GENERAL DEMOLITION, ASBESTOS ABATEMENT,
LEAD BASE PAINT SURFACE PREPARATION, AND
ENVIRONMENTAL DECONTAMINATION PROJECT

FOR

OLD GREENVILLE THEATER
MARTIN LUTHER KING BLVD.
GREENVILLE, NC

BY

CHILDRESS ENVIRONMENTAL CONSULTANT, INC.
P.O. BOX 18208
RALEIGH, NC

DESIGNER
E. RAYMOND CHILDRESS
NC # 40191

NOVEMBER 21, 2013

PURPOSE/SCOPE OF PROJECT

The purpose for this project is to make the Old Greenville Theater located downtown Greenville, NC on Martin Luther King Blvd. safe and environmentally clean for entry.

The project will consist of the general demolition of materials inside the building and the walls of the fly loft in the main auditorium. Also all asbestos materials will be abated, all Lead Base painted surfaces will be prepared for painting, and the bird droppings will be cleaned up and the building decontaminated.

TABLE OF CONTENTS

SECTION A

ASBESTOS ABATEMENT DESIGN AND GENERAL DEMOLITION SPECIFICATION

TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS

Division 1 - General Requirements **Page Number**

Division 2 - Site Work

Appendices

SECTION 01043

PROJECT COORDINATION

1.01 GENERAL

A. All asbestos abatement contractors will be licensed general contractors in either the specialty interior, building, unclassified or asbestos categories by the North Carolina Licensing Board of General Contractors and limited for the bid amount.

B. The contractor shall be responsible for inspecting the site prior to bidding to confirm the scope of the work. Any quantities listed by the designer in the plans, specifications or survey are done so as approximations. The actual quantities of asbestos-containing material to be encountered are the responsibility of the contractor.

C. The contractor shall furnish and is responsible for all costs including, but not limited to: permit fees, containment preparation, labor, materials, services, insurance, bonding, and equipment necessary to carry out the abatement operations and disposal of all asbestos material in accordance with the plans and specifications, the EPA and OSHA regulations, and any applicable state and local government regulations.

D. 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 airborne asbestos fiber levels do not exceed established levels.

E. The contractor will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

F. The contractor is responsible for all costs, including additional visits, should the designer and/or the industrial hygiene firm determine that the contractor failed a final inspection. Notification and scheduling of the final inspection during the project is the responsibility of the contractor. The contractor will allow a minimum notice of 48 hours unless a different time frame is agreed upon by the designer and the contractor.

1.02 PERSONNEL

A. Supervisor

1. All supervisors shall be accredited by the Health Hazards Control Unit (HHCU).

2. All supervisors on the project shall have two years experience in the administration and supervision of asbestos abatement projects including

work practices, protective measures for building and personnel, disposal procedures, etc.

3. One supervisor shall be provided for every 10 workers inside the containment. A minimum of one supervisor shall be provided per project.

4. 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 who do not speak fluent English.

5. A minimum of one supervisor per company shall have attended a 24 hour respiratory protection course.

B. Worker

1. All workers shall be accredited by the HHCU.

C. Competent Person

1. A competent person, as defined in the OSHA asbestos standard 29 CFR 1926.1101, employed by the contractor must be outside the work area at all times to monitor activity, ensure containment security, provide information to visitors, and provide access to the work area.

D. Employees

1. The contractor is responsible for the behavior of workers within his employment. If at any time during the contracted work, any of his employees are judged to exhibit behavior unfitting for the area or judged to be a nuisance by the owner or designer, the contractor shall remove them immediately from the project.

2. The contractor shall be responsible for compliance with the following concerning employee behavior:

a. Under no circumstances are alcohol, drugs or any other type of controlled substances permitted on state property.

b. All workers are restricted to the construction project site only.

c. All vehicles must be parked in areas prearranged with the owner.

d. All workers must conform to the following basic dress code when in public areas of the project confines: long pants, shirts, no tank tops, no shorts, no bare backs.

e. The contractor is responsible for disposal of all trash brought on state property by his employees, including drink cans, bottles or other food containers and wrappers.

3. Failure to adhere to these rules could result in criminal prosecution and/or removal from the State property.

1.03 MEETINGS

A. Prebid

1. A prebid conference will be held by the designer. All contractors submitting a bid are encouraged to attend, visit the site and ask questions concerning the plans and specifications.

2. The designer will review the plans and specifications, present required techniques and safeguards for the removal of the asbestos and identify locations of water, electrical sources, etc.

3. Any minutes, new points or clarifications raised during the meeting will be issued by the designer in an addendum seven days prior to bids.

1.04 PRE-JOB SUBMITTALS

A. Submit three complete, bound sets of pre-job submittals to the designer at least 10 days prior to start of work. Work is prohibited until submittal package has been reviewed and approved by designer. A copy of the approved submittals shall be kept in a three-ring binder (project log) by the contractor at the project site in the clean room or in the on-site office of the contractor.

1. Notifications: Provide copies of Asbestos Permit Application and Notification for Demolition/Renovation (DEHNR 3768), which provide written notice to all required agencies, including North Carolina HHCU. Provide notification letters to local EMS, fire and police departments.

2. Employee List: Provide copies of lists of supervisors and workers, along with their accreditation and Social Security numbers, to be utilized on the project.

3. Permits: Provide copies of approval of a waste disposal site in compliance with 40 CFR 61.154.

4. Medical: Provide copies of individually signed and notarized forms by each worker to be utilized on the project documenting that each is actively involved in a company employee medical surveillance program.

5. Respirator Training: Copies of most recent fit testing records, individually signed for each worker to be utilized on the project.

6. Project Schedule: Time schedule for the project, outlining the proposed start, setup, clearances, etc. for the various phases of the project.

7. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.

8. Any other programs or training as outlined by the OSHA and EPA standards.

1.05 POST-JOB SUBMITTALS

A. Submit three complete, bound sets of post-job submittals to the designer following the final completion of the work. Requests for final payment will not be approved until the submittal package has been reviewed and approved by the designer.

1. Affidavits: Contractor's affidavit of payment of debts and claims, affidavit of release of liens, and consent of surety company to final payment.

2. Manifest: North Carolina Asbestos Waste Shipment Record (DEHNR 3787) receipt from landfill operator which acknowledges the contractor's delivery(s) of waste material. Include date, quantity of material delivered and signature of authorized representative of landfill. Also, include name of waste transporter.

3. Daily Log: A notarized copy of all daily logs showing the following: name, date, entering and leaving time, company or agency represented, reason for entry for all persons entering the work area, employee's daily air monitoring data as required by the OSHA standard and written comments by inspectors, industrial hygienists, designers and visitors.

4. Medical: Copies of worker release forms, asbestos training certification forms and respirator training documentation of all new employees hired during the project.

5. Special Reports: All documents generated under Section 01043.1.06.

1.06 SPECIAL REPORTS

A. General: Except as otherwise indicated, submit special reports to designer within one day of occurrence requiring special report, with copies to others affected by occurrence. Also keep a copy in the project log book.

B. Reporting Unusual Events: When an event of unusual and significant nature occurs at site (examples: failure of negative pressure system, rupture of temporary enclosures), prepare and submit a special report to the designer immediately, listing chain of events, persons participating, response by contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise designer in advance at earliest possible date.

C. Reporting Accidents: Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document date and actions; comply with industry standards for reporting accidents. For this purpose, a significant accident is defined to include events where personal injury is sustained,

or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

1.07 CONTINGENCY PLAN

A. Contingency Plan: Prepare a contingency plan for emergencies including fire, accident, power failure, negative pressure system failure, supplied air system failure (if applicable), evacuation of injured persons for both life threatening and non-life threatening, or any other event that may require modification or abridgment of decontamination or work area isolation procedures. Include in plan specific procedures for decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency. Keep these plans in the on-site office.

B. Post outside/in clean room of Personnel Decontamination Unit:

1. Telephone numbers and locations of emergency services including but not limited to, fire, ambulance, doctor, hospital, police, power company, telephone company and the North Carolina HHCU.

2. A copy of Material Safety Data Sheets (MSDS) for any chemicals used during the asbestos project.

3. The contractor shall post asbestos signs in each appropriate language as per the OSHA 29 CFR 1926.1101 standard.

SECTION 01092

CODES AND REGULATIONS

1.01 REFERENCE SPECIFICATIONS

The contractor shall assume full responsibility and liability for compliance with all applicable federal, state and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

Unless modified by these project specifications, all specifications for stripping, removal, repair and disposal work shall conform to the following specifications and standards, as applicable, as if completely reproduced herein.

A. The following regulations published by the Environmental Protection Agency (EPA):

1. "National Emissions Standards for Hazardous Air Pollutants Asbestos," 40 CFR Part 61, Subpart M.

2. "General Provisions," 40 CFR Part 61, Subpart A.

3. "Guidance for Controlling Asbestos-Containing Materials in Buildings" June 1985. (EPA # 560/5-85-024).

4. "Asbestos-Containing Materials in Schools," 40 CFR Part 763, Subpart E including appendices.

B. The following regulations published by the U.S. Department of Labor, OSHA:

1. “Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules,” Title 29, Part 1910, Section 1001 and Part 1926, Section 1101 of the Code of Federal Regulations.

2. “Respiratory Protection,” Title 29, Part 1910, Section 134 of the Code of Federal Regulations.

3. Construction Industry, Title 29, Part 1926, of the Code of Federal Regulations.

4. “Access to Employee Exposure and Medical Records,” Title 29, Part 1910, Section 20 of the Code of Federal Regulations.

5. “Hazard Communication,” Title 29, Part 1926, Section 59 of the Code of Federal Regulations.

6. “Specifications for Accident Prevention Signs and Tags,” Title 29, Part 1910, Section 145 of the Code of Federal Regulations.

C. The following regulations published by North Carolina state agencies:

1. North Carolina Asbestos Hazard Management Program Rules as adopted by 15A NCAC 19C .0600.

2. "North Carolina Occupational Safety and Health Standards for the Construction Industry," 29 CFR Part 1926 as adopted by T13 NCAC 07F .0201, and shipyard T13:07F.0500.

3. North Carolina General Statutes, Chapter 95, 97, 130.

D. The following documents published by the American National Standards Institute:

1. "Fundamentals Governing the Design and Operation of Local Exhaust Systems," Z9.2-1979.

2. "American National Standard for Respiratory Protection Respiratory Use - Physical Qualifications for Personnel," Z88.6-1984.

3. "Practices for Respiratory Protection," Z88.2-1992.

1.02 NOTICES

A. The contractor shall notify the following offices in writing within the time frame specified by the NESHAP regulations prior to beginning any asbestos removal operations.

1. State Agencies

Health Hazards Control Unit
Occupational & Environmental Epidemiology Section
N.C. DEHNR

(Regular Mail)	*(UPS, Fed Ex, etc.)*
1912 Mail Service Center	5505 Six Forks Rd.
Raleigh, NC 27699-1912	2nd Floor, Room D-1
Telephone: (919) 707-5950	Raleigh, NC 27609
Fax: (919) 870-4808	

N.C. Department of Labor
Division of Occupational Safety and Health
319 Chapanoke Road, Suite 105
Raleigh, N.C. 27603-3432
Telephone: 1-800-LABOR-NC or (919) 662-4602
Fax: (919) 662-4625

2. Local Programs

When work is performed in Buncombe/Haywood, Mecklenburg or Forsyth counties, the air quality programs in these counties must be notified and their regulations shall be adhered to. Addresses of these agencies can be found on page 3 of DEHNR (3768) form. Phone numbers are listed below.

Buncombe/Haywood Counties	(704) 255-5710
Forsyth County	(910) 727-8064
Mecklenburg County	(704) 336-5599

3. Emergency Departments

   Notify the local emergency medical services, police and fire departments in writing of the type and scope of work being performed and request these departments make an inspection prior to beginning the work.

4. Licenses

   Maintain current licenses for contractor and accreditation for workers and supervisors as required by applicable State or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract.

5. A courtesy notification for any amount of asbestos, regulated or non-regulated, to be removed shall be sent to the HHCU 10 working days prior to the start date of the asbestos removal.

SECTION 01410

AIR MONITORING - INDUSTRIAL HYGIENE FIRM

1.01 GENERAL

A. The designer shall be responsible for the coordination and contracting of an industrial hygiene firm. Services of the industrial hygiene firm will be paid by the owner.

B. Air monitoring shall be done under the direct supervision of a North Carolina accredited supervising air monitor (SAM), except for sampling performed by the contractor to satisfy OSHA requirements.

C. SAM shall be accredited per the Asbestos Hazard Management Program rules.

D. Air monitor shall be accredited as per the Asbestos Hazard Management Program rules and work under the direct supervision of a SAM.

E. The SAM representing each firm shall have taken a 24-hour respiratory protection course that is either NIOSH, AIHA or HHCU recognized.

F. The industrial hygiene firm shall submit copies of their N.C. accreditations and documentation on respiratory protection training to the designer prior to the award of the contract.

G. If specific project activities are assigned to an air monitor, the SAM is expected to be in direct control and responsible for industrial hygiene work completed on the project. The SAM shall approve and sign all air monitoring results performed by the air monitor. The SAM signature must be an original. No rubber stamp signature shall be accepted.

H. Employees of the HHCU shall have right of entry into the project. The HHCU's SAM shall have final authority over the industrial hygiene firm on the project.

1.02 DESCRIPTION OF WORK

A. The industrial hygiene firm shall offer expertise to the designer and contractor, but is not directly responsible for the performance of the job.

B. At the job site, the industrial hygiene firm is expected to observe, be aware, and comment on general work site conditions and activities as they relate to the specifications and profession of industrial hygiene, and make recommendations in writing to the designer and contractor.

C. The industrial hygiene firm is responsible for overseeing the protection of the environment from contamination, protection of persons in adjacent areas, and assurance that the areas are acceptable for occupancy.

D. The industrial hygiene firm has the authority to direct the contractor relative to safety and environmental concerns. This includes stopping the work if necessary. All directions and comments made by the industrial hygiene firm to the contractor shall be written with a copy to the designer.

E. The industrial hygiene firm shall furnish the contractor a copy of his field report within 24 hours of the visit. Copies of field notes and reports of observations shall be kept in project log book.

F. The SAM shall review and make comments to the designer on the submittals listed in Section 01043.

G. The SAM shall approve any change in contractor's respiratory protection. This includes a review of the historical data.

H. The industrial hygiene firm is to conform to the contractor's schedule and shall respond to necessary changes, provided an advance notice is given as outlined in Section 01043.

I. The industrial hygiene firm's project monitor shall furnish designer and contractor with a pager or mobile phone number where he can be reached quickly at all times.

J. The industrial hygiene firm shall notify the designer and contractor, in writing, of any failed clearance visits.

K. At the completion of the project, the industrial hygiene firm shall prepare a report describing the assessment of the project, all air monitoring data, acceptance letters, calibration records, and a description of the project as it proceeded to completion and submit four copies of the report to the designer.

1.03 AIR MONITORING

A. Ambient Air Monitoring: The purpose of ambient air monitoring by the industrial hygiene firm will be to detect discrepancies in the work area isolation such as:

1. Contamination of the building outside of the work area with airborne asbestos fibers.

2. Failure of filtration or rupture in the negative pressure system.

3. Confirm the work practices established by the contractor and respiratory protection provided for employees are adequate.

B. Work Area Airborne Fiber Levels: The owner's industrial hygiene firm will monitor airborne fiber levels in the work area. The purpose of this air monitoring will be to detect airborne fiber levels which may challenge the ability of the work area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.

C. Work Area Clearance: To determine if the elevated airborne fiber levels encountered during abatement operations have been reduced to an acceptable level, the industrial hygiene firm will sample and analyze air per Section 01714.

D. In accordance with AHMB Program Rules, the SAM shall develop an Abatement Project Monitoring Plan which complies with EPA and OSHA analytical criteria and will provide a valid representation of airborne fiber concentrations both inside and outside the work area. This program is not intended to satisfy the contractor's requirement for sampling under the OSHA regulation. All personnel and area sampling conducted by the industrial hygiene firm shall be personally observed. Air sampling pumps shall not be left unattended for extended periods of time.

1. The SAM shall submit a written project monitoring plan to the designer with a copy to the contractor. The following information shall be required for the submittal.

   a. The name, address and telephone number of the industrial hygiene firm.

   b. The name, address, telephone number and NIOSH's PAT designation and proficiency data for the laboratory analyzing the air samples. Analysis of all samples collected shall be by a laboratory currently proficient in NIOSH's "Proficiency Analytical Testing Program for Laboratory Quality Control" for asbestos. The acceptable sampling and analysis method is NIOSH 7400, latest revision.

      Persons performing phase contrast microscopy analysis at the asbestos removal location shall be proficient in the American Industrial Hygiene Association’s Asbestos Analyst Registry Program [AAR].

   c. A proposed air sampling strategy which shall include: a projected number of air samples, locations, the types of air samples to be collected (personal, area, ambient), how the air samples are to be collected (TWA, ceiling, other), the equipment to be used (pumps, calibration equipment, filters, other), and how the samples will be transported to the laboratory.

      1. All personal air samples will be collected in such a manner as to comply with OSHA collection and analytical regulations and to provide a valid representation of airborne fiber levels. The samples collected by the industrial hygiene firm on personnel do not satisfy the contractor’s responsibility under OSHA.

2. All final area air sampling will comply with all State and Federal requirements in measuring airborne asbestos following an abatement action.

3. Air samples will be analyzed and results made available as per the AHMB Program Rules. Copies of all air sampling results shall be signed by the SAM and a copy posted at the job site. These copies shall include the following: sample number, sample location, activity represented by sample, flow rate, sample time, comments and sample results. A statement will be included on each submission that the requirements of this contract have been met as they apply to the activities of the SAM.

4. If TWA samples are being collected by the contractor for the purpose of reducing respiratory protection requirements, the industrial hygiene firm shall directly observe the conditions and work practices represented by each sample and make appropriate notes in the bound book on site. The SAM shall review all TWA air sampling results which are used for reducing respiratory protection requirements before accepting the results.

E. Supplemental air monitoring may be conducted inside and outside the work area by the HHCB. This supplemental sampling does not fulfill air monitoring responsibilities required by OSHA, EPA or this contract.

SECTION 01503

TEMPORARY FACILITIES

1.01 GENERAL

A. Provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.

B. Use qualified tradesmen for installation of temporary services and facilities. Locate, modify and extend temporary services and facilities where they will serve the project adequately and result in minimum interference with the performance of the work.

C. In occupied buildings, the owner's maintenance personnel shall lock and tag out all electrical and HVAC equipment in the asbestos abatement area. The contractor shall verify that the power and HVAC have been locked and tagged out prior to beginning work.

D. In unoccupied buildings, the contractor is responsible for the lock and tag out of all power sources and HVAC equipment.

E. The owner shall move all furniture, books, computers, records, equipment, etc. prior to the contractor's arrival date as specified.

1.02 WATER SERVICE

A. Owner shall supply a source of water. Contractor bears all expense of heating and getting water to the work and decontamination areas.

B. Supply hot and cold water to the decontamination unit in accordance with Section 01563. Hot water shall be supplied at a minimum temperature of 100 degrees Fahrenheit.

C. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment.

1.03 ELECTRICAL SERVICE

A. General: Comply with applicable NEMA, NEC and UL standards and governing state and local regulations for materials and layout of temporary electric service.

B. Ground Fault Protection: Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug-in connection of power tools and equipment.

C. Provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity and power characteristics to accommodate performance of work during the construction period.

D. Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work.

E. Provide services of an electrician, on a standby basis, to service electrical needs during the abatement process.

F. Provide additional power service and distribution service, consisting of individual dedicated 15 amp 120 volt circuits to electrical drops with receptacle outlets equipped with ground fault interrupt protection, color coded for the exclusive use of the industrial hygiene firm.

1.04 FIRST AID

A. A minimum of one first aid kit shall be located in the clean room. Additional first aid kits as the contractor feels is adequate or is required by law shall be located throughout the work area.

1.05 FIRE EXTINGUISHERS

A. Comply with the applicable recommendations of NFPA Standard 10 - "Standard for Portable Fire Extinguishers." Locate fire extinguishers where they are most convenient and effective for their intended purpose, but provide not less than one extinguisher in each work area equipment room and one in the clean room of the personnel decontamination unit.

1.06 TOILET FACILITIES

A. Provide temporary toilet facilities to be used by contractor's employees. Use of the owner's existing toilet facilities will be at owner’s discretion and these privileges may be revoked at any time.

1.07 PARKING

A. Park only in areas designated by the owner.

1.08 BUILDING SECURITY

A. Maintain personnel on-site at all times any portion of the work areas are open or not properly secured. Secure work areas completely at the end of each day.

1.09 STORAGE

A. Supply temporary storage required for storage of equipment and materials for duration of project. Trailer and storage dumpsters will be maintained in areas designated by the owner.

SECTION 01513

NEGATIVE PRESSURE SYSTEM

1.01 GENERAL

A. High efficiency particulate air (HEPA) filter exhaust systems equipped with new HEPA filters for each project shall be used. Exhaust equipment and systems shall comply with ANSI Z9.2-79 and used according to manufacturer's recommendations.

B. A system of HEPA-equipped air filtration devices shall be configured so that a pressure differential is established between the work area and the surrounding area (-0.02 to -0.04" water column). A continuous chart-recorded manometer shall be used to confirm this condition.

C. Additional air filtration devices shall be provided inside the work area for emergency standby as well as for circulation of dead air spaces.

D. The pressure differential is maintained at all times after preparation is complete and until the final visual inspection and air tests confirm the area is clean and acceptable for occupancy and the designer confirms verbally with written follow-up to discontinue the use of the negative pressure system.

E. Air shall be exhausted outside the building. Any variations must be approved by the HHCU.

F. The contractor shall check daily for leaks and log his checks in the bound log book. This includes checks internal to air-moving devices.

G. There shall be a minimum of four air changes per hour in any containment.

SECTION 01526

WORK AREA PREPARATION

1.01 GENERAL

A. Before work begins in an area, a decontamination unit must be in operation as outlined in Section 01563.

B. Completely isolate the work area from other parts of the building so as to prevent contamination beyond the isolated area.

C. Temporary facilities shall be addressed as outlined in Section 01503.

D. The contractor shall set up a work area, load out, and decontamination area as shown in the plans and specifications. Any variations must be approved by the designer. The decontamination facility outside of the work area shall consist of a change room, shower room and equipment room as described in Section 01563.

E. The contractor shall wet clean and/or HEPA vacuum all items and equipment in the work area suspected of being contaminated with asbestos, but not in direct contact with the asbestos material and either secure these items in place with polyethylene sheeting or have them removed from the work area.

F. Critical Barriers: The contractor shall thoroughly seal the work area for the duration of the work by completely sealing off all individual openings and fixtures in the work area, including, but not limited to, heating and ventilation ducts, doorways, corridors, windows, skylights and lighting, with polyethylene sheeting taped securely in place. If the contractor is using sealant materials to fill in small holes or cracks, the material shall have appropriate fire ratings.

G. Floors (if required): Apply one or more layers of 6 mil (minimum) polyethylene plastic sheeting with joints overlapped 24 inches and taped securely. Plastic shall be carried up walls a minimum of 12 inches and secured.

H. Walls (if required): Apply one or more layers of 4 mil (minimum) polyethylene plastic sheeting with joints lapped 24 inches and taped securely. Plastic shall be lapped over floor coverings and taped securely.

I. Floors and walls shall be installed in such a manner that they may be removed independently of the critical barriers.

J. Entrances and exits from the work area will have triple barriers of polyethylene plastic sheeting so that the work area is always closed off by one barrier when workers enter or exit.

K. No water may be left standing on the floor at the end of the work day.

L. Floor surfaces, walls, finishes or coverings, etc., that in the contractor's opinion will likely be damaged by water or that may become contaminated with asbestos,

shall have additional protective preparation as the contractor sees appropriate, at his cost, to protect the original condition of the surfaces.

M. Any costs associated with physical damage caused by water or securing polyethylene sheeting to areas inside or outside the abatement area shall be the contractor's responsibility.

N. The contractor shall establish and mark emergency and fire exits from the work area. Emergency procedures shall have priority over established decontamination entry and exit procedures. Audible and visible fire and emergency evacuation alarms shall be installed so as to be heard and seen throughout the entire work area.

O. Integrity of these seals shall be regularly checked and maintained by the contractor.

P. After work area preparation, the contractor shall notify the designer verbally with written follow-up that he is ready for a prework inspection.

SECTION 01560

WORKER PROTECTION

1.01 GENERAL

A. Provide worker protection as required by OSHA, state and local standards applicable to the work. Contractor is solely responsible for enforcing worker protection requirements at least equal to those specified in this Section.

B. Each time the work area is entered the contractor shall require all persons to remove all street clothes in the changing room of the personnel decontamination unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots.

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

1.02 WORKER TRAINING

A. Train all workers in accordance with 29 CFR 1926 and North Carolina state regulations regarding the dangers inherent in handling asbestos, breathing asbestos dust, proper work procedures and personal and area protective measures.

1.03 MEDICAL EXAMINATIONS

A. Provide medical examinations for all workers. Examination shall as a minimum meet OSHA requirements as set forth in 29 CFR 1926 .

1.04 PROTECTIVE CLOTHING

A. Provide disposable full-body coveralls and disposable head covers, and require that they be worn by all workers in the work area. Provide a sufficient number for all required changes, for all workers in the work area.

B. Boots: Provide work boots with non-skid soles and, where required by OSHA, foot protection for all workers.

C. Gloves: Provide work gloves to all workers and require that they be worn at the appropriate times. Do not remove gloves from work area. Dispose of work gloves as asbestos-contaminated waste at the completion of the project.

1.05 ADDITIONAL PROTECTIVE EQUIPMENT

A. Type C respirators, disposable coveralls, head covers and footwear covers shall be provided by the contractor for the owner, the designer, Industrial hygiene firm and other authorized representatives who may inspect the job site.

1.06 DECONTAMINATION PROCEDURES

A. Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the work area:

1. Remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.

2. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:

   a. Thoroughly wet body including hair and face.

   b. With respirator still in place thoroughly wash body, hair, respirator face piece, and all exterior parts of the respirator.

   c. Take a deep breath, hold it and/or exhale slowly, completely wet hair, face and respirator. While still holding breath, remove respirator and hold it away from face before starting to breathe.

   d. Carefully wash face piece of respirator inside and out.

   e. Shower completely with soap and water; rinse thoroughly.

   f. Rinse shower room walls and floor prior to exit.

   g. Proceed from shower to changing (clean) room and change into street clothes or new disposable work items.

3. After showering, each employee shall inspect, clean and repair his respirator as needed. The respirator shall be dried, placed in a suitable storage bag and properly stored.

SECTION 01562

RESPIRATORY PROTECTION

1.01 DESCRIPTION OF WORK

A. Instruct and train each worker involved in asbestos abatement in proper respirator use and require that each worker always wear a respirator, properly fitted on the face, in the work area from the start of any operation which may cause airborne asbestos fibers until the work area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the workplace or as required for other toxic or oxygen-deficient situations encountered.

1.02 GENERAL

A. Provide workers with personally issued and marked respiratory equipment approved by NIOSH and MSHA and suitable for the asbestos exposure level in the work areas according to OSHA Standard 29 CFR 1926.1101 and other possible contaminants employees might be exposed to during the project.

B. Provide respiratory protection from the time the first operation involved in the project requires contact with asbestos-containing materials (including construction of decontamination units, construction of airtight barriers/barricades, and placing of plastic sheeting on walls) until acceptance of final air clearance test results by the industrial hygiene firm.

C. The minimum respiratory protection for the project during gross removal shall be powered air purifying respirators (PAPR).

D. During gross removal of sprayed-on asbestos fireproofing, the contractor shall stay in Type-C supplied air respirators as described in 29 CFR 1926.1101 until all gross asbestos materials have been removed.

E. The designer may, under certain circumstances, allow the contractor to use a half-face respirator with replaceable HEPA filters during the final cleaning phase. However, the eight-hour TWA air sampling data must document the exposure level, and the SAM must write a letter to the designer allowing the contractor to reduce respiratory protection.

F. Respirator fit testing shall be performed as a minimum at the beginning of the project, at any change in respiratory protection equipment, and at any time during the project if requested by the employee or SAM. Fit testing is to be performed by one of the methods listed in the 29 CFR 1926.1101, Appendix C.

G. If supplied air respirators are used, the contractor shall provide a minimum of Grade "D" breathing air as set forth in the Compressed Gas Association's "Commodity Specifications for Air," G-7.1. The contractor shall test for Grade "D" breathing air initially and daily thereafter. Daily testing is not needed if the contractor has an air purification system which has CO and organic purging

capabilities as well as a continuous CO monitor and alarm calibrated at 10 ppm. The system must be calibrated at least once a week or when it is moved.

H. Provide emergency backup air supply, egress SCBA or egress HEPA filters for each worker in work area at all times when Type-C (supplied air) respirators are required. Breathing air system shall provide one hour of reserve air, calculated for maximum crew size for emergency evacuation.

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

J. Do not allow the use of single-use, disposable or quarter-face respirators for any purpose.

K. The contractor may submit a new exposure assessment (as per 29 CFR 1926.1101) to the SAM with a request to downgrade to less protective respirators. The SAM will make a recommendation to the designer, who will issue a decision in writing to the contractor approving or denying his request. If the contractor disagrees with the decision, then the representative air sampling data may be reviewed by the HHCU for a final decision.

SECTION 01563

DECONTAMINATION UNITS

1.01 DESCRIPTION OF WORK

A. Provide separate personnel and equipment/loadout decontamination facilities. Require that the personnel decontamination unit be the only means of ingress and egress for the work area. Require that all materials exit the work area through the equipment/loadout decontamination unit. Contractor shall comply with 29 CFR 1926.1101, specifically paragraph (j) Hygiene facilities and practices for employees.

1.02 GENERAL

Provide separate personnel decontamination units and equipment/loadout decontamination units when practical.

A. Personnel Decontamination Unit

1. Provide a Personnel Decontamination Unit consisting of a serial arrangement of connected rooms or spaces, changing room, shower room, equipment room. Each shall be separated by a minimum of three curtain doorways. Require all persons without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit. Do not remove equipment or materials through Personnel Decontamination Unit.

2. Provide temporary lighting within decontamination units as necessary to reach an adequate lighting level.

3. Maintain floor of changing room dry and clean at all times. Do not allow the overflow water from the shower to escape the shower room.

4. Damp wipe all surfaces twice after each shift change with a disinfectant solution.

5. Provide hot and cold water, drainage and standard fixtures including an elevated shower head as necessary for a complete and operable shower. A water hose and bucket is not an acceptable shower.

6. Arrange water shut off and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the work area.

7. Pump shower waste water to drain. Provide 20 micron and 5 micron waste water filters in line to drain. Change filters daily or more often if necessary.

8. If the decontamination area is located within an area containing friable asbestos on overhead ceilings, ducts, piping, etc., provide the area with a minimum 3/8 inch plywood "ceiling" with two layers of polyethylene sheeting covering the top of the "ceiling."

9. Visual Barrier: Where the decontamination area is immediately adjacent to and within view of occupied areas, provide a visual barrier of opaque plastic sheeting so that worker privacy is maintained and work procedures are not visible to building occupants. Where the area adjacent to the decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs, max. 16 inches on center, covered with minimum 3/8 inch plywood.

B. Equipment Decontamination Units:

1. Provide an equipment decontamination unit consisting of a serial arrangement of rooms, clean room, holding area, and washroom, each room separated by a minimum of three curtain doorways, for removal of equipment and material from work area. Do not allow personnel to enter or exit work area through equipment decontamination unit.

2. Washroom: Provide washroom for cleaning of bagged or drummed asbestos-containing waste materials passed from the work area.

3. Holding Area: Provide holding area as a drop location for sealed drums and bagged asbestos-containing materials passed from the washroom.

4. Clean Room: Provide clean room to isolate the holding area from the building exterior or occupied areas.

5. Equipment or Material: Obtain all equipment or material from the work area through the equipment decontamination unit according to the following procedure:

a. When passing contaminated equipment, sealed plastic bags, drums or containers into the washroom, close all doorways of the equipment decontamination unit, other than the doorway between the work area and the washroom. Keep all outside personnel clear of the equipment decontamination unit.

b. Once inside the washroom, wet-clean the bags and/or equipment.

c. When cleaning is complete, insert bagged material into a clean bag/drum during the pass between the washroom and holding area. Close all doorways except the doorway between the washroom and holding area.

d. Workers from the building exterior enter the clean room then the holding area to remove decontaminated equipment and/or

containers for disposal. Require these workers to wear full protective clothing and respiratory protection as described in Section 01562.

C. Use of Elevator:

1. If the elevator is used for transport of material, it shall be prepared with two layers of 6 mil polyethylene plastic sheeting that meets the approval of the designer. The elevator shall be cleaned daily after each use.

D. Decontamination Unit Contamination:

1. If the air quality in the decontamination unit exceeds 0.01 fibers per cc analyzed by PCM or 70 structures per mm squared analyzed by TEM or its integrity is diminished through use as determined by the designer or industrial hygiene firm, no employee shall use the unit until corrective steps are taken and approved by the designer and industrial hygiene firm.

SECTION 01711

PROJECT DECONTAMINATION

1.01 GENERAL

A. Carry out a first cleaning of all surfaces of the work area including plastic sheeting, tools, scaffolding and/or staging by use of damp-cleaning and mopping and/or a high efficiency particulate air (HEPA) filter vacuum until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces. Do not perform dry-dusting or dry-sweeping.

B. Equipment shall be cleaned and all contaminated materials removed before removing polyethylene from the walls and floors.

C. The contractor shall replace all prefilters and clean the inside and outside of the HEPA exhaust units.

D. After polyethylene sheets have been removed from walls and floors, but are still remaining on all windows, doors and the critical components, the contractor shall clean all surfaces in the work area, including ducts, electrical conduits, steel beams, roof deck, etc., with amended water and/or HEPA-filtered vacuum.

E. After cleaning the work area, the contractor shall allow the area to thoroughly dry and then wet-clean and/or HEPA vacuum all surfaces in work area again.

F. At the completion of the cleaning operation, the contractor's supervisor shall perform a complete visual inspection of the work area to ensure that the work area is dust- and fiber-free. If the supervisor believes he is ready for a final project decontamination inspection, he shall notify the designer.

G. The designer shall contact the industrial hygiene firm and advise the firm of the final project decontamination inspection requested by the contractor.

H. Final project decontamination inspection includes the visual inspection and air monitoring clearance.

I. Visual inspection for acceptance shall be performed after all areas are dry.

J. The industrial hygiene firm shall perform the final visual inspection and conduct the final air clearance. Any discrepancies found shall be documented in the form of a punch list.

K. Final air sampling shall not commence until the visual inspection is completed and passed.

L. If the industrial hygiene firm finds that the work area has not been adequately decontaminated, cleaning and/or air monitoring shall be repeated at the

contractor’s expense, including additional industrial hygiene fees, until the work area is in compliance.

M. After the work area is found to be in compliance, all entrances and exits shall be unsealed and the plastic sheeting, tape and any other trash and debris shall be disposed of in sealable plastic bags (6 mil minimum) and disposed of as outlined in Section 02084.

N. All HEPA unit intakes and exhausts shall be wrapped with six mil polyethylene before leaving the work area.

O. After the industrial hygiene firm has approved the final project decontamination and the contractor has completed the tear down for occupancy by others, the designer shall perform the project final inspection as outlined in the general conditions.

P. Any residual asbestos that may be present after removing critical barriers, that in the designer’s judgment should have been cleaned during the precleaning phase prior to installing critical barriers, shall be cleaned and cleared at the contractor’s expense.

Q. There shall be appropriate seals totally enclosing the inspection area to keep it separate from clean areas or other areas where abatement is or will be in progress. Once an area has been accepted and passed air tests, loss of the critical barrier integrity or escape of asbestos into an already clean area shall void previous acceptance and tests. Additional visual and final air clearance sampling shall be required at the contractor's expense.

SECTION 01714

WORK AREA CLEARANCE

1.01 GENERAL

A. Notification and scheduling of the final inspection during the project is the responsibility of the contractor.

1.02 FINAL CLEARANCE TESTING

A. After the second cleaning operation and after the area is completely dry, the following procedure test shall be performed:

1. A final visual inspection shall be conducted by the industrial hygiene firm. The inspection shall be conducted following the guidelines set forth in the American Society for Testing and Materials, Standard Practices for Visual Inspection of Asbestos Abatement Projects, Designation: E1368.90. If the work area is found visibly clean, air samples will be collected by the industrial hygiene firm.

2. During the air testing, the accredited air monitor shall cause disruptive air currents as described in the EPA-AHERA regulations (40 CFR Part 763, Subpart E, Appendix A).

3. If samples are to be analyzed using PCM (minimum of five samples using NIOSH 7400 method), then the maximum flow rate is 12 liters per minute, with a minimum sample size of 2000 liters for each sample. Clearance criteria shall be less than 0.01 F/cc for all samples analyzed.

4. If samples are to be analyzed using TEM, the Mandatory Transmission Electron Microscopy Method described in 40 CFR Part 763, Subpart E, Appendix F shall be used. Clearance criteria shall be an arithmetic mean less than or equal to 70 structures per square millimeter or a z-test less than or equal to 1.65.

5. Final clearance criteria shall be in accordance with HHCU Program Rules. ***Final Clearance will be by PCM as clearly defined by the designer by area and material abated.***

6. The industrial hygiene firm shall immediately report the final air sampling clearance results to the designer.

7. The use of the negative pressure system may be discontinued after the industrial hygiene firm instructs the contractor that he has passed the final project decontamination inspection.

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SECTION 02080

ASBESTOS REMOVAL

1.01 GENERAL

A. Prior to starting asbestos removal, the contractor's equipment, work area and decontamination units will be inspected and approved by the designer.

B. All loose asbestos material removed in the work area shall be adequately wet, bagged, sealed and labeled properly before personnel breaks or end of shift.

C. All plastic sheeting, tape, cleaning material, clothing and all other disposable material or items used in the work area shall be packed into sealable plastic bags (6 mil minimum) and treated as contaminated material.

D. All material shall be double-bagged.

E. All excess water (except shower water) shall be combined with removed material or other absorptive material and properly disposed of as per EPA regulations. Contractor shall not place water in storm drains, onto lawns, or into ditches, creeks, streams, rivers or oceans.

1.02. SCOPE OF WORK

RENOVATION PROJECT FOR THE OLD GREENVILLE THEATER
ADDRESS: MARTIN LUTHER KING BLVD.
GREENVILLE, NC 27835

OWNER REPRESENTATIVE: DEVIN THOMPSON
BUILDING FACILITY COORDINATOR
CITY OF GREENVILLE
P.O. BOX 7207
GREENVILLE, NC 27835
Contact:
Office: 252-329-4931

ASBESTOS DESIGNER – CHILDRESS ENVIRONMENTAL CONSULTANT
P.O. Box 18208
Raleigh, NC 27619
Contact: Raymond Childress
919-516-7568
Email- Raymond@raymondchildress.com

The asbestos abatement work will be scheduled by the Owner – City of Greenville.

Work will be completed within 30 days of award of contract and all abatement and demolition permits are in place.

The time schedule will include the final PCM clearance testing.

The asbestos material to be abated is:

- ***3,200 sq. ft. of transite panels up on interior walls at rear of building's fly loft in auditorium 31-34, 35,36 in the attached Asbestos Survey Section D.***
- ***3,200 sq. ft. of black mastic and roofing felt on the exterior of the building's fly loft of auditorium. (Pictures at end of Section A)***
- ***Roofing material is assumed asbestos for bidding purposes. Material has not been tested. Pictures at end of Section A***
- ***350 sq. ft. of asbestos 12x12 floor tile only in front office area and projection room on second floor. Mastic was non-detected for asbestos. Pictures 10, 14, 15 in Section D the Asbestos Survey Report.***
-

The following asbestos materials will be abated by Non-friable methods:

- ***Asbestos transite panels in auditorium fly loft.***
- ***Asbestos black mastic and roof felt on outside walls of fly loft.***
- ***Asbestos 12x12 floor tile in second floor front office and projection room.***

Asbestos Abatement Contractor will be responsible for confirming the amounts of asbestos materials present in each work area. The owner will furnish water. The City will help Contractor to get a temporary service on site for electricity. If this does not work Contractor will have to furnish own generator for power.

Asbestos floor tile will be abated using non-friable methods under containment with negative air machines and "z" flaps at entrance, using wet methods.

The asbestos transite panels and the black mastic and roof felt will be abated using non-friable and wet methods.

Asbestos materials on the auditorium fly loft will be removed using non-friable method. Workers will use wet method and putty knives, chisels, axes, Area will be taped off with warning signs and one layer of 6 mill poly will be placed on ground under the work area.

Asbestos Contractor must have a NC-HHCU accredited supervisor on site at all times and all workers must be accredited by HHCU.

Workers will be required to wear disposable suits, and ½ face respirators, gloves, safety glasses and boots during all asbestos abatement procedures..

Asbestos Contactor must follow OSHA guidelines and required to conduct personal air monitoring on workers and furnish the Designer and Owner results within 48 hours.

Final inspection will be visual and conducted by the Designer and Environmental Monitoring firm. Final air clearance will be by PCM.

All asbestos materials will be properly wet, double bag, labeled, stored in a line trailer or container for shipping and disposal of in a State/EPA approved landfill.

All work practices, equipment, containment setup, and personal protective equipment must follow State, Federal and local agencies guidelines. All personnel shall be currently accredited by NC-HHCU.

DEMOLITION PROCEDURES

The work area outside the Theater is small and congested. The public will still be using the alley besides the building and there is a restaurant on the other side that operates seven (7) days a week and open until 10:00 pm.

The Contractor is also responsible for demolishing the Fly Loft walls and chimney down to the lower level brick line. This is the area that the asbestos material comes to.

Also, Contractor is also responsible for demolishing the sheetrock walls on the interior walls in the auditorium, the ceiling tile and grid system and the second layer of ceiling tile connected to the ceiling rafters, all lights and all insulation in the attic area.

The Contractor will do limited demolition in the front lobby and second floor projection room and office areas. Only the ceiling tile and grid systems and lights will be demolished.

The contractor will have to use a combination of scaffolding and man-lifts to abated and demolish the materials in the auditorium. All scaffolding must be setup by a certified scaffolding company and signed off by a certified scaffolding person.

The size of the man-lift that can be used inside will be limited due to the small entrance door located in the rear of the building.

CONTRACTOR MUST PROTECT

- The brick in the alley next to building.
- The roof of the Restaurant next door.

Space in rear of building is limited and parking, equipment storage, dumpster for waste, and using man-lifts will be tight.

City will provide a lot downtown close to the job site for contractor to park equipment, cars, waste containers. The parking lot behind the project will have to stay open for the public.

Contractor will have to work closely with the city and business located around the project to establish a work schedule.

SECTION 02084

DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

1.01 GENERAL

A. All asbestos materials and miscellaneous contaminated debris shall be properly sealed and protected, and the loadout vehicle/dumpster shall be locked, while located on the facility site and then transported to a predestinated disposal site in accordance with 40 CFR 61.150 and DOT 49 CFR Parts 100-399.

B. An enclosed vehicle will be used to haul waste material to the disposal site. No rental vehicles or trailers shall be used. Vehicle selection, vehicle covers and work practices shall assure that no asbestos becomes airborne during the loading, transport and unloading activity, and that material is placed in the waste site without breaking any seals.

C. Waste disposal polyethylene bags (6 mil) and containers, non-porous (steel/plastic) drums or equivalent, with labels, appropriate for storing asbestos waste during transportation to the disposal site shall be used. In addition to the OSHA labeling requirements, all containers shall be labeled with the name of the waste generator and the location at which the waste was generated.

D. The contractor shall transport the containers and bags of waste material to the approved waste disposal site. The sealed plastic bags shall 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 reused.

E. Workers loading and unloading the asbestos will wear respirators and disposable clothing when handling material. Asbestos warning signs shall be posted during loading and unloading of asbestos waste.

F. The contractor shall use the HHCU's Waste Shipment Record for disposal records as per 40 CFR 61.150 and distribute a copy of all waste shipment records to the designer after the completion of the project.

APPENDIX A

PREWORK ASBESTOS INSPECTION CHECKLIST

Name of State Facility: _____

Project Name: _____

Project ID Number: _____

Date of Inspection: _____ Pass: _____ Fail: _____

			YES	NO
A.	**DOCUMENTS**			
	1)	Asbestos Removal Permit/NESHAP Notification	_____	_____
	2)	Accreditation Documents for Workers & Supervisors	_____	_____
	3)	Asbestos Plans and Specifications	_____	_____
	4)	Air Monitoring Data	_____	_____
	5)	Waste Shipment Records	_____	_____
	6)	Sign-in Sheets and Bound Book for Comments	_____	_____
	7)	Calibration Record for Grade “D” Air	_____	_____
	8)	Items listed in Section 01043 of 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	_____	_____

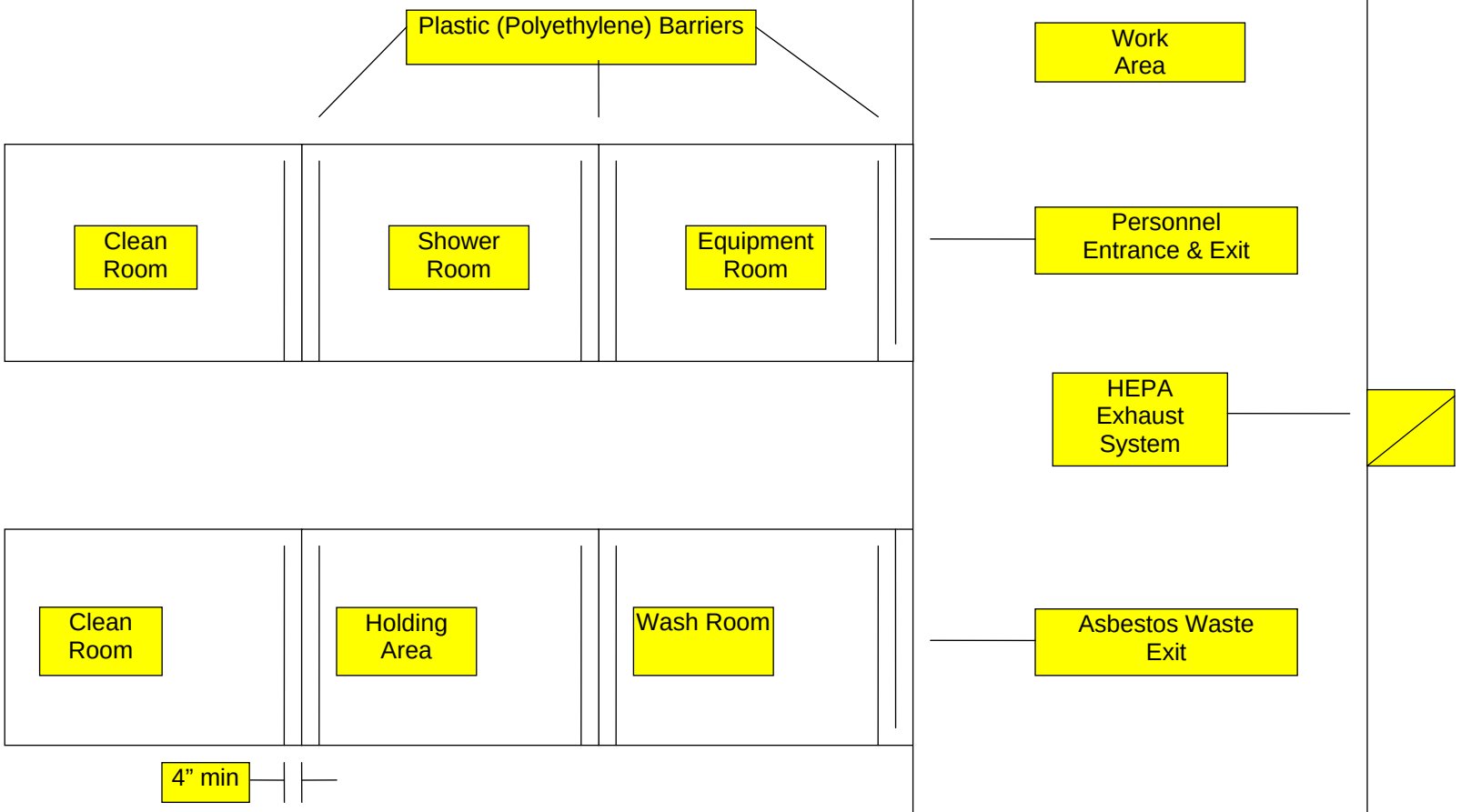
		YES	NO
E.	**WORK AREA**		
1)	Removable Items Out of Area	_____	_____
2)	Non-removable Items Protected	_____	_____
3)	Critical Barriers Installed	_____	_____
4)	Polyethylene Curtains	_____	_____
5)	Polyethylene on Walls/Floors as Specified	_____	_____
6)	HVAC off	_____	_____
7)	Air Filtration Devices 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*



Decontamination Area Arrangement - Plan View

Drawn By: GAD	Date: 01/02/96	N.C. Department of Administration State Construction Office Raleigh, N.C. 27601

Views of Greenville Theater Boiler Room Roof and Chimney

Views of Greenville Theater Boiler Room Roof and Chimney

Views of Greenville Theater Boiler Room Roof and Chimney

SECTION B

LEAD BASE PAINT SURFACE PREPARATION

LEAD BASED PAINT (LBP) SURFACE PREPARATION SPECIFICATION

AT

OLD GREENVILLE THERATER
MARTIN LUTHER KING BLVD.
GREENVILLE, NC

I. SUPPLEMENTARY GENERAL CONDITIONS

The intent of this project is to obtain a "clean safe work area" which is defined as a a area where the lead base paint (LBP) and trace lead paint hazard has been reduced, has passed final visual inspection(s), wipe/soil or air sampling tests and considered acceptable for further construction activities to protect all workers. Painted surfaces on this facility are to be prepared for painting in order to reduce exposure to future workers and prevent further contamination of the property so that it may not be a source of lead exposure to trades. During the process, personal, equipment, material, and facilities will be appropriately protected so that no present or future exposure may occur. The objective is to prepare the Building surfaces for renovation and to reduce or eliminate worker exposure to paint dust.

A. Reference Specifications

The Contractor is responsible for conducting work in accordance with all current applicable rules and regulations governing lead base or trace lead paint operations associated with this project whether listed in this specification or not.

1. “Lead Exposure in Construction." 29 CFR Part 1926.62
2. "Lead Exposure Reduction," TSCA Title IV
3. "North Carolina Occupational Safety and Health Standards for the Construction Industry," 29 CFR Part 1926 as adopted by 13 NCAC 7C .OlO2(a}.
4. North Carolina General Statutes, Chapters 97 ~ 130 and 143.
5. “Fundamentals Governing the Design and Operation of Local Exhaust Systems,” ANSI Z9-2-1979
6. "Fundamentals Governing the Design and Operation of Local Exhaust Systems," ANSI Z9~2- 1979.
7. "American National Standard for Respiratory Protection Respiratory Use - Physical Qualifications for Personnel," ANSI Z88.6-1984.
8. "Practices for Respiratory Protection," ANSI Z88..2-1992.
9. Hazardous Waste Standards for Generators, Transporters, Theaters, Stores and Disposers Requirements, 40 CFR 262, 263, 264 and 265

II. CONTRACTOR REQUIREMENTS

A. General Requirements

The contractor shall furnish all labor, materials, , services, insurance, bonding (if required) and equipment necessary to carry out surface preparation of LBP components at the Old Greenville Theater in accordance with the plans and specifications, the EPA and OSHA regulations and any applicable State and Local government regulations. . The contractor will be required to dispose of all waste in accordance with EPA and North Carolina transporting and disposal regulations.

All supervisors shall have completed a course in lead base paint abatement as well as a course in supervision of lead based paint removal. All workers on this project shall have been trained in accordance with 29 CFR Part 1926.62 paragraph (1) and be aware of the information concerning lead hazards according to the requirements of OSHA's Hazard Communication Standard for the construction industry, 29 CFR 1926.59.

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

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 paragraph II.B of this specification as well as ,copies of memos, letters and all specification changes (etc.) that relate to this project.

The contractor shall be responsible for inspecting the site prior to starting work to confirm the scope of work. Any quantities listed in the plans and specifications are done so as approximations. The actual quantities of work and LBP to be encountered are the responsibility of the contractors.

A bound book 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 Consultant at the end of the project. The Consultant will forward a copy of the book to the Owner in his final report submission. The contractor shall record in the bound book for each work day the name and social security number of each worker, supervisor and visitor and the starting and stopping time for each work shift. The contractor shall also enter into this book the employee's daily air monitoring data as required by the OSHA standard.

The contractor shall be responsible for obtaining prior approval for a waste disposal site for any/all waste generated during the (LBP remediation.,

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's respirators to the official representatives of the Owner. When other types of respirators are required, the contractor shall make at least two available for official representatives to use. These remain the property of the contractor.

A trained supervisor employed by the contractor must be outside the work area at all times to monitor activity, ensure containment security, and provide information to visitors and to provide access to the work area.

The contractor will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

The contractor is responsible for all costs, including but not limited to, containment preparation, labor, materials, storage and security. The contractor is responsible for notifying the Consultant that he (contractor) is ready for a final visual inspection and/or testing. The Consultant must be given a minimum notice of 48 hours by the contractor unless a different time frame is agreed upon by both the Consultant and the contractor.

The contractor shall provide a trained foreman for the work crew inside the containment.

B. Prework Submittal Requirements

The contractor shall submit for approval to the Consultant prior to the start of work the following information in a manual. The Consultant, Architect, General Contractor and Owner shall respond before the start of the project to this submittal with his comments, changes and/or acceptance. Final acceptance of these programs must be received by the contractor in writing from the Consultant before the contract start date.

1. Certificates of training for workers and supervisors.

2. A list of supervisors and workers assigned **to** work in contaminated areas and the date of the employees' last medical exam.

3. Personnel Decontamination Program.

4. Procedures for evacuation of injured persons for both life threatening and non-life threatening occurrences.

5 Certifications of performance showing that vacuums, ventilation equipment and other equipment required containing lead dust conform to ANSI Z9.2-79.

6 Approval for a waste disposal site.

7 A Hazard Communication Program in accordance with OSHA's 29 CFR

1926...59 standard.

8 Contractor's letters to EMS, Police and Fire Departments

Acceptance of these submittals in no way implies the Consultant, Architect, Owner or his representatives have determined that they meet State or Federal regulations.

C. Permitting and Notifications

The contractor shall obtain any and all permits required to conduct work the outlined in this specification

E. Contractor’s Task

The contractor is to deliver to the Owner a work area visibly free of loose or damaged trace lead or lead base paint and free of lead dust containing trace lead dust and debris.

III. INDUSTRIAL HYGIENIST/CONSULTANT REQUIREMENTS

A. General Requirements

The Industrial Hygienist (IH) / Consultant representing the Owner shall offer expertise to the contractor but is not directly responsible for the performance of the job. At the job site, the IH/Consultant is expected to observe, be aware of and comment on general work site conditions and activities as they relate to the profession of industrial hygiene and make recommendations in writing to the contractor. These recommendations will be forwarded to the Owner by the Consultant in his final submittal.

The IH/Consultant is responsible for overseeing the protection of the environment from contamination, protection of persons in adjacent areas and assurance that the areas are acceptable for occupancy. In addition, the IH/Consultant shall assure that the contractor addresses such work site conditions as employee lead exposure, thermal stress, noise, ventilation, sanitary conditions, confirmed spaces and other environmental health-related concerns as they may arise.

The IH/Consultant has the authority to direct the contractor relative to safety and environmental concerns. This includes stopping the work if necessary. The IH/Consultant may also offer suggestions/comments to the contractor relative to work performance or specification interpretation. All directions and comments made by the IH to the contractor shall be noted in the project site log book.

The contractor is to present the proposed project schedule and written standard operating procedures for remediation to the Consultant, Owner, and Architect prior to commencing work for approval and comment. The IH/Consultant is to conform to the contractor's schedule and shall respond to necessary changes, provided at least forty-eight (48) hours in advance, verbal and written, notice is given by the contractor. This forty- eight (48)

hour notice may be reduced if the Owner, Architect, and Consultant and contractor mutually agree.

The IH/Consultant or his representative is, to make notes of his observations in the bound book kept by the contractor. This is to include approval of initial set up, final visual and other items that need to be noted with respect to the job.

B. Environmental Monitoring Program

All Environmental Monitoring will be conducted by IH/Consultant. Notification and scheduling of the IH for final visual and clearance during the project is the responsibility of the contractor.

A proposed environmental sampling strategy shall be developed which shall include: a projected number of samples, locations, the type of samples to be collected (personal, area, ambient, soil, wipe), how the air samples are to be collected (TWA, ceiling, other), the equipment to be used (pumps, calibration equipment, filters, other), and how the samples will be transported to the
laboratory.

i. All personal air samples will be collected in such a manner as to comply with OSHA collection and analytical regulations and to provide a valid representation of lead exposure.

ii. All sampling will comply with EPA recommendations in measuring lead dust.

iii. Samples will be analyzed and results made available as soon as possible. Copies of all sampling results shall be signed by the analyst and a copy kept at the job site. These copies shall include the following: sample number, sample location, activity represented by sample, flow rate, sample time, comments and sample results.

iv. If TWA samples are being collected for the purpose of reducing respiratory protection requirements, the IH or his approved designee shall directly observe the conditions and work practices represented by each sample and make appropriate notes in the sampling results.

C. **Clearance**

1. After the final cleaning or component removal a complete visual inspection will be made by the IH / Consultant to determine if the work area is visibly clean and free of LBP.

The IH/Consultant will collect no air samples.

3. Visual inspections shall confirm that all appropriate materials have been removed. The area shall be dry before beginning any visual inspection.

4. After the contractor receives a final clearance from the Consultant and begins to tear down the critical barriers and starts removing his equipment, the contractor is still responsible for any residual lead dust generated.

D. Regulation Violations

The IH, when at the work site, shall observe and be reasonably aware of monitoring programs, work practices, engineering controls, equipment performance, overall work site conditions and employee protection programs and the overall specifications as they relate to safety and health. When deviations from regulations, specifications or recognized good practice are observed and recognized by the IH or his designee, they shall be verbally discussed with the contractor during the visit, noted in the contractor's log, and documented in the final report.

IV. SCOPE OF WORK AND TEMPORARY FACILITIES

A. Work to be performed – General

The work to be performed under this contract includes all the work specified as Lead Base Paint (LBP) and trace Lead for surface preparation for the Old Greenville Theater, Martin Luther King Blvd., Greenville, NC The scope includes:

1. Material – Surface Preparation

- All paint on the walls in the Theater Auditorium will be scrape free of all loose, flaking, peeling paint back till it is intact.
- Some of the walls in the auditorium have plaster that have become damaged and loose overtime due to the conditions in the building. Contractor will remove the plaster with the paint until it becomes intact.
- The only painted surfaces in the front office/lobby/projection rooms that will be scraped are those that are exposed. There is no scheduled demolition to expose the walls.

All workers must wear the proper safety equipment such as safety glasses, ½ face respirators, gloves, hard hats, and all others safety equipment required by OSHA.

V. LEAD BASED PAINT SURVEY

Lead based paint testing was conducted by CEC, summary of the materials tested and results are included.

a) Disposable work clothes are placed in a bag for testing and disposal with other materials. The worker shall then proceed into the shower. After the employee and the respirator with filters are thoroughly et, the filters will be removed and discarded as contaminated material.

b. After showering, the worker shall move to the clean room and dress in either new coveralls for re-entry into the work area or in street clothes to leave the project.

c. After showering, each employee shall inspect, clean and repair his respirator as needed. The respirator shall be dried, placed in a suitable storage bag and properly stored.

d. Workers must go through decontamination procedures (shower) at the end of every work shift, before leaving the site.

A. Work Area Preparation

1. The contractor shall set up a work area load out area and decontamination area as shown in Appendix C in the specifications. The decontamination facility shall consist of a change room, shower room and equipment room. Any alterations to the designed decontamination facility shall be approved by the Consultant and the IH. See Figure 1 in Appendix C.

2. The contractor shall thoroughly seal the interior work area for the duration of the work by completely sealing off all openings and fixtures in the work area with 6-mil plastic sheeting taped securely in place. Containment measures will be necessary to protect the outside environment from contamination. Re-enforced poly may be secured to the exterior window and door frames in order to contain any lead particles or dust within the work area. Entrances and exits into the work area will have air locks and triple barriers of plastic sheeting so that the work area is always closed off by one barrier when workers enter or exit.

3. All equipment, materials, floor and wall surfaces in the work area shall be considered contaminated. Integrity of all containment seals shall be regularly checked and maintained by the contractor.

4. A system of HEP A equipped air filtration devices shall be configured so that a pressure differential is established between the work area and the surrounding area (-0.02 to -0.04" water column). The contractor shall monitor this differential pressure continuously and document daily to confirm this condition. Additional air filtration devices are provided inside the work space so that the air is changed every 15 minutes. The total air exchange is the exhaust air plus the re-circulated air. The pressure differential is maintained at all times after preparation is complete and until the final visual inspection and tests confirm the area is clean and acceptable for occupancy. All exhaust units shall be vented outside the building. The exhaust system will be monitored by the IH or his representative for leaks. The contractor shall check daily for leaks and log his findings in the bound log book. This includes internal checks to air moving devices.

   High Efficiency Particulate Air (HEP A) filter exhaust systems shall comply with ANSI Z9.2., 79 and used according to manufacturer's recommendations.

5. All building ventilation air systems connected to the work area shall be turned off and sealed during preparation and until the area has passed final visual inspection.

6. The contractor shall establish and mark emergency and fire exits from the work area. Emergency procedures shall have priority over established decontamination entry and exit procedures. Audible and visible fire and emergency evacuation alarms shall be installed so as to be heard and seen throughout the entire work area. Install portable fire extinguisher in compliance with National Fire Protection Association, standard No.1 0 portable extinguisher. A minimum of (1) ABC dry chemical rated fire extinguisher shall be in the clean room plus one for every 3,000 square feet in the work area.

7. The contractor shall implement an electrical practice protocol that includes, but is not limited to, lockout/tag out and GFCI shutdown as described in NC as Construction Standard 29 CFR 1926.417. All electrical powered equipment utilized during the project shall have ground-fault protection as described in NC as Construction Standards 29 CFR 1926.404(b). All equipment and wiring shall be in compliance with National Fire Protection Association standard 70 and the National Electrical Code.

8. The contractor shall provide adequate lighting throughout the work area including the decontamination unit and load out area. The lighting will stay on and operational until final clearance.

9. Exterior abatement will not take place when weather (e.g., high winds, rain) prevent work from occurring in a manner both safe to the worker and protective of the environment.

D. Method of Removal

1. The Contractor shall submit his proposed method(s) of removal (chemical stripping, manual scraping, heat plates, steam, etc.). The Contractor shall consider the safety of the workers, protection of the environment, economic feasibility, and the preservation of the historical value of the building when choosing removal methods. A combination of removal methods may be acceptable.

   The selected Contractor will submit to the Consultant three copies of a detailed standard operating procedure (SOP) for his proposed method(s). The Contractor shall include all MSDS sheets for chemicals which will be used on this project with the SOP. The Consultant and IH will review the SOP and the proposed removal method and may decide on further precautions or modifications to protect the safety of the public and protect the environment. The Architect will review the procedures to ensure they preserve the historical value of the building. The Consultant, IH and Architect will make comments and written instructions on the SOP and return to the Contractor for comments. The Contractor is urged to consult with all the parties involved in developing the SOP.

2. The following paint removal methods <u>will be prohibited:</u>

   i. Torch or flame burning.

   ii. Dry abrasive blasting using sand, grit or any other particulate.

   iii. Use of potassium or sodium hydroxide based solutions, ethylene chloride or caustic chemicals.

3. Suggested paint removal methods are listed below, but other methods will be considered:

   i. Use of heat guns, plates or steam.

   ii. Stripping with solvent-based no caustic chemical solutions

   iii. Scraping without gouging woodwork (Wet Method)

   iv. Sanding with HEP A vacuum attachment (Wet Method)

   v. Abrasive blasting with wet misting or HEP A vacuum system on structures which will not be damaged by blasting or water.

F. Decontamination of Work Areas

The minimum final clean-up procedures are as follows:

1. Remove bags of poly and waste and store in a secure area. .

2. Vacuum all surfaces with a HEP A -equipped vacuum beginning with the ceiling and working down.

3. Wash all surfaces with a Trisodium Phosphate (TSCP) detergent solution Only the concrete floors in the Auditorium.

4. Vacuum **all** surfaces a second time.

5. Wash all surfaces a second time.

6. Remove all contaminated equipment and material. to secure storage area.

7. Have area inspected and cleared by IH/ Consultant.

8. Remove final layer of poly.

9. Wash and Vacuum surfaces, again.

SECTION C

ENVIRONMENTAL DECONTAMINATION FOR BIRD (PIGEON) DROPPING

ENVIRONMENTAL DECONTAMINATION FOR BIRD DROPPINGS

AT

OLD GREENVILLE THERATER
MARTIN LUTHER KING BLVD.
GREENVILLE, NC

I. SUPPLEMENTARY GENERAL CONDITIONS

The intent of this project is to obtain a "clean safe work area" which is defined as a a area where the BIRD DROPPING hazard has been removed, has passed final visual inspection(s), and considered acceptable for further construction activities to protect all workers. The objective is to prepare the Building for renovation and to reduce or eliminate worker exposure to environmental hazard caused by exposure to bird dropping.

II. CONTRACTOR REQUIREMENTS

A. General Requirements

The contractor shall furnish all labor, materials, services, insurance, bonding (if required) and equipment necessary to carry out removal of bird dropping at the Old Greenville Theater in accordance with the plans and specifications.

B. Environmental Monitoring Program

All Environmental Monitoring will be conducted by IH/Consultant. Notification and scheduling of the IH for final visual and clearance during the project is the responsibility of the contractor.

Visual clearance only required.

III SCOPE OF WORK AND TEMPORARY FACILITIES

A. Work to be performed – General

All workers must wear the proper safety equipment such as safety glasses, ½ face respirators, gloves, safety harness with two tie offs, hard hats, and all others safety equipment required by OSHA.

The cleaning of the actual bird droppings will be heavy in the attic and rafter areas where the birds roost. Heavy concentrations of bird droppings are visible on the floor.

Cleaning bird droppings is no different to any other cleaning work. For the removal of large dried quantities of dropping best tools are wide paint scrapers and shovels. Also, if the area is wet using a soap solution and wet the area good. This will help loosen the material.

Once the material has been removed the area should be wash scrubbed down with water.

After the droppings have been removed the area should be cleaned with warm soapy water mixed with a household disinfectant. Areas can also be sprayed with a strong disinfectant. The areas of heaviest concentrations attic, rafters and floor should be treated.

The dropping should be placed in a plastic bag and disposed of properly.

SECTION D

ASBESTOS CONTAINING MATERIALS
AND
LEAD BASE PANINT SURVEY

Childress Environmental Consultant

October 7, 2009

Mr. David Duncklee, PG, RSM
Senior Hydrogeologist
Duncklee & Durham, PC
511 Keisler Drive – Suite 102
Cary, NC 27518

Re: Asbestos Containing Building Material & Lead Base Paint Survey – GREENVILLE THEATER – Martin Luther King Jr. Blvd., Greenville, NC.

Dear Mr. Duncklee:

Childress Environmental Consultant, Inc. (CEC) was contracted to conduct an Asbestos Containing Material (ACM) and Lead Base Paint Survey on the reference Theater located on Martin Luther King Jr., Greenville, NC. The survey was conducted by Mr. Raymond Childress (NC Asbestos Inspector # 10675 & Lead Assessor # 120081) Sept. 11, 2009.

The facility has been closed for some time and the condition of the building is poor. The building is about 4,000 sq. ft in size. The building was constructed in 1924.

ASBESTOS SURVEY

Samples were collected of all suspect materials:

- plaster walls,
- ceiling tile,
- sheet rock,
- surfacing material
- floor tile mastic
- sprayed on fireproofing,
- roofing material flat, tar, gravel material,
- roofing material – flashing,
- Hard transite wall panels (inside building in rear & roof of boiler room.

P.O. Box 18208 • Raleigh, NC 27619 • Phone (919) 516-7568 • Fax (919) 882-1862

The materials, location, and quantities detected for asbestos are as follows:

- 3,200 sq. ft. of transite panels up on interior walls at rear of building (pictures 30,31-34, 35,36)
- 3,200 sq. ft. of black mastic and roofing felt.
- 350 sq. ft. of 12x12 floor tile only. (pictures 10,14,15)

LEAD BASE PAINT SURVEY (LBP)

Paint chip samples were collected of all represented paints in the facility. Samples were collected of:

- interior wall paint (green & black)

Paint is considered to be LBP when it contains greater than > 0.5 % lead by weight. We collected 14 samples of paint throughout the facility, and found all green and black paint on the walls inside the theater to be LBP to be greater less than > 0.5 % Lead. So we conclude that there is LBP in the facility.

The highest samples for lead were found in the interior walls (plaster) the building. The exterior white wall paint is not LBP. Any contractor working in the facility either for renovation or demolition purposes should be made aware that trace Lead is present and that they are responsible for protecting employees under the OSHA Lead Standard.

Should you have further questions, please do not hesitate to contact me 919-516-7568.

Sincerely,

E. Raymond Childress, CHCM, CEI, REPA, CMI
President

NC Asbestos Inspector # 10675
NC Lead Assessor # 120081

Asbestos / Outside walls Black Mastic / TAR (1)

(3) OUTSIDE NO Lead Base Paint

Asbestos (2)

(4) NO Lead Paint

(5) NO Asbestos in Lobby Area

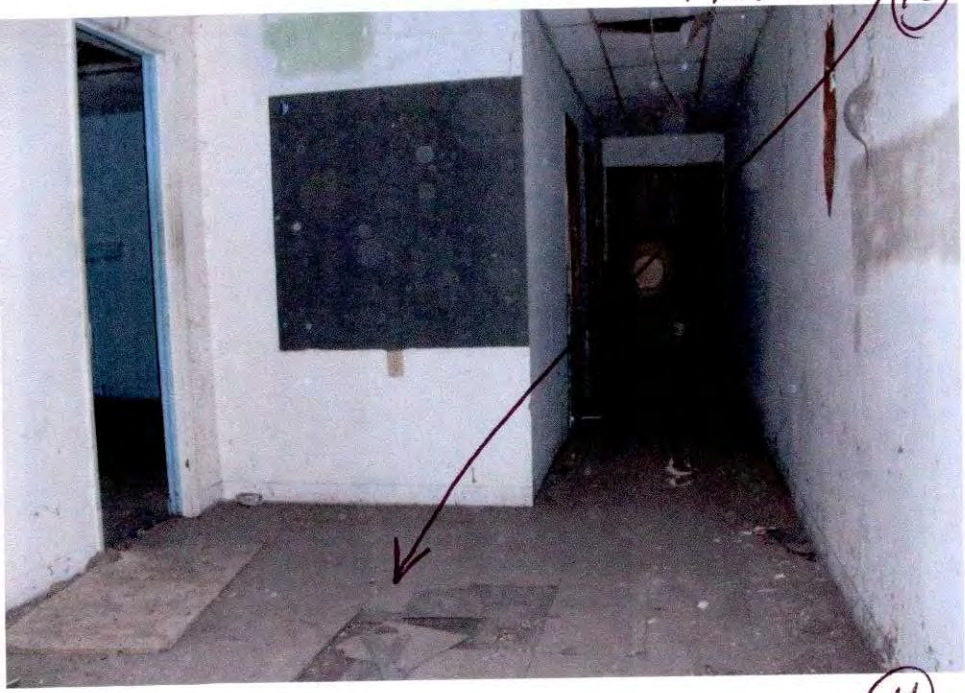
(7)

(6)

(8)

2nd level Asbestos Floor Tile

(10)



(12)

(11)

(13)

2nd level

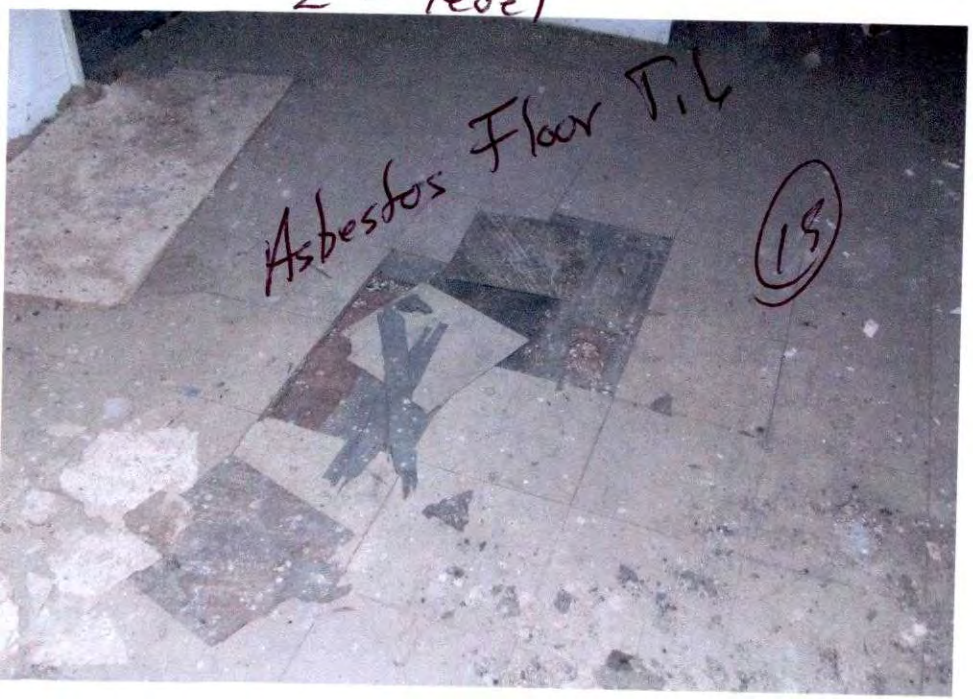
(14)

NOT LBP

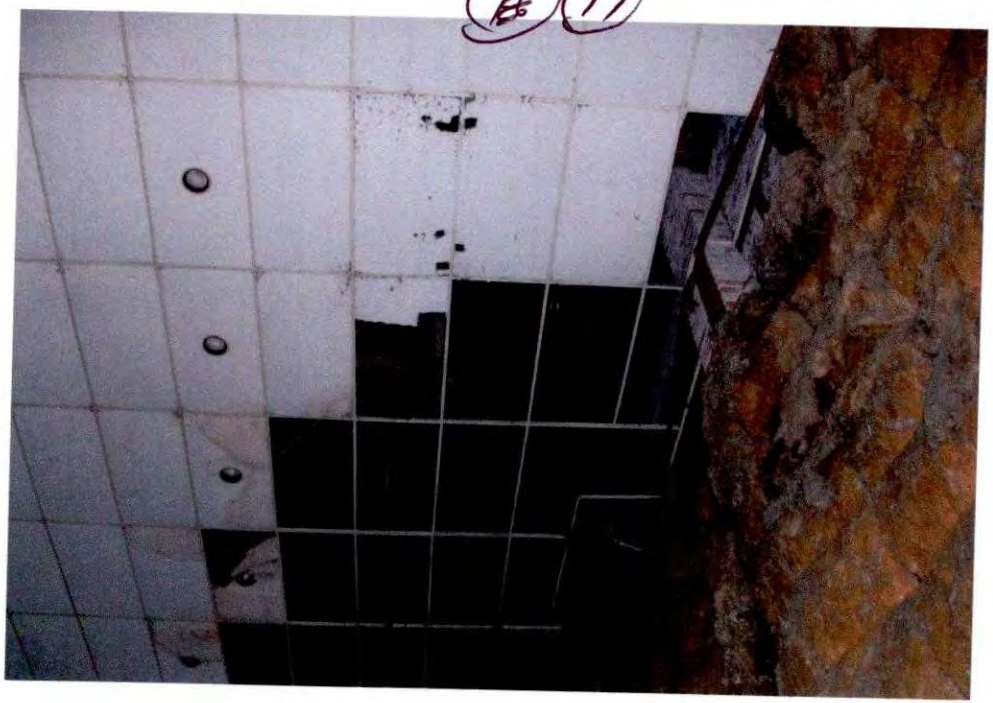
(16)

Lead Base Paint

2nd level



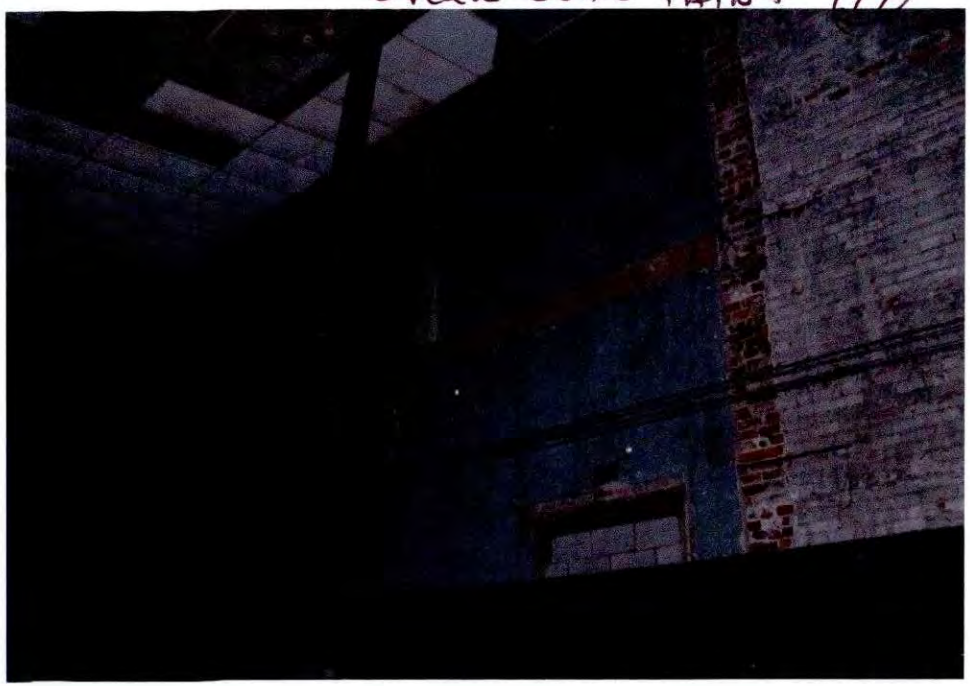
(16) (17)



Green Lead Paint (18)

(20)

Green Lead Paint (19)



(21)

Green Lead Base Paint

Inside white NO LBP

NO LBP

27

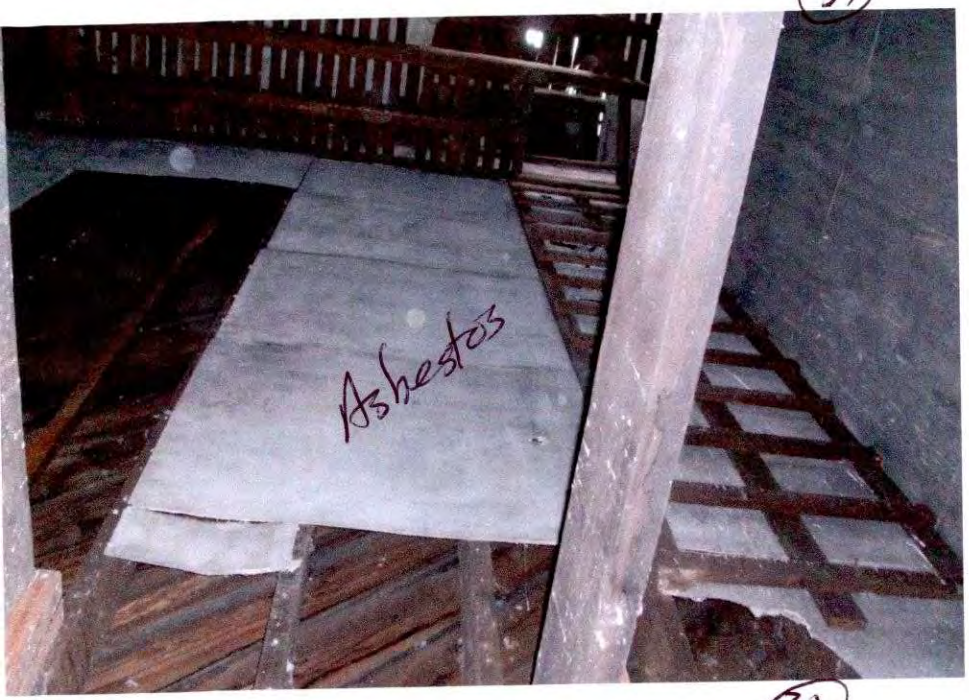
29

28

30

Asbestos panel IN side Bldg.

31

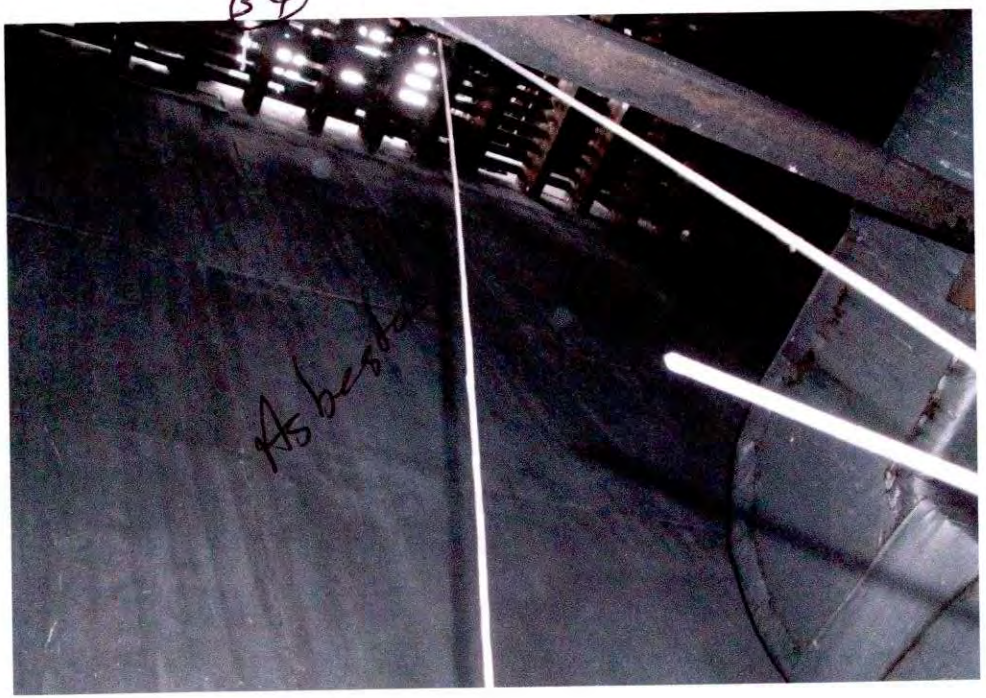


33

Asbestos

32

34



35

37

36

38

39

40

Old Boiler Rm Bldg. Sealed


Asbestos
Roofing Mat.

EMSL Analytical, Inc.
1101-A Aviation Parkway, Morrisville, NC 27560
Phone: (919) 465-3900 Fax: (919) 465-3900 Email: raleighlab@emsl.com

Attn: **Raymond Childress**
Childress Enviro. Consultants
P.O Box 18208
Raleigh, NC 27619
Fax: (919) 882-1862 Phone: (919) 516-7568
Project: **Old Theater-Greenville**

Customer ID: CHIL50
Customer PO:
Received: 09/11/09 2:15 PM
EMSL Order: 290904934
EMSL Proj:
Analysis Date: 9/14/2009

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**%**	**Type**
1 *290904934-0001*		Brown/Black Fibrous Heterogeneous	30%	Cellulose	30%	Non-fibrous (other)	**40%**	**Chrysotile**
2 *290904934-0002*		Brown/Black Fibrous Heterogeneous	30%	Cellulose	30%	Non-fibrous (other)	**40%**	**Chrysotile**
3 *290904934-0003*		Brown/Black Fibrous Heterogeneous	30%	Cellulose	30%	Non-fibrous (other)	**40%**	**Chrysotile**
4 *290904934-0004*		Brown/White Fibrous Heterogeneous	40% 25%	Cellulose Min. Wool	15% 20%	Non-fibrous (other) Perlite	**None Detected**	
5 *290904934-0005*		Brown/White Fibrous Heterogeneous	40% 25%	Cellulose Min. Wool	15% 20%	Non-fibrous (other) Perlite	**None Detected**	
6 *290904934-0006*		Brown/White Fibrous Heterogeneous	40% 25%	Cellulose Min. Wool	15% 20%	Non-fibrous (other) Perlite	**None Detected**	
7 *290904934-0007*		Brown/White Fibrous Heterogeneous	40% 25%	Cellulose Min. Wool	15% 20%	Non-fibrous (other) Perlite	**None Detected**	

Analyst(s)

Sara Harrison (34)

Essie Spencer, Laboratory Manager
or other approved signatory

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			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
8 *290904934-0008*		Brown/White Fibrous Heterogeneous	40% 25%	Cellulose Min. Wool	15% 20%	Non-fibrous (other) Perlite	**None Detected**
9 *290904934-0009*		Brown/White Fibrous Heterogeneous	40% 25%	Cellulose Min. Wool	15% 20%	Non-fibrous (other) Perlite	**None Detected**
10 *290904934-0010*		Brown/White Fibrous Heterogeneous	40% 25%	Cellulose Min. Wool	15% 20%	Non-fibrous (other) Perlite	**None Detected**
11-Floor Tile *290904934-0011*		Brown Fibrous Homogeneous			95%	Non-fibrous (other)	**5% Chrysotile**
11-Mastic *290904934-0011A*		Black Fibrous Homogeneous	10%	Cellulose	90%	Non-fibrous (other)	**None Detected**
12-Floor Tile *290904934-0012*		Brown Fibrous Homogeneous			95%	Non-fibrous (other)	**5% Chrysotile**
12-Mastic *290904934-0012A*		Black Fibrous Homogeneous	5%	Cellulose	95%	Non-fibrous (other)	**None Detected**

Analyst(s)

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Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The limit of detection as stated in the r 1%. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is l cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the clie Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.
Samples analyzed by EMSL Analytical, Inc. Morrisville 1101-A Aviation Parkway, Morrisville NC NVLAP Lab Code 200671-0, AIHA IHLAP 173741, VA 3333 000278, WVA LT000296

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			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
13-Floor Tile *290904934-0013*		Brown Fibrous Homogeneous			95% Non-fibrous (other)	**5% Chrysotile**
13-Mastic *290904934-0013A*		Black Fibrous Homogeneous	10%	Cellulose	90% Non-fibrous (other)	**None Detected**
14-Skim Coat *290904934-0014*		White/Blue Fibrous Heterogeneous	<1%	Cellulose	100% Non-fibrous (other)	**None Detected**
14-Base Coat *290904934-0014A*		Gray Fibrous Heterogeneous	5% 2%	Hair Cellulose	93% Non-fibrous (other)	**None Detected**
15-Skim Coat *290904934-0015*		White/Blue Fibrous Heterogeneous	<1%	Cellulose	100% Non-fibrous (other)	**None Detected**
15-Base Coat *290904934-0015A*		Gray Fibrous Heterogeneous	5% 2%	Hair Cellulose	93% Non-fibrous (other)	**None Detected**
16-Skim Coat *290904934-0016*		White/Blue Fibrous Heterogeneous	<1%	Cellulose	100% Non-fibrous (other)	**None Detected**

Analyst(s)

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			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
16-Base Coat *290904934-0016A*		Gray Fibrous Heterogeneous	5% 2%	Hair Cellulose	93%	Non-fibrous (other)	**None Detected**
17-Skim Coat *290904934-0017*		White/Blue Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
17-Base Coat *290904934-0017A*		Gray Fibrous Heterogeneous	8% 2%	Hair Cellulose	90%	Non-fibrous (other)	**None Detected**
18-Skim Coat *290904934-0018*		White/Blue Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
18-Base Coat *290904934-0018A*		Gray Fibrous Heterogeneous	5% 2%	Hair Cellulose	93%	Non-fibrous (other)	**None Detected**
19 *290904934-0019*		Brown/White Fibrous Heterogeneous	40%	Cellulose	60%	Non-fibrous (other)	**None Detected**
20 *290904934-0020*		Brown/White/Black Fibrous Heterogeneous	30%	Cellulose	70%	Non-fibrous (other)	**None Detected**

Analyst(s)

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			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**% Non-Fibrous**	**% Type**
21 *290904934-0021*		Brown/White/Black Fibrous Heterogeneous	30%	Cellulose	70% Non-fibrous (other)	**None Detected**
22 *290904934-0022*		Brown/White/Black Fibrous Heterogeneous	25%	Cellulose	75% Non-fibrous (other)	**None Detected**
23 *290904934-0023*		Black Fibrous Heterogeneous	60% 10%	Cellulose Synthetic	30% Non-fibrous (other)	**None Detected**
24 *290904934-0024*		Black Fibrous Heterogeneous	60% 10%	Cellulose Synthetic	30% Non-fibrous (other)	**None Detected**
25 *290904934-0025*		Gray/Black Fibrous Heterogeneous			60% Non-fibrous (other)	**40% Chrysotile**
26 *290904934-0026*		Gray/Black Fibrous Heterogeneous			60% Non-fibrous (other)	**40% Chrysotile**

Analyst(s)

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Essie Spencer, Laboratory Manager
or other approved signatory

THIS IS THE LAST PAGE OF THE REPORT.

290904934

EMSL Analytical, Inc.
Revised 07/07/99

CHAIN OF CUSTODY

Asbestos

EMSL Rep:

Third Party Billing requires written authorization from third party

Your Company Name: Childress Environmental
Street:

Box #: P.O. Box 18208
City/State: Butleigh, NC **Zip:** 27619

EMSL-Bill to:
Street:

Box #:
City/State: **Zip:**

Phone Results to:
Name: Raymond Childress
Telephone #: 919-516-7568
Project Name/Number: Old Theater / Greenville

Fax Results to:
Name:
Fax #: 919-882-1862
Purchase Order #: email raymond@raymondchildress.com

MATRIX			TURNAROUND			
☐ Air	☐ Floor Tile	☐ Soil	☐ 3 hrs	☐ 6 Hours	☐ Same Day or 12 Hours*	☑ 24 Hours 1 day
☐ Bulk	☐ Drinking Water	☐ Dust	☐ 48 Hours 2 days	☐ 72 Hours 3 days	☐ 96 Hours 4 days	☐ 120 Hours 5 Days
☐ Wipe	☐ Wastewater	☐ Micro-Vac	☐ 144+ hours 6-10 Days			

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3 hour tat, please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign and authorization form for this service. 12 hours (must arrive by 11:00 a.m Mon - Fri.), Please Refer to Price Quote

PCM - Air
- ☐ NIOSH 7400
- ☐ OSHA
- ☐ Other:

TEM AIR
- ☐ AHERA
- ☐ NIOSH 7402
- ☐ EPA Level II

TEM WATER
- ☐ Wastewater
- ☐ Drinking Water EPA 100.1
- ☐ Water - NY Wastewater
- ☐ Water-NY Drinking Water

PLM - Bulk
- ☐ EPA 600/R-93/116
- ☐ EPA Point Count
- ☐ NY Stratified Point Count
- ☐ PLM NOB (Gravimetric) NY 198.1
- ☐ Other:

TEM BULK/misc
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield
- ☐ TEM NOB (Gravimetric) NY 198.4

TEM MICROVAC / WIPE
- ☐ ASTM D 5755-95 quantitative method

XRD
- ☐ Asbestos
- ☐ Silica

SEM Air or Bulk
- ☐ Qualitative
- ☐ Quantitative

OTHER
- ☐

SAMPLE NUMBER	LOCATION	VOLUME (If Applicable)

Client Sample # (s): 1 - 26 **Total Samples #:** 26

Relinquished: [signature] **Date:** 9/11/09 **Time:**

Received: **Date:** **Time:**

1

Childress Enviro. Consultants
Old Theater-Greenville
9/11/2009
PLM
TAT: 24 Hour
Bulk

Order ID: 290904934
No Samples: 26
Due: 09/14 2:15 PM
Fax: 919-882-1862

Childress Environmental Consultant
P.O. Box 18203 • Raleigh, North Carolina 27619

ASBESTOS SURVEY DATA SHEET

SCHOOL: Greenville Theatre
BUILDING
AREA

Date 10/6/09

Inspector: (initials) GHL

	SAMPLE									
	Sample #	Location	Description (Incl. Estimated linear & square foot)	FRIF	Damage condition	Area	Extent	Potential Damage	Air Stream
+	1	Outside wall	Black Tar Paper & Mastic		200				
+	2	"	"						
+	3	"	"						
	4	1st Floor	2x4 C.T						
	5	2nd Floor Projection	"						
	6	Lobby	"						
	7	1st Floor Ceiling	"						
	8	1st Fl Ceiling	2 layer C.T						
	9	" "	"						
	10	" "	"						
+	11	2nd Floor Projection Area	12x12 Floor tile (4x17)		+ (9x14)	+	(12x13)	156	350
+	12	"	" 68		126				
+	13	"	"						

Childress Environmental Consultant
P.O. Box 18208 • Raleigh, North Carolina 27619

ASBESTOS SURVEY DATA SHEET

Page 1 of 2

Date 2/24

Inspector: _____
(Initials)

SCHOOL: 1
BUILDING
AREA

SAMPLE								
Sample #	Location	Description (Incl. Estimated linear & square feet)	FI/MF	Damage condition	Area	Extent	Potential Damage	Air Stream
14	Wall & Ceiling, plaster	plaster 2 layers						
15	"	"						
16	"	"						
17	"	"						
18	"	"						
19	Walls Lobby	Sheetrock						
20	" Projection							
21	" 1st MAIN							
22	" 1st "							
23	Roof / Interior	Felt & tar						
24	"	"						
+ 25	Wall board	TRANS. to ABOVE ceiling	3200					
+ 26								

EMSL Analytical, Inc.
706 Gralin Street, Kernersville, NC 27284
Phone: (336) 992-1025 Fax: (336) 992-4175 Email: greensborolab@emsl.com

Attn: **Raymond Childress**
Childress Enviro. Consultants
P.O Box 18208
Raleigh, NC 27619

Fax: (919) 882-1862 Phone: (919) 516-7568
Project: **Old Theater/ Greenville**

Customer ID: CHIL50
Customer PO:
Received: 09/14/09 10:00 AM
EMSL Order: 020905349

EMSL Proj:

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B*/7000B)

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*		*Lead Concentration*
Pb1	*0001*		9/15/2009	Exterior white	0.023 % wt
Pb2	*0002*		9/15/2009	"	0.018 % wt
Pb3	*0003*		9/15/2009	"	0.014 % wt
Pb4	*0004*		9/15/2009	"	<0.010 % wt
Pb5	*0005*		9/15/2009	Black Wall - Interior	0.59 % wt
Pb6	*0006*		9/15/2009	"	0.73 % wt
Pb7	*0007*		9/15/2009	"	0.76 % wt
Pb8	*0008*		9/15/2009	"	0.033 % wt
Pb9	*0009*		9/15/2009	Green Wall Interior	2.4 % wt
Pb10	*0010*		9/15/2009	"	2.3 % wt
Pb11	*0011*		9/15/2009	"	2.1 % wt
Pb12	*0012*		9/15/2009	White Wall Interior	0.016 % wt
Pb13	*0013*		9/15/2009	"	<0.010 % wt
Pb14	*0014*		9/15/2009	"	<0.010 % wt

James Cole

James Cole, Laboratory Manager
or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. * slight modifications to methods applied.

Samples analyzed by EMSL Analytical, Inc. Kernersville 706 Gralin Street, Kernersville NC AIHA ELLAP 102564

LEAD SAMPLES

SAMPLE NUMBER	LOCATION	VOLUME (If Applicable)
Pb-1	EXTERIOR - White	
-2	"	
-3	"	
-4	"	
-5	Black Interior	
-6	"	
-7	"	
-8	"	
9	Green Interior	
10	"	
11	"	
12	White Interior	
13		
14		

020905349

EMSL ANALYTICAL — CHAIN OF CUSTODY 5349 — LEAD

Revised 7/1/99

EMSL Rep: _____ DATE: _____

Third party billing requires written authorization from third party

Your Company Name:	Chilkress Environmental	EMSL-Bill to:	
Street:		Street:	
Box #:		Box #:	
City/State:	Zip:	City/State:	Zip:
Phone Results to:		Fax Results to:	
Name:	raymond@raymondchilkress.com	Name:	
Telephone #:		Fax #:	
Project Name/Number:	Old Theater / Greenville	Purchase Order #:	

MATRIX	METHOD	INSTRUMENT	mdls	TAT
Lead Chips* (14)	SW846-7420 or AOAC 5.009 (974.02)	Flame Atomic Absorption	0.01% ++	24 hr.
Lead Wastewater	SW846-7420	Flame Atomic Absorption	0.4 mg/l water 50 mg/kg (ppm) soil	
Lead Soil +	or SW846-6010	ICP	0.1 mg/l water 10 mg/kg (ppm) soil	
Lead in Air***	NIOSH 7082	Flame Atomic Absorption	5 ug/filter	
	or NIOSH 7300	ICP	3.0 ug/filter	
Lead in Wipe	SW846-7420	Flame Atomic Absorption	10 ug/wipe	
	or SW846-6010	ICP	3.0 ug/wipe	
TCLP Lead **	SW846-1311/7420	Flame Atomic Absorption	0.4 mg/l (ppm)	
	or SW846-6010	ICP	0.1 mg/l (ppm)	
Lead in Air ****	NIOSH 7105	Graphite Furnace Atomic Absorption	0.03 ug/filter	
Lead Wastewater	SW846-7421	Graphite Furnace Atomic Absorption	0.003 mg/l (ppm) water	
Lead Soil +			0.3 mg/kg (ppm) soil	
Lead in Drinking Water (check state Certification Requirements)	EPA 239.2	Graphite Furnace Atomic Absorption	0.003 mg/l (ppm)	
Total Dust	NIOSH 0500-0600	Gravimetric Reduction	0.0001g	

TAT (Turnaround) - 3 hours, 6 hours, Please call ahead to schedule.
12 hours (must arrive by 11:00 a.m),
24 hours (1day), 48 hours (2 days), 72 hours, 96 hours (3 days), 120 hours(4 days), 144 + hours (6-10 days)
*, **, ***, ****, +, ++ Please Refer to Price Quote

SAMPLE #	LOCATION	Air volume, L Area, in²	LAB #
Pb1 — Pb-14			

Relinquished By; (Person)	Received at EMSL By: 09-11-09P02:17 RCVD
Date: 9/11/09	Date:

Note: Please duplicate this form and use additional sheets if necessary.