4. The Contractor shall be responsible for inspecting the site prior to bidding to confirm the scope of the work. Any quantities listed by the Asbestos Designer in the plans and specifications are done so as approximations. The actual quantities of work and asbestos-containing material to be encountered are the responsibility of the contractor.
5. A bound book (3-ring notebook) will be maintained on site by the Contractor to allow written comments to be available for subsequent review and follow-up by inspectors and industrial hygienists. The bound book will be presented to the Asbestos Designer at the end of the project. The Contractor will be required to furnish two copies of the bound book to the Asbestos Designer. The Asbestos Designer will forward the book to the Owner in his final report submission. The contractor shall record in the bound book for each workday, the name and social security number of each worker, supervisor, and visitor, and the starting and stopping time for each work shift. The contractor shall also enter into this book, the employee's daily air monitoring data as required by the OSHA standard.
6. The Contractor shall be responsible for obtaining approval for a waste disposal site in compliance with 40 CFR 61.154.
7. The Contractor shall provide appropriate work clothes, head covers, footwear and towels, at no cost, to any official representative of the institution or agency who inspects the job site. The Contractor is not required to supply air purifying dual filter type respirators to the official representatives of the Owner. When other types of respirators are required, the Contractor will make at least two available for official representatives to use. These remain the property of the contractor.
8. A competent person, as defined in the OSHA asbestos standard 29 CFR 1926.1101, employed by the Contractor must be outside the work area at all times to monitor activity, ensure containment security, provide information to visitors, and to provide access to the work area.
9. The Contractor will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.



10. The Contractor is responsible for all costs, including but not limited to, containment preparation, labor, materials, recleaning, and additional Designer and/or air monitoring visits, should the Designer or Supervising Air Monitor (SAM) determine that the contractor was not ready for, or failed a final visual inspection and/or a final air clearance. The Contractor is responsible for notifying the Designer and air-monitoring firm in writing that he (contractor) is ready for a final visual inspection and/or final air clearance. The written request must be by mail or fax to the SAM and Asbestos Designer and bound in the Contractor's log book. The SAM will be given a minimum notice of 48 hours by the Contractor unless a different time frame is agreed upon by both the SAM and the Contractor.
11. The Contractor shall provide an accredited supervisor for every 10 workers inside the containment. The supervisor shall have a minimum of two (2) years' asbestos experience. There shall be an accredited supervisor in each containment at all times.
12. The Contractor shall have at least one employee on the job site in either a foreman or supervisor's position who is bilingual in the appropriate languages when employing workers of another nationality who do not speak fluent English. The Contractor shall also post asbestos signs in each appropriate language as per the OSHA 29 CFR 1926.1101 standard.
13. The Contractor shall maintain at least two exits for egress throughout the duration of the abatement project, where possible.
14. The Contractor shall comply with all federal, state, and local regulations that apply to this project (i.e. OSHA Asbestos Construction Standard, AHERA). This is not limited to the regulations specifically addressed in this specification.

B. Pre-work Submittal Requirements

The Contractor shall submit for approval to the Asbestos Designer prior to the start of work the following information in a bound manual. The Asbestos Designer shall respond before the start of the project to these submittals with his comments, changes, and/or approval based upon review and comments from the SAM. For emergency removals the Contractor shall provide this information as soon as possible.

1. **Planned Sequence of Operation.** Set forth in this schedule shall be the Contractor's proposed method of removal and timetable and sequence for the various phases of the abatement.



Asbestos Contractor Requirements
Asheville City Schools
Asheville High School CTE 600
Asheville, NC
Page 3

2. A Respiratory Protection Program in accordance with Section D, Item 4, Worker Protection of these specifications. A copy of the most recent fit testing records for all employees, including temporary labor.
3. A list of supervisors and workers assigned to work in contaminated areas shall be submitted to the Asbestos Designer prior to the start of work and maintained at the job site. The list shall include employees' State of NC accreditation number and the date of the employees' last medical exam.
4. Personnel Decontamination Program. This program shall be equivalent to the program described in Technical Specifications, Section B, Personnel Decontamination Procedures of these specifications.
5. Procedures for evacuation of injured persons for both life threatening and non-life threatening occurrences.
6. Certifications of performance showing that vacuums, ventilation equipment, and other equipment required to contain airborne asbestos fibers conform to ANSI Z9.2-79.
7. Approval for a waste disposal site in compliance with 40 CFR 61.154 of the EPA regulations.
8. A Hazard Communication Program in accordance with OSHA's 29 CFR 1926.59 standard.
9. Contractor's letters to EMS, Police, and Fire Departments.
10. A copy of safety training records with names of personnel and dates of training, including, but not limited to, first aid, CPR, and fire extinguishers.
11. A copy of the electrical protection protocol, including, but not limited to, shutdown, lockout, and ground fault circuit interrupter (GFCI).
12. If applicable, a confined space program in accordance with OSHA's 29 CFR 1910.146 standard.



C. Permitting and Notifications

1. All projects which remove more than 35 cubic feet, 160 square feet or 260 linear feet of friable asbestos containing material or non-friable asbestos containing material that may become friable and/or regulated during handling shall obtain a permit from the HHCU. Other asbestos abatement activities may require a permit from the local office of Western North Carolina Regional Air Quality Agency (WNCRAQA). This office can be reached at 828-255-5655. The Contractor shall obtain all permits required for the abatement.

The permit holder (Contractor) shall notify the HHCU and WNCRAQA of any change in the removal schedule at least 3 working days prior to the removal.

2. The Contractor shall notify the following offices in writing within the time frame specified by the NESHAP regulations prior to beginning any asbestos removal operation. A minimum 10-day notice is required. The notification requirement is as follows:

10 Days - Renovation projects of greater than 35 cubic feet, 260 linear feet or 160 square feet of asbestos containing material or when these amounts are exceeded in a calendar year.

10 Days - Demolition projects, regardless of whether asbestos containing materials are present.

As Early As Possible, but not later than the following workday for demolitions ordered by State or local agency.

OSHA Director
NC Department of Labor
319 Chapanoke Road, Suite 105
Raleigh, North Carolina 27603-3432
Telephone: 919/662-4602 or 1-800/LABOR-NC
Fax: 919/662-4625



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NC Department of Health and Human Services

(Regular Mail)
(UPS, FED EX, etc.)
5505 Six Forks Road
Room D-1
Second Floor/2A210
Raleigh, NC 27609-3806

Health Hazards Control Unit
Occupational & Environmental Epidemiology Section
1912 Mail Service Center
Raleigh, North Carolina 27699-1912
Telephone: 919/707-5950
Fax: 919/870-4804

Supply the above offices and individuals with a copy of the completed asbestos permit and notification for demolition/renovation.

3. The Contractor shall notify the local police, emergency medical services and fire departments in writing of the type and scope of the work being performed and request that these departments make an inspection prior to the beginning of asbestos removal operations. Copies of these letters shall be sent to the Asbestos Designer for review with prework submittals.

D. Worker Protection

1. The Contractor shall thoroughly train all employees prior to their working in the hazards of asbestos. This training shall include, at least, the use, limitations, wearing and maintenance of personal protective equipment; good work practices pertaining to all procedures used in asbestos removal and the OSHA, EPA and State regulations covering asbestos and its disposal. All workers will be accredited by HHCUC.



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2. Prior to the start of work, the Contractor shall provide medical examinations for all employees in accordance with OSHA [Sec. 1910.134(b) and 1926.1101] and the North Carolina Workers' Compensation Act (Sec. 97-60). No minors are allowed to be exposed to asbestos. All medical examinations along with a "Pre-Employment Statement (DEHNR 2796) for each new employee or reexamination record for each present employee shall be submitted to the Occupational Health Section, North Carolina Department of Environment, Health and Natural Resources, Raleigh, North Carolina 27611, for review by a member of the Advisory Medical Committee. (A copy of the DEHNR 2796 form can be obtained from the Raleigh office.) All employees hired by the Contractor after start of work shall have medical examinations in accordance with this paragraph before being exposed to asbestos.
3. Work Clothes: Work clothes shall meet the OSHA requirements for the regulated area at all times. Minimum working attire shall include head cover, respirator, shoes, and appropriate body covering. When the work area is cold, workers may wear disposable coveralls over additional warm garments. When heat stress is a problem, the contractor shall evaluate the work environment and see that proper clothing is selected and worn. Workers may not wear their disposable clothing down around their waists, during gross removal. Workers may not wear garments with cut off arms and/or legs.
4. Respiratory Protection Program: The Contractor shall implement a respiratory protection program prior to starting work in accordance with these specifications. The Contractor's respiratory protection program shall be implemented in accordance with OSHA standards 29 CFR 1910.134, 29 CFR 1926.1101, ANSI Z-88.2 1992 and these specifications. All respirators shall be NIOSH/MSHA approved for asbestos and other possible contaminants employees might be exposed to during the project. The type of respiratory protection (air purifying, powered air purifying, supplied air or self-contained breathing apparatus) shall be based on the level of asbestos and/or other contaminants. The minimum respiratory protection for gross removal shall be powered air purifying respirators (PAPR) with replaceable HEPA filters.

Full body covering and a minimum of half-face, negative pressure respirator with replaceable HEPA filters shall be worn by workers during the preparation.

The Contractor may downgrade respiratory protection, providing current air-monitoring data or historical air monitoring data indicate appropriate levels below OSHA exposure limits (8-hour TWA) and/or the Supervising Air Monitor gives written approval.

Assigned protection factors for respirators are as follows:



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**ASSIGNED PROTECTION FACTOR TABLE
FOR RESPIRATOR USE**

Maximum Use Concentration

Minimum Respirator Required

0.1 fibers/cc

Half-face air purifying respirator
with replaceable HEPA filters

* Full face air purifying respirator
with replaceable HEPA filters

0.25 fibers/cc

Any loose-fitting powered air
purifying respirator with replaceable
HEPA filters

0.50 fibers/cc

** Full face air purifying respirator
with replaceable HEPA filters

1.0 fibers/cc

Full face powered air purifying
respirator with replaceable HEPA
filters

or

Full face, Type C, supplied air
respirator operated in the continuous
flow mode equipped with replaceable
emergency egress HEPA filters

10 fibers/cc and greater

Full face, Type C, supplied air
respirator operated in the pressure
demand mode and equipped with
replaceable emergency egress
HEPA filters

* Maximum use concentration is based on qualitative fit testing.

** Maximum use concentration is based on quantitative fit testing.



Respiratory protection for other contaminants shall be selected according to the characteristics of the hazards involved, the capabilities and limitations of the respirators, and the ability of employees to obtain a satisfactory fit test.

Respirator fit testing shall be performed as a minimum at the beginning of the project, at any change in respiratory protection equipment, and at any time during the project if requested by the employee or Supervising Air Monitor. Fit testing is to be performed by methods listed in the 29 CFR 1926.1101, Appendix C. The Contractor shall submit a copy of the written respiratory protection program as per this specification.

Appropriate respiratory protection, protective clothing and equipment shall be worn by all employees during the following activities:

- i. during work area preparation prior to gross removal which may cause disturbance of the asbestos material. This may include but is not limited to: hanging poly, removing/installing barrier walls, installation of decontamination unit, etc.
- ii. during gross asbestos removal
- iii. during all clean up phases

Only after asbestos has been removed and an area has been visually inspected, air tested and accepted by the SAM, will respiratory protection use be discontinued. The SAM must provide a letter to the contractor allowing the contractor to discontinue the use of respiratory protection.

At no time shall a contractor allow his workers or supervisors to reduce respiratory protection unless approved by the SAM in writing.

5. If supplied air respirators are used, the Contractor shall provide a minimum of Grade "D" breathing air if supplied air respirators are used as set forth in the Compressed Gas Association's "Community Specifications for Air" G-7.1. as follows:



LIMITING CHARACTERISTICS

LEVELS

O ₂	19.5 - 23.5%
Water	Variable
Hydrocarbons	5 mg/m ³
CO	10 ppm
Odor	None
CO ₂	1000 ppm

The Contractor shall test for Grade "D" breathing air initially and daily thereafter. Daily testing is not needed if the Contractor has an air purification system which has CO and organics purging capabilities as well as a continuous CO monitor and alarm calibrated at 10 ppm.

Calibration of the CO monitor and alarm system shall be performed weekly and any time the unit is moved. A copy of the calibration records must be bound in the logbook and provided to the Asbestos Designer and SAM after each calibration.

Where Type C respirators are utilized, the Contractor is required to have an employee in the vicinity of the source of air. The contractor shall take into account the location of the fresh air intake to ensure no pollutant source is in the vicinity. The audible alarm shall be located where the employees inside and outside containment can hear the alarm.

- 6. The Contractor shall set up employee decontamination units, change rooms and a shower as detailed in the technical specification.

The Contractor shall post the decontamination procedures and work practices to be followed by workers in the equipment room and clean room.

No worker may, except for emergencies, leave and re-enter the work area without going through the decontamination procedures. Suitable toilet facilities may be supplied by the Contractor for use in the work area.

- 7. Workers shall not eat, drink, smoke, chew gum, or chew tobacco in the work area, the equipment room, the load out area, or the clean room.



8. Procedures shall be written for evacuation of injured workers. Aid for a seriously injured worker will not be delayed for decontamination. Emergency phone numbers will also be posted on site. A first aid kit shall be located in the clean room.
9. All persons entering the work area shall wear an approved respirator and appropriate work clothes, head cover, footwear, and protective equipment.
10. Heat stress is of concern during asbestos removal, especially during the summer. The contractors will take heat stress into consideration when choosing work clothes for a project. Impervious clothing increases the humidity immediately surrounding the body and limits cooling ability. The Contractor shall be knowledgeable of environmental conditions in the workplace and how to evaluate and minimize heat stress conditions. Heat stress conditions may be evaluated by either the heat stress index method or the wet bulb globe temperature method (WBGT).
11. An electrical protection protocol including, but not limited to, shutdown, lockout, and ground fault circuit interrupter (GFCI) will be implemented.
12. Cold stress is of concern during asbestos removal, especially during the winter. The contractor shall take cold stress into consideration when choosing work clothes for a project. The contractor shall be knowledgeable of environmental conditions in the workplace and how to evaluate and minimize cold stress conditions.
13. The contractor is to make notes of his progress and observations in a bound book kept on site by the contractor. This would include anything from mobilization and setup to final clearance and tear down. A copy of this book shall go to the Asbestos Designer upon completion of the project.

E. Contractor's Task

The Contractor is to deliver to the Owner, areas of the building as designated by the plans and specifications certified clean by the SAM as determined by Section III.C, Clearance.



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SECTION 2.0 - TECHNICAL SPECIFICATIONS

A. SCOPE OF WORK

Work includes the removal and disposal of approximately **12,700 square feet of asbestos floor tile and mastic on the Upper Floor of the CTE Building (CTE 600) located at the Asheville High School, 419 McDowell St., Asheville, North Carolina as shown on Drawing AA01.** All work shall be conducted in accordance with all local, state, and federal regulations.

The floor tile and mastic contain 3-5% chrysotile asbestos.

CONTRACTOR REQUIREMENTS:

Prior to conducting any work (setup, etc.) or disturbing building materials, the Contractor shall make arrangements with the Owner to shut off all HVAC and air flow into the work area.

Removal of Asbestos Floor Tile & Mastic:

NOTE: Prior to prepping the entire work area, the Contractor and Owners Representative shall carefully review the work to be performed.

The Contractor shall use friable or nonfriable methods to remove the floor tile and mastic. *In areas where the floor tiles are breaking, the Contractor shall use full containment in accordance with the specifications and assume the floor tiles to become friable.*

1. **Nonfriable Methods** – The Contractor shall install fire retardant 4-mil polyethylene a minimum of three feet up each wall for protection of the walls during the removal of mastic. The Contractor shall only use approved nonfriable methods. The floor tile and mastic shall be removed in a nonfriable manner. Open flame burning is prohibited for the removal of floor tile and mastic. Rotating buffers shall be considered a friable method for the removal of asbestos mastic and shall only be utilized under full containment. Barrier tape, warning signs, and HEPA negative air filtration shall be employed during nonfriable removal. All access areas leading to rooms off the work areas shall be sealed with two layers of fire retardant 4-mil polyethylene and removable painters' tape, masking tape or other easily removed tape.
2. **Friable Methods** - If the Contractor chooses to remove the floor tile and mastic using friable methods then the following shall be used: The Contractor shall place two layers of fire retardant 4-mil polyethylene over all critical barriers, set up a full decontamination unit per these specifications, and place the work area under negative pressure using HEPA negative pressure air filtration units in accordance with Section 01513. One layer of fire retardant 4-mil polyethylene shall be placed on the walls and ceiling.

- B. The Contractor shall remove and dispose of all asbestos floor tiles, and under layer of asbestos mastic from the areas designated on ***Drawing AA01***. The floor tiles shall be removed using wet methods and the mastic removed using a low-odor mastic remover. The mastic remover shall be a low-odor, non-flammable, non-hazardous material approved by the manufacturer for the use of mastic removal. The mastic remover shall not damage underlying substrates, contaminate adjacent carpeting, and not inhibit the adhesion of new floor tile, carpet or other flooring. The Contractor shall pay all repair and replacement costs for damages to underlying substrates, carpeting, and other materials. After completion of mastic removal, the Contractor shall use a cleaning solution to neutralize the mastic remover and mop and rinse the floor so that no residue of the mastic remover or mastic may be left on the floor surface. The cleaner shall be compatible with all typical mastics that may be used after the abatement is complete. The cleaner shall meet all requirements of the mastic remover above.
- C. The Contractor shall take all necessary precautions to prevent the spread of the mastic remover from areas outside of the work area and be required to ventilate the work area as required by the mastic remover manufacturer. The Contractor shall use additional HEPA negative air filtration as required to keep fumes from entering other areas of the building. The Contractor will be responsible for all damages to walls and surfaces inside and outside the work areas. The Contractor shall be responsible for returning any walls, surfaces, or other items splattered, damaged, or soiled back to original conditions.
- D. The removed floor tiles and mastic removal byproducts shall be immediately placed in 6-mil polyethylene bags, double bagged and properly labeled. Workers shall remove the ACM floor tiles and mastic utilizing HEPA air filtration units in the work area. Workers shall wear respirators and protective clothing when performing all removal procedures. A minimum half-face negative pressure respiratory protection with proper asbestos cartridges (P-100 HEPA filters) shall be worn during all removal operations.
- E. The Contractor shall add cat litter, oil-sorb, or other material approved by the Asbestos Designer to the used mastic removal solution, so that no free standing liquid will be left in the waste disposal bags.
- F. The Contractor shall wet wipe and clean all surfaces prior to the final inspection. This cleaning shall be required regardless if friable or nonfriable methods are used to remove the floor tiles and mastic. All areas of friable removal will be cleared by PCM or TEM methods using AHERA protocol. The Owner will be responsible for the first clearance. The Contractor shall pay air monitoring fees and sample costs for all additional clearances.
- G. If applicable, the Contractor shall notify the Owner to take all smoke alarms out of service in the immediate area of work and during abatement and re-notify the Owner to activate the smoke alarm at the end of the project.

- H. **Full Containment.** The Contractor shall ensure that there are sufficient negative air machines in the containment to provide a minimum of four air changes per hour in the containment. All negative air exhaust shall be ducted outside the building. A rigid manifold shall be built and properly sealed to the exhaust duct so that no exhaust leaks into the building.
- I. The Contractor shall disconnect any water hose and shut off all water while not at the site.
- J. The Contractor shall place proper signage at all entrances into the work area including language understood by all workers.
- K. There is cabinetry in areas of the floor tile removal. The Owner may elect to remove movable cabinetry and leave stationary cabinetry in place. The Contractor shall protect and work around cabinetry and cut floor tile as close to the edge of the cabinetry as possible.

AIR MONITORING

The Owners representative shall conduct area air monitoring and final inspections and air clearances. The Contractor shall be responsible to conduct OSHA worker exposures to obtain an eight (8) hour TWA.

Final air clearance shall be conducted using TEM methods for friable removal and PCM methods if materials remain nonfriable.

The Contractor shall follow the General Requirements listed below unless otherwise instructed within these specifications.

1. GENERAL REQUIREMENTS:

- a. Full Containment. A minimum of two layers of four (4) mil poly shall be placed over all critical barriers and openings. A minimum of one layer of four (4) mil polyethylene shall be placed over all walls and ceilings.
- b. The Contractor shall use a minimum of powered air purifying respiratory protection (PAPR) with replaceable HEPA filters until on-site air monitoring data indicate that the Contractor can downgrade. However, the Contractor is required to follow the respiratory requirements of the OSHA Construction Standard 29 CFR 1929.1101.

2. OWNER REQUIREMENTS:

- a. The Owner shall remove all moveable items from the work area that will hinder removal methods.



3. PROJECT INFORMATION:

- a. Electrical, plumbing, and gas lines will remain active during the abatement. The contractor shall take precautionary measures to avoid disturbing any electrical, plumbing or gas lines.

All supply and return HVAC diffusers in the immediate work area shall be completely sealed with two layers of 4-mil polyethylene. All HVAC systems shall be deactivated where possible.

B. Personnel Decontamination Procedures

1. Decontamination Areas (where applicable).

- a. An adequate decontamination area consists of a serial arrangement of connected rooms/spaces. All persons shall pass through this decontamination area during entry to and exit from the work area for any purpose except in the case of emergencies. See attached schematic for details.
- b. All prefabricated/trailer decontamination units must have prior approval by the Asbestos Designer and the SAM before being used at the job site.
- c. The decontamination unit will be built as required by these specifications. Any deviation must be approved by the SAM in writing. If the decontamination unit becomes contaminated or its integrity diminished through use as determined by the Asbestos Designer or SAM, no employee shall use the unit until corrective steps are taken and approved by the SAM.
- d. No person shall enter the work area from a clean area through the load out area. The load out area shall be considered contaminated to the same degree as the work area and the same employee protection, education and training and work practices are required. After the work area has been prepared for asbestos work, all materials shall go into or leave the work area through the load out area. All bags of asbestos waste will be washed, double bagged, and labeled in the load out area unless another method is approved by the Asbestos Designer or SAM.

2. Decontamination Procedures

- a. The following decontamination procedure is included as a guide. The contractor shall provide a written description of the decontamination procedure he intends to use to comply with EPA and OSHA regulations as applicable for the particular contract. See "General Conditions."

- b. Outside room (clean area): In this room, the workers shall leave all street clothes and don clean working clothes (usually disposable coveralls). Respiratory protection equipment may be kept in this area. No asbestos-contaminated items shall enter this room. Workers enter this room either from outside the structure dressed in street clothes, or directly from the showers. This room shall be reasonably heated or cooled and the method used shall be approved by the SAM. This room shall be separated from the outside by a lockable plywood door.
- c. Shower Room: This is a separate room used for transit by cleanly dressed workers entering the job from the outside (clean) room or by workers showering after undressing in the equipment room. The shower stall shall have two open sides and be set up to allow a single pass through between the clean room and equipment room and be built with rigid sides and top. Shower water shall be filtered. No leakage of shower water to the outside of the shower is allowed. Shower drain water will be filtered with a 5-micron filter. Any leakage to the outside is to be considered contaminated. This room shall be separated from the outside by poly barriers (Z flaps).

The shower shall include standard fixtures including an elevated showerhead, hot and cold water knobs, soap dish, etc. Hot and cold water shall be available at a minimum of 3 gallons of water per worker. There shall be 1 shower for every 10 workers. Hot and cold water shall be available and controlled within the shower. This assembly is to be setup as a permanent fixture for the duration of the project. A water hose and bucket is not an acceptable shower.

The Contractor shall shut off all water while not on site.

- d. Equipment Room (contaminated areas): Work equipment, footwear and additional contaminated work clothing shall be left here. This is a change and transit area for workers. This room shall be separated from the outside by poly barriers (Z flaps).
 - e. Work Area: The work area shall be separated from the equipment room by polyethylene barriers.
3. Entry Sequence: (from outside to work room)
- a. Worker enters outside (clean area) room and removes clothing, dons clean work clothes and clean respiratory protection equipment, and passes through the shower area into the equipment room.
 - b. Any additional clothing and equipment left in the equipment room (contaminated area) required by the worker is put on. When the work area is too cold for coveralls only, the contractor shall provide workers with additional warm garments. These must be treated as contaminated clothing and left in the equipment room or work area at all times.

- c. Worker proceeds to work area.
4. Exit Sequence (from contaminated work area to outside)
 - a. Before leaving the work area, the workers shall remove all gross contamination and debris from himself and his clothing. Special effort and attention are needed to clean top and bottom of shoes. In practice, this is usually carried out by one worker assisting another.
 - b. The worker shall proceed to the equipment room and remove all clothing except respiratory protection equipment. Extra work clothing may be stored in this area. Disposable work clothes are placed in a bag for disposal with other asbestos materials. The worker shall then proceed into the shower. After the employee and the respirator, and filters when used, are thoroughly wet, filters shall be removed and discarded as contaminated material.
 - c. After showering, the worker shall move to the clean room and dress in either new coveralls for re-entry into the work area, or in street clothes to leave the project.
 - d. After showering, each employee shall inspect, clean and repair his respirator as needed. The respirator shall be dried, placed in a suitable storage bag and properly stored.

C. Work Area Preparation

1. The Contractor shall set up a work area, loading area and decontamination area (when required) as shown on the schematic in the specifications. The decontamination facility outside of the work area shall consist of a change room, shower room, and equipment room. Any alterations to the designed decontamination facility shall be approved by the Asbestos Designer and the SAM.
2. The Contractor shall thoroughly seal the work area for the duration of the work by completely sealing off all openings and fixtures in the work area with plastic sheeting taped securely in place. If the contractor is using sealant materials to fill in small holes or cracks, the material shall have appropriate fire ratings. Entrances and exits from the work area will have air locks and double barriers of plastic sheeting so that the work area is always closed off by one barrier when workers enter or exit.
3. All wall and ceiling surfaces (where applicable) in the work area shall be covered with "true virgin poly" fire-retardant plastic sheeting taped securely in place to protect from water damage (or damage by sealants). No water may be left standing in the floor at the end of the workday. Any costs associated with water damage or damage caused by securing plastic sheeting to areas inside or outside the abatement area shall be the contractor's responsibility. All repairs shall be made by the Contractor of the same workmanship prior to the damage and at the Contractor's expense.

Walls & Ceilings (where required): Minimum of One layer of four-mil polyethylene.

4. A system of HEPA equipped air filtration devices shall be configured so that a pressure differential is established between the work area and the surrounding area (-0.02 to -0.04" water column). Tests will be made and documented daily to confirm this condition. Additional air filtration devices are provided inside the workspace so that the air is changed every 15 minutes. The total air exchange is the exhaust air plus the re-circulated air. The pressure differential is maintained at all times after preparation is complete and until the final visual inspection and air tests confirm the area is clean and acceptable for occupancy. Air shall be exhausted outside the building via a rigid manifold system. The exhaust system will be monitored by the SAM or his representative for leaks. The contractor shall check daily for leaks and log his checks in the bound logbook. This includes checks internal to air moving devices. High Efficiency Particulate Air (HEPA) filter exhaust systems equipped with new HEPA filters will be used. The entire exhaust unit shall be cleaned prior to entering the work area. Exhaust equipment and systems shall comply with ANSI Z9.2-79 and used according to manufacturer's recommendations.
5. Before the work begins, the Contractor shall wet clean and/or (HEPA) vacuum all removable items and equipment in the work area suspected of being contaminated with asbestos, but not in direct contact with the asbestos material and remove them from the work area. These items can be returned to the work area after the area has been certified clean by the Air Monitoring Technician.
6. The Contractor shall wet clean and/or HEPA vacuum all non-removable items and equipment in the work area (if applicable). He shall then cover these items with two layers of 4-mil fire-retardant plastic sheeting taped securely in place.
7. Adequate toilet facilities are located in the building and may be used by the Contractor as long as they are kept clean and not damaged.
8. All building ventilation air systems (supply and returns) in the work area and adjacent to the work area shall be sealed during preparation and until the area has passed visual inspection and final air sampling. The Contractor shall check the seals on the supplies and returns daily.
9. The Contractor shall establish, and mark emergency and fire exits from the work area. Emergency procedures shall have priority over established decontamination entry and exit procedures. Audible and visible fire and emergency evacuation alarms shall be installed so as to be heard and seen throughout the entire work area. Install portable fire extinguishers in compliance with National Fire Protection Association, Standard No. 10 portable extinguishers. A minimum of (1) ABC dry chemical rated fire extinguisher shall be in the clean room plus one for every 3000 square feet in the work area.

10. The Contractor shall implement an electrical practice protocol that includes, but is not limited to, lockout and GFI shutdown as described in NC OSH Construction Standard 29 CFR 1926.417. All electrical powered equipment utilized during the project shall have ground-fault protection as described in NC OSHA Construction Standards 29 CFR 1926.404 (b). All equipment and wiring shall be in compliance with National Fire Protection Association Standard 70, and the National Electrical Code. The Owner's electrician shall connect power to the contractor's panel box.
11. The contractor shall provide adequate lighting throughout the work area, including the decontamination unit and load out area as per the NC OSHA Construction Standard 1926.56. The lighting will stay on and operational until final clearance by the SAM (if required).

D. Method of removal:

REMOVAL OF FLOOR TILE & MASTIC:

1. The Contractor shall remove and properly dispose of all baseboards required to access the floor tile and mastic. The Contractor shall use procedures of removal that will not damage walls. The Contractor shall repair all damages at no cost to the Owner.
2. The Contractor shall remove all floor tile mastic using methods that will not damage underlying substrates or contaminate other materials. The Contractor shall place two layers of fire retardant 4-mil polyethylene over all critical barriers, set up a full decontamination unit per these specifications, and place the work area under negative pressure using HEPA negative pressure air filtration units in accordance with Section C "Work Area Preparation". A minimum of one layer of fire retardant 4-mil polyethylene shall be placed on the walls and ceilings when using friable methods for removal.
3. The floor tiles shall be removed using wet methods, and the mastic will be removed using a low-odor mastic remover. The mastic remover shall be a low-odor, non-flammable, non-hazardous material approved by the manufacturer for the use of mastic removal. The mastic remover shall not damage underlying substrates and not inhibit the adhesion of new floor tile. The Contractor shall pay all repair and replacement costs for damages to underlying substrates. After completion of mastic removal, the Contractor shall use a cleaning solution to neutralize the mastic remover and mop and rinse the floor so that no residue of the mastic remover or mastic may be left on the floor surface. The cleaner shall be compatible with all typical mastics that may be used after the abatement is complete. The cleaner shall meet all requirements of the mastic remover above.
4. The Contractor shall take all necessary precautions to prevent the spread of the mastic remover from areas outside of the work area and be required to ventilate the work area as required by the mastic remover manufacturer. The Contractor will be responsible for all damages to walls and surfaces inside and outside of containment. The Contractor shall be responsible for returning any walls, surfaces, or other items splattered, damaged, or soiled back to original conditions.

5. All plastic sheeting, tape, cleaning material, clothing and all other disposable material or items used in the work area shall be packed into sealable plastic bags (6 mil minimum). Each bag shall be individually sealed and placed in containers, at a minimum a second bag, suitable for transport to the landfill. All material shall be double bagged, and the outside bag and container shall be clean before leaving the load out area. The bags and containers shall be marked with the OSHA label prescribed by the OSHA 29 CFR 1926.1101 standard referenced in these specifications. In addition to the OSHA labeling requirements, all containers shall be labeled with the name of the waste generator and the location at which the waste was generated during the load out sequence and before loading the asbestos waste into a container/vehicle prior to transporting off the facility property.
6. All excess water (except shower water) shall be either combined with removed material or other absorptive material and properly disposed of as per EPA regulations or filtered, using a 5-micron final filter and disposed in the sanitary sewage system. Contractor shall not place water in storm drains, onto lawns, or into ditches, creeks, streams, rivers or oceans.

E. Disposal of Material and Related Debris

1. All asbestos materials and miscellaneous contaminated debris shall be properly sealed and protected and the load out vehicle/dumpster shall be locked, while located on the facility site and then transported to a pre-designated disposal site in accordance with 40 CFR 61.150 and DOT 29 CFR Parts 100-399.
 - a. An enclosed vehicle will be used to haul waste material to the disposal site. No rental vehicles or trailers shall be used. Vehicle selection, vehicle covers, and work practices shall assure that no asbestos becomes airborne during the loading, transport, and unloading activity and that material is placed in the waste site without breaking any seals.
 - b. Waste disposal bags: Polyethylene bags 6-mil with labels.
 - c. Containers: Non-porous (steel/plastic) drums or equivalent appropriate for holding waste disposal bags during transportation to the disposal site.

2. The Contractor shall transport the containers and bags of waste material to the approved waste disposal site. The sealed plastic bags may be placed into the burial site unless the bags have been broken or damaged. Upon the landfill's approval, damaged bags shall be left in the non-porous containers, and the entire contaminated package shall be buried. Uncontaminated containers may be recycled.
3. Workers unloading the asbestos will wear a minimum half-face air purifying respirator with replaceable HEPA filters and disposable clothing when handling material at the disposal site. Asbestos warning signs shall be posted during loading and unloading of asbestos waste.
4. The contractor shall use the HHCB's Waste Shipment Record for disposal records as per 40 CFR 61.150 and distribute a copy of all waste shipment records to the Asbestos Designer after the completion of the project.

F. Decontamination of Work Area

1. Equipment should be cleaned, and all contaminated materials removed before removing poly from the walls. After poly sheets have been removed from walls, but still remaining on all critical components, the contractor shall clean all surfaces in the work area using HEPA vacuuming and wet wiping with amended water. After cleaning the work area, the contractor shall allow the area to thoroughly dry and then HEPA vacuum all surfaces in work area again and wet wipe with amended water. At the completion of the second cleaning operation, the contractor's supervisor shall perform a complete visual inspection of the work area to ensure that the work area is dust and fiber free. Visual inspection for acceptance shall be performed by the air-monitoring technician after all areas are dry. Final air sampling shall not commence until the visual inspection is completed and passed.
2. If the air-monitoring technician finds that the work area has not been adequately decontaminated, cleaning and/or air monitoring shall be repeated until the work area is in compliance. All repeat visual inspections and air monitoring will be conducted only after all surfaces are dry. This shall be at the contractor's expense.
3. After the project has been certified acceptable by the Owner's SAM and before the HEPA exhaust system is disconnected, all prefilters shall be replaced. Old prefilters shall be disposed of as asbestos contaminated material. All HEPA units used in the work area will be cleaned and all intakes and exhausts shall be wrapped with six- (6) mil poly before leaving the work area.
4. After the work area is found to be in compliance, all entrances and exits shall be unsealed and the plastic sheeting, tape, and any other trash and debris shall be disposed of in sealable plastic bags (6 mil minimum) and buried in the approved waste disposal site.
5. Copies of employees' personal monitoring results and landfill manifests shall be submitted to the Asbestos Designer before the final payment.

APPENDIX A

Pre-Work Asbestos Inspection

APPENDIX A

PREWORK ASBESTOS INSPECTION CHECKLIST

Name of Facility: _____

Project Name: _____

Project ID Number: _____

Date of Inspection: _____ Pass: _____ Fail: _____

		YES	NO
A.	DOCUMENTS		
1)	Asbestos Removal Permit/NESHAP Notification	_____	_____
2)	Accreditation Documents for Workers & Supervisors	_____	_____
3)	Asbestos Plans and Specifications	_____	_____
4)	Air Monitoring Data	_____	_____
5)	Waste Shipment Records	_____	_____
6)	Sign-in Sheets and Bound Book for Comments	_____	_____
7)	Calibration Record for Grade "D" Air	_____	_____
8)	Items listed in Specification	_____	_____
B.	PPE SUPPLIES		
1)	Tyvek Clothing	_____	_____
2)	Rubber Boots	_____	_____
3)	Respirators with HEPA Filters	_____	_____
C.	CLEAN ROOM		
1)	Entry Curtains	_____	_____
2)	Emergency Phone Numbers Posted	_____	_____
3)	First Aid Kit	_____	_____
4)	Asbestos Signs	_____	_____
5)	Decontamination Procedures Posted	_____	_____
6)	Fire Extinguisher	_____	_____
D.	SHOWER ROOM		
1)	Polyethylene Curtains	_____	_____
2)	Hot/Cold Water & Operational	_____	_____
3)	Soap & Towels	_____	_____
4)	Waste Water Filter Pump Operational	_____	_____
5)	Extra Five Micron Size Filters	_____	_____
6)	Filtered Waste Water to Sanitary Sewer	_____	_____

E. WORK AREA	YES	NO
1) Removable Items Out of Area	_____	_____
2) Non-removable Items Protected	_____	_____
3) Critical Barriers Installed	_____	_____
4) Polyethylene Curtains	_____	_____
5) Polyethylene on Walls/Floors as Specified	_____	_____
6) HVAC off	_____	_____
7) Air Filtration Devices in Place and Operational	_____	_____
8) Air Exhausted to Outside	_____	_____
9) Electricity Locked and Tagged Out	_____	_____
10) Temporary Power Installed with GFCI	_____	_____
11) Fire Extinguishers	_____	_____
12) Emergency and Fire Exits Marked	_____	_____
13) Audible Alarms Operational	_____	_____
14) Toilet Available	_____	_____

F. EQUIPMENT		
1) Safety Equipment	_____	_____
2) HEPA Vacuums	_____	_____
3) Waste Disposal Bags	_____	_____
4) Airless Sprayer with Water Source	_____	_____
5) Cleaning Equipment	_____	_____
6) Glove Bags	_____	_____
7) Emergency Power Generator (if required)	_____	_____
8) Temporary Lighting	_____	_____

G. OTHER		
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____
4) _____	_____	_____

<i>Asbestos Design Consultant</i>	<i>Date</i>
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<i>Asbestos Contractor's Representative</i>	<i>Date</i>
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