



SPECIFICATIONS FOR ASBESTOS ABATEMENT

**SCHOOL DISTRICT OF NEWBERRY COUNTY
REUBEN ELEMENTARY SCHOOL
3605 SPEARMAN ROAD
NEWBERRY, SOUTH CAROLINA**

APRIL 6, 2015

**PREPARED BY:
CROSSROADS ENVIRONMENTAL, LLC
1258 BOILING SPRINGS RD.
SPARTANBURG, SOUTH CAROLINA 29303
CRE PROJECT NUMBER: PD15-0486-13424**

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**SPECIFICATIONS FOR ASBESTOS ABATEMENT
SCHOOL DISTRICT OF NEWBERRY COUNTY
REUBEN ELEMENTARY SCHOOL- CLASSROOMS & OFFICE AREAS
CRE PROJECT DESIGN #: PD15-0486-13424**

I. PREFACE/GENERAL DESCRIPTION

Air monitoring and Project Management will be performed by Crossroads Environmental, LLC. The Building Owner or other representatives of the Building Owner shall not be held liable in any way for negligence, whereas it be intentional or unintentional on the part of the Contractor.

Reuben Elementary School is located at 3605 Spearman Road in Newberry, South Carolina and is located within the School District of Newberry County. The school is scheduled for the replacement of carpet with vinyl flooring throughout the building. There is approximately 11,500 square feet of carpet over asbestos-containing vinyl floor tile and mastic. Additionally, there is approximately 2,300 square feet of carpet or non asbestos-containing vinyl floor tile over asbestos-containing mastic. These materials are distributed throughout the two main wings of the school and will require, at a minimum, two separate containments.

Due to scheduling constraints, the abatement will be split into two phases. The Cafeteria wing will be prepped and abated first. Once abatement and final clearance air monitoring is completed, the containment will be torn down and preparation of the Multi-Purpose wing can begin.

II. SCOPE OF WORK

The scope of work will include abatement of all asbestos-containing materials located throughout the classrooms and office areas of Reuben Elementary School.

BASE BID:

<u>ASBESTOS-CONTAINING MATERIAL</u>	<u>APPROX. QUANTITY</u>
• VINYL FLOOR TILE OVER MASTIC	11,370 SQ. FT.
• BLACK MASTIC*	2,254 SQ. FT.
• LEVELING COMPOUND	20 SQ. FT.

***MATERIAL LOCATED UNDER NON ASBESTOS-CONTAINING VINYL FLOOR TILE OR CARPET.**

SCHEDULE

PHASE I:

START DATE: June 15, 2015
COMPLETION DATE: June 24, 2015

PHASE II:

START DATE: June 25, 2015
COMPLETION DATE: July 3, 2015

III. CONTRACTOR INFORMATION

A. SUBMITTALS

Project documentation including insurance certificates (see insurance requirements), SC-DHEC Asbestos Abatement Contractor's License, personnel accreditations, Payment and Performance Bond, and waste shipment records must be submitted to the Building Owner's Representative. The contractor and personnel accreditations must be submitted prior to project start up; waste shipment records within 30 days after completion of project.

B. NOTIFICATIONS/ LICENSES

The Contractor will be responsible for filing proper notification to SC-DHEC. The Contractor must have a current SC-DHEC Asbestos Abatement Contractor's License at the time of bid.

Contractor is responsible for obtaining a City Business license, where applicable.

C. OSHA

It is the abatement contractor's responsibility to fulfill all Occupational Safety and Health Administration (OSHA) requirements under CFR 1926.1101 and all other safety requirements that may be required by the work site.

D. PERSONNEL

THE CONTRACTOR MUST PROVIDE AN ADEQUATE NUMBER OF QUALIFIED PERSONNEL TO MEET THE SCHEDULE REQUIREMENTS OF THE PROJECT.

GENERAL SUPERINTENDENT/SUPERVISOR:

Provide a General Superintendent licensed in Asbestos work that is experienced in administration, environmental remediation, general contracting coordinating, including work practices, protective measures for building and personnel, disposal procedures, etc. This person is responsible for compliance with all applicable federal, state and local regulations, particularly those relating to asbestos-containing materials as outlined in OSHA 29 CFR 1926.1101, and including 1926.20 through 1926.32. The Superintendent needs to be knowledgeable of the South Carolina Department of Health and Environmental Control Asbestos Regulation 61 61-86.1: Standards of Performance for Asbestos Projects, Effective May 27, 2011 and EPA NESHAP 61.140 Subpart M-National Emission Standard for Asbestos.

Experience and Training: The General Superintendent must be accredited as an Asbestos Abatement Supervisor in accordance with the AHERA regulation 40 CFR Part 763, Subpart E, Appendix C (ASHARA) and be licensed as a SCDHEC Asbestos Supervisor.

The General Superintendent must be on site at all times, and must be able to communicate in the language of Regulatory Personnel.

ASBESTOS SUPERVISOR(S):

Provide full time Supervisor(s) for inside the asbestos work area with experience in asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc. One inside supervisor must be able to communicate in the language of the workers and be able to communicate in English to the Building Owner's Representative(s) and/or state regulatory personnel. All inside supervisor(s) are responsible for compliance with all applicable federal, state and local regulations, particularly those relating to asbestos-containing materials as outlined in OSHA 29 CFR 1926.1101, and including 1926.20 through 1926.32. The Supervisor(s) need to be knowledgeable of the South Carolina Department of Health and Environmental Control Asbestos Regulation 61 61-86.1: Standards of Performance for Asbestos Projects, Effective May 27, 2011 and EPA NESHAP 61.140 Subpart M-National Emission Standard for Asbestos.

Experience and Training: The Asbestos Supervisor(s) (competent person) must be accredited as an Asbestos Abatement Supervisor in accordance with the AHERA regulation 40 CFR Part 763, Subpart E, Appendix C (ASHARA) and be licensed as SCDHEC Supervisors.

NON-SUPERVISORY PERSONNEL:

Provide an adequate number of qualified personnel to meet the schedule requirements of the project. Submit to the Owner's Representative a request for approval for any person intended to be employed in the project with said employees' name, social security number, qualifications, "Certificate of Workers' Acknowledgment", and "Affidavit of Medical Surveillance and Respiratory Protection".

Experience and Training: All workers employed for abatement throughout the project shall be accredited as an Asbestos Abatement Worker in accordance with the AHERA regulation 40 CFR Part 763, Subpart E, Appendix C (ASHARA) and be licensed as SC-DHEC Asbestos Workers.

EVERY ASBESTOS ABATEMENT ENTITY PERFORMING WORK MUST HAVE HIS/HER ORIGINAL LICENSE, AS WELL AS A COPY OF HIS/HER MOST CURRENT TRAINING CERTIFICATE.

E. CONTRACT DOCUMENTS

The Contract Documents shall consist of the following:

**INVITATION TO BID
SPECIFICATIONS
ADDENDA
BID
BID BOND
PERFORMANCE AND PAYMENT BOND
INSURANCE CERTIFICATES
CONDITIONS OF THE CONTRACT
NOTICE TO PROCEED**

F. BID SECURITY

Each proposal shall be accompanied by a bid guarantee of 5 percent of the bid. Bid guarantee may be a certified check insured by the Federal Deposit Insurance Corporation or 5 percent bid bond of the proposal executed by such a surety company licensed under the laws of South Carolina to execute such bonds, conditioned that the surety will upon demand forthwith make payment to the

obligee upon said bond if the bidder fails to execute the contract in accordance with the bid bond. The Owner shall retain said deposit as liquidated damages in the event of failure of the successful bidder to execute the contract within 30 days after the award or to give satisfactory surety as required by law.

G. PERFORMANCE BOND/LABOR AND MATERIAL PAYMENT BOND

Prior to signing the contract, the Contractor shall secure and post a Performance Bond/Labor and Material Payment Bond for the amount equal to 100% of the Contract Sum. The costs of such bonds shall be included in the proposed contract sum.

H. RECEIPT AND FORM OF BIDS

1. A mandatory pre-bid will be held on Monday, April 20, 2015, at 3:00 p.m. at Reuben Elementary School, located at 3605 Spearman Road in Newberry, South Carolina.
2. All questions are due by 2:00 p.m. on April 24, 2015. Questions must be submitted in writing to Kay Horton at khorton@crossroadsenv.net.
3. All bids must be submitted on the bid form provided in these specifications. All blanks on the Bid Form must be completed in ink or by typewriter.
4. Bids by corporations will be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
5. Bids by partnerships shall be executed in the partnership name and signed by a partner, whose title shall appear under the signature and the official address of the partnership shall be shown below the signature.
6. All names shall be typed or printed below the signature.
7. Bids will be due on April 29, 2015 by 2:00 p.m. Bids must be mailed in sealed envelopes or hand delivered to:

Mr. Jim Suber

School District of Newberry County
3419 Main Street
Newberry, SC 29108
803-321-2600

THE OUTSIDE OF THE SEALED ENVELOPE MUST BE LABELED:

SEALED BID FOR REUBEN ELEMENTARY SCHOOL ASBESTOS ABATEMENT

BIDS MUST BE ACCOMPANIED BY A SAMPLE CERTIFICATE OF INSURANCE, THE CONTRACTOR'S SC-DHEC LICENSE, AND BID BOND. SC-DHEC LICENSE MUST BE VALID AND TIME OF BID OPENING.

8. Notice of award will be given at the Building Owner's Convenience.
9. All bids are to remain subject to acceptance for 30 days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid.
10. Each bidder agrees that if notified of contract award, he will execute and deliver required contract documents immediately, commence work, and substantially complete within the timeframe provided on the bid form.

I. WITHDRAWAL

1. No bid may be withdrawn for a period of sixty (60) days after scheduled closing time for the receipt of bids.

J. OWNER'S RIGHT TO ACCEPT OR REJECT PROPOSAL

1. Owner reserves the right to reject any and all bids, to waive any and all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criterion established by Owner. In the event of a tied bid, the school district will request work schedules

from each bidder and will select the bidder whose schedule will result in a lower cost for air monitoring.

2. While evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
3. Owner may conduct such investigations as Owner deems necessary to assist in the valuation of any Bid and to establish the responsibility, qualifications and financial ability of organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
4. If the contract is to be awarded, it will be awarded to the best qualified bidder, whose evaluation by Owner, indicated to Owner that the award will be in the best interest of the Project. If bids are close in price, schedule and days required to complete the project will be taken into account.

K. INSURANCE REQUIREMENTS

1. Contractor must include with his bid documents, a copy of his Certificate of Insurance. Insurance coverage shall include **General Liability, Automobile Liability, Asbestos Pollution Liability, and Worker's Compensation with no less coverage than \$1 Million (\$1,000,000) for each category. The policy shall state that Sunset Clause or similar clause or clauses of intent are not included in the coverage.**
2. **Asbestos Pollution Liability Insurance is required.** A completed Certificate of Insurance for Asbestos Pollution Liability Insurance must be submitted **naming the Building Owner, the Owner's Managing Agent and the facility as an additional named insured. This can be submitted upon award of the contract.**
3. Contractor shall provide "occurrence" insurance from exposure to asbestos. An "A+" rated insurance carrier shall be provided. If the insurer has less than an "A+" rating, the Contractor shall obtain approval for the insurance carrier from the Building Owners prior to commencement of the project.

4. The Contractor shall purchase and maintain in a company or companies acceptable to the Owner such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's operations under the Contract, whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable:
 - (a) Claims under workers' compensation, disability benefits and other similar employee benefit acts;
 - (b) Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;
 - (c) Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;
 - (d) Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or by any other person;
 - (e) Claims for damages other than to the work itself because of injury to or destruction of tangible property, including loss of use resulting there from; and
 - (f) Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

5. The insurance shall be written for not less than any limits of liability specified in the Contract Documents, or required by law, whichever is greater.
 - (a) Minimum limits of liability for the following types of insurance are required as follows:

All Limits in Thousands

- | | |
|--|---------|
| 1. Comprehensive General Liability, including: | |
| a. General Aggregate | \$1,000 |
| b. Products-Comp/Ops Aggregate | \$1,000 |
| c. Personal & Advertising Injury | \$1,000 |
| d. Fire Damage | \$ 50 |
| e. Medical Expense (Any one person) | \$ 5 |
| 2. Worker's Compensation, including: | |
| a. Worker's Compensation Insurance | \$1,000 |
| b. Employer's Liability | \$1,000 |
| 3. Comprehensive Automobile Liability, | |
| 4. Combined single limit, including: | |
| a. All owned Automobiles | \$1,000 |
| b. Non-owned Automobiles | \$1,000 |
| c. Hired Car Coverage | \$1,000 |
- (b) In addition to Contractual Liability including indemnification provision Bodily Injury and Property Damage coverage under both Comprehensive General and Comprehensive Automobile forms shall include 'occurrence' basis working, which means an event, or continuous or repeated exposure to conditions which unexpectedly causes injury or damage during policy period.
- (c) Contractor shall either (1) require each of his Subcontractors to procure and maintain during the life of his subcontract, Subcontractors Comprehensive General Liability, Automobile Liability and Property Liability Insurance of the type and in the same amounts as specified in above, or (2) insure the activities of his Subcontractors in his own policy.
6. The insurance shall include contractual liability insurance applicable to the Contractor's obligations under indemnification provision.
- (a) To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of

or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting there from and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph.

- (b) Certificate of Insurance must be filed by an insurer authorized to do business in South Carolina by the South Carolina State Insurance Commission. All blanks and questions on the Certificate must be filled out completely. Incomplete or inadequate Certificate will be returned to the Contractor as unsatisfactory and commencement of his work will be delayed until satisfactory Certificate is submitted. Such delay will not warrant extension of contract time.
7. Within five (5) working days following notice of award, the Contractor must provide a Certificate of Insurance with the following:
- (a) **ADDITIONAL INSURED**-The City of Laurens shall be named as Additional Insured for its interest on Commercial General Liability and any Umbrella policies. This shall be noted on the face of the Certificate of Insurance.
 - (b) **WAVIER OF SUBROGATION**-As a part of the Certificate of Insurance requirement, the Contractor shall also include acknowledgement and acceptance of the waiver of subrogation provision granted to the City of Laurens, its departments, agencies, boards, employees, and commissions for losses from work performed by or on behalf of the Contractor. This acknowledgement and acceptance should be included in the same section of the Certificated of Insurance that evidences the “Additional Insured” provision.

L. BUILDING OWNER AND OWNER'S REPRESENTATIVE

1. **BUILDING OWNER:**
School District of Newberry County
3419 Main Street
Newberry, SC 29108
Contact: Mr. Jim Suber
2. **FACILITY:**
Reuben Elementary School
3605 Spearman Road
Newberry, SC 29108
3. **DESIGN:**
Crossroads Environmental, LLC
1258 Boiling Springs Rd.
Spartanburg, South Carolina 29303
Point of Contact: Kay Horton
(864) 541-8736
E-mail address: khorton@crossroadsenv.net

M. SUMMARY OF TASKS:

Contractor shall remove and dispose of all asbestos-containing and/or asbestos contaminated material affected as indicated in the specifications for **Reuben Elementary School**.

Contract work includes:

1. Pre-abatement activities including pre-construction meeting, inspection, notifications, permits, submittal approvals, preparations, emergency arrangements and submittal of plan of action.
2. Abatement activities including preparation of work site, removal and disposal of asbestos containing and/or contaminated waste, recordkeeping, security of job site, pre-work and post-work inspections, and OSHA compliance air monitoring.
3. Cleaning, Decontaminating, and Clearance activities including final inspection, clearance testing, certification of decontamination, and all post work submittals.
4. Any equipment that is unable to be moved must be polyed and protected during abatement.

N. STOP WORK:

If the Building Owner or Owner's Representative verbally issues a stop work order, the abatement contractor shall immediately and automatically stop all work and initiate fiber reduction activities. Do not resume asbestos removal until authorized by the Building Owner or the Owner's Representative. Do not recommence work until authorized by the Building Owner or the Owner's Representative. Standby time and cost required for corrective action will be at the contractor's expense. The occurrence of the following events shall be reported in writing to the Owner's Representative and shall require the contractor to immediately stop asbestos removal and initiate fiber reduction and other appropriate activities:

1. Excessive airborne fibers outside the containment area (>0.01 f/cc or established background levels, whichever is greater).
2. Break in either the primary or critical containment barriers.
3. Serious injury to a worker within the containment area that necessitates interruption of the normal decontamination procedures.
4. Presence of a fire and/or safety emergency.
5. Respiratory Protection System failure.
6. Power failure.

O. CONTRACTOR'S USE OF PREMISES:

The Contractor shall cooperate fully with the Owner's Representative to minimize conflicts and to facilitate safe and efficient usage of the building. **Contractor will confine operations to the areas where he will perform the work in accordance with the specifications.**

P. POWER

Power will be supplied by the Building Owner. If the power provided is not sufficient, the Contractor will be responsible for providing supplemental power.

Q. WATER

Water will be provided by the Building Owner and is available on site, but Contractor must provide all hoses, connectors, etc. The Contractor must maintain hose connections and outlet valves in leak-proof condition. Where finish work below an outlet might be damaged by spillage or leakage, provide a drip pan of suitable size to minimize the possibility of water damage. Drain water promptly from pans as it accumulates. Should the water connection cause

damage, the Environmental/Demolition Contractor is responsible for the repair at no cost to the building owner.

R. SANITARY FACILITIES:

The Environmental/Demolition Contractor will have a designated restroom provided by the Building Owner. The restroom must be kept clean at all times, and must be sanitized upon completion of the project. Contractor will be responsible for providing toilet paper and hand towels.

S. DRIVEWAYS AND PARKING AREAS:

Keep existing driveways and entrances serving the premises clear and available to the Owner and his employees at all times. Do not use these areas for parking or storage of materials.

1. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas designated by the Building Owner. If additional storage is necessary, obtain and pay for such storage.
2. Lock automotive type vehicles, such as passenger cars and trucks and other mechanized or motorized construction equipment, when parked and unattended, so as to prevent unauthorized use. Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place or accessible to unauthorized persons.

IV. PERSONAL PROTECTIVE EQUIPMENT

The following work practices must be employed during the abatement of the above materials accordingly:

A. WORKER PROTECTION:

Before beginning work of this section provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

Protective Clothing:

Coveralls: Provide disposable full-body coveralls with head covers, and require that they be worn by all workers in the Work/Isolation Area. Provide a sufficient number for all required changes, for all workers in the Work/Isolation Area.

Boots: Provide work boots with non-skid soles, and where required by OSHA, foot protection, for all workers. Provide boots at no cost to workers. Do not allow boots to be removed from the Work/Isolation Area for any reason, after being contaminated with asbestos-containing material. Thoroughly clean, decontaminate and bag boots before removing them from Work/Isolation Area at the end of the work.

Hard Hats: Provide head protection (hard hats) as required by OSHA for all workers, and provide 4 spares for use by Owner's Representative, Project Administrator, and Owner. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats with plastic strap type suspension. If hats are utilized in the Work/Isolation Area, thoroughly clean, decontaminate and bag hats before removing them from Work/Isolation Area at the end of the work.

Goggles: Provide eye protection (goggles) as required by OSHA for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury. Thoroughly clean, decontaminate and bag goggles before removing them from Work/Isolation Area at the end of the work.

B. RESPIRATORY PROTECTION:

Description of Work:

Instruct and train each worker involved in asbestos abatement or maintenance and repair of Class I, II, and III asbestos-containing materials in proper respiratory use and require that each worker always wear a respirator, properly fitted on the face in the Work/Isolation Area from the start of any operation which may cause airborne asbestos fibers until the Work/Isolation Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered.

Respiratory Protection Program: Comply with ANSI Z88.2 - 1992 "Practices for Respiratory Protection" and OSHA 29 CFR 1910.134 and CFR 1926.1101. Require that respiratory protection be used at all times where there is any possibility of disturbance of asbestos-containing materials whether intentional or accidental. Require that a respirator be worn by anyone in a Work/Isolation Area at all times, regardless of activity, during a period that starts with any operation which could cause airborne fibers until a negative exposure assessment has been completed.

General: The employer shall provide respirators, and ensure that they are used where required. Respirators shall be used in the following circumstances:

- During all Class I asbestos jobs.
- During all Class II work where the ACM is not removed in a substantially intact state.
- During all Class II and III asbestos jobs where the employer does not produce a "negative exposure assessment".
- During all Class III jobs where TSI or surfacing ACM or PACM is being disturbed.
- During all Class IV work performed within the regulated areas where employees performing other work are required to wear respirators.
- During all work where employees are exposed above the TWA (0.1 f/cc) or excursion limit (1.0 f/cc).

V. PREPARATION OF THE WORK AREA(S)

A. REGULATED AREA DEMARCATION

The Regulated area is the location where environmental remediation work occurs. All class I, II, and III asbestos work as defined in OSHA CFR 1926.1101 (b) shall be conducted within regulated areas.

All work areas where asbestos work or other contaminants are being removed must be demarcated with barrier tape and signs. Waterproof signage must be utilized during all outdoor removal.

Access to the regulated area shall be limited to persons authorized in accordance with OSHA and SC-DHEC.

Prohibited activities within the regulated area include but are not limited to: no eating, drinking, smoking, chewing of tobacco or gum, or applying of cosmetics. The competent person shall ensure that all asbestos work performed within regulated area is supervised by a competent person, which is defined in South Carolina as a licensed Supervisor.

WORK/ISOLATION AREA:

The Work/Isolation area that is located within the regulated area is a variable of the extent of work of the Contract. It may be a portion of a room, a single room, or a complex of rooms. A "Work/Isolation Area" is considered contaminated during the work, and must be separated from the balance of the building, and decontaminated at the completion of the asbestos-control work.

Completely separate the Work/Isolation Area from other parts of the building to prevent asbestos-containing dust or debris from passing beyond the work/isolated area. Should the area beyond the Work/Isolation Area(s) become contaminated with asbestos-containing dust or debris because of the work, clean those areas in accordance with the specifications. Perform all such required cleaning or decontamination at no additional cost to owner.

Place all tools, scaffolding, staging, etc. necessary for the work in the area to be separated prior to completion of Work/Isolation Area separation.

CONTROL ACCESS:

Provide Warning Signs at each access to Regulated Area on doors and/or critical barriers. Post an approximately 20 inch by 14 inch manufactured caution sign displaying the following legend with letter sizes and styles of a visibility required by OSHA 29 CFR 1926.1101:

LEGEND:

DANGER

ASBESTOS

**CANCER AND LUNG DISEASE HAZARD
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED
IN THIS AREA**

Provide spacing between respective lines at least equal to the height of the respective upper line.

B. CRITICAL BARRIERS AND PRIMARY BARRIERS:

CRITICAL BARRIERS:

Individually seal each opening between the work area and uncontaminated areas including windows, doorways, elevator openings, corridor entrances, drains, ducts, electrical outlets, grilles, grates, diffusers, and skylights with duct tape and a minimum of two (2) independent layers of polyethylene sheeting at least 6 millimeters (mil) in thickness taped securely in place. Seal all stationary equipment with a minimum of one (1) layer of polyethylene sheeting at least 4 mil in thickness. Maintain all seals until all work including Project Decontamination is complete and passing clearance results have been obtained.

PRIMARY BARRIERS (FOR FRIABLE FLOORING & MASTIC ABATEMENT)

The Primary Barriers must be installed in addition to Critical Barriers as specified in the preceding paragraphs. This is to protect the building and other surfaces in the Work/Isolation Area from damage from water and high humidity or from contamination from asbestos-containing debris, slurry or high airborne fiber levels by covering with a primary barrier as described below.

Cover all walls of each Work Area with one (1) layer of clear polyethylene sheeting, each at least 4 mil in thickness, mechanically supported and sealed with duct tape or spray-adhesive in the same manner as “Critical Barrier” sheet plastic barriers. Tape all joints.

Cover all ceilings with one (1) layer of clear polyethylene sheeting, each at least 4 mil in thickness, extending beyond wall/ceiling joints at least 12 inches, mechanically supported and sealed with tape in the same manner as “Critical Barrier” sheet plastic barriers. Tape all joints.

Install a viewing port measuring at least 24 inches by 24 inches in an external wall to allow unobstructed observation of abatement activities in the work area.

PRESSURE READINGS MUST BE RECORDED A MINIMUM OF FOUR TIMES PER 8-HR. SHIFT BY THE ON-SITE AIR MONITOR.

C. **DECONTAMINATION UNIT:**

Provide attached Personnel Decontamination facility for containment areas. Construct the decontamination facility in compliance with OSHA 29 CFR 1926.1101 and SC-DHEC Regulations. This requires that the decontamination enclosure (decon) include a clean room, airlock, shower with controllable hot

and cold water, airlock, and equipment room. In addition, the Contractor must provide an adequate changing area that allows privacy when dressing out and a proper storage space for street clothes. Steps required to exit the work area through the decon are as follow:

- 1) Remove gross contamination and debris from protective clothing before entering the equipment room
- 2) Enter equipment room and remove and dispose of suit
- 3) Enter shower with respirator on, pass filters into equipment room for disposal
- 4) After showering, enter clean room to put on street clothes

The decontamination chambers must remain free of debris and standing water.

The Contractor must ensure that all contaminated water is filtered through a five-micron or smaller filter and discharged to a sanitary sewer system. No water (contaminated or filtered) shall be allowed to lead or drain outside of the work area.

D. LOAD-OUT:

Provide decontamination area for removal of bagged waste from work area. Where feasible, this load-out area should be separate from the personnel decon.

E. TEMPORARY LIGHTING FOR FULL CONTAINMENT:

Disconnect all existing power to lighting circuits in Work Area as described in Temporary Enclosures. All lighting to the Work Area and Decontamination facilities is to be provided from temporary electrical panel(s).

Provide the following or equivalent light level: One 100-watt incandescent lamp per 1,000 square feet of floor area, uniformly distributed, for general construction lighting, or equivalent illumination of a similar nature. In corridors and similar traffic areas provide one 100-watt incandescent lamp every 25 feet. In stairways, scaffold level, and at ladder runs, provide one lamp minimum per landing, located to illuminate each landing and flight. Provide sufficient temporary lighting to ensure proper workmanship everywhere.

- Provide lighting in areas where work is being performed to supply a 100-watt minimum light level in all areas of the work area.

- Provide lighting in any area being subjected to a visual inspection to supply a 100-watt minimum light level in all areas of the work area.
- Provide lighting in the Decontamination Unit supplying a 75-watt minimum light level.
- Provide sufficient lighting circuits as required by the work. All lighting circuits are to originate at temporary electrical panel.

F. HEPA FILTERED FAN UNITS:

Use units in the work areas that meet the following requirements.

Cabinets are to be constructed of durable materials able to withstand damage from rough handling and transportation. The width of the cabinet should be less than 30 inches to fit through standard-size doorways. Provide units whose cabinets are:

- * Factory-sealed to prevent asbestos-containing dust from being released during use, transport, or maintenance
- * Arranged to provide access to and replacement of all air filters from intake end
- * Mounted on casters or wheels
- * Rate capacity of fan according to usable air movement capacity under actual operating conditions.
- * Clean and operates with sufficient number of pre and secondary filters to be changed out throughout the day.

Provide an operational air circulation system supplying a minimum of the following air circulation rate: 4 air changes per hour to achieve required air circulation according to the following procedure:

Air Circulation Required in Cubic Feet of Air per Minute (CFM) =

$$\frac{\text{Volume of Work/isolation Area (cu. ft.)} \times \text{Number of air changes per hour (4)}}{60 \text{ (minutes per hour)}}$$

CFM/Capacity of unit= Number of units required

Capacity of a unit for purposes of this section is the capacity in cubic feet per minute with fully loaded filters (pressure differential which causes loaded filter warning light to come on) in the machine's labeled operating characteristics or

50% of the manufacturer's rated capacity for the unit. The capacity of the combined units shall at least be capable of maintaining a negative pressure differential of -0.02 inches of water around the entire perimeter of the Work/isolation Area.

Provide a minimum of 2 additional units per containment as back-ups.

Contractor is responsible for calculating the correct number of units per containment and for providing enough units during the removal process to ensure negative pressure.

ALL UNITS SHOULD HAVE NEW HEPA FILTERS INSTALLED PRIOR TO PLACEMENT ON PROJECT SITE. IF A UNIT IS FOUND TO CONTAIN A DIRTY UNIT, THE CONTRACTOR WILL BE REQUIRED TO HAVE NEW HEPA FILTERS INSTALLED IMMEDIATELY OR HAVE THE UNIT WITH THE DIRTY FILTER REMOVED FROM THE JOBSITE.

G. MANOMETER

A manometer must be utilized to measure the relative pressure. The inlet sensor of the manometer shall be located at the farthest point from any source of make-up air. The manometer must be calibrated by the Supervisor prior to the start of each work shift. The manometer record of daily readings must be recorded four times per eight-hour shift by the Licensed Air Monitor.

H. EQUIPMENT

The Contractor must ensure that all necessary equipment to perform the job efficiently is provided. This includes attachments for HEPA vacuums.

VI. REMOVAL PROCEDURES

THE ABATEMENT CONTRACTOR MAY ELECT TO USE THE FOLLOWING NON-FRIABLE REMOVAL TECHNIQUES IN ROOMS 116, 117, 118, 119, 103, AND 108.

• **NON-FRIABLE REMOVAL TECHNIQUES FOR MASTIC UNDER NON ASBESTOS FLOOR TILE:**

The work areas should include critical barriers, splashguards, negative air machines to be used as air scrubbers, and decontamination unit (one-stage minimum). Continuously mist the work areas and floor tiles as necessary during

the removal process. Remove binding strips or other restrictive molding from doorways, walls, etc. Clean and dispose of as non-asbestos waste. Dispose of any materials that have floor mastic on them as asbestos-containing waste. Removal of the floor tiles should include the combination of **infrared heat machines** with flat shovels. Remove the tiles with minimum amount of breakage, and maintain the flooring material in a non-friable condition. Pick up whole tiles, stack, and place in labeled disposal bags or wrap in 2 layers of labeled poly. At the Contractor's option tiles may be placed directly into **durable leak-tight containers**. Place bagged waste in a second disposal bag during decontamination.

- **NON-FRIABLE REMOVAL TECHNIQUES FOR FLOOR TILE MASTIC:**

Remove adhesive residue by using adhesive removal solvents. Provide a slow-drying solvent intended to remove tile adhesive. Provide material that is not flammable, does not create combustible vapors, and has no significant inhalation hazard. Provide materials that have no volatile organic solvents (VOCs) unless previously approved in writing by the Building Owner's Representative. Use solvents in accordance with manufacturers' instructions. Saturate adhesive with removal solvent and allow adhesive to soften. Remove by scraping or wet sanding. Only manual methods may be utilized (no motorized buffers, sanders, etc.). Provide worker protection as required by material safety data sheet (MSDS) for any material used.

Start in the corner of the room farthest from the entrance door and moisten an area of the adhesive approximately 3 by 10 feet with amended water. Wet scrape with a stiff-bladed wall or floor scraper removing ridges and any loose adhesives until only a thin smooth film remains. Where deposits are heavy or difficult to scrape, heat with a hot-air blower prior to scraping. Deposit scrapings in a disposal bag or closed impermeable container and dispose of as required by the Disposal of Asbestos-Containing Waste Material. Keep floor wet with solvent or amended water. Wet vacuum standing water with HEPA wet/dry vacuum. Mop floor with amended water, removal encapsulant, or liquid detergent solution to remove all debris and residue. Mop floor with removal solvent as required by manufacturer's directions as required to completely remove all residue of adhesive.

Clean Floor after completion of removal of asbestos-containing materials by wet mopping with amended water. Mop at least three times or until all residue is no longer present, allowing a drying time between each mopping.

As a final measure, apply baking soda to areas where a removal solvent has been applied to aid in absorbing moisture and neutralizing solvent odor.

Dispose of all rags, plastic sheet, etc. in accordance with requirements of the "Disposal of Asbestos-Containing Waste Material".

Decontaminate Equipment: After the completion of all work, decontaminate all equipment and machinery used for work of this section. Accomplish decontamination as required by the section on Project Decontamination.

Compatibility: At the completion of all work, leave substrates in such a state as to comply with all requirements and recommendations of manufacturer for replacement materials.

THE FOLLOWING TECHNIQUES MUST BE FOLLOWED IN ALL AREAS WHERE THERE IS CARPET OVER ASBESTOS CONTAINING VINYL FLOOR TILE AND MASTIC:

- **FRIABLE FLOOR TILE AND MASTIC REMOVAL TECHNIQUES**
After construction of the negative pressure enclosure, cover sealed openings with sheet plastic. Remove binding strips or other restrictive molding from doorways, walls, etc. clean and dispose of as non-asbestos waste. Dispose of any materials that have black floor mastic on them as asbestos-containing waste. Wet floor with amended water so that entire surface is wet. Do not allow to puddle or run off to other areas. Allow time for humidity and water to loosen tiles prior to removal. Keep floor continuously wet throughout removal operation. Continuously mist floor in area where removal is being performed with amended water. Wet any debris generated as necessary to keep continuously wet. Keep floor where tile has been removed continuously wet until after completion of heavy adhesive residue removal. Shovel pieces of tile and debris into approved drums or disposal bags. Place bagged waste in a second disposal bag during decontamination and dispose of waste as required by the Disposal of Asbestos-Containing Waste Material Section.

Remove adhesive residue by using adhesive removal solvents. Provide a slow-drying solvent intended to remove tile adhesive. Provide material that is not flammable, does not create combustible vapors and has no significant inhalation hazard. Provide materials that have no volatile organic solvents (VOCs) unless previously approved in writing by the Building Owner's Representative. Use

solvents in accordance with manufacturers' instructions. Saturate adhesive with removal solvent and allow adhesive to soften. Remove by scraping, wet sanding, or wet scrub with floor cleaning machine with abrasive pad. Provide worker protection as required by material safety data sheet (MSDS) for any material used. Mop floor with removal solvent as required by manufacturer's directions as required to completely remove all residue of adhesive.

CLEAN UP

Clean Floor after completion of removal of all environmental contaminated waste materials by wet mopping with amended water. Mop at least three times or until all residue is no longer present, allowing a drying time between each mopping.

As a final measure, apply baking soda to areas where a removal solvent has been applied to aid in absorbing moisture and neutralizing solvent odor.

Dispose of all rags, plastic sheet, etc. in accordance with the Disposal section of these specifications.

Decontaminate Equipment: After the completion of all work, decontaminate all equipment and machinery used for work of this section. Accomplish decontamination as required by the section on Project Decontamination.

VII. WASTE STORAGE AND DISPOSAL PROCEDURES

All materials are to be contained in one of the following: (1) Two 6 mil disposal bags, twist the top of both bags closed, fold over (gooseneck style), and seal both bags with duct tape; (2) Two 6 mil disposal bags, using the same procedures as above, and a fiberboard or steel drum; (3) One 6 mil disposal bag, using the same procedures as above, or a fiberboard or steel drum to be buried with the waste.

Waste stored on the site prior to disposal, must be maintained in a secured, locked location where access is controlled.

LABELING OF DISPOSAL CONTAINERS:

On the outside of the chosen disposal container, the following three labels must be placed and visible:

First Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

Second Label: Until October 1, 1993, provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking. 49 CFR Parts 171 and 172. Hazardous Substances: Final Rule. Published November 21, 1986 and revised February 17, 1987:

Third Label: Provide in accordance with 40 CFR Part 61 (AMENDED), subpart M, section 61.150(a)(1)(v) of EPA's National Emission Standards for Hazardous Air Pollutants; Asbestos NESHAP Provision. Published November 20, 1990.

All waste is to be hauled by a waste hauler with all required licenses from all state and local authority with jurisdiction. Protect walls, floors, and ceilings of the interior of the truck or dumpster with one layer of 6 mil polyethylene sheeting. Floor sheeting shall be installed first and shall extend up the side wall at least 12 inches and taped securely into place. Wall sheeting shall overlap by at least six inches and be taped into place. Ceiling sheeting shall extend down the sides of the walls at least six inches and be taped into place. Take containers from the Work Area directly to a sealed truck or dumpster. Do not transport disposal bagged materials on open trucks. Comply with any local or state regulations for prior notice and delivery, and comply with any special landfill requirements.

At a disposal site, vehicles shall approach the dump location as closely as possible for unloading of the asbestos waste. Bags, drums and wrapped components shall be inspected when unloaded at the disposal site. Material in damaged containers shall be re-wrapped or re-packed in empty bags or drums. If more than 25% of the bags are broken or damaged, return to work site for re-bagging. Waste containers shall be placed on the ground at the disposal site, not pushed or thrown out. Following the removal of all containerized waste, polyethylene sheeting shall be removed and discarded in bags or drums along with contaminated cleaning materials and protective clothing. Clean cargo area of the truck or dumpster by wet-wiping with amended water and/or using a HEPA vacuum cleaner.

Retain Waste Shipment Records (WSRs) from landfill and/or processor for materials disposed of. At completion of hauling and disposal of each load submit copy of waste manifest and landfill receipts to Owner's Representative and comply with local and state regulations for disposal documentation.

As per NESHAPS 61.150 vii (3) (4) waste shipment records shall be obtained from the landfill/or hauler within 35 days, if not received within 45 days, EPA shall be notified by the contractor of unresponsive records.

VIII. AIR MONITORING AND PROJECT COMPLETION

A qualified and licensed air monitoring firm will provide all air monitoring and perform all visual inspections.

BACKGROUND AIR MONITORING:

Background monitoring shall be performed both inside and outside of the work areas to establish existing ambient air levels under normal activity conditions. The background samples will be analyzed using Phase Contrast Microscopy (PCM) analysis.

DAILY AREA AIR MONITORING:

The purpose of the Owner's daily area air monitoring is to evaluate quality, resolve problems, and minimize the potential for the spread of contamination beyond the work area. In addition, the work of the Owner's IH includes performance of the final visual inspection and testing to determine whether a space or a building has been adequately decontaminated. All daily air monitoring is to be done utilizing Phase Contrast Microscopy (PCM) except for Final Clearance Monitoring as specified in the following paragraphs. Owner's Air Monitor will perform the following tasks:

1. Perform continuous air monitoring, inspection and testing inside and outside the work area during actual abatement work to detect any faults in the work area isolation and any adverse impact on surrounding areas from work area activities
2. Perform final inspection and testing of decontaminated areas or buildings at the conclusion of the abatement and clean-up work to certify compliance with decontamination standard.

All data, inspection results, and testing results generated by the Owner's IH will be available to the contractor for information and consideration. Contractor

shall provide cooperation and support to the Owner's IH for efficient and smooth performance of their work.

Monitoring and inspection results of the IH may be used to issue any stop removal orders to the contractor during abatement work and to accept or reject an area or a building as decontaminated.

This section also sets forth airborne fiber levels both inside and outside the work area as action levels, and describes the action required by the Contractor if an action level is met or exceeded.

STOP ACTION LEVELS:

Inside Work Area: Maintain an average airborne count in the work area of less than .05 f/cc. If the fiber counts rise above this figure for any sample taken, revise work procedures to lower fiber counts. If the Time Weighted Average (TWA) fiber count for any work shift or 8 hour period exceeds the Stop Action Level, stop all work except corrective action, leave pressure differential and air circulation system in operation and notify Owner's Representative. After correcting cause of high fiber levels, do not recommence work for 24 hours unless otherwise authorized, in writing, by Owner's Representative.

If airborne fiber counts exceed 0.1 f/cc cease all work except corrective action. Notify Owner's Representative. Do not recommence work other than corrective action for 24 hours unless otherwise authorized, in writing, by Owner's Representative.

Outside Work Area: If any air sample taken outside of the Work Area exceeds 0.01 f/cc or the base line established by background air monitoring, immediately and automatically stop all work except corrective action. The Owner's Representative will determine the source of the high reading and notify the Contractor in writing.

If the high reading was the result of a failure of Work Area isolation measures initiate the following actions:

- Immediately erect new critical barriers to isolate the affected area from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (eg. wall, ceiling, floor).

- Decontaminate the affected area in accordance with Project Decontamination Procedures.
- Require that respiratory protection as set forth in Respiratory Protection be worn in affected area until area is cleared for re-occupancy in accordance with Final Clearance Monitoring.
- Leave Critical Barriers in place until completion of work and ensure that the operation of the pressure differential system in the Work Area results in a flow of air from the affected area into the existing Work Area.
- If the exit from the clean room of the personnel decontamination unit enters the affected area, establish a separate decontamination facility consisting of a Shower Room and Changing Room.
- After Certification of Visual Inspection in the Work Area, remove critical barriers separating the work area from the affected area. Final air samples will be taken within the entire area as set forth in Final Clearance Monitoring.

If the high fiber reading was the result of other causes, initiate the corrective action as determined by the Owner's Representative.

CONTRACTOR RELEASE CRITERIA FOR FINAL WORK AREA CLEARANCE:

1) VISUAL INSPECTION

Final Clearance Monitoring will not begin until the Asbestos Abatement Work Area airborne asbestos structure concentrations have been reduced to the level specified and described in Project Decontamination is complete, the area has passed a thorough visual inspection by the Owner's Air Monitor and the Project Manager and successful completion of these requirements has been certified by the Owner's Air Monitor and Project Manager. The visual inspection will be performed at the request of the Supervisor following fine cleaning of the work area.

2) ENCAPSULATION

A coating of compatible encapsulant must be applied to porous surfaces that have been stripped and cleaned of ACM. This must be compatible with the substrate of the replacement material.

3) REMOVAL OF PRIMARY BARRIERS

After all encapsulant is thoroughly dry, all primary barriers must be removed. If any evidence of contamination is observed after removal of the primary barriers, the debris/particulate should be HEPA vacuumed and wet-wiped under not residue remains.

4) FINAL AIR MONITORING

AGGRESSIVE SAMPLING:

1. Before sampling pumps are started, the exhaust from forced-air equipment (leaf blower with an approximately 1 horsepower electric motor) will be swept against all walls, ceilings, floors, ledges and other surfaces in the room. This procedure will be continued for 5 minutes per 10,000 cubic feet of room volume.

2. Air samples will be collected in areas subject to normal air circulation away from room corners, obstructed locations, and sites near windows, doors or vents. To determine if the elevated airborne asbestos structure concentration encountered during abatement operations has been reduced to the specified level, the Air Monitor shall secure samples and analyze them according to the following procedures per designated area.

TEM clearance sampling will be required in each, separate containment.

Sampling sensitivity in the tables below refer to:

Analytical Sensitivity for TEM analysis as set forth in the analytical method used and/or the AHERA regulation.

TEM samples will be secured as indicated below:

TRANSMISSION ELECTRON MICROSCOPY:

In each homogeneous work area after completion of all cleaning work, a minimum of 5 samples, or sufficient for the size of the project, will be taken and analyzed as follows.

Location Sampled	Number of Samples	Analysis Method	Analytical Sensitivity (fibers/cc)	Recommended Volume (liters)	Rate in Liters per Minute (LPM)
Work Area	A minimum of	TEM	0.005	1,200-1,800	1-10

Outside of Work Area	5 5*	TEM	0.005	1,200-1,800	1-10
Work Area Blank	1	TEM	0.005	0	Open for 30 Seconds
Outside of Work Area Blank	1	TEM	0.005	0	Open for 30 Seconds
Laboratory Blank	1	TEM	0.005	0	Do Not Open

* If samples collected inside of the work area report >70 structures/mm², TEM samples shall be collected outside of the work area.

Analysis will be performed using the analysis method set forth in the AHERA Regulation 40 CFR Part 763 Appendix A.

Asbestos Structures referred to in this Section include asbestos fibers, bundles, clusters or matrices, as defined by method of analysis.

Release Criteria: Decontamination of the work site is complete if:

The arithmetic mean (average) asbestos concentration is less than 70 structures per square millimeter of filter area.

LABORATORY TESTING AND ANALYTICAL METHODS:

PHASE CONTRAST MICROSCOPY (PCM):

Analysis of background and daily samples will be performed utilizing the methods set forth in NIOSH 7400 method.

TRANSMISSION ELECTRON MICROSCOPY (TEM):

Analysis of clearance samples will be performed using the analysis method set forth in the AHERA regulation 40 CFR Part 763 Appendix A. Samples will be sent by overnight courier for analysis by Transmission Electron Microscopy. Samples will not be carried on weekends, so that samples shipped on Friday will arrive on the following Monday. Faxed and Verbal results will normally be

available during the 2ND working day after receipt of samples by the laboratory. All Transmission Electron Microscopy results will be available to the Contractor.

SAMPLE VOLUMES:

The number and volume of air samples taken by the Owner will be in accordance with all regulations and standards governing air monitoring. Additional samples may be taken at Owner's or Owner's Representatives discretion. If airborne fiber counts exceed allowed limits additional samples will be taken as necessary to monitor fiber levels.

SAMPLE CASSETTES:

PCM: Samples will be collected on 25 mm cassettes with a 0.80 micrometer mixed cellulose ester filter.

TEM: Samples will be collected on 25 mm cassettes with 0.45 micrometer mixed cellulose ester filter.

WRITTEN REPORTS:

Written reports will be posted at the job site on a daily basis, and within 24 hours of collection of the samples. Location will be determined by Owner's Representative and Contractor's General Superintendent. Clearance results shall be posted at the site prior to tear-down of the containment area(s).

ADDITIONAL TESTING:

The Contractor may conduct his own air monitoring and laboratory testing. If he elects to do this the cost of such air monitoring and laboratory testing shall be at no additional cost to the Owner.

PERSONAL MONITORING:

Contractor is responsible for performing air monitoring to meet Contractor's OSHA requirements for personnel sampling or any other purpose.

IX. SUBMITTALS

The attached sheets include the submittal requirements prior to the start of work, and before project closeout. Submittal for the section At Project Closeout must be submitted to the Owner's Representative with the Final Payment Request.

SUBMITTAL CHECKLIST - MANDATORY

Submittal for section Before Start of Work must be turned in to the Owner or the Owner's Representative at the Pre-Construction Meeting. If no Pre-Construction Meeting is held, then the paperwork must be submitted to the Owner's or the Owner's Representative Office 48 Hours before the start of work. The Owner or Owner's Representative will then give the contractor written permission to begin work. The Contractor will not begin work without written permission.

BEFORE START OF WORK

- _____ 1. Contractor's anticipated work schedule must be provided to the Project Manager five (5) working days prior to the start of work.
- _____ 2. Copy of Contractor's SC-DHEC Contractor's License.
- _____ 3. Copies of SC-DHEC Licenses for each individual that will be working on the job site. (Worker's that have submitted their training certification to SC-DHEC who have not yet received their license must be verified by our office and approved in writing before they are allowed on the job site).
- _____ 4. SC-DHEC Permit
- _____ 5. Insurance Certificate
- _____ 6. P&P Bond

Submittal for the section Periodically During Work or Before Project Closeout must be submitted to the Owner or Owner's Representative with the Progressive Payment Request. If Progressive Payments are not indicated, then the submittals must be turned into the Owner or Owner's Representative Office before the Project Closeout. Contractor must have written permission from Owner or Owner's Representative before beginning Project Closeout.

PERIODICALLY DURING WORK OR BEFORE PROJECT CLOSEOUT

- _____ 7. Copy of containment checklist filled out by Air Monitor and Contractor
- _____ 8. Daily Logs filled out and signed by the Project Supervisor
- _____ 9. Daily Sign-In\Sign-Out Sheets
- _____ 10. Contractor's copy of Initial Exposure Assessment
- _____ 11. Contractor's copy of Negative Exposure Assessment
- _____ 12. Contractor's copy of Daily Air Monitoring Results
- _____ 13. Accident and Incident Investigation Report
- _____ 14. Visitor Log and signed Visitor's Authorization Form
- _____ 15. Documentation of Manometer Readings and Asbestos Filtration (AFD) and Water Filtration (WFD) Device Inspections
- _____ 16. Personnel Air monitoring reports

Submittal for the section At Project Closeout must be submitted with the Final Payment Request. Close-out documents may be submitted to the Building Owner's Representative electronically for review.

AT PROJECT CLOSEOUT

- _____ 17. Certification of Removal
- _____ 18. Asbestos Chain-of-Custody Form (Trip Ticket) completed by and signed by the Contractor Representative, Transporter and Disposal Site Representative within 35 days as required by NESHAPS 61.150 vii(3)(4)
- _____ 19. Contractor's Application for Payment (Invoice)

APPLICATION FOR PAYMENT AND PAY APPLICATION SCHEDULE

Applications for Payment must be addressed to:

School District of Newberry County
3419 Main Street
Newberry, SC 29108
Contact: Mr. Jim Suber

All Application for Payment and Final Submittals must be e-mailed to the below address for review:

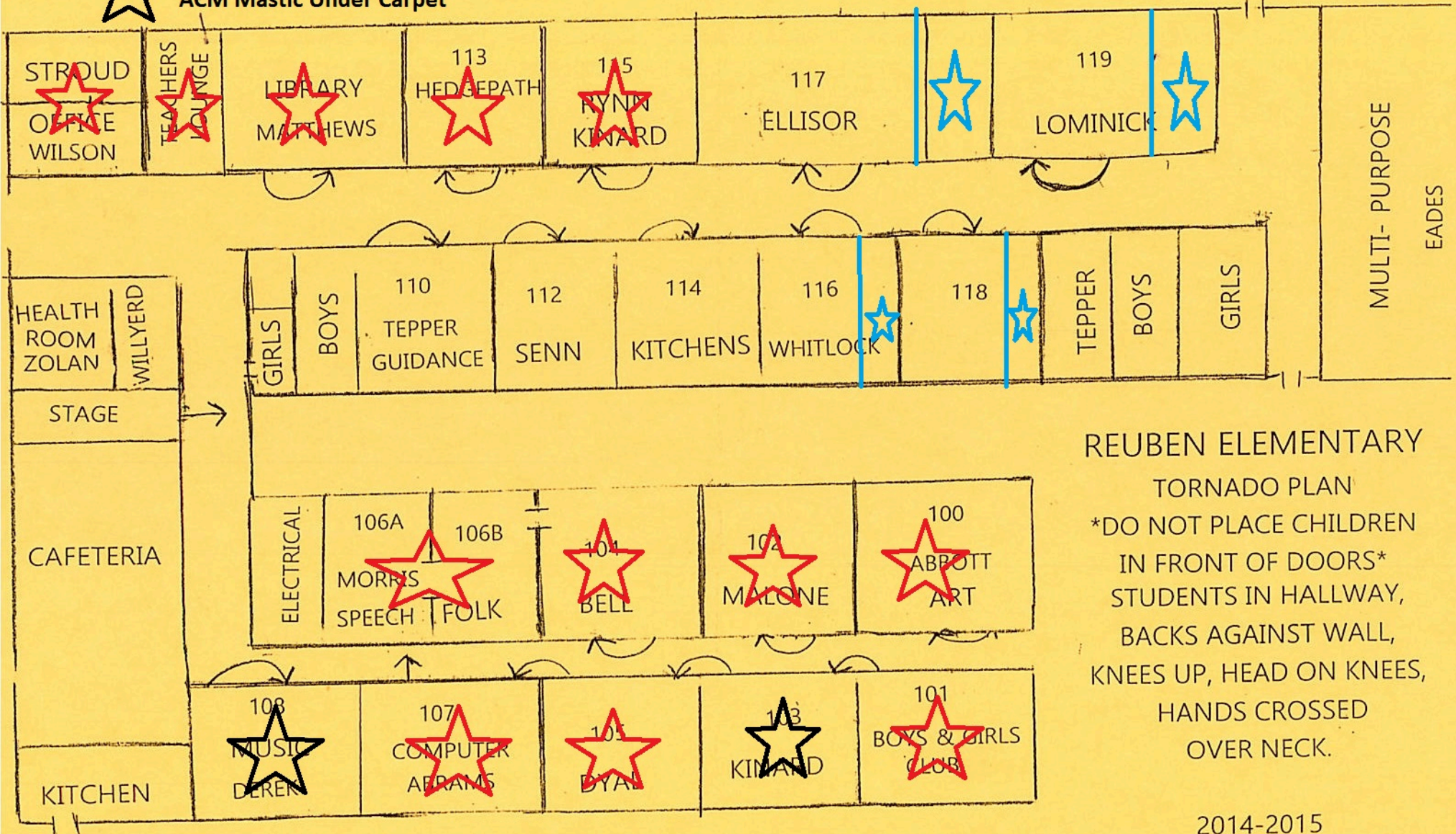
Ms. Kay H. Horton
Crossroads Environmental, LLC
khorton@crossroadsenv.net

ITEMS TO BE SUBMITTED BY THE AIR MONITORING FIRM(S)

- _____ 20. Air monitoring reports posted within 24 hours
- _____ 21. Summary to owner within 5 days
- _____ 22. Clearance results
- _____ 23. Copy of Air Monitoring license(s)

ATTACHMENT A
DRAWING

-  ACM VFT & Mastic Under Carpet
-  ACM Mastic Under Non-ACM VFT
-  ACM Mastic Under Carpet



REUBEN ELEMENTARY

TORNADO PLAN

*DO NOT PLACE CHILDREN
 IN FRONT OF DOORS*
 STUDENTS IN HALLWAY,
 BACKS AGAINST WALL,
 KNEES UP, HEAD ON KNEES,
 HANDS CROSSED
 OVER NECK.

2014-2015

**ATTACHMENT B
BID FORM**

**BID FORM
FOR
ASBESTOS ABATEMENT
SCHOOL DISTRICT OF NEWBERRY COUNTY
REUBEN ELEMENTARY SCHOOL
CRE PROJECT NUMBER: PD15-0486-13424**

CONTRACTOR: _____

SC-DHEC CONTRACTOR'S LICENSE NUMBER: _____

I, the undersigned, certify that this proposal does not violate any Federal or State Antitrust Laws.

Bidder's Federal Identification Number: _____

In compliance with the invitation and subject to all conditions thereof, the undersigned offers and agrees to furnish all labor, materials, equipment, appliances, and services necessary for the following project:

The scope of work will include abatement of all asbestos-containing materials located throughout the classrooms and office areas of Reuben Elementary School.

BASE BID:

<u>ASBESTOS-CONTAINING MATERIAL</u>	<u>APPROX. QUANTITY</u>
• VINYL FLOOR TILE OVER MASTIC	11,370 SQ. FT.
• BLACK MASTIC*	2,254 SQ. FT.
• LEVELING COMPOUND	20 SQ. FT.

***MATERIAL LOCATED UNDER NON ASBESTOS-CONTAINING VINYL FLOOR TILE OR CARPET.**

SCHEDULE

PHASE I:

START DATE: June 15, 2015

COMPLETION DATE: June 24, 2015

PHASE II:

START DATE: June 25, 2015

COMPLETION DATE: July 3, 2015

TOTAL BASE BID:

_____ (\$ _____)

Respectfully Submitted, This _____ day of _____, 2015.

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign)

(Authorized Signature)

(Title)

Business Address _____

Phone Number _____