

Asbestos and Potentially Hazardous Material Abatement Specification For

Dansville School District
Band Building and Weight Room Demolition Project
1264 Adams Street
Dansville, Michigan 48819

Prepared for:

Dansville School District
1264 Adams Street
Dansville, Michigan 48819

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Fibertec IHS Project Number: 39904-4

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SECTION 00120 – SUBMITTALS

Mandatory Walk Thru: A mandatory walk through for this project will be held on Friday, April 21, 2017 at 8:30 am, starting at the Weight Room at Dansville Middle School, 1264 Adams Street, Dansville, Michigan. Contractors will be allowed to examine two buildings and Room 101 in the Middle School during the walk through. Contractors not present at the mandatory walk through will not have their bids considered.

Sealed Bids are due by 10:00 am on Thursday, May 11, 2017. Three copies and one electronic copy required. Hard copy (original) is required with your bid. Address bids to:

Sealed Bid For:
Dansville School District Abatement Project
1264 Adams Street
Dansville, MI 48819
(517) 623-6120

All questions are to be received by email to cjones@inghamisd.org no later than Wednesday, May 3. Answers will be posted in an addendum no later than Friday, May 5.

Required Bid Submittals

The items listed below are required elements that must be included with the bid submittal package. Each item will be individually reviewed and may provide a basis for rejection of the bid, at the Owner's discretion, if the bid does not meet the stated specifications.

- 1. Licenses:** Provide a copy of your State of Michigan Asbestos Abatement Contractor license.
- 2. Authorized Personnel:** List the names, addresses, and telephone numbers of those persons authorized to discuss the contents of the asbestos abatement bid and those persons authorized to conduct contract negotiations on behalf of the bidder. Identify the primary responsibilities of each person listed.
- 3. Insurance:** Prior to execution of an agreement, the successful bidder will be expected to provide proof of insurance coverage as stipulated herein. Costs associated with these coverages shall be reflected in the lump sum base bid. In addition, insurance coverage must be secured in an occurrence made format. This insurance shall pay or defend all established claims, regardless of the date on which the claim is insured. Comply with all state regulations regarding insurance. Additionally, the chosen asbestos abatement contractor shall possess and maintain at least five million dollars in environmental pollution liability insurance. The requirements for additional insured are listed in the General Conditions and must be met by the Abatement Contractor before work can proceed.
- 4. Additional Information:** Bidders may propose features and items above and beyond the requirements set forth in the bidding documents. The Owner does not intend to limit the contents of a bid. Additional information deemed pertinent by the bidder may be attached. The Owner, however, reserves the right to exclude such information from consideration in

evaluating the bids. The Owner also reserves the right to require the submittal of additional financial, technical, or other information. Such a request shall not be construed to indicate the bidder's standing in the evaluation of the bids.

5. **Citation and Litigation History:** Provide a list of citations and litigation for the past 5 years. Include a synopsis of the original citation monetary penalty and the amount of the negotiated settlement.
6. **Evaluation of Bids:** Bids may be rejected if incomplete or irregular based on the requirements of the specification or if the bid exceeds the funds available. The Owner further reserves the right to reject bids on the basis of the bidder or its subcontractor's integrity in business and professional matters, skill and ability in the safe completion of the work, schedule, the likelihood of completion of satisfactory work, and promptness. Past experience may be considered in the evaluation of the bids.
7. **Schedule:** Provide a draft schedule

END OF SECTION 00120

SECTION 01010 – GENERAL REQUIREMENTS OF THE WORK – ASBESTOS
ABATEMENT

PART 1 – GENERAL

RELATED DOCUMENTS:

Owner's General Terms and Conditions requirements apply to work of this section.

01010.1 WORK SITE LOCATION

The project name is Dansville School District, Band Building and Weight Room Demolition Project Asbestos and Potentially Hazardous Materials Abatement Project, as shown on documents prepared by Fibertec IHS.

Refer to Section 01011, Site Specific Description of the Work, Asbestos and Potentially Hazardous Materials Abatement Project for scheduled abatement activities and work shift schedules.

01010.2 GENERAL PROJECT REQUIREMENTS

All Contractors and Subcontractors are required to meet the requirements of these specifications.

Mechanical, electrical work and/or plumbing work is to be performed by skilled tradespeople.

This is a prevailing wage project.

All Contractors and Subcontractors are required to be in compliance with current federal, state and local rules and regulations in force for the duration of the contract.

Where conflict among regulations or with these specifications exists, the conflict shall be brought to the attention of Fibertec IHS and the most stringent requirements shall be utilized.

Prior to beginning work, the Abatement Trade Contractor shall confirm with the Owner and Fibertec IHS the schedule and anticipated resource utilization (*i.e.*, planned labor and material usage) for each work area involved in the project.

Work schedules shall be clearly established and verified with the Owner and Fibertec IHS prior to commencing work in any area. No asbestos abatement shall begin until the work area has been inspected for its integrity, completeness, pressure differential, and the minimum number of air exchanges per hour confirmed by the Abatement Trade Contractor.

All Fibertec IHS approvals shall be in writing and the Abatement Trade Contractor shall have all approvals, notifications, project logs, air sample data and worker accreditation on-site at all times and available to the Owner's representatives, regulatory agencies, and/or Fibertec IHS. All notifications, requests for variance and revisions to notifications must be submitted to the appropriate state agencies, and Ms. Kristin Peterson, Fibertec IHS, 1914 Holloway Drive, Holt, Michigan 48842, kpeterson@fibertecihs.com. This will include all applicable Negative Exposure Assessment(s) (NEA) for the removal work practices as required.

Note: No abatement will occur unless the project notification and any required variances are properly submitted and posted on site.

The Abatement Trade Contractor is to plan his/her crew size, work shift(s), and shift length to conform to the established work schedule. This information is to be reflected on the project plan submittals.

The Owner reserves the right to alter work schedules as defined in these specifications as needed to accommodate the Owner. The Abatement Trade Contractor shall immediately comply with any such schedule alteration(s) at no cost to the Owner.

All operational systems within the building, including, but not limited to: electrical, mechanical, telecommunications, fire suppression, heating and cooling, will be left operational or accessible during abatement activities except as specified in Section 01011, Site Specific Description of the Work. Contractor bids and proposals must include costs for special working conditions or operational requirements necessary to safely work around these operational systems, unless otherwise stipulated in the Site Specific Description of the Work.

Working conditions are to be addressed and described in the Abatement Trade Contractor's project plan submittals.

The work force per project work site shall be submitted for approval in the project plan for this project. Project plans (see Subsection 01010.18, Project Plan Submittals) must be approved by Fibertec IHS before any work may begin. Once the work force number has been approved, the Abatement Trade Contractor shall commit this number of workers to each site as approved for the shifts and duration(s) agreed.

Prior to beginning any phase of any work, the Abatement Trade Contractor shall submit to Fibertec IHS in accordance with Subsection 01010.18, Project Plan Submittals, a written and detailed work procedures plan for each work area. **This project plan shall be submitted at least ten working days prior to the start of the project and must be approved by Fibertec IHS prior to the beginning of any of the work.**

Lead and/or cadmium paint was detected on select tested painted surfaces. Not all surfaces have been tested. Lead and/or cadmium may be present on untested painted surfaces. Any disturbance of an untested painted surface will require full compliance with the applicable MIOSHA Lead Exposure Construction and Cadmium Standards (Part 603 and Part 309, respectively). This will include submittals of the Lead and Cadmium compliance plans.

Use of the Owner's existing water and electrical service, as indicated or approved, will be permitted, so long as these facilities are properly cleaned and maintained in a condition acceptable to the Owner. Bathrooms are not to be used as decontamination facilities.

01010.7 SITE SECURITY

The work area is restricted to authorized, trained, and protected personnel only. Authorized personnel may include the Abatement Trade Contractor's employees, employees of approved Subcontractors, designated Owner's and Owner's employees and representatives, state and local inspectors, and other individuals designated by Fibertec IHS or the Owner.

Entry to and exit from the buildings shall be restricted to specified locations unless a written variance is issued by Fibertec IHS or the Owner. Decontamination units and bag-out chambers shall also be restricted to specified locations, unless otherwise approved in writing by Fibertec IHS.

Alternate plans submitted by the Abatement Trade Contractor may be considered for implementation, if submitted in a timely fashion.

The Abatement Trade Contractor shall construct temporary security barriers where required to secure the Owner's property and where stipulated in Section 01011, Site Specific Description of the Work. All such barriers shall be in place prior to any abatement activity in the work area. Barrier placement and attachment to existing building structures must be approved by Fibertec IHS prior to construction and must appear on approved project plans. Some security barriers may require lockable door passageways to allow for access to the work area if the Owner has ongoing activities adjoining the work. Security barriers and critical barriers shall be constructed where deemed necessary by Fibertec IHS, at no cost to the Owner.

Additional employees assigned to this project must be approved through Fibertec IHS. All training certifications, medical surveillance, fit test data and other pertinent documents must be submitted before their participation in the project will be allowed.

Prior to entering the work area, all visitors shall first obtain authorization from Fibertec IHS who shall certify that said visitors have appropriate credentials and are trained to safely enter the work area. This authorization shall be provided to the Abatement Trade Contractor prior to entry into the work area. Entry into the work area by unauthorized individuals will be strictly prohibited.

The Abatement Trade Contractor will record the names of all people who enter the regulated area work site every day, with all times in and out of the work site/regulated area on the sign-in sheet, and provide a copy to Fibertec IHS. This log will be scrutinized for completeness.

Any tools or material left within the confines of the job site overnight must be in locked cabinets, locked rooms, or otherwise secured. Fibertec IHS nor the Owner will be held liable in any way for the Abatement Trade Contractor's tools or other equipment.

The Abatement Trade Contractor shall not use or request the use of any of the Owner's custodial or maintenance supplies, ladders, tools, or equipment.

Failure by the Abatement Trade Contractor to comply with security requirements will result in all loss prevention, security inspection, vandalism, and theft costs being deducted from the Abatement Trade Contractor's payment(s).

Access to containment will be through the worker decontamination system. All other means of access (doors, windows, hallways, etc.) will be secured so as to prevent entry to or exit from the work area except for emergency, fire or accident. Emergency exits will not be locked. However, they will be sealed with polyethylene sheeting and tape until needed.

01010.8 OWNER OCCUPANCY

01010.8.1 Partial Owner Occupancy

The Owner reserves the right to occupy and place and install equipment as necessary in areas of the building in which all asbestos and other abatement and project decontamination procedures have been completed, and to occupy such areas prior to substantial completion, provided that such occupancy does not interfere with the completion of the work. Such placement of equipment and partial occupancy shall not constitute acceptance of the work or any part of the work.

01010.9 APPROVAL REQUIRED PRIOR TO BEGINNING ABATEMENT

No asbestos abatement will begin until Fibertec IHS has inspected and approved every regulated area.

01010.10 PREPARATION OF WORK AREAS FOR ASBESTOS REMOVAL

The Owner will furnish utilities for use as follows:

Electrical outlets and water taps will be furnished in an as-is condition at the time work is performed. The Abatement Trade Contractor may use them for equipment and removal/decontamination practices so long as he/she can demonstrate that such use does not interfere in any way with the Owner's ongoing operations. (Adequate power may not be available at every regulated work area. The Abatement Trade Contractor may employ a licensed electrician to extend additional portable power sub-panels with the approval of the Owner.)

Valves shall be temperature and pressure rated for operation at the temperatures and pressures encountered. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves shall be piped to the nearest drain or located over an existing sink or grade where water will not damage existing finishes, furniture, fixtures, or equipment.

If any part of the Abatement Trade Contractor's work depends for proper results upon existing work, special access, or the work of another Contractor, the Abatement Trade Contractor shall notify the Owner or Fibertec IHS before commencing work. Failure to so notify will constitute his/her acceptance of the conditions.

Equip all circuits that enter the work area for any purpose with ground fault circuit interrupters (GFCI). Locate GFCIs exterior to the work area so that all circuits are protected prior to entry into the work area. Provide circuit breaker type GFCIs equipped with a test button, a reset switch for all circuits to be used for any purpose in the work area, decontamination units, exterior, or as otherwise required by national electrical code, MIOSHA, or other authority. Locate the electrical panel exterior to the work area.

Per current MIOSHA regulations, within all active asbestos abatement work areas, all power sources within the regulated area must be de-energized and necessary power provided through a GFCI outlet or panel as described above.

Warning signs will be posted at a sufficient distance from the asbestos and hazardous material work area to permit an employee to read the sign and take necessary protective measures to avoid exposure. Warning signs will be posted in accordance with MIOSHA regulations. All possible entrances to the work area will be posted. Barrier tape will be located such that it provides a

visible and physical barrier into all regulated work areas. Barrier tape that is slack will not be permitted.

The Abatement Trade Contractor shall isolate enclosure work areas for the duration of the project by completely sealing off all openings to the area. Openings and fixtures in the work area, including, but not limited to, heating and ventilation ducts, doorways, corridors, windows, drains, skylights, and immovable lighting fixtures shall be sealed with two layers of 6-mil polyethylene (a critical barrier). Isolation of the work area heating and ventilation systems is to be carried out first.

Containment walls will be covered with at least one layer of 6-mil polyethylene sheeting, unless otherwise specified.

Containment floors without carpet or vinyl asbestos tile (VAT) and associated mastic slated for removal will be covered with at least two layers of 6-mil polyethylene with all seams staggered so as to eliminate the potential for water leakage unless otherwise specified. Floor sheeting will extend at least 12 inches up the side walls and no seams will be located at floor and wall intersections.

Containment floors with carpet will be covered with at least three layers of 6-mil polyethylene with all seams staggered so as to minimize the potential for water leakage unless otherwise specified. Floor sheeting will extend at least 12 inches up the side walls and no seams will be located at floor and wall intersections.

All suspect asbestos-containing material which has fallen onto the floors (*i.e.*, visible debris) shall be HEPA vacuumed and/or wet wiped and then encapsulated before the floors are covered with plastic. Fibertec IHS must approve cleaning prior to the covering of floors.

Mechanical and electrical motors, pumps, and other active system components are not to be washed or encapsulated. Mechanical and electrical control panels, computer and telephone cables, and any other building equipment or structures specified by Fibertec IHS shall also be adequately protected from washing and encapsulation. These components may need to be HEPA-vacuumed and/or wet wiped as directed by Fibertec IHS.

If any electrical or mechanical equipment (ductwork, conduit, lights, vents, etc.) in the work areas affected by the Abatement Trade Contractor is impaired by the Abatement Trade Contractor's work, the Abatement Trade Contractor shall be fully responsible to the Owner for the repair and/or replacement costs.

If mechanical and/or electrical equipment (ductwork, conduit, light, speakers, etc.) may in the written opinion of the Abatement Trade Contractor interfere with the Abatement Trade Contractor's asbestos removal operations, it will be the Abatement Trade Contractor's responsibility to have the equipment removed and replaced at no extra cost to the Owner.

Some work areas may also require portions of the work area or functional space be isolated from the abatement activity so as to provide additional protection to building occupants. These work areas may include but shall not be limited to: unit heaters, unit ventilators, booster coils, air conditioning units, coolers, chillers, pumps, vacuum units, control panels, electrical power sources, computer equipment, fan units, and other air handling units.

All existing markings and labels must remain in their present condition or be re-marked or re-labeled by the Abatement Trade Contractor at no extra cost to the Owner.

In a negative pressure enclosure work area, all air ventilation ductwork in the work area must be wet wiped then temporarily sealed with two layers of spray glue, duct tape, and 6 mil polyethylene

sheeting, or an approved equivalent prior to, during, and after abatement, through the time successful final clearance is reported by Fibertec IHS.

The Abatement Trade Contractor is to seal all intake exhaust vents with two layers of 6-mil polyethylene, spray glue, and duct tape.

Any make-up air intakes or negative air ventilation exhaust flexhose installed in building traffic areas must be secured with temporary barriers in such a manner that they do not disturb or create a safety hazard to building occupants.

The Abatement Trade Contractor shall have no less than one surplus 2,000 cfm HEPA-equipped air filtration device on-site. This unit must be a spare that has been tested and which is ready for immediate use at any time for the duration of the project.

The Abatement Trade Contractor shall provide instrumentation to monitor the pressure differential on a continuous basis for all full negative pressure enclosure systems. The Abatement Trade Contractor shall also submit proof that the instrumentation has been properly calibrated within the past year.

The Abatement Trade Contractor shall construct airlocks at all entrances and exits to the work area (enclosure structure) so that the work area is always isolated by at least one airlock when workers, equipment, or containerized ACM waste exit or enter the work area/decontamination unit. The clean room, shower room, and equipment room (decontamination unit) shall be serial and contiguous to the work area. Polyethylene barriers (airlocks) between the work area and equipment room (contaminated area) and serial arrangement of changing room, shower room, and equipment room are described in the MIOSHA Asbestos Construction Standard, Part 602.

Alternate techniques for isolating, sealing, covering, or removing asbestos may be recommended by the Abatement Trade Contractor. Alternate techniques shall be utilized only if and/or when written approval is received from Fibertec IHS.

All remote decontamination units must be pre-approved by Fibertec IHS before work begins. All remote decontamination units must be kept under negative pressure through the use of a HEPA filter equipped vacuum hose installed in the equipment room, at a minimum.

01010.11 ABATEMENT ENCLOSURES

Where a full enclosure is specified, a pressure differential containment with a minimum three-stage decontamination facility contiguous to the containment will be constructed, as outlined in these specifications prior to removal of asbestos-containing materials or any other preparatory work which may involve disturbing the asbestos-containing material. The shower of the decontamination unit must be fully operational prior to the commencement of asbestos abatement activity.

Where a mini-enclosure (ME) is specified, a pressure differential containment with a minimum two-stage decontamination facility contiguous to the containment will be constructed as outlined in these specifications prior to removal of asbestos-containing materials or any other preparatory work which may involve disturbing the asbestos-containing material. A shower facility shall be located nearby pursuant to MIOSHA regulation.

Work areas will require, at a minimum, critical barriers, providing an effective seal at all interior and exterior passageways, and all ventilation or other such airways connected to other parts of the building, (*e.g.*, boiler rooms, mechanical rooms, tunnels, plenums, etc.). Critical barrier enclosures

will be used for operations including, but not limited to, the removal of floor tile, work requiring the use of glovebags, and HEPA vacuuming ceiling tiles.

In the event that the work area and/or adjacent areas become contaminated due to work of the Hazard Abatement Trade Contractor, it will be the responsibility of the Abatement Trade Contractor to clean the affected area to the satisfaction of Fibertec IHS and Owner, at no extra cost to the Owner.

01010.12 ASBESTOS ABATEMENT REQUIREMENTS

Asbestos removal work procedures are described in the following specification sections:

- 02081 Removal of Asbestos-Containing Material
- 02084 Disposal of Asbestos-Containing Waste Material

01010.12.1 General Requirements for Asbestos Abatement

The use of common garden hose(s) and power washers for wetting material and/or cleaning are prohibited from all removal operations unless approval for their use is received, in writing, from Fibertec IHS.

Punctures and leaks will be immediately repaired. Standing water will be immediately mopped. Damage to floors will be repaired and/or replaced by the Abatement Trade Contractor at no extra cost to the Owner.

A minimum pressure drop of 0.02 inches of water column drop, when compared to atmospheric pressure outside the enclosure, will be maintained throughout the enclosed abatement process, and the number of air exchanges will be four or greater.

If evidence of asbestos-containing debris or contamination is found on any work surface in a designated work area, the Abatement Trade Contractor shall effectively clean and decontaminate the immediately affected area using a HEPA vacuum and appropriate encapsulation methods, prior to work area setup or enclosure.

The Abatement Trade Contractor will adequately seal all power supply boxes and electrical equipment to isolate them from the wet work environment. It shall be the Abatement Trade Contractor's responsibility to plan for safe performance of work around these energized lines.

Glovebag operations will require the utilization of at least one HEPA filter-equipped air filtration device in the regulated area. The use of a glovebag removal method which does not provide a HEPA filtered vacuum to collapse the bags is prohibited.

If the airborne fiber levels exceed the Permissible Exposure Limit (PEL) (0.10 f/cc) or the Excursion Limit (EL) (1.0 f/cc) in the work area the use of air misters and other appropriate modifications to engineering controls will be required, as directed by Fibertec IHS. Efforts necessary to reduce any elevated fiber levels to the PEL and EL or lower, shall be clearly documented in daily reports of the Abatement Trade Contractor and Fibertec IHS. (See Sub-Section 01010.15, Air Monitoring.)

If the temperature of a line exceeds 150 degrees Fahrenheit, full enclosures, mini-enclosures, and/or high temperature glovebags must be used in lieu of standard glovebags. Some steam pipes may exceed this temperature.

Where Fibertec IHS, Owner, or Abatement Trade Contractor has reasonable concern that the temperature of the pipe exceeds 150 degrees Fahrenheit, the Abatement Trade Contractor shall measure the temperature of the pipe, using appropriate instrumentation.

Fibertec IHS shall verify the temperature of the line prior to commencing any abatement activity, and determine safe and prudent removal procedures.

Where pipe sections are scheduled for demolition the Abatement Trade Contractor may conduct whole structure removal. All locations where whole structure removal will occur, this must be pre-approved by the Owner and Fibertec IHS. All asbestos containing insulation must be adequately wet prior to whole structure removal.

All significantly damaged insulation must be adequately wet, covered with two layers of 6 mil polyethylene and sealed with duct tape by candy stripping.

01010.13 DECONTAMINATION REQUIREMENTS

Decontamination of the work area after completion of abatement work is described in the following sections:

01701 Project Closeout: details the closeout procedures, including final paperwork requirements, to end the project once abatement work is complete.

01711 Project Decontamination: describes the sequence of cleaning and decontamination procedures to be followed during removal of the plastic sheet barriers isolating a work area.

01712 Cleaning and Decontamination Procedures: sets forth procedures to be used on contaminated objects and rooms which are not part of an abatement work area.

01714 Work Area Clearance: describes the analytical methods used to determine if the work area has been successfully cleaned of decontamination.

01010.13.1 General Requirements for Decontamination

The walls of the equipment room and clean room will consist of at least two layers of 6-mil polyethylene.

The shower room will consist of a shower pan with a drain connected to a filtering device that will be in operation at all times that the shower is being used. One filtering device must accompany each shower. The filtration equipment must be sufficient to filter particles to or below five microns in length and/or diameter prior to discharge to a sanitary drain. A showerhead connected to a water source will be present in the shower room at all times that abatement is in progress. Adequate supplies of soap and towels must be present to ensure proper employee decontamination. Asbestos abatement work may commence only after the shower is fully operational.

At least two layers of 6-mil polyethylene will be placed on the floor of the entire decontamination chamber where showers are used to prevent leakage of water from the showers. One layer of 6-mil polyethylene will be permitted on mini-enclosure decontamination chambers. The walls, floors, and ceiling of the airlock construction will be seamed to each other in a fashion which allows only make-up air to enter the work area through the polyethylene sheeting doorways.

One end of this construction will exit to the clean area outside the containment barrier walls. The other end of this construction will exit inside or at the containment barrier walls. All chambers will have partitions with flaps made of 6-mil polyethylene or self-sealing doors. Flaps will be constructed with two (2) layers of 6-mil polyethylene at the entrance to the clean room and the work area. If self-sealing doors are used, a filtered make-up air system must be incorporated into the construction of the containment for the purpose of providing air exchanges within the containment.

The dimensions of the decontamination chambers will be adequate for the number of workers assigned to the project and shall comply with the Michigan Sanitation Code, Part 474, Rule 4201.

Waste load-outs are to consist of a three-stage decontamination facility (unless otherwise specified in Section 01011, Site Specific Description of the Work) and will house a clean room, a wash room connected to the containment, followed by a clean room. At a minimum, the wash room will consist of a shower pan with a drain connected to a suitably equipped filtering device that will be in operation at all times that the load-out is being used. A mister and/or showerhead shall also be present in the wash room at all times. An approved amended water solution will be used for washing waste containers leaving the containment. If a separate waste load-out area is constructed, it shall not be used for personnel ingress or egress.

Waste load-outs for VAT barrel removal will consist of a one stage decontamination chamber unit. The chamber will have partitions with flaps made of 6-mil polyethylene or self-sealing doors. Flaps will be constructed with two (2) layers of 6-mil polyethylene at the entrance to the clean room and the work area. If self-sealing doors are used, a filtered make-up air system must be incorporated into the construction of the containment for the purpose of providing air exchanges within the containment. The one stage decontamination chamber unit shall not be used for personnel ingress or egress.

For full negative pressure enclosure abatement, all workers, without exception, will change street clothes at designated areas (clean room) prior to the start of each shift's work. Lockers or acceptable substitutes will be provided by the Abatement Trade Contractor for street and work clothes. After workers are properly dressed in personal protective equipment, they will walk through the decontamination unit and into the work area.

At the end of the work shift, and any time a worker leaves the work area, he/she will decontaminate by removing all contaminated work clothes in the equipment room. The respirator will remain in use. He/she will then proceed to the showers and properly wash, including shampooing his/her hair. Respirators will remain in use while showering and remain on until the respirator is clean of asbestos. The filters will then be removed and disposed of as asbestos waste and the cleaned respirator dried and stored appropriately.

Workers will shower before breaks, lunch, and at the end of each work shift. Hot water, towels, soap, shampoo, and sanitary conditions will be provided by the Abatement Trade Contractor. Failure to provide hot water, towels, soap, shampoo, and sanitary conditions will constitute adequate reason for the Owner and/or Fibertec IHS to issue a stop work order.

For critical barrier enclosures, workers will change street clothes in the designated area prior to the start of each day's work as stated above except that, at the end of the work shift, and any time a worker leaves the work area, he/she will decontaminate by removing all contaminated work clothes in the work area entry airlock and don a clean protective coverall before proceeding to the remote shower facility. Respirators will remain on and in

use while changing suits and proceeding to the remote shower. Shower decontamination shall proceed as outlined above. **The remote shower unit must be under negative pressure and approved by Fibertec IHS before use.**

Adequate toilet facilities will be located outside of the work area and decontamination for this purpose will be employed. The Abatement Trade Contractor may use the Owner's bathroom facilities. These shall not be used for decontamination and shall be maintained in a clean and sanitary condition by the Abatement Trade Contractor.

No eating, drinking, smoking or applying cosmetics are to take place within the regulated area. Prior to eating, drinking, smoking, applying cosmetics or using toilet facilities, workers will fully decontaminate by showering. A new coverall will be donned upon reentering the work area. **Anyone observed eating, drinking, smoking, applying cosmetics, or removing their respirator in the regulated area will be asked to properly decontaminate and leave the project.**

01010.14 WORKER SAFETY

01010.14.1 Disposable Worker Clothing

Disposable worker clothing will be provided by the Abatement Trade Contractor as required by current MIOSHA regulation. Rips and tears in the coveralls will be promptly repaired, or the coveralls will be replaced. **Full body covering disposable coveralls with density less than two ounces per square yard will not be permitted.**

The Abatement Trade Contractor will provide protective clothing for air sampling professional(s), inspection personnel, and authorized visitors.

Work clothing will consist of disposable full-body coveralls, head covers, gloves, and rubber boots. The Abatement Trade Contractor will supply whatever additional safety equipment that is necessary to protect those people authorized to enter the work site, including eye protection. **The only non-disposable clothing allowed in the containment will be nylon/spandex swimwear and rubber footwear.**

Footwear will be in accordance with MIOSHA standards. No street shoes will be allowed in the containment. Workers' footwear will remain inside the containment until the completion of the job.

No street clothing will be allowed into the containment.

01010.14.2 Respirators

Respiratory protection for worker(s) will be provided by the Hazard Abatement Trade Contractor, as required by current MIOSHA regulations.

At a minimum, full-face, powered-air purifying respirators (PAPR) shall be used for respiratory protection in all full negative pressure enclosure containments during gross removal unless otherwise approved by Fibertec IHS.

At a minimum, half-face negative pressure respirators may be used during glovebag removal and floor tile removal operations.

Workers will always wear a respirator when in the regulated area. While wearing the respirator, no worker will pull the respirator away from his/her face to talk, smoke, eat,

apply cosmetics or drink. No worker will be permitted to wear a respirator without being clean shaven.

Any person discovered without appropriate respiratory protection while in the work area shall be permanently removed from the project.

If negative pressure respirators are used, then a qualitative or quantitative fit test for each employee engaged in this work must be documented. These fit tests must be completed in accordance with MIOSHA regulations.

One sanitized, fully operational powered air purifying respirator must be available at the work site for qualified and authorized visitors who may be required to enter the work site.

01010.14.3 Emergency Planning

Emergency planning must be detailed in writing and posted in clear view at the job site. See Section 01010.18, Project Plan Submittals.

For non-life threatening situations, employees injured or otherwise incapacitated will decontaminate following normal procedures with assistance from fellow workers if necessary, before exiting the workplace to obtain proper medical treatment.

For life-threatening injury or illness, worker decontamination will take least priority after measures to stabilize the injured worker, remove him from the workplace, and secure proper medical treatment have taken place.

It shall be the sole responsibility of the Abatement Trade Contractor to take all necessary precautions and actions to protect his employees, Subcontractors, Owner's representatives, consultants, government inspectors, the general public, building occupants, and the building and structure from exposure to asbestos.

The Abatement Trade Contractor shall conspicuously post a list of emergency phone numbers (including fire, police, ambulance, Owner representative, Fibertec IHS, off-site Hazard Abatement Trade Contractor representative, etc.) and the location of an emergency phone outside all entrances to containment structures. It is the Abatement Trade Contractor's responsibility to notify all on-site abatement workers of the existence and location of these lists and the telephone(s) they are to use in emergencies. The Owner's facility telephones may be used only for life threatening emergencies.

The Abatement Trade Contractor shall provide adequate and necessary protection to isolate workers from electrical shock hazards.

The Abatement Trade Contractor shall provide a first-aid kit that will be readily accessible to abatement crew members during all work activities. The first-aid kit must meet MIOSHA Construction Safety Standards.

Scaffolding erected at the site will conform to MIOSHA scaffolding regulations. For work above six feet, the Abatement Trade Contractor may be required to provide and require the use of personal fall arrestors (lanyards or equivalent). Ladders used on-site will conform to MIOSHA standards. **These requirements will be rigorously enforced up to and including the issuance of a stop work order by the Owner and/or Fibertec IHS.**

The Abatement Trade Contractor and on-site representative shall be aware of the signs and symptoms of heat stress (*e.g.*, heat exhaustion, heat stroke) and shall be prepared to take appropriate corrective action should any worker(s) exhibit these symptoms.

01010.14.4 Hazard Communication

The Abatement Trade Contractor shall provide the Owner and Fibertec IHS with separate copies of the safety data sheets (SDS) for all products used at the work site. The Abatement Trade Contractor shall conspicuously post a notice to the employees of the job-site location of the Abatement Trade Contractor's SDS file along with advice as to how the Abatement Trade Contractor's Hazard Communication Program is implemented.

01010.15 AIR MONITORING

01010.15.1 Air Monitoring

In the absence of a current NEA, Fibertec IHS will conduct all air sampling, which includes baseline, environmental, representative exposure, and clearance sampling, throughout all phases of the work. Throughout the removal and cleaning operations, air monitoring will be conducted to ensure that the Abatement Trade Contractor is complying with all codes, regulations, ordinances and these specifications.

The air monitoring professional and his equipment (including, but not limited to the following: microscope, HSE/NPL or ULO test slide, vacuum pumps, PAT Program proficiency, NIOSH 582 or equivalent training, paperwork) will be subject to approval of the Owner. Phase Contrast Microscopy (PCM) samples will be analyzed on-site by Fibertec IHS using the latest revision of the NIOSH 7400 Method.

Abatement operations shall cease and all employees shall decontaminate and leave the work area if, for any reason, the Air Monitoring Professional's air sampling equipment is disconnected, disturbed, or tampered with in any way.

Representative exposure monitoring, although conducted by Fibertec IHS, is the responsibility of the Abatement Trade Contractor, pursuant to MIOSHA regulation. The Abatement Trade Contractor must cooperate with the Fibertec IHS on-site representative to ensure adequate representative exposure monitoring takes place.

Due to the fiber counting criteria associated with PCM analysis, it is critical that fiberglass and other non-asbestos insulation remaining in the work area at the time of clearance sampling be adequately sealed to prevent fiber release/contamination.

If any two sequential representative exposure PEL and/or EL samples indicate fiber concentrations above 0.1 of 1.0, respectively, Fibertec IHS will issue a stop work order. The stop work order shall be lifted when fiber levels are proven to have been lowered through improved engineering controls.

It is the Abatement Trade Contractor's sole responsibility to maintain adequate engineering controls in order to keep fiber levels within regulatory limits.

01010.15.2 Clearance Monitoring

Clearance monitoring within any NPE shall be conducted using aggressive means. Sample analysis shall be conducted by phase contrast microscopy pursuant to the requirements of the latest revision of the NIOSH 7400 Method. Transmission Electron Microscopy (TEM)

clearance sampling will be conducted for those abatement projects greater than 160 s.f. or 260 l.f. of Regulated Asbestos Containing Material (RACM). TEM clearance samples will be analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory.

If a PCM or TEM clearance sample fails to meet the clearance level criteria stipulated in the specification document, the Abatement Trade Contractor shall provide an adequate work force to immediately, upon verbal notice by Fibertec IHS, re-clean and re-encapsulate the work area. This may require additional work force so as to maintain the required work schedule. Any necessary re-cleaning and re-encapsulation shall be the full responsibility of the Abatement Trade Contractor at no additional cost to the Owner. The Abatement Trade Contractor shall also bear all overtime costs and additional testing costs of Fibertec IHS necessitated by said failure.

01010.16 STOP WORK ORDERS

If, at any time, Fibertec IHS or the Owner decides that work practices are violating contract specifications or endangering workers, the on-site Abatement Trade Contractor's representative shall be immediately notified and removal operations are to cease until corrective action is taken.

The Abatement Trade Contractor will cooperate fully with the Owner and Fibertec IHS.

No additional time will be added to the work schedule completion date following a stop work order.

01010.17 TRANSPORT AND STORAGE OF ASBESTOS WASTE

The Abatement Trade Contractor will decontaminate asbestos-containing waste, as described in Section 02084, Disposal of Asbestos-Containing Waste Material, generated during each work shift before transfer to an enclosed dumpster which will be locked and located in a pre-designated area, or to the Abatement Trade Contractor's vehicle for transport off-site at the end of each shift.

Asbestos-containing material waste may not be stored in the work area. ACM waste must be bagged or placed in drums by the end of each work shift and removed from the work site to the enclosed dumpster or Abatement Trade Contractor's vehicle prior to the end of each work shift.

Enclosed dumpsters or vehicles which are used to store asbestos waste or equipment must be securely locked at all times, except during supervised loading or unloading. The Abatement Trade Contractor's representative must remain at the dumpster or vehicle at all times when it is unlocked. There will be no exception to this policy.

Enclosed dumpsters which remain on-site and/or waste transport vehicles must be labeled and bannered in accordance with 29 CFR 1910.1200(f) and NESHAP 40 CFR Part 61, Final Rule.

01010.18 PROJECT PLAN SUBMITTALS

Failure to comply with the submittal schedule and requirements of this section may result in an inability of the Abatement Trade Contractor to start as scheduled. Submittals are a discrete and essential part of the work.

The Abatement Trade Contractor must visit the site and assure themselves that the details required in the project plan are thoroughly considered and that the project plan accurately represents the conditions, methods and system components the Abatement Trade Contractor will actually encounter in the course of performing the work.

The Abatement Trade Contractor shall make any revisions to these plans necessary to facilitate the Owner's ongoing operations without increase in cost to the Owner.

01010.18.1 Pre-Work Project Plan Submittals

Alternative project plans submitted by the Abatement Trade Contractor that differ from these specifications may be considered by Fibertec IHS for implementation. Any variations shall not result in submittal delays and/or project delays. Any additional cost associated with approved alternative project plans shall be incurred by the Abatement Trade Contractor.

Project plan submittals shall be received by Fibertec IHS at least 10 working days prior to the project start up date. Failure to provide submittals in a timely fashion or address deficiencies in submittals may result in a delay to the project.

In a bound project plan for the project, submit an orderly and legible description of the project(s) based on the following:

01010.18.1.1 Description of the Work Area Project Plans

- a. Include building name and work area location(s) within the building. Refer to room numbers and names as they are enumerated within the specification.
- b. Delineate the extent of work areas on drawings if they differ with those shown in the Owner's drawings and these specifications.

01010.18.1.2 Hazard Abatement Trade Contractor's Work Schedule

- a. Include mobilization, setup, removal, cleanup, clearance sampling, Subcontractor work, etc. and a number of personnel and other resource utilization to be used for each phase of work for each work area.
- b. The schedule is to reflect a day by day planned progress schedule including weekends and holidays.
- c. The schedule is to reflect an adequate amount of time for cleanup activities prior to encapsulation and clearance sampling.
- d. Indicate work shift(s) planned and length. Include start times. (See Section 01010.2.)
- e. A schedule is to be created for each work area in which abatement work is to be performed.

01010.18.1.3 Preparation of the Work Area

- a. Describe any necessary removal and/or decontamination of furniture, carpet pre-cleaning, non-asbestos ceiling tile removal, etc.
- b. Describe how much containment is to be constructed and materials to be used such as tape, spray glue, lumber, etc.
- c. Include water and electrical supply hook-up and back-ups.
- d. Describe how mechanical and electrical equipment is to be protected.
- e. Include drawings or sketches showing location of containment(s), air filtration devices, decontamination units, load-out chamber, etc.
- f. Indicate name of licensed tradesmen/firms to be used for mechanical/electrical and architectural finish work.

01010.18.1.4 Abatement Methods

- a. Describe in detail methods to be utilized such as hand scraping, use of trailer- or truck-mounted HEPA vacuum equipment, power washing, soil removal, etc.
- b. Explain how the accumulation of asbestos waste, water, non-asbestos waste, etc. will be controlled and disposed of during the course of the project.

01010.18.1.5 Materials

- a. Submit product characteristic and performance data and material safety data sheets for each surfactant, encapsulant, solvent, etc. proposed for use on the work site.

01010.18.1.6 Emergency Planning Procedures

- a. Locate emergency egress locations. Include drawings.
- b. Indicate quantity, type, and location of fire extinguishers.
- c. Designate personnel in charge of emergency situations and their qualifications (Red Cross or CPR training, etc.).
- d. Outline a contingency plan for the possibility of contamination occurring outside the containment as a result of abatement activities.
- e. Outline a contingency plan for the possibility of an injury or illness including the hospital or care facility to which the individual(s) will be transported.

01010.18.1.7 Contractor Employees

- a. Training, (asbestos, lead, cadmium, potentially hazardous materials) refresher training, accreditation, documentation of medical surveillance, fit test data, Written Lead and Cadmium Compliance Program and other pertinent requirements must be submitted to Fibertec IHS before their participation will be allowed in, on, and/or around any active work area.

01010.18.2 During Work Submittals

01010.18.2.1 Manifest

- a. Submit within thirty five (35) days of disposal all waste manifests showing generator, location, number of bags/containers, approximate volume, date, as required by NESHAP 40 CFR Part 61, Final Rule. Submit all landfill receipts.

01010.18.2.2 New Employees

- a. Training, refresher training, accreditation, documentation of medical surveillance, fit test data, employee release forms, and other pertinent requirements must be submitted to Fibertec IHS before their participation will be allowed in, on and/or around any active work area.

01010.18.2.3 Notifications, Requests for Variance and Revisions

- a. Notifications (Notice of Intent to Renovation/Demolish), any requests for variances and any revisions to the Notice shall be posted at the job site shall be submitted to the appropriate state agencies and shall be submitted to (at the same time that they are submitted to the appropriate state agencies):

Fibertec IHS
1914 Holloway Drive
Holt, MI 48842
Attention: Ms. Kristin Peterson
kpeterson@fibertecihs.com

1010.18.2.4 Negative Exposure Assessment

The Abatement Trade Contractor shall submit and post all applicable negative exposure assessments (NEA's) for work activities occurring on site. If NEA's are not posted on site, they will not be accepted and the Abatement Trade Contractor must comply with all required provisions of the MIOSHA/MDEQ regulations and these specifications.

PART 2 - PRODUCTS

GENERAL

Products must meet the approval of Fibertec IHS prior to use. See Section 02081.4.2.

END OF SECTION 01010

SECTION 01011 - SPECIFIC DESCRIPTION OF THE WORK – ASBESTOS AND
POTENTIALLY HAZARDOUS MATERIALS ABATEMENT

PART 1 - GENERAL

01011.1 RESERVED

01011.2 PROJECT/WORK IDENTIFICATION

General:

The project name is Dansville School District-Band Building and Weight Room Demolition Project- Dansville, Michigan, Asbestos and Potentially Hazardous Materials Abatement, as shown on documents prepared by Fibertec IHS.

01011.2.1.1 Glovebag Removal

The use of the glovebag technique is one option for the removal of pipe straight and pipe joint insulation. Two workers must perform this work with a drop cloth in place and removal of air from the bag using a HEPA vacuum at the end of the operation. Encapsulation within the glovebag is required prior to the removal of the glovebag from the pipe. A three-stage decontamination unit, under negative pressure, must be placed contiguous to the work area. A minimum of one (1) HEPA filtered 2,000 cfm negative air machine (NAM) must be placed in each regulated area and exhausted to out-of-doors.

01011.2.1.2 Critical Barrier Enclosure

The use of the critical barrier enclosure (CBE) method is permitted for the removal of ACM. This method requires the placement of critical barriers (two layers of 6-mil plastic sheeting secured with duct tape) over all windows, doorways, HVAC system components, floor drains and other openings into the work area. Additionally, a 4" tall splash guard must be placed on all walls in the work area to protect wall surfaces and facilitate cleanup of the work area. All unprotected surfaces must be cleaned by HEPA vacuuming, at a minimum. The CBE must have four air exchanges per hour and must maintain a pressure differential of 0.02 inches of water column drop at all times.

For Class I work greater than 25 linear feet or 10 square feet, or friable Class II work, a three-stage decontamination unit must be attached to the CBE, unless engineeringly impossible to do so, then a drop cloth decontamination unit, at a minimum, must be attached to the work area. For all Class I work less than 25 l.f. or 10 s.f and all, non-friable Class II work a drop cloth equipment room may be utilized for employee, equipment and waste decontamination. A dedicated HEPA vacuum must be present for proper decontamination.

01011.2.1.3 Negative Pressure Enclosure (NPE) Method

The use of a negative pressure enclosure is permitted for the removal of structural fireproofing, acoustical ceiling, floor tile, mastic, pipe insulation and other ACM. This method requires critical barriers over HVAC components, etc. A minimum of 6-mil polyethylene sheeting on the walls, four air exchanges per hour, 0.02 inches of water column drop and an attached three-stage decontamination unit.

01011.2.1.4 Infrared Tile Lift / Dry Ice / Mastic Removal

This technique requires the use of infrared tile lift machines to heat or dry ice to chill the tile so they may be removed in an intact state. Appropriate power supply can be provided by the Owner, but must be carefully coordinated with the Owner. Splash guards must protect existing wall surfaces. The floor surface must be HEPA vacuumed prior to the work and after the work. All other provisions of the Flooring Industry Settlement Agreement must be strictly followed. **Solvent removal of mastic is not permitted.** If dry grinding is utilized, a request for dry removal variance must be provided to the Michigan Department of Environmental Quality, a copy of the request to the MIOSHA Asbestos Program, and to Fibertec IHS at 1914 Holloway Drive, Holt, Michigan, Attention: Kristin Peterson.

The Infrared Tile Lift approach will require the use of at least one negative air machine to provide odor control in the work area(s).

The use of dry ice may also be used to remove floor tile. All provisions of the Flooring Industry Settlement Agreement shall be followed. A minimum of one 2,000 CFM HEPA filter-equipped negative air machine shall be exhausted out-of-doors to control carbon dioxide concentrations at all times during the work. **The contractor must provide a direct read carbon dioxide meter to ensure carbon dioxide concentrations do not exceed regulatory limits in the work area, i.e. 5,000 parts per million (ppm).**

01011.2.1.5 Whole Structure Removal

Pipe scheduled for demolition may be removed through whole structure removal. A regulated area must be established, a drop cloth must be placed under the pipe, the insulation made adequately wet and wrapped in two layers of 6 mil polyethylene sheeting. All removed pipe must be properly labeled for disposal before leaving the regulated area. The Abatement Trade Contractor shall have a NAM in the area exhausting to out-of-doors. If more than 25 l.f. of pipe insulation is removed, a three-stage decontamination unit must be installed and utilized. If less than 25 l.f. of pipe insulation are removed, the use of an equipment room for employee and equipment decontamination is permitted.

01011.2.1.6 Scheduled Clearance Method

Final clearance sampling using aggressive sampling techniques will be employed in all critical barrier and negative pressure enclosures. Final clearance sampling by passive means will be employed in any glovebag removal or other asbestos removal work area. Final clearance samples will be analyzed using phase contrast microscopy as described in the most recent revision of the NIOSH 7400 Method. TEM samples will be collected following floor tile project removals where tile are rendered friable.

01011.3 SITE SPECIFIC SCHEDULED ASBESTOS ABATEMENT

01011.3.1 Dansville School District, Band Building and Weight Room Demolition Project, – Asbestos and Potentially Hazardous Materials Abatement

01011.3.1.1 General

The successful bidder shall be responsible for the removal of ACM impacted by the renovation. Quantitates of ACM are estimated herein.

Quantities listed are approximate. Bidders are required to take and are responsible for their own measurements. If bidders use their own totals for the bid submittal, supply the justification and quantities used on a separate cover. Please review the Asbestos Building Inspection Reports (Attachment A) and Floor Plan Sketch's (Attachment B) for additional details. Locations and totals in the report are approximate.

The inspection reports and drawings for this project are included in Attachments A and B.

Please complete your bid on the form in Attachment C.

**Dansville School District
 Band Building
 Estimated Asbestos-Containing Material Totals**

Material	Amount	Units
9" x 9" floor tile	2,356	s.f.
Vermiculite in walls	600	s.f.
Black roof tar	1,000	s.f.

**Dansville School District
 Band Building
 Estimated Hazardous Material Totals**

Material	Amount	Units
Fluorescent light ballast	1	ct.
Fluorescent light bulbs	132	ct.
Batteries in signs	3	ct.

**Dansville School District
 Band Building
 Estimated Assumed Asbestos Containing Material
 Mandatory Alt #1**

Material	Amount	Units
Metal fire door and frame	2	ct.

**Dansville School District
 Weight Room
 Estimated Asbestos-Containing Material Totals**

Material	Amount	Units
Black roof tar	400	s.f.

**Dansville School District
Weight Room
Estimated Assumed Asbestos Containing Material
Mandatory Alt #1**

Material	Amount	Units
Metal fire door and frame	1	ct.

**Dansville School District
Weight Room
Hazardous Material Removal Totals**

Material	Amount	Units
Fluorescent light bulbs	16	ct.
Batteries in signs	2	ct.

**Dansville School District
Middle School Room 101
Estimated Asbestos-Containing Material Totals**

Material	Amount	Units
Pipe joint insulation	3	ct.

Any damage to any remaining building component caused by the Asbestos Trade Contractor and/or any of his/her Subcontractors will be required to be replaced at the Asbestos Trade Contractor's expense.

01011.3.1.2 Specific Requirements of the Site

The Abatement Trade Contractor is responsible for working around all mechanical systems that supply air to or return air from the work areas. These shall be cleaned and sealed in critical barriers.

Enclosed dumpster(s) or truck(s) for loading waste are to be located as directed by the Owner. The abatement contractor is responsible to place plates under the wheels of the dumpster so to not damage the blacktop on the parking lots at each school.

Work is expected to start on or about Monday, June 12, 2017.

END OF SECTION 01011

PART 2 - PRODUCTS (See Section 02081.4)

PART 3 - EXECUTION (Not Applicable)

SECTION 01701 - PROJECT CLOSEOUT – ASBESTOS ABATEMENT

PART 1 - GENERAL

01701.1 RELATED DOCUMENTS

Floor plan sketches, general provisions of contract, including general and supplementary conditions, and other Owner requirements, apply to the work of this section.

01701.2 SUMMARY

This section specifies administrative and procedural requirements for project closeout, including but not limited to:

- Inspection procedures
- Project record document submittal
- Final cleaning

01701.3 VISUAL INSPECTION PROCEDURES

On receipt of a request for inspection, Fibertec IHS will proceed with inspection and advise the Abatement Trade Contractor of necessary requirements to achieve successful visual inspection. Fibertec IHS will advise the Abatement Trade Contractor of work or items that must be completed or corrected before the certificate will be issued.

Results of the completed inspection will form the basis of requirements for final acceptance.

01701.4 FINAL ACCEPTANCE

01701.4.1 First Re-inspection Procedure

Fibertec IHS, Abatement Trade Contractor, and the Owner (if necessary) will re-inspect the work upon receipt of notice that the work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Owner or Fibertec IHS.

Upon completion of the re-inspection(s), Fibertec IHS will prepare a Certificate of Final Acceptance, or advise the Abatement Trade Contractor of work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

If necessary, re-inspection will be repeated at the expense of the Abatement Trade Contractor as soon as Fibertec IHS representatives can be scheduled to re-inspect the work area(s).

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

01701.5 FINAL CLEANING

General

General cleaning during construction is required by the general conditions.

1701.5.1 Cleaning

The use of any product (*e.g.*, solvent, WD-40, liquid wrench or other petroleum distillates, chemicals or encapsulants) must be compatible with the application of new materials installed after the work described by this specification. Failure to comply with this provision will obligate the Abatement Trade Contractor to provide an acceptable substrate at no additional cost.

The cleaning specified here is in addition to cleaning which is part of decontamination. This section is intended to return the building to the Owner in a presentable condition. Complete the final cleaning before requesting the inspection form, Certification of Final Completion.

Clean transparent materials, including mirrors and glass in doors and windows. Remove substances that are noticeably vision-obscuring. Replace chipped or broken glass and other damaged transparent materials.

Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

Clean the site, including landscape development areas, of rubbish, litter, and foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.

01701.5.2 Removal of Protection

Remove temporary protection and facilities installed for protection of the work during construction.

01701.6 REPAIRS

Marred surfaces are to be left in a finished condition. All holes that are a result of the Abatement Trade Contractor's work are to be filled in with a plaster material approved by the Owner and at no cost to the Owner.

Painted and/or finished surfaces that are marred as a result of the Abatement Trade Contractor's work practices are to be painted and/or refinished in such a manner that the marred area(s) match the surrounding contiguous surface.

If colors cannot be matched for the purpose of painting marred surfaces, the Abatement Trade Contractor will be required to paint the marred area as well as the contiguous surface from "break to break".

END OF SECTION 01701

SECTION 01711 - PROJECT DECONTAMINATION

PART 1 - GENERAL

01711.1 RESERVED

01711.2 DESCRIPTION OF REQUIREMENTS

01711.2.1 General

Decontamination of the work area following asbestos abatement is described.

If the asbestos being abated is undamaged and non-friable, the decontamination procedure is a one-step procedure involving cleaning of the primary barrier plastic to remove contamination, thus preventing contamination of the building when the work area isolation barriers are removed.

Operation of the pressure differential system is used during cleaning to remove airborne fibers generated by the abatement work.

01711.3 RELATED WORK SPECIFIED ELSEWHERE

01711.3.1 Removal of Gross Debris

Removal of gross debris is integral to the performance of abatement work and as such is specified in the Section 02081, Removal of Asbestos-Containing Material.

01711.3.2 Work Area Clearance

Clearance air testing and other requirements which must be met before release of Abatement Trade Contractor and re-occupancy of the work area are specified in Section 01714, Work Area Clearance.

PART 2 - PRODUCTS

See Subsection 02081.4, Products.

PART 3 - EXECUTION

01711.4 WORK TO BE PERFORMED

Work of this section includes:

The decontamination of air in the work area which has been, or may have been, contaminated by asbestos fibers generated during abatement activities, or which may previously have had elevated fiber levels due to friable asbestos-containing materials in the space.

The cleaning, decontamination, and removal of temporary barriers installed prior to abatement work, including:

- Primary and critical barriers.
- Decontamination unit.
- Pressure differential system.

The cleaning and decontamination of all surfaces (ceiling, walls, floor) of the work area, and all furniture or equipment in the work area.

01711.5 START OF DECONTAMINATION WORK

01711.5.1 Previous Work

During completion of the asbestos abatement work specified in other sections, the secondary barrier of polyethylene sheeting will have been removed and disposed of along with any gross debris generated by the asbestos abatement work.

01711.5.2 Start of Work

Work of this section begins with the cleaning of the primary barrier. At the start of work, the following will be in place:

Primary barrier: A minimum of two layers of polyethylene sheeting on the floor and one layer on the walls.

Critical barrier: An air-tight barrier between the work area and other portions of the building or the outside.

Critical barrier sheeting: Over lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers, and other openings.

Decontamination units: For personnel and equipment in operating condition.

Pressure differential system: In operation.

01711.6 CLEANING

Carry out a cleaning of all surfaces of the work area, including items of remaining sheeting, tools, scaffolding, and/or HEPA filter-equipped vacuum. (Note: A HEPA vacuum may fail if used with wet material.) **Do not perform dry dusting or dry sweeping.** Use each surface of a cleaning cloth one time only and then dispose of as contaminated waste. Continue this cleaning until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces.

01711.6.1 Removal of Primary Barriers

Following cleaning, remove all primary barrier sheeting and material decontamination unit, if there is one, leaving only:

Critical barrier: Which forms the sole barrier between the work area and other portions of the building or the outside.

Critical barrier sheeting: Cover lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers, and other openings.

Decontamination unit: For personnel, in operating condition.

Pressure differential system: Maintain in continuous operation.

01711.7 VISUAL INSPECTION

01711.7.1 After Cleaning

The Abatement Trade Contractor, upon completion of all abatement and cleaning, shall perform with Fibertec IHS a complete visual inspection of the entire work area including all surfaces, ceiling, walls, floor, decontamination unit, all plastic sheeting, seals over ventilation openings, doorways, windows, and other openings. Look for debris from any sources, residue on surfaces, dust or other matter. If any debris, residue, dust, or other matter is found, repeat final cleaning and continue decontamination procedures from that point. When the area is visually clean, complete the certification at the end of this section. Visual inspection is not complete until confirmed in writing, on the certificate, by Fibertec IHS.

The visual inspection will not be conducted when wet conditions exist in the work area. A successful visual inspection is necessary prior to lockdown.

01711.7.2 Temporary Lighting

The Abatement Trade Contractor must provide adequate lighting on all surfaces in the work areas to safely, correctly and completely execute the work and to accommodate the visual inspection. Visual inspections will not be performed in poorly lit work areas until such time that adequate lighting is provided as described above, by the Abatement Trade Contractor.

01711.7.3 Lifts

The Abatement Trade Contractor must provide ladders, scaffolding, and lifts as required to provide access to all surfaces in the work area to be subjected to visual inspection. Access is to allow physical contact to all surfaces.

01711.8 ENCAPSULATION

Encapsulation in all negative pressure enclosures must be performed with airless spray equipment. Before encapsulation, check and change, if necessary, the NAM filters and continue to run the NAMs.

01711.8.1 Encapsulation of Substrate

Maintain pressure differential system in operation during encapsulation work and leave running for a period of time necessary to allow encapsulant to dry, unless otherwise authorized by Fibertec IHS.

In no case are NAMs to be turned off until successful air clearance, as specified in Section 01714, Work Area Clearance, is achieved in the work area, as measured and reported by Fibertec IHS.

Apply an encapsulant, which is compatible with the installation of future replacement materials.

01711.10 FINAL AIR SAMPLING PCM

PCM analysis will be used to analyze clearance samples collected from within all NPE work areas.

01711.10.2 Phase Contrast Microscopy (PCM)

After the work area has successfully passed a visual inspection by Fibertec IHS, air samples will be taken and analyzed in accordance with the procedure for phase contrast microscopy set forth in Section 01714, Work Area Clearance:

If release criteria are not met, repeat final cleaning and continue decontamination procedures from that point.

If release criteria are met, proceed to Subsection 01711.11, Removal of Work Area Isolation, as stated below.

01711.10.3 Transmission Electron Microscopy (TEM)

After the visual inspection by Fibertec IHS, and air samples have been collected by PCM TEM clearance samples (only for areas where more than 160 s.f. of floor tile and/or mastic and 260 l.f. of pipe insulation removal were removed) will be collected.

Any visible dust observed during clearance sampling will require the contractor to re-clean the work area.

01711.11 REMOVAL OF WORK AREA ISOLATION

After all requirements of this section and Section 01714, Work Area Clearance have been met:

Decontaminate, shut down, and remove the pressure differential system. Remove and dispose of all equipment HEPA filters. Seal HEPA-filtered fan units, HEPA vacuums, and similar equipment with 6-mil polyethylene sheeting and duct tape to form a tight seal at intake and exhaust before removal from the work area.

Thoroughly decontaminate, sanitize, and remove personnel decontamination unit.

Remove the critical barriers separating the work area from the rest of the building. Remove any small quantities of residual material found upon removal of the plastic sheeting with wet wiping, HEPA-filtered vacuum cleaners and local area protection.

If significant quantities of residual material are found, as determined solely by Fibertec IHS, the entire area affected shall be decontaminated as specified in Section 01712, Cleaning and Decontamination Procedures.

Remove all equipment, materials, and debris from the work site.

Dispose of all asbestos-containing waste material as specified in Section 02084, Disposal of Asbestos-Containing Waste Material.

01711.12 ABATEMENT TRADE CONTRACTOR RELEASE AND FINAL COMPLETION

Work of the Hazard Abatement Trade Contractor shall not be considered complete until all visible ACM debris is removed and the entire work area is cleaned, decontaminated, and all punch list repairs have been made.

01711.13 CERTIFICATE OF VISUAL INSPECTION

Following this section is a Certificate of Visual Inspection. This certificate is to be completed by the Abatement Trade Contractor and certified by Fibertec IHS.

A copy of this form must be submitted as part of the Abatement Trade Contractor's project close out documentation.

CERTIFICATE OF VISUAL INSPECTION

Fibertec Project Number _____

Fibertec Project Name

Location of Inspection and Amount of ACM Removed

CONTRACTOR CERTIFICATION

In accordance with Section 12442, Project Decontamination, the Contractor hereby certifies that he has visually inspected the work area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, decontamination unit, sheet plastic, etc.) and has found no dust, debris, or residue.

By: (Signature) _____ Date _____

(Print Name) _____

(Print Title) _____

(Company Name) _____

FIBERTEC IHS CERTIFICATION

Fibertec IHS hereby certifies that he has accompanied the Contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Contractor's certification above is a true and honest one.

By: (Signature) _____ Date _____

(Print Name) _____

(Print Title) _____

(Company Name) _____

END OF SECTION 01711

SECTION 01712 – CLEANING AND DECONTAMINATION PROCEDURES

PART 1 – GENERAL

01712.1 RESERVED

01712.2 RELATED WORK SPECIFIED ELSEWHERE

Work Area Clearance

Specified in Section 01714, Work Area Clearance.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

01712.3 GENERAL

Provide all personal protection as required under Section 01010.14 of these specifications titled, “Worker Safety” before start of work of this section.

In several work areas where glovebag and/or critical barrier enclosure removal is employed, and cleaning of the total functional area is not specified, additional cleaning of the immediate work area may be necessary to achieve successful aggressive clearance sampling. Polyethylene barriers may also need to be installed in select locations to effectively isolate the immediate work site from the rest of the functional area, so as to minimize the disturbance of miscellaneous dust from the surrounding environment. Fibertec IHS shall provide direction to the Abatement Trade Contractor site supervisor where this will be required. This additional cleaning and polyethylene barrier installation shall be performed as directed by Fibertec IHS without additional cost to the Owner.

01712.4 WET CLEANING

Accomplish wet cleaning during decontamination with paper towels or disposable cloths.

Immerse paper towel or disposable cloth in container of water with surfactant or diluted removal encapsulant.

Wring out.

Fold into quarters.

Wipe surface once and refold to a fresh face of cloth. Proceed in this manner until all available faces of paper towel or cloths have been used. Do not scrub so hard as to leave toweling debris.

Dispose of paper towel or cloth.

Do not place cloth back in container to rinse out or for any other purpose. If a used towel or cloth comes in contact with water, empty container and refill. Material adhered to a surface with removal encapsulant may require the application of additional removal encapsulant to facilitate cleaning.

01712.5 CLEANUP OF WORK AREAS

Work of this section is limited to the cleanup of the work area following successful clearance monitoring.

Clean work areas of asbestos-containing debris and decontaminate the area using the following sequence:

Locate and operate at least one HEPA-equipped air filtration unit within the work area and exhaust outside of the work area.

Adequately wet any visible ACM debris.

Pick up all large pieces of ACM debris and place in the bottom of a 6-mil polyethylene disposal bag conforming to the requirements of Section 02084, Disposal of Asbestos-Containing Waste Material. Place pieces in the bag without dropping and avoiding unnecessary disturbance and release of material.

Remove all remaining visible debris with a HEPA vacuum.

HEPA vacuum an area three feet beyond the location in which any visible debris was found in two directions each at right angles to the other.

HEPA vacuum, wet wipe, and remove all suspect ACM attached to ladders and/or any tools used and pass out of the work area.

HEPA vacuum the floor using a floor attachment with rubber floor seals and adjustable floor to attachment height. Adjust the height so that the rubber seals are within 1/16" of hard surface floors. Vacuum the floor in parallel passes with each pass overlapping the previous by one-half the width of the floor attachment. At the completion of one cleaning vacuum the floor a second time at right angles to the first.

01712.6 CLEANING AND DECONTAMINATING OBJECTS

01712.6.1 Cleaning of Objects Prior to Construction of Containment

HEPA vacuum all surfaces of object and immediate area before moving the object.

Pick up object, if possible, and HEPA vacuum all surfaces.

Hand to off-sheet worker who will wet-clean object, if possible, and place in a storage location.

Decontaminate area where object was located by HEPA vacuuming twice, in two perpendicular directions. Wet clean if necessary to remove any debris.

Return object to its original location.

01712.6.2 Decontamination of Objects Prior to Removal from Containments

HEPA vacuum all surfaces of the object(s).

Wash, rinse, and/or wet wipe surfaces of the object(s) with an approved solution and remove from the containment.

Objects such as ceiling tile are not to be saturated with water and/or encapsulant.

If object(s) are to be salvaged or disposed of as non-asbestos waste no visible debris is to be present on the surfaces of the object(s).

01712.7 DECONTAMINATION OF ROOMS

Work of this section is limited to the cleanup of spaces which have been contaminated by fiber migration or gross debris.

Shut down all ventilation into space.

Seal entry to work area with 6-mil polyethylene. Slit polyethylene for entry. Install a flap to cover the slit automatically. Tape slit closed after entry.

Locate and operate at least one HEPA-equipped air filtration unit within the work area and exhaust outside of the work area.

HEPA vacuum all surfaces in the room starting at the ceiling, continue to top of the wall and work downward to the floor.

HEPA vacuum the floor using a floor attachment with floor seals and adjustable floor to attachment height. Adjust the height so that the seals just touch the floor, if carpeted, and are within 1/16" of hard surface floors. Vacuum the floor in parallel passes with each pass overlapping the previous by one-half the width of the floor attachment. At the completion of one cleaning, vacuum the floor a second time at right angles to the first.

In addition to the above steps, Fibertec IHS may require the following work to the carpeted floors:

- HEPA vacuuming with a beater bar attachment
- HEPA vacuuming, hot water extraction and HEPA vacuuming again when dry.

Mop floors without carpeting and filter mop water through a HEPA-equipped water filtration unit prior to disposal of water.

Wet wipe all horizontal surfaces.

At completion of decontamination work, workers are to decontaminate in accordance with Section 01011.15.1, Decontamination Requirements.

Secure area from occupancy until air monitoring results per Section 01714, Work Area Clearance, indicate area is safe for re-occupancy.

END OF SECTION 01712

SECTION 01714 – WORK AREA CLEARANCE

PART 1 – GENERAL

01714.1 RELATED DOCUMENTS

Drawings, general provisions of the contract, including general and supplementary conditions, and other Owner requirements, apply to the work of this section.

Visual Inspection: required as a prerequisite of clearance air sampling, is set forth in Section 01711, Project Decontamination.

Air Monitoring: performed by Fibertec IHS prior to, during, and after abatement work as specified in Section 01011, Specific Description of the Work, Asbestos Abatement.

01714.2 SUMMARY

The Owner will provide air monitoring services and sampling required by MIOSHA. (The Abatement Trade Contractor is responsible for assuring that personal air monitoring is conducted in accordance with MIOSHA requirements.)

This section sets forth maximum required post-abatement airborne fiber concentrations in the work area and describes testing procedures Fibertec IHS will use to measure these levels.

01714.3 CONTRACTOR RELEASE CRITERIA

The asbestos abatement work area is cleared when the work area is visually clean and airborne fiber concentrations have been reduced to the level specified below.

The Abatement Trade Contractor shall be considered to have substantially completed the abatement work once he/she meets the requirements of this section and Section 01711, Project Decontamination.

01714.4 VISUAL INSPECTION

Work of this section will not begin until the visual inspection described in Section 01711, Project Decontamination, is completed and has been certified by Fibertec IHS.

01714.5 AIR MONITORING

To determine if the elevated airborne fiber concentration encountered during abatement operations has been reduced to the specified level, Fibertec IHS will secure samples and analyze them according to the following procedures.

Aggressive sampling procedures as described below will be followed.

PCM samples will be secured as indicated below.

TEM samples will be secured as indicated below.

Work Area Clearance: Upon meeting the PCM clearance requirements, the work of

Section 01711, Project Decontamination, can continue.

01714.6 AGGRESSIVE CLEARANCE SAMPLING

When negative pressure enclosure abatement has been performed, all air samples will be taken using aggressive sampling as follows:

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

At least one 20-inch diameter fan per room will be placed in a central location, directed toward the ceiling and operated at low speed for the entire period of sample collection.

Air samples will be collected in areas subject to normal air circulation away from room corners, obstructed locations, and sites near windows, doors, or vents.

After air sampling pumps have been shut off, fan(s) will be shut off.

01714.7 SCHEDULE OF AIR SAMPLES

General

The number and volume of air samples taken and analytical methods used will be in accordance with the following schedule. Sample volumes given may vary depending upon the analytical instruments used.

01714.7.1 Phase Contrast and Transmission Electron Microscopy

In each homogenous work area after completion all cleaning work, a minimum of three samples will be taken and analyzed as follows:

PCM and TEM Samples will be collected on 25-mm cassettes with the following filter media:

PCM: 0.8-micron pore size, mixed cellulose ester filter membrane in a cassette with a conductive extension cowl.

TEM: .45-micron pore size, mixed cellulose ester filter membrane in a cassette with a conductive extension cowl.

Location Sampled	Number of Samples	Analysis Method	Detection limit	Minimum Volume (Liters)	Rate (lpm)
Each work area	5	PCM	0.01 fibers/cc	1,200	1-16
Analytical blanks	2 or (10%)	PCM	-	0	-
Each work area	10	TEM	70 structures per square millimeter	1,200	1-10
Analytical blanks	3	TEM	-	0	-

Analysis

Fibers on each filter will be measured using the most recent version of the NIOSH 7400 Method entitled, "Fibers". TEM samples will be measured using the most recent version of the AHERA Protocol.

Fibers

Fibers referred to in the section include fibers regardless of composition as counted by the most recent revision of the NIOSH 7400 Method and the AHERA Protocol.

Release Criteria

Decontamination of the work site is complete when every work area sample is below 0.01 fibers per cubic centimeter of air (f/cc). If any sample is at or above 0.01 f/cc, the decontamination is incomplete and re-cleaning per Section 01711, Project Decontamination, is required. TEM sample results to be less than 70 structures per square millimeter of surface area.

SECTION 02081 – REMOVAL OF ASBESTOS-CONTAINING MATERIALS

PART 1 – GENERAL

02081.1 RESERVED

02081.2 RELATED WORK SPECIFIED ELSEWHERE

Installation of critical and primary barriers and work area isolation procedures are set forth in Section 01010, General Requirements of the Work – Asbestos Abatement.

Project decontamination procedures after removal of the secondary barrier are specified in Section 01711, Project Decontamination.

Disposal of asbestos-containing waste is specified in Section 02084.

02081.3 SUBMITTALS

Project submittals are specified in Section 01011, Specific Description of the Work.

PART 2 – PRODUCTS

02081.4 PRODUCTS

02081.4.1 Wetting Materials

For wetting prior to disturbance of asbestos-containing material use either amended water or a removal encapsulant.

In areas where bulk sampling has indicated the presence of amosite asbestos, a removal encapsulant effective on amosite shall be used in place of water mixed with a wetting agent. The removal encapsulant shall be used in strict accordance with the manufacturer's instructions.

Amended water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the asbestos-containing material and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.

Removal encapsulant: Provide a penetrating type encapsulant designed specifically for removal of asbestos-containing material. Use a material which results in wetting of asbestos-containing material and retardation of fiber release during disturbance of the material equal to or greater than that provided by water amended with a surfactant consisting of one ounce of a mixture of 50% polyoxyethylene ester and 50% polyoxyethylene ether in five gallons of water.

02081.4.2 Polyethylene Sheet

Polyethylene sheeting shall be the largest sheet size possible to minimize seams.

All polyethylene sheeting shall have a thickness no less than that specified within these specifications.

Polyethylene sheeting should be a single polyethylene film in the largest sheet size possible to minimize seams, 6-mil thick, clear, frosted, or black.

02081.4.3 Duct Tape

Provide duct tape in 2" or 3" widths as indicated, with an adhesive which is formulated to stick tenaciously to polyethylene sheeting.

No non-waterproof tape may be used for attaching plastic sheets or for sealing areas of potential leakage. At a minimum a high quality duct tape or equivalent will be used for this purpose.

02081.4.4 Spray Cement

Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to polyethylene sheeting.

NOTE: This is the only approved usage of spray adhesives. **Do not use spray adhesives on any existing surface.**

02081.4.5 Vacuums

All vacuums are to be equipped with HEPA filters to conform to MIOSHA requirements.

02081.4.6 Disposal Bags

Provide 6-mil thick leak-tight polyethylene bags labeled as required by Section 02084, Disposal of Asbestos-Containing Waste Material.

PART 3 – EXECUTION

02081.5 WORKER PROTECTION

Before beginning work with any material for which a material safety data sheet has been submitted, provide worker with the required protective equipment. Require that appropriate protective equipment be used at all times.

END OF SECTION 02081

SECTION 02084 – DISPOSAL OF ASBESTOS CONTAINING WASTE MATERIAL

PART 1 – GENERAL

02084.1 RESERVED

02084.2 DESCRIPTION OF THE WORK

This section describes the disposal of asbestos containing material (ACM). Disposal includes packaging of asbestos-containing waste materials. Disposal may be accomplished either by landfilling or converting asbestos containing materials to non-asbestos (asbestos-free) waste.

02084.3 SUBMITTALS

Project submittals are specified in Section 01011, Specific Description of Work, Asbestos Abatement.

PART 2 – PRODUCTS

02084.4 DISPOSAL BAGS

Provide 6 mil thick leak-tight polyethylene bags. All bags must be appropriately labeled prior to loading into dumpster or truck for later disposal. All ACM waste bags must be labeled as follows:

First label: Provide in accordance with 29 CFR 1910.1200 (f) of the MIOSHA Hazard Communication Standard and 29 CFR 1926.1101 (k)(8) of the MIOSHA Asbestos in Construction Standard:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
MAY CAUSE DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

Second label: Provide in accordance with U.S. Department of Transportation regulation on hazardous waste marking. 49 CFR Parts 171 and 172. Hazardous substances: Final Rule, Published November 21, 1986 and revised February 17, 1987:

RQ HAZARDOUS
SUBSTANCE
SOLID NOS
ORM-E NA 9188
(ASBESTOS)

Third Label: Name of the generator, the location at which the waste was generated, and name and address of the Hazard Abatement Trade Contractor.

Owner: Dansville School District
1264 Adams Street
Dansville, MI 48819

Site: Band Building and Weight Room Building
Dansville, Michigan

Contractor: Company Name
Address
City, State, Zip

02084.5 PART 3 – EXECUTION

Comply with worker safety procedures as outlined in these specifications in Sub-Section 01010.11, Worker Safety, during all phases of the work.

02084.6 GENERAL DISPOSAL REQUIREMENTS

Waste is to be hauled by an insured (see general requirements) waste hauler with all required licenses. The Hazard Abatement Trade Contractor is responsible to ensure and guarantee that state and local rules and regulations are followed.

The waste transport vehicle must be placarded pursuant to MDOT and NESHAP regulations.

The Abatement Trade Contractor is to maintain and submit waste shipment records per NESHAP 40 CFR Part 61, Final Rule.

Waste materials are to be contained in one of the following:

Two 6-mil disposal bags or

Two 6-mil disposal bags and a fiberboard drum or box or

Fiberboard drum with a 6-mil disposal bag. Documentation is required from the landfill operator, prior to use of this method, that waste containerized in this manner will be accepted for disposal.

Protect interior of truck or dumpster with critical and primary barriers.

Carefully load containerized waste in fully enclosed dumpsters, trucks or other appropriate vehicles for transport. Exercise care before and during transport, to ensure that no unauthorized persons have access to the material.

Window disposal with asbestos will be packaged appropriately (minimum of 6-mil wrapped) and labeled as asbestos-containing. Ensure the landfill requirements are met for containerization.

Ensure all MDOT/MIOSHA/DEQ/EPA labeling requirements are met.

Notification Information for Band Building

- Name of firm conducting inspection: Fibertec IHS, 1914 Holloway Drive, Holt, Michigan 48842
- Name of Inspector: Kristin Peterson, A25037
- Date(s) of inspection: March 16, 2017
- Bulk sample analysis by: EPA 600/R-93/116 by NVLAP accredited laboratory of Fibertec IHS (Lab Code 101510-0)
- Building size: 1,000 s.f.
- Construction: 1970's
- Building use (past and current): Middle School Band Building
- Building Address: 1264 Adams Street, Dansville, Michigan 48819

Notification Information for the Weight Room

- Name of firm conducting inspection: Fibertec IHS, 1914 Holloway Drive, Holt, Michigan 48842
- Name of Inspector: Kristin Peterson, A25037
- Date(s) of inspection: March 16, 2017
- Bulk sample analysis by: EPA 600/R-93/116 by NVLAP accredited laboratory of Fibertec IHS (Lab Code 101510-0)
- Building size: 400 s.f.
- Construction: 1970's
- Building use (past and current): Middle School Weight Room
- Building Address: 1264 Adams Street, Dansville, Michigan 48819

END OF SECTION 02084

Project Schedule

April 14	Bid Posting
April 21	Mandatory Walkthrough at Dansville
May 3	All vendor questions due to cjones@inghamisd.org
May 5	Q & A Addendum will post
May 11	Bids Due by 10:00 am to Dansville Schools – bid opening at 10:00 am
May 12	Post-Bid Interview with LRB at 10:00 am
May 15	Board of Education to award contract
June 12	Approximate date for work to begin