

STATE OF NORTH CAROLINA/ASHEVILLE CITY SCHOOLS

REQUEST FOR BIDS

#148-MAINT-011

PROJECT: Asheville High School Canopy Demolition PROJECT

USING AGENCY: Asheville City Schools

ISSUE DATE: 4/21/2022

Bids subject to the conditions made a part hereof will be received until **2:00 pm, Wednesday, May 23, 2022**, for furnishing all labor, materials, equipment, and services incidental and implied, for completion of the project described herein.

All Bids must be sent to the Purchasing Clerk at the address or email address provided below:

Asheville City Schools

Attn: Chris Pohlman, Purchasing

85 Mountain Street

Asheville, NC 28801

Phone: 828-350-6101

Fax: 828-251-4915

Email: chris.pohlman@acsgmail.net

REQUIRED PRE-BID MEETING: The **REQUIRED Pre-Bid Meeting is scheduled for Monday, May 9, 2022 at 2:00 pm at Asheville High School**. More information about the Required Pre-Bid Meeting can be found in the 'Scope of Work' section of this solicitation.

Direct inquiries concerning this Request for Bids to:

Bidding and document questions:

Chris Pohlman, Purchasing Clerk

Office: 828-350-6101

Specifications, technical questions, and required Pre-Bid Meeting:

Tim Holcombe, Maintenance Director

Mobile: 828-450-4869

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 Bids is issued to prospective contractors.
2. The deadline for written questions is three days prior to the due date.
3. Bids shall be signed and dated by an official authorized to bind the firm. Unsigned bids will not be considered.
4. All bids must be received by the issuing agency not later than the date and time specified on the cover sheet of this Request for Bids.
5. Bids 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 bids lacked merit, but that, all factors considered, the selected bid was deemed most advantageous to the State.
6. Offerors are cautioned that this is a request for bids, not a request to contract, and the State/Asheville City Schools reserves the right to reject any and all unqualified offers when such rejection is deemed to be in the best interest of the State.

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

BID FORM

#148-MAINT-011

Asheville High School Canopy Demolition PROJECT

DUE DATE: 5/23/2022 by 2:00PM

Offeror: _____

Address: _____

City/State/Zip: _____ Phone: _____

Fed ID No: _____ MBE Status: _____ Fax: _____

Email: _____

The undersigned having carefully read and considered the terms and conditions of the Bidding Documents, Drawings, and all subsequent Addenda, for Asheville High School Canopy Demolition Project for Asheville City Schools, North Carolina, having visited the site and being familiar with all conditions and requirements of the work, 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 Bid Forms hereinafter set forth

By: (Signature) _____ Date: _____

Printed Name _____ Title: _____

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

Base Bid: \$_____ Total

Time of Completion: _____ consecutive calendar days.

Unit Prices: Concrete slab on grade removal and replacement beyond the minimum amount required to safely remove the existing columns:
\$_____ per square foot.

Additional Information, if applicable (attach extra sheets as needed): _____

END OF BID FORM

1. SCOPE OF WORK

The work described in the Contract Documents includes the furnishing of all labor, materials, equipment, and services necessary for the complete demolition and removal of the existing exterior canopies on the north side of the original building of Asheville High School, Asheville, North Carolina.

The work shall include the following:

- A. The removal of the existing canopy roofing and metal decking and all associated steel framing down to a minimum of 2'-0" below grade. The remaining steel tube columns shall be filled with concrete to a minimum of 4" above the top of the column that is to remain in place.
- B. The existing roofing has been tested and it has been determined that the roofing materials contain high levels of asbestos. The report and proper asbestos abatement design documents are included as **Attachment B** to this specification.
- C. The replacement of the existing concrete walkway areas that were removed to access the below grade portions of the columns. Replacement of the walkway slabs shall be in accordance with the details included in these specifications.
- D. The repair of the existing building walls where the steel framing is removed. All stone repairs shall match the existing stone and mortar in all respects.
- E. Unit Prices: Each prospective bidder shall furnish an additive unit price quotation for the purposes of adjusting the contract amount to account for the actual quantity of concrete slab on grade removal and replacement. The base bid amount shall include the minimum amount of concrete slab removal and replacement to achieve the work as indicated in the details and specifications for safely removing the existing columns. The additive unit price shall be used to calculate the cost for removal and replacement of the existing concrete slab on grade beyond the minimum required to safely remove the columns as directed by the Owner and Engineer. The unit price shall be indicated per square foot of concrete slab on grade removal and replacement including any underlayment and reinforcing as required by the details and these specifications.
- F. Noise Control: Operations which require the use of machines which produce excessive noise such as rotary hammers, jack hammers, and engines on construction equipment shall be coordinated with the Owner prior to execution.
- G. Additional Scope of Work can be found as **Attachment A** to this solicitation.

2. DEBRIS CONTROL AND CLEAN UP

- A. All debris and waste materials shall become the property of the Contractor and the Contractor shall be responsible for removal of the debris from the project site on a periodic basis, no less frequently than weekly.
- B. The Contractor shall provide and maintain containers for debris. Containers shall have properly fitting lids which shall be maintained normally closed. Containers shall be emptied regularly and their contents removed from the site.

- C. At no time shall any accumulation be allowed which will create a hazard to safety, which will create bad public relations, or which will have detrimental effects such as staining.
- D. The measures to be used to prevent littering the pavement shall include (but does not constitute the only measures to be used, if necessary) the following:
 - a. Maintain dust and leakage control. The Contractor is liable for damage to vehicles.
 - b. Wash and/or sweep paved areas.
 - c. Pick up droppings as they occur.
- E. Failure to clean the work area promptly (within one day's notice) will result in the Owner having the work area cleaned and deducting costs for same from the Contractors' Contract Price.
- F. Before final inspection and acceptance of the project, remove temporary facilities, clean work and surrounding areas under the contract to such an extent that the Owner can use the facility for its intended purpose with no cleaning required by the Owner.

3. REQUIRED PRE-BID MEETING

There will be a Required Pre-Bid Meeting on Monday 5/9/2022 at 2:00 pm at the project location, Asheville High School, 419 McDowell St, Asheville, NC 28803. Attendance is required. Please contact Tim Holcombe, Maintenance Director, with questions about the Required Pre-Bid meeting at (828) 450-4869.

Bids will not be accepted from Bidders not represented at the Required Pre-Bid meeting.

4. CONDITIONS

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

It is also expected that the Bidders will obtain information concerning the conditions at locations that may affect its work. The failure or omission of any Bidder 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 Bid or to the Contract.

The Bidder 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.

5. QUALITY OF WORK

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

6. LICENSES AND PERMITS

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

7. SAFETY REGULATIONS:

The Contractor shall comply with the requirements of the Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969 including the Hazardous Communication Standard 1910.1200 (if applicable)

including all standards and regulations which have been or shall be promulgated by the agencies administering such Acts. The Contractor shall require compliance by any subcontractors, its agents, employees, material suppliers and other subcontractors of any tier, and said requirements, standards and regulations are incorporated herein by reference.

Contractor shall take precautions as necessary to prevent migration of noxious, irritating or hazardous fumes, dirt, dust, debris and gases.

Contractor, the contractor's agents, employees, material suppliers and subcontractors shall receive and be responsible for all citations, fines, or penalties incurred by reason of its failure to comply with above named Acts.

8. NONDISCRIMINATION

The Contractor shall not discriminate against any person because of race, sex, age, creed, color, religion or national origin.

9. HISTORICALLY UNDERUTILIZED BUSINESSES

Pursuant to General Statute 143-48 and Executive Order #150, Asheville City Schools invited 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.

10. DECORUM

The Contractor shall be responsible for the decorum of all workers at or in the vicinity of the construction site. Decorum shall include but not be limited to attire, language and behavior that is not offensive to the public. No alcoholic beverages or the use of tobacco products shall be permitted on county property.

11. INDEMNITY

The Contractor will indemnify and save harmless Asheville City Schools, its officers, agents, servants, 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 Contractor, its officers, agents, servants, and employees in the performance of this Contract; provided, however, that the Contractor shall not be liable for any suits, actions, legal proceedings, claims, demands, damages, costs, expenses and attorneys' fees arising out of the award of this Contract or a willful or negligent act or omission of the Asheville City Schools, its officers, agents, servants and employees.

12. INSURANCE

If awarded a contract, the Bidder 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.

13. TERMINATION:

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

14. SALES AND USE TAX

The North Carolina General Assembly has amended the Statute to provide refunds of sales and use tax to local school units in accordance with the provisions of G.S. 105-164. 14(c) effective with tax paid on or after July 1, 1998.

These refunds are to include the "sales and use taxes paid by contractors on building materials, supplies, fixtures and equipment that become a part of or annexed to a building or structure that is owned or leased by the governmental entity and is being erected, altered or repaired for use by the governmental entity (G.S. 105-164.14)."

Sales and Use Tax Technical Bulletin Section 18-2F specifies: "To substantiate a refund claim for sales or use taxes paid on purchases of building materials, supplies, fixtures and equipment by its contractor, the claimant must secure from such contractor certified statements setting forth all of the following information:

- 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.

In the event the contractor makes several purchases from the same vendor, such certified statement must indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices and the State and local sales and use taxes paid thereon. Such statement must also include the cost of any tangible personal property withdrawn from the contractor's warehouse stock and the amount of sales and use tax paid thereon by the contractor. Similar certified statements by his subcontractors must be obtained by the general contractor and furnished to the claimant. Any local sales or use taxes must be shown separately from the State sales or use taxes. The contractor's statements must not contain sales or use taxes paid on purchases of tangible personal property purchased by such contractors for use in performing the contract which does not annex to, affix to or in some manner become a part of the building or structure that is owned or leased by a governmental agency and is being erected, altered or repaired for use by a governmental entity as defined by G.S. 105-164.14(c). Examples of property on which sales or use tax has been paid by the contractor and which shall not be included in the contractor's statement are scaffolding, forms for concrete, fuel for the operation of machinery and equipment, tools, repair parts and equipment rentals.

15. 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 Asheville City Schools, which consent shall not be unreasonably withheld; however, in the event of an assignment, the assignee shall assume the liability of the Contractor.

SECTION 01500 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 DEFINITION: Where the word "Contractor" is used in this Section, reference is to the Contractor who has a direct contract with the Owner.

1.02 CONTRACTOR'S TEMPORARY FIELD OFFICE:

A. Contractor shall provide and maintain a suitable temporary field office at the Project Site for his own use and available to the Owner and Architect during their site visits during normal working hours. The details of the field office will be set at the Prebid Conference.

B. Location of temporary office shall be subject to approval by the Owner.

1.03 TEMPORARY SHEDS: Contractor shall provide and maintain additional storage sheds and other temporary enclosures as required for proper storage of materials on the site. Location of sheds, trailers, and fencing shall be subject to the approval of the Owner. Remove all temporary facilities when work is completed.

1.04 TEMPORARY TOILET FACILITIES:

A. Contractor shall provide and maintain an adequate number of temporary toilets with proper enclosures as necessary for use of workmen during construction. Toilet locations shall be subject to approval of the Owner. Keep toilets clean and comply with all local and state health requirements and sanitary regulations.

B. Toilet facilities shall be the prefabricated chemical type. Remove temporary toilets when directed.

C. The toilet facilities in the existing buildings of the Owner shall not be used by the Contractor's personnel at any time.

1.05 TEMPORARY ELECTRICITY DURING CONSTRUCTION: Any electrical power required for the completion of the work shall be furnished by the contractor.

1.06 WEATHER PROTECTION AND TEMPORARY HEAT:

A. Extent: The Contractor shall provide all weather protection, temporary heat or

**01500-2
Demolition of Existing
Walkway Canopies
Asheville High School**

cooling and fuel as necessary to carry on the work expeditiously during inclement weather.

1.07 PROJECT SIGN: Contractor may furnish, erect, and maintain a project sign. The materials and design shall be submitted for approval.

1.08 PROTECTION: Protection shall consist (in general) of the following:

A. Streets and Walks: Contractor shall protect all existing streets and walks, and shall repair any damaged during construction at his own expense.

B. Safety: The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work.

C. Temporary Drainage: Contractor shall construct and maintain all necessary temporary drainage and shall do all pumping necessary to keep excavation and low areas free of water.

D. Snow and Ice: Contractor shall remove all snow and ice as may be required for proper protection and execution of work.

E. Guard Lights: Contractor shall provide and maintain guard lights at all barricades, obstructions in streets, roads, or sidewalks, and at all trenches or pits adjacent to public walks or roads.

F. Fire: Open fires will not be permitted.

1.09 TEMPORARY STAGING AREA:

A. Contractor is to provide temporary fencing and/or storage facilities with all necessary gates, locks and other components as necessary to isolate the construction area from the general public and to provide security to the construction materials and equipment.

END OF SECTION

SECTION 02221 - BUILDING DEMOLITION

Part 1 - General

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:

- 1. Demolition and removal of buildings and site improvements.
- 2. Removing below-grade construction.
- 3. Disconnecting, capping or sealing, and removing site utilities.

- B. Related Sections include the following:

- 1. Division 1 Section "Temporary Facilities and Controls" for temporary construction, protection of facilities, and environmental-protection measures for building demolition operations.

1.3 DEFINITIONS

- A. Demolish: Completely remove and legally dispose of off-site.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

- 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.5 SUBMITTALS

- A. Qualification Data: For refrigerant recovery technician.
- B. Proposed Protection Measures: Submit informational report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and for noise control. Indicate proposed locations and construction of barriers.
- C. Schedule of Building Demolition Activities: Indicate the following:
 - 1. Detailed sequence of demolition work, with starting and ending dates for each activity.
 - 2. Shutoff and capping of utility services.
- D. Predemolition Photographs or Video: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by building demolition operations. Retain record submittal in paragraph below if applicable. Landfill records may be required by Owner when demolished materials contain hazardous wastes or, in rare circumstances, where recycling is not allowed.
- E. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- F. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

1.6 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program. (If required)
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI A10.6 and NFPA 241.
- D. Predemolition Conference: Conduct conference at Project site to review methods and procedures related to building demolition including, but not limited to, the following:

1. Inspect and discuss condition of construction to be demolished.
2. Review structural load limitations of existing structures.
3. Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review and finalize protection requirements.
5. Review procedures for noise control and dust control.
6. Review procedures for protection of adjacent buildings.

1.7 PROJECT CONDITIONS

- A. Buildings to be demolished are currently vacant.
- B. Owner assumes no responsibility for buildings and structures to be demolished.
 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
- D. On-site storage or sale of removed items or materials is not permitted.

PART 2 - PRODUCTS[(Not Used)]

2.1 SOIL MATERIALS

- A. Satisfactory Soils: Comply with requirements in Division 2 Section "Earthwork."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting demolition operations.
- B. Review Project Record Documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

- C. Verify that hazardous materials have been remediated before proceeding with building demolition operations.

3.2 PREPARATION

- A. Refrigerant: Remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction before starting demolition.
- B. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be demolished.
- C. Existing Utilities: Do not start demolition work until utility disconnecting and sealing have been completed and verified in writing.
 - 1. Electric and gas service have been disconcerted.
 - 2. Water service has been shut off. Remove below grade water lines and cap at the meter in a manner suitable for connection of new future service to the site.
- D. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of demolition.

3.3 PROTECTION

- A. Existing Facilities: Protect adjacent asphalt pavement during demolition operations.
- B. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated.
 - 1. Protect adjacent buildings and facilities from damage due to demolition activities.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
 - 3. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.
 - 4. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 5. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.

- C. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

3.4 DEMOLITION, GENERAL

- A. General: all existing buildings and site improvements completely. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire-suppression devices during flame-cutting operations.
 - 2. Maintain adequate ventilation when using cutting torches.
 - 3. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- B. Engineering Surveys: During demolition, perform surveys to detect hazards that may result from building demolition activities.
- C. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
 - 2. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations. Do not use water when it may damage adjacent construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- D. Explosives: Use of explosives is not permitted.

3.5 DEMOLITION BY MECHANICAL MEANS

- A. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.
- B. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

1. Remove structural framing members and lower to ground by method suitable to minimize ground impact and dust generation.
- C. Below-Grade Construction: Demolish foundation walls and other below-grade construction.
 1. Remove below-grade construction, including basements, foundation walls, and footings completely.
- D. Existing Utilities: Demolish and remove existing utilities and below-grade utility structures.
 1. Piping: Disconnect piping at unions, flanges, valves, or fittings.
 2. Wiring Ducts: Disassemble into unit lengths and remove plug-in and disconnecting devices.

3.6 SITE RESTORATION

- A. Below-Grade Areas: Rough grade below-grade areas ready for further excavation or new construction.
- B. Below-Grade Areas: Completely fill below-grade areas and voids resulting from building demolition operations with satisfactory soil materials.
- C. Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades.

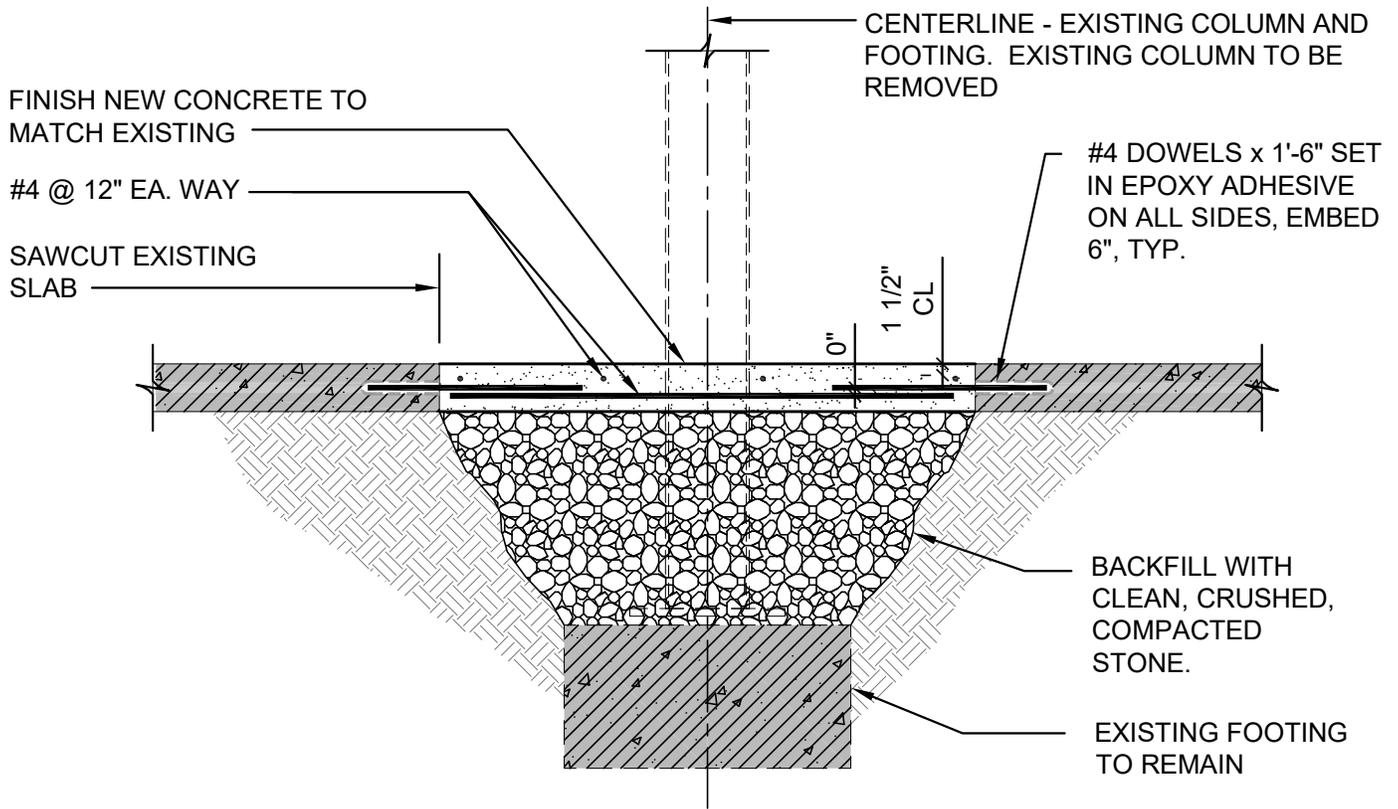
3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and legally dispose of them in an EPA-approved landfill acceptable to authorities having jurisdiction.
 1. Do not allow demolished materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Do not burn demolished materials.

3.8 CLEANING

- A. Clean adjacent structures streets and sidewalks of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.

END OF SECTION 02221



NOTE:

1. NEW CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f_c) OF 4,000 PSI, AND CONTAIN 6% ENTRAINED AIR.
2. WHERE EXISTING COLUMNS EXTEND MORE THAN 2'-0" BELOW GRADE THEY MAY BE CUT OFF AT 2'-0" BELOW GRADE. THE REMAINING COLUMN STUB SHALL BE FILLED WITH CONCRETE AND SHALL HAVE A MINIMUM OF 3" CONCRETE COVER ALL AROUND AND 3" MINIMUM ABOVE THE TOP OF THE COLUMN STUB.
3. WHERE PRACTICAL THE EXISTING CONCRETE SLAB SHALL BE REMOVED ALONG EXISTING JOINTS IN THE SLAB. THE ACTUAL EXTENTS OF THE THE CONCRETE REMOVAL SHALL BE APPROVED BY THE OWNER.



COLUMN DEMOLITION SLAB REPAIR DETAIL

3/4" = 1'-0"

Dwg.# 220069-SK1.DWG



March 25, 2022

Mr. Tim Holcombe
Asheville City Schools
100 Westside Dr.
Asheville, NC 28801

**RE: Final Report – Bulk Sampling & Asbestos Analysis of Roofing
Asheville High School – Auditorium Canopy
419 McDowell St., Asheville, NC**

Tim;

Reliant Environmental collected bulk samples of the built-up roofing on the Auditorium Canopy at the Asheville High School located at 419 McDowell St., Asheville, NC. The roofing material was analyzed for asbestos.

The built-up roofing was found to be asbestos containing material.

Enclosed please find a copy of the Final Report. If you should have any questions or require additional information, please call me at 828-421-6900.

Respectfully submitted,

Reliant Environmental

Terry L. LaDuke

Terry L. LaDuke
Member/Manager



**Bulk Sample Collection & Asbestos Analysis
of
Roofing**

**Auditorium Canopy
Asheville High School
419 McDowell St.
Asheville, North Carolina**

Prepared For:

*Mr. Tim Holcombe
Asheville City Schools
100 Westside Dr.
Asheville, NC 28801*

Prepared By:



**Reliant Environmental
4 Elaine Drive
Canton, North Carolina**

March 25, 2022

Inspector: Terry LaDuke
NC Accreditation Number: 10205

Bulk Sample Collection & Asbestos Analysis of Roofing

Auditorium Canopy Asheville High School 419 McDowell St. Asheville, North Carolina

1.0 INTRODUCTION:

On *March 22, 2022*, bulk samples of built-up roofing were collected on the Auditorium Canopy at the Asheville High School located at 419 McDowell St., Asheville, NC. Bulk samples were analyzed for asbestos using Polarized Light Microscopy (PLM) by an AIHA NVLP accredited laboratory.

2.0 Description of Each Homogeneous Area:

Homogeneous Area H01 – Built-up Roofing

Homogeneous area H01 is the built-up roofing comprising of tar and felt located on the Auditorium Canopy as shown in *Photo No's. 1 & 2* in *Appendix B*. The roofing material is nonfriable.

<u>Sample ID</u>	<u>Description/Location</u>	<u>Asbestos Type (%)</u>
B-01-01	Built-up Roofing/Auditorium Canopy	80% Chrysotile
B-01-02	Built-up Roofing/Auditorium Canopy	Not Analyzed

Note: See Laboratory results attached in Appendix A and photos in Appendix B.

3.0 RECOMMENDATIONS AND REQUIREMENTS:

Recommendations are made with knowledge of how asbestos containing materials are generally handled during a renovation or demolition. Before proceeding with a renovation or demolition of any building or the removal of any asbestos-containing materials, friable or non-friable, contact the regulatory agency with EPA-NESHAPS authority for the area where the work is to occur.

According to current EPA regulations, asbestos-containing materials (ACM) are any materials containing more than 1% by weight of asbestos of any kind of mixture of types. The disposed asbestos must be placed in a landfill that is accredited to receive these materials. This landfill must be notified of the presence of ACM debris and waste before disposal.

Based on the laboratory analyses, H01 built-up roofing is considered asbestos containing material.

APPENDIX A

LABORATORY ANALYSIS



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,
App.E



Customer: Reliant Environmental
92 Elaine Dr
Canton, NC 28716

Attn: Terry LaDuke

Lab Order ID: 71988231

Analysis ID: 71988231_PLM

Date Received: 3/23/2022

Date Reported: 3/23/2022

Project: Asheville High School

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
B-01-01	Auditorium canopy built-up roofing	80% Chrysotile		20% Other	Black Non Fibrous Heterogeneous
71988231PLM_1					Crushed, Dissolved
B-01-02	Auditorium canopy built-up roofing	Not Analyzed			
71988231PLM_2					

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Lachlan Krenz (2)

Analyst

Approved Signatory

P-F-002 +15 1/16/2023

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

Page 1 of 1



Bulk Sample Collection & Asbestos Analysis
Asheville HS Auditorium Canopy
Asheville, NC



Scientific Analytical Institute
 4604 Dundas Dr. Greensboro, NC 27407
 Phone: 336.292.3888 Fax: 336.292.3313
 www.sailab.com lab@sailab.com

Lab Use Only
 Lab Order ID: 7018828
 Client Code: _____

Company Contact Information	
Company: Reliant Environmental	Contact: Terry LaDuke
Address: 92 Elaine Dr. Canton, NC 28716	Phone: 828-421-6960
	Fax: _____
	Email: _____
Billing/Invoice Information	
Company:	90 Min. <input type="checkbox"/> 48 Hours <input type="checkbox"/>
Contact:	3 Hours <input type="checkbox"/> 72 Hours <input type="checkbox"/>
Address:	6 Hours <input type="checkbox"/> 96 Hours <input type="checkbox"/>
	12 Hours <input type="checkbox"/> 120 Hours <input type="checkbox"/>
	24 Hours <input checked="" type="checkbox"/> 144 Hours <input type="checkbox"/>

Asbestos Test Types	
PLM EPA 600/R-93/116 (PLM)	<input checked="" type="checkbox"/>
Positive stop	<input checked="" type="checkbox"/>
PLM Point Count 400 (PT4)	<input type="checkbox"/>
PLM Point Count 1000 (PTM)	<input type="checkbox"/>
PCM NIOSH 7400-A Rules (PCM)	<input type="checkbox"/>
B Rules (PCB) <input type="checkbox"/> TWA (PTA) <input type="checkbox"/>	
TEM AHERA (AHE)	<input type="checkbox"/>
TEM Level II (LI)	<input type="checkbox"/>
TEM NIOSH 7402 (TNI)	<input type="checkbox"/>
TEM Bulk Qualitative (TBL)	<input type="checkbox"/>
TEM Bulk Chatfield (TBS)	<input type="checkbox"/>
TEM Bulk Quantitative (TBQ)	<input type="checkbox"/>
TEM Wipe ASTM D6480-05	<input type="checkbox"/>
TEM Microvac ASTM D5755-02	<input type="checkbox"/>
TEM Water EPA 100.2 (TW1)	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>

PO Number:
Project Name/Number: Asheville High School

Sample ID #	Description/Location	Volume/Area	Comments
B-01-01	Auditorium Canopy Builtup Roofing		
B-01-02	" " " "		
			Accepted <input checked="" type="checkbox"/>
			Rejected <input type="checkbox"/>

Total # of Samples 2

Relinquished by	Date/Time	Received by	Date/Time
T. LaDuke	3-22-22 10:00 am	[Signature]	3/23 10:30



Bulk Sample Collection & Asbestos Analysis
 Asheville HS Auditorium Canopy
 Asheville, NC

APPENDIX B

SITE PHOTOGRAPHS



Photo No. 1 – View of Auditorium Canopy.



Photo No. 2 – Representation of H01 roofing on Auditorium Canopy.

**DESIGN OF ASBESTOS ABATEMENT
for
REMOVAL OF ASBESTOS ROOFING
ASHEVILLE HIGH SCHOOL
AUDITORIUM CANOPY**

**ASHEVILLE HIGH SCHOOL
419 MCDOWELL ST.
ASHEVILLE, NC**

Prepared For:

*Asheville City Schools
100 Westside Dr.
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 thin, dark green wavy line arches over the text.

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

March 30, 2022

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REMOVAL OF ASBESTOS ROOFING ASHEVILLE HIGH SCHOOL AUDITORIUM CANOPY

**ASHEVILLE HIGH SCHOOL
419 MCDOWELL ST.
ASHEVILLE, NC**

SECTION 1.0 - ASBESTOS CONTRACTOR REQUIREMENTS

SECTION 2.0 - TECHNICAL SPECIFICATIONS

APPENDICES:

Appendix A - Pre-Work Asbestos Inspection

Appendix B - Site Photographs

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 **1,800 sf of asbestos roofing on the Auditorium Canopy located at the Asheville High School, 419 McDowell St., Asheville, North Carolina** in accordance with the Specifications, the EPA (AHERA) and OSHA regulations, and any applicable state and local government regulations. See representative *Site Photo No's. 1 & 2* in *Appendix B*.

All supervisors and workers shall be accredited by the North Carolina Department of Health and Human Services, Health Hazard Control Unit (HHCU). OSHA Asbestos Construction Standard, 29 CFR 1926.1101, requires every individual involved in the removal of asbestos containing roofing products to have asbestos training.

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 Contractor shall have at all times in his possession at his on-site office one copy of each of the following:
 - a. Asbestos Removal Permits/NESHAP Notification (if applicable)
 - 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

2. 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.
3. 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.
4. 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 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 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.
5. The Contractor shall be responsible for obtaining approval for a waste disposal site in compliance with 40 CFR 61.154.
6. 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.
7. 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 security, provide information to visitors, and to provide access to the work area.
8. The Contractor will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

9. 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. The Contractor is responsible for notifying the Designer and air-monitoring firm in writing that he (contractor) is ready for a final visual inspection. 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.
10. The Contractor shall provide an accredited supervisor for every 10 workers conducting asbestos abatement. The supervisor shall have a minimum of two (2) years' asbestos experience.
11. 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.
12. 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. 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.

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 conduct asbestos operations 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).

C. Permitting and Notifications

1. A permit is required by the North Carolina Health Hazards Control Unit (NC HHCU) for the removal of asbestos containing asphalt/bituminous roofing products and asbestos cement shingles/panels under the following conditions:

> 160 square feet of friable asbestos containing roofing materials will be removed.

> 5580 square feet of nonfriable asbestos containing materials such as built up roofing will be removed using a rotating blade cutter.

> 160 square feet of nonfriable asbestos/cement roofing products will be removed using techniques that will create friable asbestos containing material (ACM).

The Contractor shall obtain a permit from the local office of Western North Carolina Regional Air Quality Agency (WNCRAQA). This office can be reached at 828-250-6777. The Contractor shall be responsible to 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 regulated 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

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 shall be accredited by the NC HHCU.
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 removal of asbestos roofing.

The Contractor shall comply with the OSHA Asbestos Construction Standard, 29 CFR 1926.1101 for proper respiratory protection for all individuals performing asbestos operations.

Assigned protection factors for respirators are as follows:

**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, 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 and accepted by the SAM or Owners representative air monitoring firm, will respiratory protection use be discontinued.

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

5. The Contractor shall set up employee decontamination area as required by the OSHA Asbestos Construction Standard, 29 CFR 1926.1101.

The Contractor shall post the decontamination procedures and work practices to be followed by workers at the decontamination area.

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

6. Workers shall not eat, drink, smoke, chew gum, or chew tobacco in the work area.

7. 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 decontamination area.
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 work place 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 work place 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.

SECTION 2.0 - TECHNICAL SPECIFICATIONS

A. SCOPE OF WORK:

Work includes the removal and disposal of approximately **1,800 sf of asbestos roofing on the Auditorium Canopy located at the Asheville High School, 419 McDowell St., Asheville, North Carolina** in accordance with these specifications. *See representative Site Photo No's. 1 & 2 in Appendix B.*

CONTRACTOR REQUIREMENTS:

The Contractor shall follow all local, state, federal, and OSHA guidelines and regulations when performing abatement operations.

Prior to conducting any work (setup, etc.) or disturbing asbestos roofing materials, the Contractor shall make arrangements with the Owner to mark areas with barrier tape around the Auditorium Canopy. Students and staff walk through this area and special arrangements will need to be considered when marking off this area for no entry. Abatement work may need to be completed on weekend days.

Removal of Asbestos Roofing Material:

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

- A. The Contractor shall remove and dispose of all asbestos roofing materials on the Auditorium Canopy. The Contractor shall conduct all work using nonfriable methods. The roofing materials shall be kept wet at all times during removal operations and all cuts made using sharp hand tools. Cuts shall be made in a manner that will not render the roofing materials friable. Rotating saws and other power tools shall not be used for removal. Removal shall be conducted using pry bars, spatulas, and other sharp tools (e.g., chisel, etc.).
- B. The Contractor shall install a minimum of two layers of six (6) mil polyethylene in the immediate areas of removal under the Auditorium Canopy to catch fallen debris. The Contractor shall install additional barriers and containment measures as needed to control any asbestos roofing debris. Barrier tape and warning signs shall be installed in accordance with OSHA requirements.
- C. The roofing materials shall be immediately double bagged using 6-mil disposal bags on the roof and carefully lowered to the ground without breakage. All waste bags shall be properly labeled.

- D. The Contractor shall conduct cleanup of dust and debris using HEPA vacuums and wet wipe methods. Dust and debris shall be cleaned up continuously during the removal of roofing materials.
- E. Prior to leaving the work area, workers shall HEPA vacuum suites and immediately place suites into 6-mil polyethylene disposal bags. All waste shall be double bagged in 6-mil polyethylene disposal bags and properly labeled. Workers shall also wash hands and face using the portable decontamination wash station.
- F. All wastes shall be placed in a covered dumpster or covered truck capable of being locked. All waste dumpsters and/or vehicles shall be lined with two layers of 6-mil polyethylene. Proper signage shall be placed on all waste containers and vehicles.
- G. The Contractor shall wet wipe and clean all surfaces prior to the final inspection. A final visual inspection shall be completed by the Owner's asbestos air monitoring firm.

ADDITIONAL PROJECT REQUIREMENTS:

The Contractor shall place proper signage at the work area including language understood by all workers.

All waste shall be immediately placed into asbestos disposable bags, sealed, and properly labeled. All waste bags shall be cleaned and carefully transported to a dumpster or covered truck.

AIR MONITORING:

The Contractor will be responsible to conduct initial OSHA worker exposure assessment to obtain an eight (8) hour TWA.

Ambient air monitoring may be conducted by the Owners asbestos air monitoring firm.

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

1. GENERAL REQUIREMENTS:

- a. Install two layers of six (6) mil polyethylene under the immediate areas of removal under the Auditorium Canopy to catch fallen debris. The polyethylene shall be installed in a manner to catch fallen debris so winds do not carry debris to adjacent areas.

- b. The Contractor shall use a minimum of half-face negative air purifying respiratory protection with replaceable HEPA filters. However, the Contractor is required to follow the respiratory requirements of the OSHA Construction Standard 29 CFR 1929.1101.

B. PERSONAL DECONTAMINATION PROCEDURES:

Decontamination Area.

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.

- a. An adequate decontamination area shall include a portable decontamination station with running hot and cold water for washing hands and face. All persons shall pass through this decontamination area to adequately wash hands and face at all breaks, lunch, end of shift, etc.

C. 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 shall 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.

D. DECONTAMINATION OF WORK AREA:

1. Equipment should be cleaned and canopy surfaces cleaned free of debris. Cleaning shall be conducted using a HEPA filtered vacuum and wet wipe methods. After cleaning, the contractor's supervisor shall perform a complete visual inspection of the work area to insure 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.
2. If the air-monitoring technician finds that the work area has not been adequately decontaminated, cleaning shall be repeated until the work area is in compliance. All repeat inspections shall be at the contractor's expense.
3. After the work area is found to be in compliance, all plastic sheeting, tape, and any other trash and debris shall be disposed of in sealable plastic bags (6 mil minimum) and buried as asbestos waste in the approved waste disposal site.
4. Copies of employees' personal monitoring results and landfill manifests shall be submitted to the Asbestos Designer.

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: _____

A.	DOCUMENTS	YES	NO
	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) _____

Asbestos Design Consultant

Date

Asbestos Contractor's Representative

Date



APPENDIX B

Site Photographs



Photo No. 1 – View of Auditorium Canopy.



Photo No. 2 – View of Auditorium Canopy under upper level walkway.