

Eagle Mountain-Saginaw Independent School District

REQUEST FOR COMPETITIVE SEALED PROPOSALS (RFCSP)

RFCSP Number: 1213-007-2017

**RFCSP Title: Abatement of Asbestos Containing Materials –
Indefinite Quantities Annual Contract**

Due Date: February 13, 2013

Prior to: 2:00 p.m.

Sealed CSP will be received in accordance with the attached specifications. The sealed envelope containing your CSP should be plainly marked with the RFCSP title, number, and opening date and time. CSPs are publicly opened. You are invited to attend. **PLEASE NOTE: Late CSPs WILL NOT be accepted.**

Mail or deliver one (1) original and three (3) complete copies of CSP package to:

Eagle Mountain-Saginaw Independent School District
Attn: Lucia Cieszlak
Director of Purchasing
1200 Old Decatur Rd., **Business Building #6**
Fort Worth, Texas 76179

All questions must be submitted in writing (email preferred) and received on or before seven (7) calendar days prior to the opening date. **No verbal responses will be provided.** Please note that RFCSP tabulations are available on our website ([www.emsisd.com/Departments/Purchasing/Bid Tabulations](http://www.emsisd.com/Departments/Purchasing/Bid%20Tabulations)). Address questions to:

Lucia Cieszlak
Email: lcieszlak@ems-isd.net

PROPOSER IDENTIFICATION: (Please print information clearly.)

Company Name:	_____	Date:	_____
Address:	_____	Phone:	_____
	_____	Fax:	_____
City/St/Zip:	_____	Email:	_____

You MUST sign the RFCSP Response Form (Form A) in order for your RFCSP to be accepted.

Where the word Bid/Bidder appears in this document, it shall be interpreted as Proposal/Proposer.

SPECIFICATION DOCUMENT

**FOR ABATEMENT OF
ASBESTOS-CONTAINING MATERIALS**

COMPETITIVE SEALED PROPOSALS FOR INDEFINITE QUANTITIES ANNUAL CONTRACT

For

**EAGLE MOUNTAIN-SAGINAW INDEPENDENT SCHOOL DISTRICT
1200 OLD DECATUR ROAD, BLDG. #6
FORT WORTH, TEXAS 76179**

EM-S ISD RFCSP NUMBER 1213-007-2017

PROJECT NO: 2013-001

PREPARED BY:

**LAMBERT AND ASSOCIATES, INC.
Environmental Consultants
2013 FAIRWAY BEND DRIVE
HASLET, TEXAS 76052-2805
(817) 439-3633**



Gary D. Lambert

Individual Asbestos Consultant License No. 10-5259 Asbestos

Consultant Agency License No. 10-0071 American Industrial Hygiene
Association No. 10-1418

Mold Assessment Company License No. ACO0151 - Expires 2/3/2014 Mold Assessment

Consultant License No. MAC0335 - Expires 2/3/2014

JANUARY 11, 2013

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NOTE: This index is intended as an aid to PROPOSERS and not as a comprehensive listing of the RFCSP package. PROPOSERS are responsible for reading the entire RFCSP package and complying with all specifications.

* **Instructions to Bidders – Eagle Mountain Saginaw ISD instructions override Lambert and Associates instructions; however, both sections must be completed.**

PROJECT DIRECTORY

SECTION 00010

**PROJECT: EAGLE MOUNTAIN-SAGINAW INDEPENDENT SCHOOL DISTRICT
COMPETITIVE SEALED PROPOSALS FOR INDEFINITE DELIVERY
QUANTITIES OF ASBESTOS ABATEMENT
RFCSP NUMBER 1213-007-2017**

PROJECT NO: 2013-001

**OWNER: EAGLE MOUNTAIN-SAGINAW INDEPENDENT SCHOOL DISTRICT
MS. LUCIA CIESZLAK
DIRECTOR OF PURCHASING
1200 OLD DECATUR ROAD, BLDG. #6
FORT WORTH, TEXAS 76179**

CONSULTANT:

(Owner's Representative/Testing Laboratory/
Project Administrator, Asbestos Consulting Agency)

LAMBERT AND ASSOCIATES, INC.
2013 FAIRWAY BEND DRIVE
HASLET, TEXAS 76052-2805
METRO (817) 430-1131
(817) 439-0051
FAX (817) 439-3633

PROJECT MANAGER: GARY D. LAMBERT

LICENSED BY THE DEPARTMENT OF STATE HEALTH SERVICES



Gary D. Lambert
Individual Asbestos Consultant License No. 10-5259
Asbestos Consultant Agency License No. 10-0071
American Industrial Hygiene Association No. 10-1418
Mold Assessment Company License No. ACO0151 – Exp. 2/3/2014
Mold Assessment Consultant License No. MACO335 – Exp. 2/3/2014

SECTION I

RFCSP RESPONSE CHECKLIST

To be considered a responsive Bid/RFCSP, all pages requiring signature (including but not limited to Forms A, B, C, D, E, F, G, H, I), the Cover Page, plus any/all attachments or documents requested, must be completed with all requested information, **SIGNED** and **RETURNED** sealed in an envelope or other appropriate package adequate to conceal and contain the contents prior to the bid/RFCSP date and time.

Please verify that the documents listed below have been completed, signed, and included in your bid/RFCSP prior to submittal. **Failure to return these documents may cause your bid/RFCSP to be rejected.**

- ☐ Completed – Cover Page (page 1)
- ☐ Completed – Bid/RFCSP Response Form – Form A
- ☐ Completed – Deviation/Compliance – Form B
- ☐ Completed – Non-Collusion Statement – Form C
- ☐ Completed – Criminal Background Check and Felony Conviction Notification – Form D
- ☐ Completed – Nonresident Bidder's Certification – Form E
- ☐ Completed – Debarment or Suspension Certification – Form F
- ☐ Completed – Conflict of Interest Questionnaire – Form H
- ☐ W-9

FORM A

RFCSP RESPONSE FORM

The undersigned, in submitting this RFCSP and endorsement of same, represents that he/she is authorized to obligate his/her Firm, that he/she is an equal opportunity employer and will not discriminate with regard to race, color, religion, sex, national origin, age or disability unrelated to job performance of this RFCSP; that he/she will abide by all the policies and procedures of EM-S ISD; and that he/she has read this entire RFCSP package (Sections I through VII), is aware of the covenants contained herein and will abide by and adhere to the expressed requirements in ***ALL*** sections of this RFCSP.

Failure to manually sign this RFCSP Response Form will be reason for the RFCSP to be rejected.

SUBMITTED BY:

Firm:

(LEGAL Firm Name)

***MUST BE SIGNED IN INK TO BE
CONSIDERED RESPONSIVE***

By:



(Original Signature)

Name:

(Typed or Printed Name)

Title:

(Type or Printed Title)

(Date)

Contact

Representative: _____

Address: _____

City/ST/Zip: _____

Phone #: _____

Fax #: _____

Email: _____

Taxpayer Identification #: _____

***NOTE: Submit copy of Bidder's/
Proposer's current W-9 Form***

Prompt Payment Discount: _____

%

_____ Days

I hereby acknowledge receipt of the following addenda which have been issued and incorporated into the Bid/RFCSP Document. *(Please initial in ink beside each addenda received. If none received, leave blank)*

Addendum No. 1 _____

Addendum No. 3 _____

Addendum No. 2 _____

Addendum No. 4 _____

FORM B

DEVIATION/COMPLIANCE SIGNATURE FORM

If the undersigned Firm intends to deviate from the Specifications listed in this bid/RFCSP document, all such deviations must be listed on this page, with complete and detailed conditions and information included or attached. The District will consider any deviations in its bid/RFCSP award decisions, and the District reserves the right to accept or reject any bid/RFCSP based upon any deviations indicated below or in any attachments or inclusions.

In the absence of any deviation entry on this form, the Firm assures the District of his/her full compliance with the Terms and Conditions, Specifications, and all other information contained in this bid/RFCSP document.

- ☐ No Deviation
- ☐ Yes Deviations

Firm's Name: _____

Name of Authorized Company Official: _____
(Typed or printed)

Title of Authorized Company Official: _____
(Typed or printed)

Signature of Authorized Company Official: _____

Date Signed: _____

If yes is checked, please list below. Attach additional sheet(s) if needed.

FORM C

NON-COLLUSION STATEMENT

“The undersigned affirms that he/she is duly authorized to execute this bid/RFCSP, that this company, corporation, firm, partnership or individual has not prepared this bid/RFCSP in collusion with any other bidder/proposer, and that the contents of this bid/RFCSP as to prices, terms or conditions of said bid/RFCSP have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this bid/RFCSP.”

Firm's Name: _____

Name of Authorized Company Official: _____
(Typed or printed)

Title of Authorized Company Official: _____
(Typed or printed)

Signature of Authorized Company Official: _____

Date Signed: _____

Firm hereby assigns to purchaser any and all claims for overcharges associated with this bid/RFCSP which arise under the antitrust laws of the United States, 15 USCA Section 1 and which arise under the antitrust laws of the State of Texas, Business and Commerce Code, Section 15.01.

FORM D

CRIMINAL BACKGROUND CHECK AND FELONY CONVICTION NOTIFICATION

(a) CRIMINAL BACKGROUND CHECK

Firm will obtain history record information that relates to an employee, applicant for employment, or agent of the Firm if the employee, applicant, or agent has or will have continuing duties related to the contracted services; and the duties are or will be performed on school property or at another location where students are regularly present. The Firm certifies to the EMSISD before beginning work and at no less than an annual basis thereafter that criminal history record information has been obtained. Firm shall assume all expenses associated with the background checks, and shall immediately remove any employee or agent who was convicted of a felony, or misdemeanor involving moral turpitude, as defined by Texas law, from EMSISD's property or other location where students are regularly present. EMSISD shall be the final decider of what constitutes a "location where students are regularly present." Firm's violation of this section shall constitute a material breach and default.

(b) FELONY CONVICTION NOTIFICATION

Texas Education Code, Section 44.034, Notification of Criminal History, Subsection (a), states, "a person or business entity that enters into a contract with a school district must give advance notice to the District if the person or owner or operator of the business entity has been convicted of a felony." The notice must include a general description of the conduct resulting in the conviction of a felony.

Subsection (b) states, "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction." The district must compensate the person or business entity for services performed before the termination of the contract.

THE FELONY CONVICTION NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION.

I, the undersigned agent for the firm named below, certify that the information concerning criminal background check and notification of felony convictions has been reviewed by me, the following information furnished is true to the best of my knowledge, and I acknowledge compliance with this section.

Firm's Name: _____

Name of Authorized Company Official: _____
(please print clearly or type)

A. My firm is a publicly-held corporation; therefore, this reporting requirement is not applicable:

Signature of Company Official: _____ Date: _____

B. My firm is not owned nor operated by anyone who has been convicted of a felony.

Signature of Company Official: _____ Date: _____

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:

Name of Felon(s): _____

Details of Conviction(s): _____

Signature of Company Official: _____ Date: _____

FORM D – CONTINUED

PAGE 2/2

Vendor is responsible for the performance of the persons, employees and/or sub-contractors Vendor assigns to provide services for the Eagle Mountain-Saginaw ISD pursuant to this bid/RFCSP on any and all Eagle Mountain-Saginaw ISD campuses or facilities. Vendor will not assign individuals to provide services at an Eagle Mountain-Saginaw ISD campus or facility who have a history of violent, unacceptable, or grossly negligent behavior or who have a felony conviction, without the prior written consent of the Eagle Mountain-Saginaw ISD Purchasing Department.

FORM E

RESIDENT/NONRESIDENT BIDDER'S CERTIFICATION

Texas Government Code Chapter 2252 relates to bids by nonresident contractors. The pertinent portions of the Act are as follows:

Section 2252.001(3)

"Nonresident bidder" means a bidder who is not a resident.

Section 2252.001(4)

"Resident bidder" means a bidder whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

Section 2252.002

A governmental entity may not award a governmental contract to a nonresident bidder unless the nonresident underbids the lowest bid submitted by a responsible resident bidder by an amount that is not less than the amount by which a resident bidder would be required to underbid the nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located.

I certify that _____ is a

Resident Bidder of Texas as defined in Texas Government Code Section 2252.001(4)

Signature of Authorized Company Official: _____

Name of Authorized Company Official: _____

.....

I certify that _____ is a

Nonresident Bidder of Texas as defined in Texas Government Code Section 2252.001(3) and our principal place of business is:

City and State: _____

Signature of Authorized Company Official: _____

Name of Authorized Company Official: _____

If the Bidder is a Nonresident Bidder of Texas, please answer the following:

Does the vendor or the vendor's ultimate parent company or majority owner employ at least 500 persons in Texas?

Yes _____

No _____

FORM F

DEBARMENT OR SUSPENSION CERTIFICATION FORM

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transaction to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement of goods or services equal to or in excess of \$100,000. Contractors receiving individual awards of \$100,000 or more and all sub-recipients must certify that the Firm and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, this Firm:

- (1) Certifies that no suspension or debarment is in place, which would preclude receiving a federally funded contract under the Federal OMB, A-102, common rule.

Firm's Name: _____

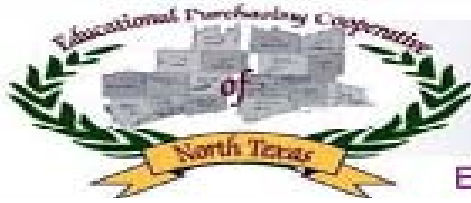
Name of Authorized Company Official: _____
(Typed or printed)

Title of Authorized Company Official: _____
(Typed or printed)

Signature of Authorized Company Official: _____

Date Signed: _____

FORM G



EPCNT
Educational Purchasing Cooperative of North Texas

INTERLOCAL AGREEMENT CLAUSE

Several governmental entities around the Eagle Mountain-Saginaw Independent School District have indicated an interest in being included in this contract. Should these governmental entities decide to participate in this contract, would you, (the vendor) agree that all terms, conditions, specifications, and pricing would apply?

Yes _____

No _____

If you (the Vendor) checked yes, the following will apply:

Governmental entities utilizing interlocal agreements with the Eagle Mountain-Saginaw Independent School District will be eligible, but not obligated, to purchase materials/services under the contract(s) awarded as a result of this solicitation. All purchases by governmental entity other than Eagle Mountain-Saginaw Independent School District will be billed directly to that governmental entity and paid by that governmental entity. Eagle Mountain-Saginaw Independent School District will not be responsible for another governmental entity's debts. Each governmental entity will order its own material/service as needed.

For information regarding the Educational Purchasing Cooperative of North Texas, please visit their website at the following address: <http://www.epcnt.com/INDEX.htm>.

Company Name:

(Typed or printed)

Title of Authorized Company Official:

(Typed or printed)

Signature of Authorized Company Official:

Date Signed:

FORM H

CONFLICT OF INTEREST QUESTIONNAIRE For vendor or other person doing business with local governmental entity		FORM CIQ
<p>This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.</p> <p>This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).</p> <p>By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.</p> <p>A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.</p>		<div style="border: 1px solid black; padding: 2px; text-align: center;">OFFICE USE ONLY</div> <div style="border: 1px solid black; height: 150px; margin-top: 5px; text-align: center; vertical-align: top; padding-top: 10px;">Date Received</div>
1 Name of person doing business with local governmental entity.		
<div style="display: flex; align-items: flex-start;"><div style="margin-right: 20px;">2 <input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/></div><div>Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)</div></div>		
3 Name of local government officer with whom filer has employment or business relationship.		
<div style="text-align: center; margin-bottom: 10px;">_____ Name of Officer</div> <p>This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.</p> <p>A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"><div><input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> Yes</div><div><input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> No</div></div> <p>B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"><div><input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> Yes</div><div><input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> No</div></div> <p>C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"><div><input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> Yes</div><div><input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> No</div></div> <p>D. Describe each employment or business relationship with the local government officer named in this section.</p>		
4		
_____ Signature of person doing business with the governmental entity		_____ Date

FORM I

VENDOR DATA FORM

How long has the company been in business? _____

1. For Purchase Orders: ORDERING ADDRESS INFORMATION

Company Name: _____

Address: _____

Business Phone: _____

Fax: _____

Contact Person: _____

Email: _____

Does your company accept orders via email? Yes

☐

No

☐

If yes, what is the ordering email address? _____

2. For Payments: REMITTANCE ADDRESS INFORMATION

Company Name: _____

Address: _____

Business Phone: _____

Fax: _____

Contact Person: _____

Email: _____

3. For Bid Notifications: BID NOTICES ADDRESS INFORMATION

Company Name: _____

Address: _____

Business Phone: _____

Fax: _____

Contact Person: _____

Email: _____

SECTION II – INSTRUCTIONS TO BIDDERS/PROPOSERS

1. To be considered a responsive Bid/RFCSP, all pages requiring signature (including but not limited to Forms A, B, C, D, E, F, G, H, I), the Cover Page, plus any/all attachments, must be completed with all requested information, **signed** and returned **sealed** in an envelope or other appropriate package adequate to conceal and contain the contents prior to the bid/RFCSP date and time. Each bid/RFCSP shall be placed in a separate envelope and properly identified with the Bid/RFCSP Number, Bid/RFCSP Title, Name of Company submitting bid/RFCSP, and the established time and date to be opened.
2. The Bidder/Proposer is strongly encouraged to read the entire Bid/RFCSP document prior to submitting response. Failure to provide the information requested in its entirety may be grounds for disqualification of bid/RFCSP.
3. If any exceptions are taken to any portion of this Bid/RFCSP, the Bidder/Proposer must clearly indicate the exception taken and include a full explanation on the Deviation/Compliance Form or as a separate attachment to the Bid/RFCSP. The failure to identify exceptions or proposed changes will constitute acceptance by the Supplier of the Bid/RFCSP as proposed by the District. The District reserves the right to reject a bid/RFCSP containing exceptions, additions, qualifications, or conditions.
4. The bid/RFCSP response **must be signed** by an individual authorized to contractually bind the company submitting the bid/RFCSP. A failure to sign the bid/RFCSP will cause it to be rejected as non-responsive. Bids/RFCSPs must give full firm name and address of bidder/proposer. Person signing bid/RFCSP should show title or authority to bind his/her firm in a contract.
5. Bids/RFCSPs **must be received** in the Purchasing Department office **prior to** the hour and date specified in this document or any subsequent Addenda. No other published dates will be binding. **LATE BIDS/RFCSPs WILL NOT BE ACCEPTED.** No oral, telegraphic, telephonic, electronic mail, or facsimile transmitted bids/RFCSPs will be considered. The clock located in the EMSISD Purchasing Department is considered the official time for receiving and opening bids/RFCSPs.
6. Sealed bids/RFCSPs shall be mailed or otherwise delivered to the following address:

Eagle Mountain-Saginaw Independent School District
Attention: Lucia Cieszlak
Director of Purchasing
1200 Old Decatur Rd., Business Building #6
Fort Worth, Texas 76179

7. All questions regarding this invitation **must be submitted in writing** (email preferred) to Lucia Cieszlak (lcieszlak@emsisd.net). Requests for information/interpretation must be received on or before seven (7) calendar days prior to the opening date. Only questions answered by formal written addenda will be binding.
8. Addenda will be posted to the Eagle Mountain-Saginaw ISD web page. You may obtain the addenda from our internet/web site address at www.emsisd.com by choosing "Departments," then "Purchasing," then "Bid Opportunities." It is the responsibility of each bidder/proposer to obtain all addenda that pertains to this bid/RFCSP. **Bidders/Proposers who submit a bid/RFCSP without acknowledging receipt of all addenda issued may be deemed to have submitted a bid/RFCSP not responsive to this solicitation.** Failure to receive such addenda does not relieve bidder/proposer from any obligation under the bid/RFCSP submitted. All formal written addenda become a part of the bid/RFCSP documents. Bidders/proposers shall acknowledge receipt of all addenda in the Bid/RFCSP Response Form.
9. Bids/RFCSPs must remain open for acceptance for a period of **sixty (60) days** subsequent to the opening of bids/RFCSPs, unless otherwise indicated, to allow time for the offer(s) to be evaluated and Board of Trustees action, if required.

SECTION 00020
INVITATION FOR BID

* SECTION 00050
INSTRUCTIONS TO BIDDERS EM-S ISD

10. The successful bidder(s)/proposer(s) will be notified in writing (manifested by an award letter or properly executed purchase order) after review and acceptance by the Eagle Mountain-Saginaw ISD.
11. All Bidders/Proposers must execute the forms enclosed (or otherwise requested herein) for the bid/RFCSP to be considered responsive. The name of the company representative on these forms should be the same. All supplemental information required by the Bid/RFCSP Form must be included with the Bid/RFCSP. Failure to provide complete and accurate information may disqualify the bidder/proposer.
12. On May 25, 2007, the Texas Senate passed House Bill No. 1491, providing clarification to Chapter 176 of the Texas Local Government Code, which imposes new disclosure and reporting obligations on vendors and potential vendors to local government entities beginning on January 1, 2006. Failure to abide by these new statutory requirements can result in possible criminal penalties.

Vendors that do business with a school district are required to file a questionnaire to identify any potential conflicts of interest. The CONFLICT OF INTEREST QUESTIONNAIRE can be downloaded from the District internet/web address at <http://www.emsisd.com> or the Texas Ethics Commission web address at http://www.ethics.state.tx.us/whatsnew/conflict_forms.htm

Note: The Eagle Mountain-Saginaw Independent School District will not provide any further interpretation or information regarding these new requirements under House Bill No. 1491.

13. It is the intent of the Eagle Mountain-Saginaw Independent School District to foster utilization of historically underutilized businesses (HUBS) including Disadvantaged/Minority/Women-Owned Business Enterprises in its procurement activities. The District is particularly interested in receiving bids/RFCSPs directly from HUBS or from joint ventures involving HUB representation.
14. It is the policy of the Eagle Mountain-Saginaw Independent School District not to discriminate on the basis of sex, disability, race, color, or national origin in its educational programs and/or activities, nor in its employment practices.
15. In order to ensure the integrity of the selection process, Bidder/Proposer's employees, officers, agents, or other representatives shall not lobby or attempt to influence a vote or recommendation related to the Bidder/Proposer's response, directly or indirectly, through any contact with school board members or other district officials from the date this Bid/RFCSP is released until the award.
16. This bid/RFCSP is subject to cancellation by the District if any person significantly involved in initiating, negotiating, securing, drafting, or creating the offer on behalf of Eagle Mountain-Saginaw Independent School District, is at any time while the bid/RFCSP is in effect, an employee of any other party to the bid/RFCSP in any capacity or a consultant to any other party of the bid/RFCSP with respect to the subject matter of the bid/RFCSP.
17. Any board member who has any substantial interest, either direct or indirect, in any business entity seeking to contract with the District, shall, before any vote or decision on any matter involving the business entity, file an affidavit stating the nature and extent of interest and shall abstain from any participation in the matter. This is not required if the vote or decision will not have any special effect on the entity other than its effect on the public. However, if a majority of the governing body are also required to file, and do file similar affidavits, then the member is not required to abstain from further participation. Vernon's Texas Codes Annotated, Local Government Code, Ch. 171.
18. Vendors (owners, officers, employees, volunteers, etc.) may not work on district property where students may or may not be present when they have charges pending, have been convicted, received probation or deferred adjudication for the following:

SECTION 00020
INVITATION FOR BID

* SECTION 00050
INSTRUCTIONS TO BIDDERS EM-S ISD

- A. Any offense against a child
 - B. Any sex offense
 - C. Any crimes against persons involving weapons or violence
 - D. Any felony offense involving controlled substances
 - E. Any felony offense against property
 - F. Any other offense the District believes might compromise the safety of students, staff, or property
19. All contractors, subcontractors and their employees must submit to the Eagle Mountain-Saginaw ISD proof of a satisfactory criminal record history of all individuals working on District property through background checks conducted as required by Senate Bill 9. The criminal record history must be obtained by the successful bidder before any work is performed. The information regarding the requirements for conducting a criminal records check is posted on The Texas Department of Public Safety's website, www.txdps.state.tx.us by clicking open Crime Records and reading School District Guide to Senate Bill 9. The cost for each criminal records check is approximately \$100.00.
20. Use or possession of weapons, fire arms, tobacco, alcohol beverages, controlled substances, and/or drugs, even in vehicles, is strictly prohibited on school district property. Any harassment of employees, students, or volunteers is also strictly prohibited.
21. Vendors who perform work inside the EMSISD facilities are hereby notified that our buildings may contain asbestos containing materials. This notification is required by both the State of Texas Department of State Health Services and the Federal EPA Asbestos regulations. These guidelines cover both EMSISD's responsibilities and the Employer's responsibility to their employees. As a Vendor it is your responsibility to check each building prior to performing any work in that facility. These building materials may include but are not limited to: ceiling tile, floor tile and mastic, sheetrock, tape and bed compound, thermal pipe insulation, spray-on ceiling material, calks, and roofing products. As there have been numerous asbestos containing products manufactured over the years, you must check each building's Asbestos Management Plan. This plan is normally kept in the main office. Check with the school secretary and she will allow you to look at it. It is the vendor's responsibility to notify all employees working for them that EMSISD facilities may contain asbestos and where their employees may find the facility's Asbestos Management Plan. Again, it is the Vendor's responsibility to check the Asbestos Management Plan for each facility prior to working in the facility and then to notify their employees performing the actual work. The information is found in section eight (8) for all asbestos that are remaining in the building. If after looking in the Asbestos Management Plan you are uncertain about whether the area you will be working in contains asbestos or not, please contact Clete Welch, Chief Operations Officer, at 817-306-0864 for further assistance.
22. The District reserves the right to acquire reasonable amount of additional goods or services, as listed on this bid/RFCSP, subject to verification of the same or lower prices and conditions on bid/RFCSP.

This document is provided as a courtesy only and does not relieve the Bidder/Proposer of his/her responsibility to contact EMSISD Purchasing Department to obtain Bid/RFCSP documents. It is also the responsibility of the Bidder/Proposer to keep the EMSISD advised of current mailing address. **EMSISD IS NOT RESPONSIBLE FOR UNDELIVERABLE MAIL.**

SECTION III – BID/RFCSP REQUIREMENTS AND CONDITIONS

In submitting a bid/RFCSP, Bidder/Proposer understands and agrees to be bound by the following terms and conditions which shall be incorporated into any future contracts, agreements, or purchase orders relating to this bid/RFCSP between the vendor and the Eagle Mountain-Saginaw Independent School District. By submitting a bid/RFCSP, each bidder/proposer agrees to waive any claim it has or may have against the Eagle Mountain-Saginaw Independent School District arising out of or in connection with the administration, evaluation, or recommendation of any bid/RFCSP; waiver of any requirements under the Bid/RFCSP documents; acceptance or rejection of any Bids/RFCSPs; and award of Contracts, if any.

1. WITHDRAWING BIDS/RFCSP

Bids/RFCSPs deposited with the Eagle Mountain-Saginaw Independent School District (hereinafter called “EMSISD” or “District”) can be withdrawn, upon written request, prior to the time set for opening bids/RFCSPs. A bid/RFCSP may not be withdrawn after the bids/RFCSPs have been opened, and the Bidder/Proposer, by submitting a bid/RFCSP, warrants and guarantees that the bid/RFCSP has been carefully reviewed and checked and that it is in all things true and accurate and free of mistakes.

Bids/RFCSPs cannot be altered or amended after opening time. Any alterations made before opening time **must** be initialed by bidder/proposer or his/her authorized agent.

2. CONSIDERATION OF BIDS/RFCSP

Bids/RFCSPs must be signed, sealed and delivered to the Eagle Mountain-Saginaw Independent School District Purchasing Department office PRIOR TO the bid/RFCSP due date and time. Unsigned, unsealed or late bids/RFCSPs will not be considered. After bids/RFCSPs are opened and publicly read aloud, the bids/RFCSPs will be tabulated for comparison on the basis of the bid/RFCSP prices and quantities shown in the bid/RFCSP.

The Eagle Mountain-Saginaw Independent School District Board of Trustees reserves the right to reject any or all bids/RFCSPs, to waive technicalities, and to re-advertise for new bids/RFCSPs, or proceed to do the work otherwise in the best interests of the District.

Cash discounts with terms less than thirty (30) days will not be considered in the awarding of Bids/RFCSPs and will be tabulated as “net.”

Bids/RFCSPs received after the date and time specified **will not** be considered. The Purchasing Department will notify those firms submitting late bids/RFCSPs and will hold documents for pick-up for five (5) business days following late bid/RFCSP notification. **All late bids/RFCSPs which are not picked up by the Bidder/Proposer within five business days will be discarded.**

3. AWARD CRITERIA (See Section V – Bid/RFCSP Evaluation Criteria)

The District reserves the right to award this bid/RFCSP to a single vendor, multiple vendors, each line item separately, or in any combination it determines to be in the best interest of the District. If the bidder/proposer chooses to bid/propose “all or none” or is not agreeable to multiple or split awards, it must be noted on the Deviation/Compliance Form and included with the bid/RFCSP.

Regardless of the award of Bid/RFCSP hereunder, the District retains the right to purchase the same or similar materials or items from other sources should it be determined that doing so would be in the District's best interest.

4. IRREGULAR BIDS/RFCSP

Bids/RFCSPs will be considered irregular if they show any omissions, alterations of form, additions, or conditions not called for, unauthorized alternate bids/RFCSPs, failure to return all forms and copies, or irregularities of any kind. However, the District reserves the right to waive any irregularities and to make the award in the best interests of the District.

5. REJECTION OF BIDS/RFCSP

The District reserves the right to reject any or all bids/RFCSPs, and all bids/RFCSPs submitted are subject to this reservation. Bids/RFCSPs may be rejected, among other reasons, for any of the following specific reasons:

- A. Bid/RFCSP received after the time limit for receiving bids as stated in the advertisement.
- B. Bid/RFCSP containing any irregularities.
- C. Unbalanced value of any items.
- D. Improper or insufficient bid/RFCSP guaranty, if required.
- E. Where the Bidder/Proposer, any Sub-contractor or Supplier, or the surety on any bond given, or to be given, is in litigation with the District or where such litigation is contemplated or imminent, in the sole opinion of the District.

6. DISQUALIFICATION OF BIDDERS/PROPOSERS

Bidders/proposers may be disqualified and their bids/RFCSPs not considered, among other reasons, for any of the following specific reasons:

- A. Reason for believing collusion exists among the Bidders/Proposers.
- B. Reasonable grounds for believing that any Bidder/Proposer is interested in more than one bid/RFCSP for the work contemplated.
- C. Where the Bidder/Proposer, any Sub-contractor or Supplier, or the surety on any bond given, or to be given, is in litigation with the District or where such litigation is contemplated or imminent, in the sole opinion of the District.
- D. The Bidder/Proposer being in arrears on any existing Contract/Purchase Order or having defaulted on a previous Purchase Order.
- E. Lack of competency as revealed by pertinent factors, including but not necessarily limited to, experience and equipment, financial statement and questionnaires.
- F. Uncompleted work that in the judgment of the District will prevent or hinder the prompt completion of additional work if awarded.
- G. Where the Bidder/Proposer has failed to perform in a satisfactory manner on a previous Purchase Order/Contract.

7. CONFIDENTIAL OR PROPRIETARY MARKINGS

Any portion of the bid/RFCSP that Bidder/Proposer considers confidential or proprietary information, or to contain trade secrets of Bidder/Proposer, must be marked accordingly. This marking must be explicit as to the designated information. This designation may not necessarily guarantee the non-release of the information under the Public Information Act or as otherwise required by law, but does provide the District with a means to review the issues thoroughly and, if justified, request an opinion by the Attorney General's office prior to releasing any information requested under the Public Information Act.

8. NEW MATERIALS

Unless otherwise stated in the specifications, all supplies and components to be provided under this Bid/RFCSP shall be new (not used or reconditioned, and not of such age or so deteriorated as to impair their usefulness or safety), of current production, and of the most suitable grade for the purpose intended. If at any time during the performance of this Bid/RFCSP the Vendor believes that the furnishing of supplies or components which are not new is necessary or desirable, it shall notify the District immediately, in writing, including the reasons and proposing any consideration

which will flow to the District if authorization to use such supplies or components is granted.

9. BRAND NAME OR SUITABLE SUBSTITUTE

This clause is applicable only when a "brand name or suitable substitute" description is included in a solicitation. As used in this clause, the term "brand name" includes identification or products by make and model.

- A. If items for which bids/RFCSPs have been called for have been identified by a "brand name or suitable substitute" description, such identification is intended to be descriptive, but not restrictive, and is to indicate the quality and characteristics of products that will be satisfactory. Bids/RFCSPs offering "suitable substitute" products will be considered for award if such products are clearly identified in the bids/RFCSPs and are determined by the District, at its sole discretion, to be equal in all material respects to the brand name products referenced.
- B. Should any product be delivered or service performed which is not as the successful Bidder/Proposer has purported it to be in its submitting of this Bid/RFCSP, said Bidder/Proposer will be required to correct any deficiencies without additional cost to the District.

10. SAMPLES

Samples and/or product specification documents may be required for items, as specified in Section VI - Special Terms & Conditions/Bid Specifications. Product specification documents (as required in Section VI - Special Terms & Conditions/Bid Specifications) shall be submitted with the bid/RFCSP, properly referenced and clearly marked so as to indicate related bid/RFCSP item. Samples, when requested on Section VI, must be furnished at no cost to the District and will not be returned. Each sample should be clearly marked with bidder's/proposer's name, bid/RFCSP number, and item number on the bid/RFCSP. **DO NOT ENCLOSE IN OR ATTACH BID/RFCSP TO SAMPLE.** EMSISD assumes no responsibility for the handling of samples in any manner. Improperly identified samples will not be considered.

When samples and/or product specifications are not required to be submitted with the bid/RFCSP (not stated on Section VI – Special Terms & Conditions/Bid Specifications) EMSISD reserves the right to request samples and/or product specification documents for any merchandise submitted for bid/RFCSP before final selections are made. Samples and/or product specifications requested after bid/RFCSP opening must be received within five (5) calendar days after request.

11. INTER-LOCAL AGREEMENT CLAUSE

EMSISD is a member of various purchasing cooperatives. If these governmental entities decide to participate in this award it is assumed that you, the Vendor, agree that all terms, conditions, specifications, and pricing would apply.

Governmental entities utilizing Internal Governmental contracts with EMSISD will be eligible, but not obligated, to purchase materials/services under the contract(s) awarded as a result of this solicitation. All purchases by governmental entity other than EMSISD will be billed directly to that governmental entity and paid by that governmental entity. EMSISD will not be responsible for another governmental entity's debts. Each governmental entity will order its own material/service as needed.

SECTION IV – GENERAL TERMS AND CONDITIONS

1. PURCHASES

All purchase commitments by the District will be made via a properly drawn and issued purchase order. **DO NOT** provide goods/services absent a bona fide, signed purchase order. Deliveries made absent a bona-fide, signed purchase order will be the responsibility of the vendor.

2. TERMS OF PAYMENT

Terms of payment to the successful Bidder/Proposer will be contingent upon the terms offered based on invoices submitted to and approved by the District for payment. Invoices shall be fully documented in accordance with the specifications and contain individual pricing for each item. **NO PAYMENTS SHALL BE MADE ON INVOICES NOT LISTING AN EMSISD PURCHASE ORDER NUMBER.**

Invoices will be paid upon completion of delivery and acceptance. Invoices must reflect only the amount due for goods or the portion of the services performed, materials and equipment furnished for the period covered by each invoice. Invoices shall be priced per unit prices as awarded.

The original invoice should be mailed to:

Eagle Mountain-Saginaw Independent School District
ATTN: Accounts Payable
1200 Old Decatur Rd., Bldg. #6
Fort Worth, Texas 76179

3. TAX EXEMPT STATUS

The Eagle Mountain-Saginaw Independent School District is exempt from Federal Excise Tax. **DO NOT INCLUDE TAX IN BID/RFCSP PRICES.** Excise Tax Exemption Certificate will be furnished upon request. EMSISD Federal ID Number is 75-6004855.

3. RIGHTS TO INSPECT AND AUDIT

The Vendor (and Vendor's suppliers, vendors, sub-contractors, insurance agents, and other agents) shall maintain and the District shall have the right to examine records, documents, books, accounting procedures and practices and any other supporting evidence deemed necessary by the District to substantiate compliance with the terms of this agreement. Such right of examination shall include reasonable access to and cooperation by all Vendors personnel who have worked on or have knowledge related to the performance of this bid/RFCSP. Proprietary/Trade Secret information pertaining to this bid/RFCSP may not be withheld from the District or its Authorized Representative.

4. VENDOR RESPONSIBILITIES

The Vendor shall be fully responsible for the quality and accuracy of any and all Work performed in conjunction with this Bid/RFCSP. Neither acceptance of such Work by the District, nor payment therefore, shall relieve the Vendor of this responsibility. If and when applicable, the Vendor shall complete all services in conformity with professional standards, and shall provide qualified personnel to meet agreed upon schedules.

5. ASSIGNMENT

The successful Bidder/Proposer may not assign its rights and duties under an award without the written consent of the Eagle Mountain-Saginaw Independent School District. Such consent shall not relieve the assignor of liability in the event of default by its assignee.

6. TERMINATION OF WORK FOR DISTRICT CONVENIENCE

Whenever EMSISD, in its discretion, deems it to be in the District's best interests, it may terminate any resulting award for the District's convenience. Such termination shall be effective thirty (30) days after EMSISD delivers written notice of such termination for convenience to the Vendor. Upon receipt of such notice from the District, Vendor shall not thereafter incur, and EMSISD shall have no liability for, any costs under this Bid/RFCSP that are not necessary for actual performance of the Bid/RFCSP between the date of the notice of termination for convenience and the effective date of that termination for convenience. In the event of a termination for convenience hereunder, EMSISD shall have no liability to Vendor for lost or anticipated profit resulting there from.

The EMSISD can terminate any resulting award for this bid/RFCSP with thirty (30) calendar days notice, in the event no funds or insufficient funds are appropriated and budgeted or are otherwise not available in the next fiscal year for obligations herein provided, however, this provision shall not be construed so as to permit the EMSISD to terminate this bid/RFCSP in order to enter other Contracts or make other arrangements for essentially the same services made the subject of this bid/RFCSP. **Multi-term agreements are subject to review, ratification, or renewal by the Board of Trustees at the end of each term.**

7. DEFAULT AND REMEDIES

The Vendor shall be considered in default of this bid/RFCSP, and such default shall be grounds for the District to terminate any resulting award for this bid/RFCSP and/or pursue any and all relief, at law or in equity, to which it may be entitled by reason of such default if Vendor fails to perform any of its obligations under this bid/RFCSP and fails to correct such non-performance within ten (10) calendar days of written notice from the District to do so. Should any termination of this bid/RFCSP under this Item 7 be held to be unenforceable or otherwise improper by a court of competent jurisdiction, then such termination shall be considered a termination for convenience under Item 6 of Section II - General Terms and Conditions.

8. GRATUITIES

The District may, by written notice to the Vendor, cancel this Bid/RFCSP without liability to Vendor if it is determined by the District that gratuities, in the form of entertainment, compensation, gifts, or otherwise, were offered or given by the Vendor, or any agent or representative of the Vendor, to any Board Member, officer, or employee of the Eagle Mountain-Saginaw Independent School District with a view toward securing a bid/RFCSP or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such an agreement.

9. JURISDICTION

The Purchase Order(s) resulting from this bid/RFCSP shall be enforceable in Tarrant County, Texas, and if legal action is necessary by either party with respect to the enforcement of any and all of its terms and conditions, exclusive venue for same shall lie in state courts in Tarrant County, Texas.

10. NOTICE OF DELAYS

Whenever the Vendor encounters any difficulty which is delaying or threatens to delay timely performance (including actual or potential labor disputes), the Vendor shall immediately give notice in writing to the District, including all relevant information. Such notice shall not in any way constitute a basis for an extension of the delivery or performance schedule or be construed as a waiver by the District of any right or remedies to which it is entitled by law or pursuant to provisions herein. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery or performance schedule because of such delay.

11. FORCE MAJEURE

Neither Vendor nor the District shall be responsible or deemed to be in default of its obligations to the other to the extent any failure to perform or delay in performing its obligations under this Bid/RFCSP is caused by events or conditions beyond the reasonable control of that party, and are not due to the negligence or willful misconduct of such party (hereinafter, "Force Majeure events"). For purposes of this Bid/RFCSP, Force Majeure events shall include, but not be limited to, acts of God or public enemy, war, riot or civil commotion, strikes, epidemic, fire, earthquake, tornado, hurricane, flood, explosion, or other catastrophes, or events or conditions due to governmental law, regulations, ordinances, order of a court of competent jurisdiction, executive decree or order. However, in the event of such delay(s) or nonperformance, the party so delayed shall furnish prompt written notice to the other party (including the date of inception of the Force Majeure event and the extent to which it will affect performance) and shall undertake all efforts reasonably possible to cure the delay or nonperformance and mitigate its effects or to otherwise perform. The District shall not be responsible for payment for any product or service delayed or foreclosed by any Force Majeure event unless and until such delayed or foreclosed product or service is provided. The provisions of this section shall not preclude the District from canceling or terminating any resulting award (or any order for any goods or services included herein), or from revising the scope of the Work, as otherwise permitted under this Bid/RFCSP.

12. DELIVERIES OF GOODS

- A. A specific delivery date may be required to be a part of each bid/RFCSP. The District considers delivery time to be that period elapsing from the time the individual order is placed until that order or work thereunder is received by the District at the specified delivery location.
- B. All items covered by this bid/RFCSP shall be delivered F.O.B Destination Eagle Mountain-Saginaw ISD, from point of assembly to the District location(s) specified on each purchase order. **BID/RFCSP PRICING SHALL INCLUDE ALL FREIGHT/DELIVERY CHARGES.** The District shall not be liable for any deliveries of merchandise unless same has been received at the specified delivery location within the Eagle Mountain-Saginaw Independent School District, inspected and accepted as in full compliance with the Specifications. Risk of theft, destruction, loss or damage to any work, materials, shipment, or deliveries will be borne exclusively by the successful Bidder/Proposer until after the District completes its inspection and acceptance of said work, material, shipments, or deliveries; the burden and cost of insurance against such risks shall be assumed by the successful Bidder/Proposer.
- C. Deliveries will be made only upon authorization of the Eagle Mountain-Saginaw Independent School District, and shall be made if, as, and when required and ordered by the District, at such intervals as directed by the District. It is important that each supplier understand the following information:
 - All purchases made by the District will be made via EMSISD purchase order.
 - Do not provide goods/services absent a bona fide, signed purchase order.
 - Do not provide goods/services exceeding the quantities contained on the purchase order.
 - The District will only pay invoices which match the purchase order description, quantity, and price.
- D. Deliveries shall be to the location identified in each Purchase Order. Each proof of delivery shall list the EMSISD purchase order number, exact quantity delivered, back orders (if any) and number of pallets.
- E. Bidder/Proposer warrants that all deliveries made under the Purchase Order will be of the type and quality specified; and the District may reject and/or refuse any delivery that falls below the quality specified in the Specifications. The District shall not be held to have accepted any delivery until after an inspection of same has been made and an opportunity to exercise its right of rejection has been afforded.
- F. Failure by the Vendor to make reasonable delivery as and when requested shall entitle the District to acquire quantities from alternate sources wherever available, with the right to seek reimbursement from the Vendor for amounts, if any, paid by the District over and above the bid/RFCSP price.

- G. All materials delivered shall be free of any and all liens and shall upon acceptance thereof become the property of the District, free and clear of any liens.
- H. Acceptance by the District of any delivery shall not relieve the Vendor of any guarantee or warranty, express or implied, nor shall it be considered an acceptance of material not in accordance with the Specifications and shall not waive the District's right to request replacement of defective material.

13. PERFORMANCE OF SERVICES

- A. Performance will be made only upon authorization of the District, in the form of a bon-a-fide, signed Purchase Order and shall thereafter be made if, as, and when required and ordered by the District.
- B. Performance shall be at the location identified in each order.
- C. The scope of this bid/RFCSP and requirements of the District as shown in the specifications shall not be considered as binding on the District, and the work actually may be less than or greater than projected.
- D. Bidder/Proposer warrants that all work will be of the type and quality specified, and the District may reject and/or refuse work that falls below the quality required in the specifications.
- E. Failure by the Vendor to make reasonable progress as and when requested shall entitle the District to seek work from alternate sources wherever available, with the right to seek reimbursement from the Vendor for amounts, if any, paid by the District over and above the bid/RFCSP price.
- F. All materials delivered shall be free of any and all liens and shall upon acceptance thereof become the property of the District, free and clear of any materialman's, supplier's, or other type liens.
- G. All work performed, as herein shown under the Specifications, shall be of the highest quality workmanship and shall in every respect meet or exceed the industry standards for this type Bid/RFCSP.
- H. If deemed necessary, inspections will be made by authorized district personnel on a routine basis. Any deficiencies in the work performance disclosed during such inspections must be corrected following receipt of notification by the Vendor. Continued failure to take such corrective actions could, at the District's discretion, lead to termination of any resulting award.
- I. Failure of Vendor to fully comply with the terms and provisions of this Bid/RFCSP shall constitute grounds for declaring the Vendor in default.
- J. Acceptance by the District of any delivery shall not relieve the Vendor/Supplier of any guarantee or warranty, express or implied, nor shall it be considered an acceptance of material not in accordance with the Specifications and shall not waive the District's right to request replacement of defective material.

14. WARRANTY INFORMATION

- A. Warranty – Product: Manufacturers' standard warranty for parts and labor must be included in the prices bid/proposed and must meet or exceed any additional warranty requirements specified herein. All manufacturers' warranties shall be enforced to benefit the District, and replacement of defective materials shall be made promptly upon request.
- B. Warranty – Price: The price to be paid by the District shall be that contained in Seller's bid/RFCSP which Seller warrants to be no higher than Seller's current prices on orders by others for products of the kind and

specification covered by this bid/RFCSP for similar quantities under similar or like conditions and methods of purchase. In the event Seller breaches this warranty, the prices of the items shall be reduced to the Seller's current prices on orders by others. Or in the alternative, the District may cancel the Purchase Order(s) without liability to seller for breach of Seller's actual expense.

- C. Warranty – Safety: Seller warrants that the product sold to the District shall conform to the standards promulgated by applicable federal and state standards. In the event the product does not conform to these standards, the District may return the product for correction or replacement at the Seller's expense. In the event Seller fails to make the appropriate correction within a reasonable time, correction made by the District will be at Seller's expense.

15. INDEMNIFICATION AND HOLD HARMLESS

The vendor shall defend, indemnify, and hold harmless the Eagle Mountain-Saginaw Independent School District, all of its officers, agents and employees from and against all claims, actions, suits, demands, proceedings, costs, damages, and liabilities, arising out of, connected with, or resulting from any acts or omissions of vendor or any agent, employee, sub-contractor, or supplier of vendor in the execution or performance of this bid/RFCSP

16. PRICE INCREASES

If this document includes the option to extend for additional year(s), price increases for each additional year will be negotiated not to exceed the CPI in the Dallas/Fort Worth area at the time of renewal. Price negotiations may be negotiated to prices below the current pricing. Negotiations for price changes, when required, will be completed forty-five (45) days before date of renewal.

17. INTER-LOCAL AGREEMENTS

Eagle Mountain-Saginaw Independent School District reserves the right to purchase the goods and/or services in this bid/RFCSP through an inter-local agreement, if it is deemed that the inter-local agreement is more advantageous to the District.

SECTION V – BID/RFCSP EVALUATION CRITERIA

In evaluating bids/RFCSPs submitted and per the Texas Education Code 44.031(b), the following considerations shall be taken into account to determine best value for the District.

1. the purchase price;
2. the reputation of the vendor and of the vendor's goods or services;
3. the quality of the vendor's goods or services;
4. the extent to which the goods or services meet the District's needs;
5. the vendor's past relationship with the District
6. the impact on the ability of the District to comply with laws and rules relating to historically underutilized businesses;
7. the total long-term cost to the District to acquire the vendor's goods or services;
8. if applicable to this bid/RFCSP:
for a contract for goods and services, other than goods and services related to telecommunications and information services, building construction and maintenance, or instructional materials, whether the vendor or the vendor's ultimate parent company or majority owner:
 - a. has its principal place of business in this state; or
 - b. employs at least 500 persons in this state; and
9. any other relevant factor specifically listed in the request for bids or proposals

*****END OF SECTION*****

INVITATIONS FOR BIDDERS

INVITATION FOR BIDS:

Competitive Sealed proposals, subject to the conditions contained herein, will be received by:

EAGLE MOUNTAIN-SAGINAW INDEPENDENT SCHOOL DISTRICT
MS. LUCIA CIESZLAK
DIRECTOR OF PURCHASING
1200 OLD DECATUR ROAD, **BUSINESS BUILDING #6**
FORT WORTH, TEXAS 76179

Prior to: 2:00 p.m. CST, February 13, 2013

for furnishing complete labor and materials and performing Work of Asbestos Abatement for the following project/projects and removal of environmentally impacted building materials that may be encountered in the process of asbestos abatement.

**EAGLE MOUNTAIN – SAGINAW INDEPENDENT SCHOOL DISTRICT
INDEFINITE DELIVERY QUANTITIES**

Bids must be submitted upon the standard forms provided herein and typed completely. Bid Bond may be required if projects exceed \$25,000 each. Payment and Performance Bonds may be required, also, based on 100% of bid if work exceeds \$25,000 per project.

The right is reserved, as the interest of the **OWNER** may require, to reject any and all proposals and to waive any informality in proposals received.

Mandatory submission of requested documents is required for a Bid to be considered responsive.

*******END OF SECTION*******

BID FORM:

SECTION 00300

To: _____ Date: _____

In compliance with your request for Bids and subject to all the conditions thereof the undersigned:

(Name of **BIDDER**)

A Corporation organized and existing under the laws of the State of:

A Partnership consisting of:

or an individual trading as:

having principal offices in the City of _____
hereby proposes to furnish all labor and materials and perform all Work required, including all applicable taxes, license fees, permits, bonds, insurance premiums and other associated items necessary in performance of the Work for the following Project:

Project Name: _____

Address: _____

Project Number: _____

in accordance with Contract Documents dated: January 11, 2013, as prepared by **LAMBERT AND ASSOCIATES, INC.**, and identified as **Project No. 2013-001**.

ACKNOWLEDGMENTS: The **BIDDER** declares that he has examined the site of the Work and fully informed himself regarding all pertinent conditions, and that he has examined the Contract Documents (including all Addenda received) for the Work relative thereto, and that he has satisfied himself relative to Work to be performed.

1. **ITEMIZED CONTRACT:**

Mobilization Charge	_____ Each
Emergency Response Mobilization Charge (Within four (4) hours of notification)	_____ Each
Resilient Sheet Flooring and Mastic	_____ Sq. Ft.
Resilient Floor Tiles and Mastic	_____ Sq. Ft.
Resilient Floor Tiles and Mastic under Carpet	_____ Sq. Ft.
Chalkboards	_____ Sq. Ft.
Transite Lab Tops	_____ Sq. Ft.
HVAC Duct Insulation and Mastic	_____ Sq. Ft.
Transite Wall or Window Panels	_____ Sq. Ft.
Suspended Acoustical Ceiling Tiles	_____ Sq. Ft.
Adhered Acoustical Ceiling Tiles and Mastic	_____ Sq. Ft.
Drywall Textured Walls w/Joint Compound	_____ Sq. Ft.
Acoustical Texture (Scrape)	_____ Sq. Ft.
Payment and Performance Bond if Needed	_____ %
Drywall Textured Ceilings w/Joint Compound	_____ Sq. Ft.

Acoustical Texture (Demo)	_____ Sq. Ft.

Window Caulking	_____ Lin. Ft.

Window Glazing	_____ Lin. Ft.

Straight Run Pipe Insulation (6" diameter pipe and smaller)	_____ Lin. Ft.

Pipe Fitting Insulation (6" diameter pipe and smaller)	_____ Lin. Ft.

Straight Run Pipe Insulation (6" diameter pipe and greater)	_____ Lin. Ft.

Pipe Fitting Insulation (6" diameter pipe and greater)	_____ Lin. Ft.

Complete Window and Door Units w/Glazing and Caulking	_____ Sq. Ft.

Duct Mastic on Duct Insulation	_____ Sq. Ft.

Debris	_____ Sq. Ft.

ACM Debris in Soil up to 6" Deep	_____ Sq. Ft.

ACM Debris in Soil up to 12" Deep	_____ Sq. Ft.

REMEDIATION OF MOLD – LOCATED AT ASBESTOS ABATEMENT PROJECT

**Emergency Response Mobilization
Mobilization Charge –**

_____ Each

Charge (within 4 hours of notification)

_____ Each

Mold Work Plan

_____ Each

Licensed Mold Crew:

Including Supervisor and four (4) licensed workers and all
Poly, decon and all other necessary supplies, and equipment
For each ten (10) hour shift

_____ Each

Pictures for Mold Projects

_____ Lump Sum Each

Mold Certification of Completion

_____ Lump Sum Each

Licensed Supervisor

Including truck, Decon, Poly, Scaffold, ladders
Disposal and all other equipment and supplies
For cleaning and decontaminating

_____ Each

Licensed Worker to work with Supervisor

_____ Per Hour

2. PROJECT SCHEDULE:

The **BIDDER** submits the following work schedule as a modification of the Maximum Project Duration referenced in 01000 (**BIDDER** may submit modification to reduce the Project Duration only, increase of Project Duration is not acceptable). The **OWNER** will evaluate the submittal with consideration of the value of completion of the Project ahead of Maximum Project Duration and costs of **CONSULTANT'S** services associated with early completion.

Should the **CONTRACTOR** choose to work outside the schedule herein submitted, services for Inspection and Air Monitoring will be provided by the **CONSULTANT** and shall be scheduled per Section 00800. The costs of such services will be back-charged by the **OWNER** to the **CONTRACTOR** at the **OWNER'S** cost plus twenty percent (20%).

The **BIDDER** agrees to start work within _____ consecutive calendar days of receipt of notice to proceed and complete the contract within: _____.

BIDDER'S work hours and days of week will be: _____.

(Attach additional sheet if necessary to identify **BIDDER'S** work schedule throughout Project Duration)

CITATIONS:

The undersigned certifies that he ☐ has ☐ has never

received any citations issued by Federal, State or Local regulatory agencies relating to asbestos abatement activities for the Contracting Company listed below and any and all its affiliates. If any citations have been issued attach a record of said citations including projects, dates and resolutions.

LEGAL PROCEEDINGS/CLAIMS:

The undersigned certifies that he ☐ has ☐ has never

been involved in any asbestos-related legal proceedings/claims in which the **BIDDER** (or employees scheduled to participate in this project) have participated or are currently involved. If any legal proceedings/claims have been issued attach a record of said legal proceedings/claims including descriptions of role, issue and resolution to date.

TERMINATIONS:

The undersigned certifies that he ☐ has ☐ has never

been involved in situations in which an asbestos related contract has been terminated. If any terminations have been issued attach a record of said terminations including projects, dates and reasons for terminations.

Legal name of **BIDDER**:

Mailing Address:

By (Legal Signature):

Name Typed:

Title:

* If a partnership, list all partners and their addresses. If a corporation, affix corporate seal: if **BID** is signed by other than the President or a Vice-President, attach written authority to **BID** the Corporation. If an individual, then so state. Any modification to a **BID** shall be over the initials of the person signing the **BID** or of an agent who supplied written authority with the modification.

CERTIFICATIONS:

The undersigned certifies that he is authorized to execute contracts on behalf of the **BIDDER** as legally named, that this bid is submitted in good faith without fraud or collusion with any other **BIDDER**, that the data indicated below is true and complete, and that the BID is made in good faith and in full accord with State Law. Notice or acceptance may be sent to the undersigned at the address set forth below.

Legal name of **BIDDER**:

Mailing Address:

By (Legal Signature):

Name Typed:

Title:

DATA ON BIDDER:

Asbestos Abatement Contractor's State License:

License Number

Submit copy of License.

* If a partnership, list all partners and their addresses. If a corporation, affix corporate seal: if **BID** is signed by other than the President or a Vice-President, attach written authority to **BID** the Corporation. If an individual, then so state. Any modification to a **BID** shall be over the initials of the person signing

the **BID** or of an agent who supplied written authority with the modification.

STATE OF: _____

COUNTY OF: _____

SWORN TO AND SUBSCRIBED BEFORE ME, THIS _____ DAY OF _____, 2013.

Signature of Notary Public: _____

Printed Name of Notary Public: _____

MY COMMISSION EXPIRES: _____ SEAL: _____

The **BIDDER** as part of the **BID** package shall submit a list of a minimum of five (5) previous asbestos abatement projects of similar scope and size, successfully completed by the **BIDDER** along with the **OWNER'S** name, address, and telephone number. If the projects were handled by a consulting firm, the name, address, contact and telephone number of the firm shall also be included.

LIST FIVE PREVIOUS ASBESTOS ABATEMENT PROJECTS AND TWO PROJECTS WHICH INCLUDED ABATEMENT OF ENVIRONMENTALLY IMPACTED BUILDING MATERIALS:

1. OWNER: _____ PHONE No: _____
CONTRACT AMOUNT: \$ _____ COMPLETION DATE: _____
CONSULTANT: _____ PHONE NO.: _____

2. OWNER: _____ PHONE No: _____
CONTRACT AMOUNT: \$ _____ COMPLETION DATE: _____
CONSULTANT: _____ PHONE NO.: _____

3. OWNER: _____ PHONE No: _____
CONTRACT AMOUNT: \$ _____ COMPLETION DATE: _____
CONSULTANT: _____ PHONE NO.: _____

4. OWNER: _____ PHONE No: _____
CONTRACT AMOUNT: \$ _____ COMPLETION DATE: _____
CONSULTANT: _____ PHONE NO.: _____
5. OWNER: _____ PHONE No: _____
CONTRACT AMOUNT: \$ _____ COMPLETION DATE: _____
CONSULTANT: _____ PHONE NO.: _____
6. OWNER: _____ PHONE No: _____
CONTRACT AMOUNT: \$ _____ COMPLETION DATE: _____
CONSULTANT: _____ PHONE NO.: _____
7. OWNER: _____ PHONE No: _____
CONTRACT AMOUNT: \$ _____ COMPLETION DATE: _____
CONSULTANT: _____ PHONE NO.: _____

ADDITIONAL ITEMS REQUIRED WITH BID: The following items are additionally required as part of this BID SUBMITTAL.

The following items are additionally required as part of this BID submittal:

1. INSURANCE CERTIFICATES: Form acceptable to the Owner.
2. **BIDDER'S** QUALIFICATION STATEMENT: completed AIA Document A305
3. State **BIDDER'S** performance bond eligibility and current bond rate.

*******END OF SECTION*******

PROJECT SUBMITTAL SUMMARY

SECTION 00500

Illegible submittals will be rejected and returned for re-submittal.

BID SUBMITTALS (Three (3) copies submitted to **OWNER**)

Section 00020 - Bid Bond (if required)
Section 00300 - Bid Form
Section 00300 - Contractor's Asbestos License
Section 00300 - Previous Asbestos Abatement Projects and EIBM Projects
Section 00300 - Insurance Certificate
Section 00300 - Contractor's Qualification Statement
Section 00300 - Notarized Statement to include:
Citations, Terminations, Legal Proceedings/Claims

PRE-CONSTRUCTION SUBMITTALS (Three (3) copies submitted to **CONSULTANT**)

Section 00020 - Performance Bond and Payment Bond
Section 00100 - Plan of Action
Section 01050 - Emergency Phone List
Section 01200 - Permits (if required)
Section 01200 - Regulatory Notices
Section 01300 - Project Schedule
Section 01300 - Schedule of Values
Section 01350 - Product Data and Samples
Section 01350 - Shop Drawings (if required)
Section 01350 - Material Safety Data Sheets
Section 01590 - Name of Transporter and Disposal Site

CONSTRUCTION SUBMITTALS (One (1) copy submitted to **CONSULTANT** on-site)

Section 01200 - Licenses to include: Contractor and Supervisor
Section 01200 - NESHAP Training Certificate
Section 01700 - List of Workers
Section 01700 - Worker Registration Certificate
Section 01700 - Respiratory Fit Test Certificate
Section 01700 - Certificates of Worker Acknowledgment
Section 01700 - Medical Examination Results

PROGRESS PAYMENTS (Two (2) original signed copies submitted to **CONSULTANT**)

Section 01300 - Payment Application Form to include:
Schedule of Values
Waivers of Lien
Affidavit of Bills Paid

PROJECT CLOSE-OUT SUBMITTALS (One (1) copy submitted to **CONSULTANT**)

Section 01300 - Daily Contractors Log
Section 01300 - Disposal Manifests
Section 01390 - Certificate of Completion
Section 01400 - Personal Air Monitoring Lab Results

FINAL PAYMENT APPLICATION FORM (Two (2) original signed copies
submitted to **CONSULTANT**)

Section 01390 - Final Payment Application Form to include:
Schedule of Values
Waivers of Lien
Affidavit of Bills Paid
Consent of Surety (if required)

*******END OF SECTION*******

SUPPLEMENTARY CONDITIONS:

SECTION 00800

LIABILITY INSURANCE:

The **CONTRACTOR** shall maintain, acceptable to the **OWNER** and the **CONSULTANT**, such insurance as will protect the **CONTRACTOR**, the **OWNER**, the **CONSULTANT**, their officers and employees, subsidiaries, affiliated companies and their officers and employees, as additional insured's, from claims resulting from any and all operations under the Contract during and after the Contract Term.

The limits of liability for the liability insurance required by the General Conditions shall provide coverage for not less than the following amounts or greater where required by law:

Workers Compensation, etc. under the General Conditions (including Asbestos Abatement coverage):

- | | |
|--|----------------------------|
| i. State | Statutory |
| ii. Applicable Federal
(e.g. Longshoreman's): | Statutory |
| iii. Employer's Liability: | \$1,000,000 per Occurrence |

Comprehensive General Liability under the General Conditions (including coverage for Products, Completed Operation, Independent Contractors/Contractors Protective, Contractual Liability, and Asbestos Abatement):

- | | |
|------------------|----------------------------|
| Bodily Injury: | \$1,000,000 per Occurrence |
| Property Damage: | \$1,000,000 per Occurrence |

Comprehensive Automobile Liability under the General Conditions:

Bodily Injury and Property Damage: \$1,000,000 per Occurrence

A Certificate of Insurance shall be issued to the **CONSULTANT** for the **OWNER** 10 days before the **CONTRACTOR** commences Work. The **OWNER** reserves the right to request and receive a true and complete copy of the policy or policies associated with required insurance. This insurance shall not be canceled without thirty (30) days written notice to the **OWNER** by the insurance carrier(s). If the policy is canceled, an immediate equivalent replacement policy shall be provided. Failure to provide requested information or documents, or to maintain required insurance will result in Contract termination.

LIQUIDATED DAMAGES:

It being understood between the parties hereto that such sum shall be treated as liquidated damages and not as a penalty, and the **OWNER** may withhold from the **CONTRACTOR'S** compensation such sums as liquidated damages.

The amount of damage to the **OWNER** for delay in completion of the work is difficult to ascertain and the amount of liquidated damages per calendar day as stated in the Agreement is reasonably anticipated pecuniary damages for such delay and is not a penalty.

The collection of liquidated damages shall not limit or exclude any other right or remedy of the **OWNER** under provisions of the Contract Documents.

Provisions for liquidated damages will be set forth in the Agreement as follows:

\$500.00 per calendar day

for each calendar day after the date of Project Completion on each Phase of work until Substantial Completion of the Project.

DATA AND REPORTS:

The **CONTRACTOR** agrees that Contract Documents, data and reports generated by the **OWNER** and **CONSULTANT** remains the property of the **OWNER** and shall not be released to other parties without the expressed written permission of the **OWNER**.

FURNISHING CONTRACT DOCUMENTS:

The **OWNER** will furnish a maximum of four (4) sets of Contract Documents "Scope of Work" for construction purposes to the **CONTRACTOR**. If additional sets are required, the **CONTRACTOR** shall reimburse the **CONSULTANT** for actual cost of reproduction as well as a handling charge for additional sets. The **OWNER** will furnish one (1) set of Contract Documents "Master Specification" for construction purposes to the **CONTRACTOR**. If the **CONTRACTOR** requires a copy of the "Master Specification" for his records he may purchase a copy from the **CONSULTANT** for \$50.00.

FURNISHING OF WATER AND ELECTRICITY:

The **OWNER** will provide a source of water and it shall be the responsibility of the **CONTRACTOR**, at his own expense, to provide temporary connections and route the water to its usage area.

The **OWNER** will provide the electrical supply for the use of the **CONTRACTOR**; it shall be the responsibility of the **CONTRACTOR**, at his own expense, to provide temporary connections and route the power to its usage area. The **OWNER** provides no warranty as to the system's condition or capabilities. The **CONTRACTOR** shall assure himself that the electrical system is adequate for his requirements or supply additional temporary electrical power, at his own expense.

The **OWNER** will pay cost of the above utilities for the duration of the Project. Cost of excessive waste or abuse of provided utilities, as determined by the **CONSULTANT**, will be back charged to the **CONTRACTOR** and deducted from the Contract Amount.

Damage to the water or electrical systems or surrounding areas (floors, ceilings, walls, etc.) resulting from failure of **CONTRACTOR'S** materials (hoses, cabling, etc.) or misuse or abuse of the existing systems shall be repaired or replaced by the **CONTRACTOR**, to the satisfaction of the **OWNER** at no additional expense to the **OWNER**.

At the completion of Work the **CONTRACTOR** shall remove temporary connections and restore systems and surrounding area to pre-abatement conditions.

PRE-CONSTRUCTION CONFERENCE:

The **CONTRACTOR** shall schedule and conduct a Pre-construction Conference with the **OWNER** and the **CONSULTANT** to discuss the particulars of the Work prior to start of Work. The meeting shall include a tour of the Work Areas to verify conditions prior to abatement activities. The **CONTRACTOR** shall record minutes of the Conference and distribute minutes to all parties attending.

STOP WORK ORDER:

The General Conditions are hereby amended to permit the **OWNER** or **CONSULTANT** to stop work with the issuance of a Stop Work Order.

If the **OWNER** or **CONSULTANT** presents a written or verbal Stop Work Order, immediately and thoroughly stop Work. Do not recommence Work until authorized in writing by the **CONSULTANT**.

WORK HOURS:

CONTRACTOR shall schedule his work so that the maximum number of work hours per man does not exceed twelve (12) within any twenty-four (24) hour period, except as authorized by the **CONSULTANT**.

FIRE PROTECTION:

CONTRACTOR shall submit a detailed written fire plan in case of a fire enumerating procedures and specific personnel responsibilities concerning the following:

1. Chain of command
2. Call local fire department
3. Alert building occupants
4. Contact Owner and Engineer
5. Operate fire extinguishing equipment
6. Control of contamination after fire is extinguished.

CONTRACTOR shall conduct a safety meeting for Contractor's employees with emphasis on operation of fire extinguishers and emergency exits in case of fire.

CONTRACTOR shall have posted emergency phone numbers for the fire department and building security.

CONTRACTOR shall store a minimum of volatile substances on the job site and in fire-resistant containers only.

CONTRACTOR shall install smoke detectors, with audible and visual warning signals for every 1,000 sq. ft. of work area.

SECURITY:

Adequate warning signs shall be posted to warn persons approaching a Work Area of the dangers of asbestos. Post signage with initial opaque barrier stating "CONSTRUCTION AREA, KEEP OUT", which must be breached to encounter asbestos specific warning sign age. Locate barriers and signage to provide warning to persons approaching a Work Area from any direction; post signage at such points so that persons approaching the Work Area will have time to take adequate safety precautions.

If the work involves the entire building, establish a twenty foot (20') perimeter line clearly demarcated to restrict unauthorized access to the building.

CONTRACTOR shall provide personnel to perform surveillance of work areas 24 hours per day seven (7) days per week during operation of ventilation units. Personnel shall be qualified asbestos abatement workers. Duties include maintenance of reduced air pressure containment and regular inspection of work areas for fire prevention and other incidents which could cause contaminations outside of the work areas. Separate personnel are not required during Contractor normal work hours.

The **OWNER** may, on his own election, provide security on any and all premises covered under this Agreement. The **OWNER** and the **CONSULTANT** will not be liable for damage, injury or destruction to any personal property owned by the **CONTRACTOR** or any death, sickness, disease, or bodily injury incurred by an employee or agent of the **CONTRACTOR** as a result of the provision of such security.

The **CONTRACTOR**, its employees, agents and directors specifically and forever release, acquit and waive any and all claims, demands and obligations against the **OWNER** and **CONSULTANT** arising from, whether directly or consequentially, the provision of such security.

POTENTIAL ASBESTOS HAZARD:

The disturbance or dislocation of **ACM** may cause asbestos fibers to be released into the building's atmosphere, thereby creating a potential health hazard to workmen and building occupants. Apprise workers, supervisory personnel, subcontractors and consultants who will be at the job site of the seriousness of the hazard and of proper work procedures which must be followed.

Where in the performance of the Work, workers, supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any identified **ACM**, take appropriate continuous measures as necessary to protect building occupants from the potential hazard of exposure to airborne asbestos. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state and local agencies.

ASBESTOS-CONTAINING MATERIALS:

The **CONTRACTOR** shall always be mindful of the possible presence of asbestos-containing materials (in addition to the **ACM** to be abated under this contract) and shall carry out its work with due diligence in light of this possibility. The **CONTRACTOR** shall be and remain at all times solely responsible for the

safety of its employees in the performance of the Work and shall take all precautions necessary to insure such safety.

The **CONTRACTOR** may discover suspected **ACM**, other than material to be abated under this Contract. Upon such discovery the **CONTRACTOR** shall take such action as is reasonably necessary and feasible to provide an interim safe and secure environment for its employees and third parties until the determination can be made of how next to proceed.

The **CONTRACTOR** shall promptly notify the **CONSULTANT** of such suspected material. The **CONSULTANT** will thereupon determine the proper course of action (sampling, testing, etc.), prepare his report and proceed with notification to the **OWNER**.

In no event shall the **CONTRACTOR** discuss such materials with parties other than the **CONSULTANT**.

The **CONSULTANT** will determine if the material is **ACM** and so inform the **CONTRACTOR**. The **CONTRACTOR** shall modify actions as necessary to continue a safe and secure environment. At the discretion of the **OWNER**, the **CONSULTANT** will convey detailed report results to the **CONTRACTOR**.

OWNER OCCUPANCY:

Cooperate fully with the **OWNER** during construction operations to minimize conflicts and to facilitate **OWNER** usage. Perform the work so as not to interfere with the **OWNER'S** operation.

ACCESS TO AFFECTED AREA:

The **CONTRACTOR** shall have access only to those areas designated as Work Areas, or as otherwise directed by the **OWNER**. Storage of materials, field mobilized activities, and personnel shall remain in designated areas.

USE OF THE SITE:

The **CONTRACTOR** shall limit his use of the premises to the work indicated, so as to allow for **OWNER** occupancy and use by the public, if required.

Confine operations at the site to areas designated. Portions of the site beyond areas on which work is indicated are not to be disturbed. Conform to site rules and regulations affecting the work while engaged in project construction.

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

Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to areas designated. If additional storage is necessary, obtain and pay for such storage off site.

Lock vehicles, such as passenger cars and trucks and other mechanized or motorized construction equipment, when parked and unattended, so as to prevent unauthorized use. Do not leave such vehicles or equipment unattended with the motor running or the ignition key in place or accessible to unauthorized persons.

CONTRACTOR'S USE OF THE EXISTING BUILDING:

Maintain existing building in a safe and weather tight condition throughout the construction period. Take all precautions necessary to protect the building and its occupants during the construction period.

Keep public areas such as hallways, stairs, elevator lobbies and toilet rooms free from accumulation of waste, rubbish or construction debris.

Smoking or open fires will not be permitted within the building enclosure or on the premises.

Except for Toilet Room(s) as may be designated by the **CONSULTANT** for use by the **CONTRACTOR'S** personnel, use of existing toilets within the building, by the **CONTRACTOR'S** personnel, will not be permitted.

USE OF EXISTING ELEVATORS (AS APPLICABLE):

Except for elevator as may be designated by the **CONSULTANT**, use of elevators by the **CONTRACTOR** will not be permitted.

The designated elevator may be used for temporary freight service and the transportation of construction personnel during the construction period. This elevator must also be available to the **OWNER** at all times; coordinate elevator usage with the **CONSULTANT**. Provide protective pads for the elevator cab and other appropriate protective measures for the car and entrance doors and frames. During asbestos abatement activities, the car is to be protected as set forth in Section 01500 - Temporary Containment.

CONTRACTOR will be responsible for any and all damage to the elevator system.

PARTIAL OWNER OCCUPANCY:

The **OWNER** reserves the right to place and install equipment as necessary, or conduct other non-asbestos construction or remodel work, in areas of the building in which all asbestos abatement and project decontamination procedures have been completed, and to occupy such completed areas prior to Substantial Completion, provided that such occupancy does not substantially interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the Work or any part of the Work.

AIR MONITORING SERVICES:

The **OWNER** will provide and pay for Inspection and Air Monitoring services through the **CONSULTANT** for the entirety of the Project.

Such services will be full-time, and there shall be no Abatement Work conducted unless the **CONSULTANT** or **PROJECT MANAGER** is on-site.

Notify the **CONSULTANT** five (5) days prior to any proposed Work schedule change to allow for rescheduling of personnel. Failure to give such notice may result in disallowance of schedule change.

The **CONTRACTOR** will be back charged by the **OWNER** for Inspection and Air Monitoring services, at the **OWNER'S** cost plus twenty percent (20%), when the **CONTRACTOR** fails to work during scheduled hours due to late arrival or "no-show" or failure to provide adequate personnel or equipment to accomplish Work. Charges will be based on an hourly rate with an eight (8) hour minimum daily charge.

Should the Work not be completed within the scheduled Project Duration as submitted on the Bid Form, Section 00300, services for Inspection and Air Monitoring beyond the scheduled completion date will be provided and the costs of such services will be back charged by the **OWNER** to the **CONTRACTOR** at the **OWNER'S** cost plus twenty percent (20%).

Should the **CONTRACTOR** choose to work outside the schedule as submitted on the Bid Form, Section 00300, services for Inspection and Air Monitoring will be provided and the costs of such services will be back charged by the **OWNER** to the **CONTRACTOR** at the **OWNER'S** cost plus twenty percent (20%).

Costs of **CONSULTANT'S** services for retests and re-inspections required due to failure of the **CONTRACTOR** to meet project criteria will be back charged by the **OWNER** to the **CONTRACTOR** at the **OWNER'S** cost plus twenty percent (20%).

***** **END OF SECTION** *****

SUMMARY OF WORK:

SECTION 01000

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

CONTRACT DOCUMENTS:

The Contract Documents as prepared by the **CONSULTANT**, indicates the Work of the Contract and related requirements and conditions that have an impact on the Project. Related requirements and conditions include but are not necessarily limited to the following:

- Applicable codes and regulations
- Notices, permits, license fees, taxes
- Existing site conditions and restrictions on use of site
- Work performed prior to work under this Contract
- Alterations and coordination with existing work
- Work to be performed concurrently by the **OWNER**
- Work to be performed subsequent to work under this Contract
- Requirements for partial **OWNER** occupancy prior to substantial completion of the Contract Work.

SUMMARY BY REFERENCES:

Work of the Contract can be summarized by references to the Contract, General Conditions, Supplementary Conditions, Specification Sections, Drawings, addenda and modifications to the contract Documents issued subsequent to the initial printing of this Project Manual and including, but not necessarily limited to, printed material referenced by any of the above. Work of the Contract is also unavoidably affected or influenced by governing regulations, natural phenomenon including weather conditions and other forces outside Contract Documents.



GARY D. LAMBERT

Individual Asbestos Consultant License No.10-5259

Asbestos Consultant Agency License No. 10-0071

American Industrial Hygiene Association No. 10-1418

Mold Assessment Company License No. ACO0151 – exp. 2/3/2014

Mold Assessment Consultant License No. MAC0335 – exp. 2/3/2014

CONTRACT TIME:

The **OWNER** intends to award the contract by the Tentative Contract Award date; however, is under no obligation to do so. If the contract is awarded on the Tentative Contract Award date, the Contractor shall commence work on the Project Start Date, and shall fully complete all work by the Project Completion date. If a different Project Start Date is selected by the **OWNER** and the Contractor agrees to the revised start date, the Work shall be completed with the Maximum Project Duration, being the number of consecutive calendar days from the revised Project Start Date to the Project Completion Date.

Tentative Contract Award	<u>March 25, 2013</u>
Project Start and Completion	<u>April 1, 2013 through March 30, 2014</u>
Project Renewals	Renewable at Owner's and Consultant's option for additional three (3) years, 365 day increments.

Maximum Project Duration:

One (1) year from date of award or additional years as an option with owner's approval.

Maximum Work Hours	Twelve (12) hours per day
Restricted Work Hours	None
Number of Days Per Week	Seven (7)

*Quantities listed are estimates only. The **CONTRACTOR** is responsible for verifying quantity estimates prior to submission of bid. The **CONTRACTOR** shall perform work for materials and locations indicated, regardless of actual quantities, and no increase in Contract amount will be allowed for quantity adjustment.



Gary D. Lambert
Owner/President
Individual Asbestos Consultant License No: 10-5259
Asbestos Consultant Agency License No: 10-0071
American Industrial Hygiene Association No: 10-1418
Mold Assessment Company License No: ACO0151- Exp. 2/3/2014
Mold Assessment Consultant License No: MAC0335 – Exp. 2/3/2014

Annual Contract for removal of asbestos containing material within the Eagle Mountain- Saginaw Independent School District as per Lambert and Associates, Inc. Master Specification and may be renewed annually provided there is no price increase and subject to the **OWNER'S** approval

GENERAL NOTES:

Included in each price is a three (3) stage decontamination, insurance, transportation, labor, equipment and disposal.

CONTRACTOR shall use hand removal methods only during removal of resilient floor tiles and mastic. No mechanical equipment will be allowed.

Water and power shall be available for **CONTRACTOR'S** use. If water and power is not available by **OWNER**, **CONTRACTOR** shall furnish and be reimbursed for actual costs.

CONTRACTOR shall comply with Texas Asbestos Health Protection Rules dated March 2003 or latest versions.

CONTRACTOR will furnish all OSHA samples for their personnel with the **CONTRACTOR** being fully responsible for OSHA Compliance and paying for tests and sample analysis.

CONTRACTOR'S laboratory must have Texas Department of Health Asbestos Laboratory License. Sample results must be posted at the decontamination unit prior to starting a new shift for those samples collected in previous shifts. Laboratory must also be approved by the **OWNER'S CONSULTANT** as a sub-contractor prior to award of project. Laboratory must also participate in the American Industrial Hygiene Association PAT Rounds.

CONTRACTOR shall include in each price, a full containment with the exception of glove bag procedures where applicable.

CONTRACTOR shall include in each price the time and labor for TEM clearances and licensed personnel to fire watch twenty-four (24) hours per day as long as negative pressure containment is used.

CONTRACTOR and **CONSULTANT** will review each project and complete a take-off together and **CONTRACTOR** will issue an itemized list with measurements and unit prices to **CONSULTANT** for approval from **OWNER** prior to beginning any work.

POSSIBLE OTHER INFORMATION/GENERAL INSTRUCTIONS AS INDICATED BY LAMBERT & ASSOCIATES OR ABATEMENT CONTRACTOR



Gary D. Lambert
Owner/President

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Mold Assessment Consultant License No: MAC0335 – Exp. 2/3/2014

SUMMARY BY SPECIFICATION SECTION:

The Work includes removal of asbestos-containing materials (ACM) according to the requirements of the following sections in the sequence indicated:

PROJECT INFORMATION:

Section 00700 - General Conditions of the Contract

Section 00800 - Supplementary Conditions

Section 01000 - Summary of the Work

ADMINISTRATIVE PROCEDURES:

Section 01050 - Project Coordination

Section 01100 - Definitions and Standards

Section 01200 - Codes and Regulations

Section 01300 - Schedules, Reports, Payments

Section 01350 – Shop Drawings, Product Data and Samples

Section 01360 – Substitutions and Product Options

Section 01370 - Product Handling

Section 01380 - Temporary Facilities

Section 01390 - Project Closeout



Gary D. Lambert
Owner/President

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Mold Assessment Consultant License No: MAC0335 – Exp. 2/3/2014

AIR MONITORING/INSPECTION/LABORATORY TESTING SERVICES:

Section 01400 - Air Monitoring and Inspection:

Testing Laboratory Services

describes air monitoring procedures that will be followed by the **CONSULTANT** for the purpose of maintaining building spaces beyond the Work Area in an uncontaminated condition. Air monitoring to determine required respiratory protection is the responsibility of the **CONTRACTOR**.

Section 01410 - Final Clearance

describes the analytical methods used to determine if the work area has been successfully cleaned of contamination.

Section 01420 - Final Clearance (Aggressive TEM)

describes the analytical methods used to determine if the work area has been successfully cleaned of contamination.

FULL CONTAINMENT REMOVAL PROCEDURES:

Section 01505 - Temporary Containment

details the requirements for the sheet plastic barriers isolating the work area from the balance of the building.

Section 01510 - Pre-cleaning and Decontamination Procedures

Sets forth procedures to be used on contaminated objects and rooms prior to containment and contaminated objects and rooms which are not part of an abatement containment area.

Section 01520 - Decontamination Units

Details the requirements for the setup and operation of the personnel and material decontamination units.

Section 01530 - Reduced Air System

Sets forth the procedures to set up the ventilation machines and ventilation of the work area.

Section 01540 - Removal of Asbestos-Containing Materials

Section 01546 - Removal of Resilient Floor Tile and Mastic

Section 01570 - Encapsulation Procedures



Gary D. Lambert
Owner/President

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Mold Assessment Company License No: ACO0151- Exp. 2/3/201

Mold Assessment Consultant License No: MAC0335 – Exp. 2/3/2014

Section 01580 - Project Decontamination

Describes the sequence of cleaning and decontamination procedures to be followed during removal of the sheet plastic barriers isolating of Work Area.

Section 01590 - Disposal of Asbestos-Containing Waste Material

REPAIR AND MAINTENANCE PROCEDURES:

Section 01600 – Local Area Protection

Section 01610 – Entry Into Controlled Areas

PERSONNEL PROTECTION (ASBESTOS ABATEMENT):

Section 01700 - Worker Protection: Asbestos Abatement

Describes the equipment and procedures for protecting workers against asbestos contamination and other workplace hazards, except for respiratory protection.

Section 01710 - Respiratory Protection

sets forth the procedures and equipment required for adequate protection against inhalation of airborne asbestos fibers.

PLAN OF ACTION:

Submit a detailed plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas and reduced air system, the sequencing of asbestos work, the interface of trades involved in the performance of abatement work and other construction work that may be occurring on the site, methods to be used to assure the safety of building occupants and visitors to the site, disposal plan for removing **ACM** from the site. The plan must be approved by the **CONSULTANT** ten (10) working days prior to commencement of work.



Gary D. Lambert

Owner/President

Individual Asbestos Consultant License No: 10-5259

Asbestos Consultant Agency License No: 10-0071

American Industrial Hygiene Association No: 10-1418

Mold Assessment Company License No: ACO0151- Exp. 2/3/2014

Mold Assessment Consultant License No: MAC0335 – Exp. 2/3/2014

SEPARATE CONTRACTS:

Separate contracts are being issued for bids to perform other work at the site which will follow the work of this Contract. Separate contract work can be summarized as follows:

General Remodel Construction Work and/or Demolition of Facilities.

PART 2 – PRODUCTS: (Not Applicable)

PART 3 – EXECUTION: (Not Applicable)



GARY D. LAMBERT

Individual Asbestos Consultant License No.10-5259

Asbestos Consultant Agency License No. 10-0071

American Industrial Hygiene Association No. 10-1418

Mold Assessment Company License No. ACO0151 – exp. 2/3/2014

Mold Assessment Consultant License No. MAC0335 – exp. 2/3/2014

***** **END OF SECTION** *****

PROJECT COORDINATION:

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

SUMMARY:

Minimum administrative and supervisory requirements necessary for coordination of work on the project include but are not necessarily limited to the following:

- Administrative and supervisory personnel
- Special reports
- Notifications to other entities at jobsite

ADMINISTRATIVE AND SUPERVISORY PERSONNEL:

Provide a full-time on-site General Superintendent who is experienced in administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person is the Competent Person as required by OSHA in 29 CFR 1926 for the **CONTRACTOR** and is the **CONTRACTOR'S** representative responsible for compliance with all applicable federal, state and local regulations, particularly those relating to asbestos-containing materials. This person must have completed a course at an EPA Training Center or equivalent certificate course in supervision of asbestos abatement projects, have had a minimum of one (1) year on-the-job training and meet any additional requirements set forth in 29 CFR 1926 for a Competent Person. This person will be accredited to conduct abatement response actions in accordance with 40 CFR Part 763. The General Superintendent shall be licensed in accordance with state law.

SPECIAL REPORTS:

General:

Except as otherwise indicated, submit special reports directly to **OWNER** within one day of occurrence requiring special report, with copy to **CONSULTANT** and others affected by occurrence.

Reporting Unusual Events:

When an event of unusual and significant nature occurs at site (examples: failure of ventilation system, rupture of temporary enclosures), prepare and submit a special report, or daily log sheet, listing chain of events, persons participating, response by **CONTRACTOR'S** personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise **OWNER** and **CONSULTANT** in advance at earliest possible date.

Reporting Accidents:

Prepare and submit reports, or daily log sheet, to the **OWNER** and **CONSULTANT** of significant accidents, at site and anywhere else work is in progress. Record and document data and actions; comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

EMERGENCY PHONE LIST

Project Name_____Project Number_____

CONSULTANT

Lambert and Associates_____Office_____817 439-0051_____

Project Manager_____Home_____

Pager_____

Field Technician_____Home_____

Pager_____

CONTRACTOR

Main Office_____Phone_____

Project Manager_____Home_____

Pager_____

On-Site Supervisor_____Home_____

Pager_____

OWNER

Project Phone Number_____Office_____

Security_____

Owner Contact_____Home_____

Pager_____

LOCAL FIRE DEPARTMENT_____

LOCAL POLICE DEPARTMENT_____

***** **END OF SECTION** *****

DEFINITIONS AND STANDARDS

SECTION 01100

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DEFINITIONS:

General Explanation: A substantial amount of specification language constitutes definitions for terms found in other Contract Documents, including the drawings. (Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon.) Certain terms used in Contract Documents are defined in this article. Definitions and explanations of this section are not necessarily either complete or exclusive, but are general for the work to the extent they are not stated more explicitly in another element of Contract Documents. The **CONTRACTOR** is responsible for clarifying all definitions and terms prior to bid submittal. The **CONSULTANT'S** interpretation of the specification and definitions will be final and binding.

General Requirements: The provisions or requirements of "00---" and "01---" sections as shown on the Index apply to entire work of Contract and, where so indicated, to other elements which are included in project.

Indicated: The term "Indicated" is a cross-reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in Contract Documents.

Directed, Requested, etc.: Where not otherwise explained, terms such as "directed," "requested," "authorized," "selected," "approved," "required," "accepted," and "permitted" mean "directed by **CONSULTANT**," "requested by **CONSULTANT**," and similar phrases. However, no such implied meaning will be interpreted to extend **CONSULTANT'S** responsibility into **CONTRACTOR'S** responsibility for construction supervision.

Approve: Where used in conjunction with **CONSULTANT'S** response to submittals, requests, applications, inquiries, reports and claims by **CONTRACTOR**, the meaning of term "approved" will be held to limitations of **CONSULTANT'S** responsibilities and duties as specified in General and Supplementary Conditions. In no case will "approval" by **CONSULTANT** be interpreted as a release of **CONTRACTOR** from responsibilities to fulfill requirements of Contract Documents.

Project Site: The term "project site" is defined as the space available to **CONTRACTOR** for performance of the work, either exclusively or in conjunction with others performing other work as part of the project. The extent of project site may be shown on the drawings, and may or may not be identical with the actual area in which the project occurs.

Furnish: Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.

Install: Except as otherwise defined in greater detail, the term "install" is used to describe operations at the project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing protecting, cleaning and similar operations, as applicable in each instance.

Provide: Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.

Installer: defined as the entity (person or firm) engaged by **CONTRACTOR**, or its subcontractor or sub-subcontractor for performance of a particular unit of work at project site, including installation, erection, application and similar required operations. Such entities (Installers) shall be expert in operations they are engaged to perform.

Testing Laboratory: is defined as an independent entity engaged to perform specific inspections or tests of the work, either at project site or elsewhere; and to report and (if required) interpret results of those inspections or tests. For this project the Testing Laboratory is the **CONSULTANT**.

CONSULTANT: is the entity described as the "Architect" in AIA Document A201 "General Conditions of the Contract for Construction". All references to Architect or Engineer in the Contract Documents shall in all cases refer to the **CONSULTANT** and vice versa. The **CONSULTANT** will represent the **OWNER** during construction and until final payment is due. The **CONSULTANT** will advise and consult with the **OWNER**. The **OWNER'S** instructions to the **CONTRACTOR** will be forwarded through the **CONSULTANT**; the **CONTRACTOR'S** correspondence with the **OWNER** shall be forwarded through the **CONSULTANT**.

CONSULTANT: is also the entity described as the "Project Representative" in AIA Document A201 "General Conditions of the Contract for Construction". The **CONSULTANT** is a full-time representative of the **OWNER** at the jobsite with authority to stop the work upon verbal order if requirements of the Contract Documents are not met, or if in the sole judgment of the **CONSULTANT** or **OWNER**, the interests of the **OWNER**, safety of any person or the **OWNER'S** property are jeopardized by the work.

General Superintendent: is the **CONTRACTOR'S** representative at the work site. This person shall be the Competent Person required by OSHA in 29 CFR 1926.

DEFINITIONS RELATIVE TO ASBESTOS ABATEMENT:

Abatement: Activities designed to control asbestos hazards, including preparatory work, removal operations, encapsulation, enclosure, and associated activities.

Aerosol: A system consisting of particles, solid or liquid, suspended in air.

Air Cell: Insulation normally used on pipes and duct work that is comprised or corrugated cardboard which is frequently comprised of asbestos combined with cellulose or refractory binders.

Air Monitoring: The process of measuring the fiber content of a specific volume of air.

Amended Water: Water to which a surfactant has been added.

Asbestos: The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite - grunerite (amosite), anthophyllite, and actinolite - tremolite. For purposes of determining respiratory and worker protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

Asbestos-Containing Material (ACM): Any material containing more than 1% by weight of asbestos of any type or mixture of types.

Asbestos-Containing Waste Material: Any material which is or is suspected of being or any material contaminated with an asbestos-containing material which is to be removed from a work area for disposal.

Authorized Visitor: The **OWNER**, the **CONSULTANT**, testing lab personnel, or a representative of any federal, state and local regulatory or other agency having authority over the Project. Any other visitor to the site must be authorized by the **OWNER** prior to site access.

Barrier: Any surface that seals off the work area to inhibit the movement of fibers.

Breathing Zone: A hemisphere forward of and even with the shoulders with a radius of approximately 6 to 9 inches.

Ceiling Concentration: The concentration of an airborne substance that shall not be exceeded.

Certified Industrial Hygienist (C.I.H.): An industrial hygienist certified by the American Board of Industrial Hygiene.

Containment: (see Enclosure)

Critical Barriers: Primary barriers installed to seal openings to the work area such as vents, gills, diffusers, electrical openings, etc. Critical barriers remain in place until final clearance.

Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

Disposal Bag: 6 mil thick leak-tight plastic bags used for transporting asbestos waste from work and to disposal site. Each is labeled as follows:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.

Bridging encapsulant: an encapsulant that forms a discrete layer on the surface of an in situ asbestos matrix.

Penetrating encapsulant: an encapsulant that is absorbed by the in situ asbestos matrix without leaving a discrete surface layer.

Removal encapsulant: a penetrating encapsulant specifically designed for removal of asbestos-containing materials rather than for in situ encapsulation.

Encapsulation: The coating of asbestos-containing materials with a bonding or sealing agent to prevent the release of airborne fibers.

Enclosure (Containment): The construction of an air-tight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

Filter: A media component used in respirators to remove solid or liquid particles from the inspired air.

Friable Asbestos Material: Material that contains more than 1.0% asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

Glove bag: A sack (typically constructed of 6 mil transparent polyethylene or polyvinylchloride plastic) with two inward projecting long sleeve gloves, which are designed to enclose an object from which an asbestos-containing material is to be removed. All glove bag work will be conducted within a reduced air pressure containment.

HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 microns in length.

HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air (absolute) filtered vacuum collection equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

High-Efficiency Filter: A filter which removes from air 99.97% or more of monodisperse dioctyl phthalate (DOP) particles having a mean particle diameter of 0.3 microns.

Reduced Air Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

Reduced Air Pressure: Air pressure lower than surrounding areas, generally caused by exhausting air from a sealed space (work area).

Personal Monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

Removal (Remove): The removal of all visible or detectable asbestos-containing material or waste from the removal surface and work area as inspected and approved by the **CONSULTANT** followed by encapsulation of the cleaned removal surface. Removal of a material includes complete removal of

overspray on vents, light fixture receptacles, adjacent surfaces, etc. for spray-applied treatments. Removal also includes clean-up of asbestos-containing debris in the designated work area.

Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period.

Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a reduced air pressure inside the work area and a constant air flow from adjacent areas into the work area and exhausting that air outside the work area.

Visible Emissions: Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

Visual Inspection (Final): The process of visual confirmation of completion of the removal and decontamination process prior to aggressive Final Clearance air testing. Visually clean means that all visually detectable dust and debris has been removed from the work area as confirmed by visual inspection, wipe tests or other methods to detect optically visible particles as determined by the **CONSULTANT**.

Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of an asbestos contaminated waste.

Work Area: The area where asbestos related work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers or debris, and entry by unauthorized personnel. Work area is a Regulated Area as defined by 29 CFR 1926.

FORMAL AND SPECIFICATION EXPLANATIONS:

Imperative language is used generally in specifications. Except as otherwise indicated, requirements expressed imperatively are to be performed by **CONTRACTOR**. For clarity of reading at certain locations, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by **CONTRACTOR**, or when so noted, by others.

Section numbering is used to facilitate cross-references in the Contract Documents. Sections are placed in Project Manual in numeric sequence; however, numbering sequence is not complete, and listing of sections at beginning of Project Manual must be consulted to determine numbers and names of specification sections in Contract Documents.

Overlapping and Conflicting Requirements: Where compliance with two (2) or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels or quality, the most stringent requirement is intended and will be enforced, unless specifically detailed language written into Contract Documents clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently-equal-but- different

requirements, and uncertainties as to which level of quality is more stringent, to **CONSULTANT** for a decision before proceeding. Any and all communications/authorizations/approvals and instructions from the **CONSULTANT** to the **CONTRACTOR** must be in writing to be binding. Verbal communications must be confirmed in writing and acknowledged in writing by the **CONSULTANT** to be binding.

Abbreviations: The language of specifications and other Contract Documents is of abbreviated type in certain instances, implying words and meanings which will be appropriately interpreted. Actual work abbreviations of a self-explanatory nature have been included in the texts. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with coordination of specification requirements with notations on drawings and in schedules. These are frequently defined in the section at first instance of use. Trade association names and titles of general standards are frequently abbreviated. Singular words will be interpreted as plural and plural words will be interpreted as singular where applicable and where full context of the Contract Documents so indicates.

INDUSTRY STANDARDS:

General Applicability of Standards: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, applicable standards of the construction industry have the same force and effect (and are made a part of Contract Documents by reference) as if copied directly into Contract Documents, or as if published copies were bound herewith. Refer to the other Contract Documents for resolution of overlapping and conflicting requirements which result from the application of several different industry standards to the same unit of work. Refer to individual unit of work sections for indications of which specialized codes and standards the **CONTRACTOR** must keep at the project site, available for reference.

Publication Dates: Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of Contract Documents.

Abbreviations and Names: The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Both names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up-to-date as of date of Contract Documents:

AIA	American Institute of Architects 1735 New York Avenue, N.W. Washington, D.C. 20006 202/626-7474
ANSI	American National Standards Institute 1430 Broadway, New York, NY 10018 212/354-3300
ASHRAE	American Society for Heating, Refrigerating, and Air Conditioning Engineers 1791 Tullie Circle, N.E., Atlanta, GA 30329 404/636- 8400

ASTM	American Society for Testing and Materials 1916 Race Street, Philadelphia, PA 19103 215/299-5400
CFR	Code of Federal Regulations Available from Government Printing Office, Washington, D.C. 20402 (usually first published in Federal Register)
CGA	Compressed Gas Association 1235 Jefferson Davis Highway Arlington, VA 22202 703/979-0900
CS	Commercial Standard of NBS (U.S. Dept. of Commerce) Government Printing Office Washington, D.C. 20402
EPA	Environmental Protection Agency 401 M. Street, S.W., Washington, D.C. 20460 202/382-3949
FS	Federal Specification (General Services Admin.) Obtain from your Regional GSA Office, or purchase from GSA Specifications Unit (SFSIS), Seventh and D Streets, S.W. Washington, D.C. 20406 202/472-2205 or 2140
GA	Gypsum Association 1603 Orrington Avenue, Evanston, IL 60201 312/491-1744
GSA	General Services Administration F St. and 18th Street, N.W. Washington, D.C. 20405 202/655/4000
MIL	Military Standardization Documents (U.S. Dept. of Defense) Naval Publications and Forms Center 5801 Tabor Avenue, Philadelphia, PA 19120
NBS	National Bureau of Standards (U.S. Dept. of Commerce) Gaithersburg, MD 20234 301/921-1000

NEC	National Electrical Code (by NFPA)
NFPA	National Fire Protection Association Batterymarch Park Quincy, MA 02269 617/770-3000
OSHA	Occupational Safety & Health Administration (U.S. Dept. of Labor) Government Printing Office Washington, D.C. 20402
PS	Product Standard of NBS (U.S. Dept. of Commerce) Government Printing Office Washington, D.C. 20402
UL	Underwriters Laboratories 333 Pfingsten Rd., Northbrook, IL 60062 312/272/8800

Trade Union Jurisdictions: It is a procedural requirement that the **CONTRACTOR** maintain, and require prime subcontractors to maintain, complete current information on jurisdictional matters, regulations actions and pending actions, as applicable to the work. Discuss new developments at appropriate project meetings at the earliest feasible dates, and record information of relevance along with the action agreed upon. The manner in which Contract Documents have been organized and subdivided is not intended to be an indication of jurisdictional or trade union agreements.

Assign and subcontract the work, and employ tradesmen and laborers, in a manner which will not unduly risk jurisdictional disputes of a kind which could result in conflicts, delays, claims and losses in the performance of the work.

PART 2 – PRODUCTS: (Not Applicable)

PART 3 – EXECUTION: (Not Applicable)

***** **END OF SECTION** *****

CODES AND REGULATIONS

SECTION 01200

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF THE WORK:

This section sets forth governmental regulations and industry standards which are included and incorporated herein by reference and made a part of the specification. This section also sets forth those notices and permits which are known to the **OWNER** and which either must be applied for and received, or which must be given to governmental agencies before start of work.

CODES AND REGULATIONS:

General Applicability of Codes, Regulations, and Standards: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.

CONTRACTOR Responsibility: The **CONTRACTOR** shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The **CONTRACTOR** is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations. The **CONTRACTOR** shall hold the **OWNER** and **CONSULTANT** harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors and will bear all costs associated therewith.

Federal Requirements: which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite,
Anthophyllite, and Actinolite; Final Rules
Title 29, Part 1910, Section 1001 and
Part 1926, Section 58 of the
Code of Federal Regulations

Respiratory Protection
Title 29, Part 1910, Section 134 of the
Code of Federal Regulations

Access to Employee Exposure and Medical Records
Title 29, Part 1910, Section 2 of the
Code of Federal Regulations

Hazard Communication
Title 29, Part 1910, Section 1200 of the
Code of Federal Regulations

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

U.S. Environmental Protection Agency (EPA) including but not limited to:

Regulation for Asbestos
Title 40, Part 61, Sub-part A of the
Code of Federal Regulations

National Emission Standard for Asbestos
Title 40, Part 61, Sub-part M of the Code of Federal
Regulations

Asbestos Abatement Projects; Worker Protection; Final
Rule
Title 40, Part 763 of the Code of Federal Regulations

State Requirements: Abide by all State requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials including, but not limited to:

Department of Health Services
Title 25 Health Services Part I
25 TAC 289.141 - 289.156

Local Requirements: Abide by all local requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials.

STANDARDS:

Standards: which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

American National Standards Institute (ANSI)
1430 Broadway
New York, New York 10018
(212) 354-3300

Fundamentals Governing the Design and Operation of Local Exhaust Systems
Publication Z9.2-79

Practices for Respiratory Protection Publication Z288.2-80

American Society for Testing and Materials (ASTM)
1916 Race Street
Philadelphia, PA 19103
(215) 299-5400

Specification for Encapsulants for Friable Asbestos-Containing Building Materials
Proposal P-189

Safety and Health Requirements Relating to Occupational
Exposure to Asbestos E 849-82

NOTICES:

STATE DEPARTMENT OF HEALTH SERVICES

Send Written Notification as required by the Department of Health Services, in compliance with 40 Code of Federal Regulations (CFR) Part 61.145. National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements apply equally to both the NESHAP and Asbestos Health Protection Act (TAPHA) notification requirements. Send notification to the following address:

Asbestos Notification Section
State Department of Health Services
P. O. Box 143538
Austin, Texas 78714-3538

Notification: Include the following information in the notification:

Name and address of owner or operator.

Location and description of the facility being demolished or renovated, including the size, age, and prior use of the facility.

Estimate of the approximate amount of asbestos material present in the facility in terms of linear feet of pipe, and surface area on other facility components.

Scheduled start and completion dates of demolition or renovation.

Nature of planned demolition or renovation and method(s) to be used.

Procedures to be used to comply with the requirements of USEPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61, Subpart M).

Name and location of the waste disposal site where the asbestos waste material will be deposited.

For facilities being demolished under an order of a State or local governmental agency, issued because the facility is structurally unsound and in danger of imminent collapse, the name, title, and authority of the State or local governmental representative who has ordered the demolition.

STATE AND LOCAL AGENCIES:

Send Written Notification as required by state and local regulations prior to beginning any work on asbestos-containing materials.

Permits: Obtain as required by regulatory agencies.

Licenses: Maintain current licenses as required by applicable state or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this Contract.

Posting and filing of Regulations: Maintain two (2) copies of applicable federal, state and local regulations above. Post one copy of each at the jobsite. Keep on file in **CONTRACTOR'S** office one copy of each.

SUBMITTALS:

Before start of Work submit the following to the **CONSULTANT** for review: At least 10 working days before start of project:

Notices: Submit notices required by federal, state and local regulations together with proof of timely transmittal to agency requiring the notice.

Permits: Submit copies of current valid permits required by state and local regulations.

Licenses: Submit copies of State and Local licenses and permits necessary to carry out the work of this Contract.

PART 2 – PRODUCTS: (Not
Applicable)

PART 3 – EXECUTION: (Not
Applicable)

***** **END OF SECTION** *****

SCHEDULES, REPORTS, PAYMENTS

SECTION 01300

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

COORDINATION:

Coordinate both the listing and timing of reports and activities required by provisions of this section and other sections, so as to provide consistency and logical coordination between the reports. Maintain coordination and correlation between separate reports by updating at monthly or shorter time intervals. Make appropriate distribution of each report and updated report to parties involved in the Work including the **CONSULTANT** and **OWNER**. In particular, provide close coordination of the progress schedule, schedule of values, listing of subcontracts, schedule of submittals, progress reports, and payment requests.

SCHEDULES:

Provide proposed detailed schedule including work dates, work shift time, number of employees, dates of start and completion including dates of preparation work, removals and final inspection dates.

PROGRESS MEETINGS:

General: In addition to specific coordination and other regular project meetings held for other purposes, the **CONSULTANT** will hold general progress meetings as required, scheduled, where possible, with preparation of payment request. Require each entity then involved in planning, coordination or performance of Work to be properly represented at each meeting.

PRE-CONSTRUCTION CONFERENCE:

Schedule an initial progress meeting, recognized as "Pre- Construction Conference".

Prior to start of any work, meet at project site, with **CONTRACTOR'S** Superintendent, **OWNER**, **CONSULTANT**, and other entities concerned with Asbestos Abatement Work. Record discussions and agreements and furnish copy to each.

REPORTING:

Daily Log: Maintain within the Decontamination Unit a daily log documenting the dates and time of but not limited to, the following items:

- Meetings; purpose, attendees, discussion (brief)
- Visitations; authorized and unauthorized
- Personnel, by name, social security number, entering and leaving the work area
- Air monitoring tests and test results

- Documentation of the following:
 - Inspection of work area preparation prior to start of removal and daily thereafter.
 - Removal of any polyethylene barriers
 - **CONTRACTOR'S** inspections prior to encapsulation
 - Removal of waste materials from work area
 - Decontamination of equipment (list items)
 - **CONTRACTOR'S** final inspection/final air test analysis

Provide two (2) copies of this log at final closeout of project for use by the **OWNER** and **CONSULTANT**.

SCHEDULE OF VALUES:

General: Prepare the schedule of values, as required by the General Conditions, in conjunction with the preparation of the progress schedule. Correlate preparation of schedule of values and progress schedule. Correlate line items with other administrative schedules and forms required for the work, including the progress schedule, payment request form, listing of subcontractors, schedule of allowances, and schedule of alternates. Provide breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of payment requests and progress reports. Break down principal subcontract amounts into several line items. Round off to nearest whole dollar, but with the total equal to Contract Sum.

Sub-Schedules: Where the work is separated into phases which require separately phased payments to the **CONTRACTOR**, provide sub-schedules showing values correlated with each phase of payment.

Time Coordination: In coordination of initial submittals and other administrative "start up" activities, submit the schedule of values to the **CONSULTANT** at the earliest feasible date, in no case later than seven (7) days before initial payment request is to be submitted.

Listing: Arrange the schedule with columns to indicate the generic name of item, related specification sections, subcontractor, the supplier, manufacturer or fabricator, change orders (numbers) which have affected the value, the dollar value of the item, and the percentage of the Contract Sum to the nearest one-hundredth percent and adjusted to total 100 percent.

PAYMENT REQUESTS:

General: Except as otherwise indicated, the progress payment cycle is to be regular. Each application must be consistent with previous applications and payments. Certain applications for payment, such as the initial application, the application at substantial completion, and the final payment application involve additional requirements.

Waivers of Lien: For each payment application, submit waivers of lien from every entity (including **CONTRACTOR**) who could lawfully and possibly file a lien arising out of the Contract and related to work covered by the payment. Submit partial waivers for the amount requested prior to deduction or retainage on each item. When the application shows completion of an item, submit final or full waivers. **OWNER** reserves the right to designate which entities involved in the work must submit waivers.

Waiver Delays: Each progress payment must be submitted with **CONTRACTOR'S** waiver for period of construction covered by application. At the **CONTRACTOR'S** option, each progress payment may be submitted with waivers from the subcontractors or supplier for the previous period of construction covered by previous application. The final payment application must be submitted together with or preceded by final or complete waivers from every entity involved with performance of the Work covered by the payment request.

Waiver Forms: Submit waivers on forms, and executed in a manner, acceptable to **OWNER**.

Payment Application Times: The "date" for each progress payment is as indicated on **OWNER-CONTRACTOR** Agreement or, if none is indicated therein, it is the 15th day of each month.

The period of construction work covered by each payment request is period indicated in **OWNER-CONTRACTOR** Agreement or, if none is indicated therein, it is period ending 15 days prior to date for each progress payment, with the starting day following end of preceding period.

Payment Application Forms: AIA Document G702 and Continuation sheets; available from "Publications, a Division of the AIA Service Corporation", 1735 New York Ave. N.W., Washington, DC 20006 (also available at most local AIA chapter offices).

Application Preparation: Except as otherwise indicated, complete every entry provided for on the form, including notarization and execution by authorized persons. Incomplete applications will be returned by **CONSULTANT** without action.

Entries must match current data of schedule of values and progress schedule and report. Listing must include amounts of change orders issued prior to last day of the "period of construction" covered by application.

Final Payment Application: The administrative actions and submittals which must precede or coincide with submittal of **CONTRACTOR'S** final payment application can be summarized as follows, but not necessarily by way of limitation:

Completion of project closeout requirements.

Transmittal of required project construction records to **CONSULTANT**.

Landfill receipts for asbestos-containing material.

Consent of surety (if any) for final payment.

Application Transmittal: Submit three (3) executed copies of payment applications, one copy of which is completed with waivers of lien and similar attachments. Transmit each copy with a transmittal form listing those attachments, and recording appropriate information related to application in a manner acceptable to **CONSULTANT**.

PART 2 – PRODUCTS: (Not
Applicable)

PART 3 – EXECUTION: (Not
Applicable)

***** **END OF SECTION** *****

SHOP DRAWINGS, PRODUCT DATA, SAMPLES

SECTION 01350

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DRAWINGS:

Present in clear and thorough manner.

Identify details by reference to sheet and detail numbers or room number shown on Drawings. Maximum Sheet Size: 30" x 42".

PRODUCT DATA:

Preparation:

Clearly mark each copy to identify pertinent products or models.

Show performance characteristics and capacities.

Show dimensions and clearances required.

Show wiring or piping diagrams and controls.

Manufacturer's standard schematic drawings and diagrams:

Modify drawings and diagrams to delete information not applicable to Work.

Supplement standard information to provide information specifically applicable to Work.

SAMPLES:

Sufficient size and quantity to clearly illustrate:

Functional characteristics of product, with integrally related parts and attachment devices.

Full range of color, texture and pattern.

SUBMISSION REQUIREMENTS:

Submit shop drawings, product data and samples sufficiently in advance of time returned copies are required to allow review by **CONSULTANT** and re-submittal, if required.

Number of Copies Required:

Shop Drawings: Three (3) direct diazo prints each, plus additional copies as **CONTRACTOR** needs.

Product Data: Three (3) copies for **CONSULTANT'S** use plus additional copies as **CONTRACTOR** needs.

Samples: As required in each specification section.

Submittals shall contain:

Date of submission (including previous submissions).

Project title and number.

Names of **CONTRACTOR**, supplier and manufacturer.

Identification of product, with specification section number where applicable.

Field dimensions, clearly identified as such.

Relation to adjacent or critical features of work or materials.

Applicable reference standards.

Identification of deviations from requirements of Contract Documents.

Identification of revisions on re-submittals.

RESUBMISSION

Revise submittals as required and resubmit as specified for initial submittal. Indicate any changes which have been made other than those requested by **CONSULTANT**.

CONTRACTOR RESPONSIBILITIES:

Schedule submittals according to general flow of Work and so as to allow for adequate and timely review of submittals by **CONSULTANT**.

Review submittals prior to submission and submit to **CONSULTANT** in accordance with provisions herein.

Verify field measurements, construction criteria, catalog numbers and similar data.

Coordinate submittals with requirements of Work and Contract Documents.

CONTRACTOR'S responsibility for errors or omissions is not relieved by **CONSULTANT'S** review.

CONTRACTOR'S responsibility for deviations from requirements of Contract Documents is not relieved by **CONSULTANT'S** review, unless **CONSULTANT** is notified of deviations in writing at time of submittal and gives written review of specific deviations.

Do not begin work which requires submittals until reviewed submittals have been received from **CONSULTANT**.

Reproduce and distribute copies after **CONSULTANT'S** review.

CONSULTANT'S RESPONSIBILITIES:

Review submittals within ten days or indicate in writing reasons for reviews which require additional time.

Review for conformance with design concept of project and information given in Contract Documents.

Indicate results of review and return submittals to **CONTRACTOR** for distribution.

CONSULTANT is not responsible for verification of field measurements, construction criteria, catalog numbers and other similar data.

Review of separate item does not constitute review of an assembly in which item functions.

DISTRIBUTION:

Distribute reviewed copies to **CONTRACTOR'S** file, job-site file, and sub-contractor, supplier, manufacturer, and other parties as required.

PART 2 – PRODUCTS: (Not Applicable)

PART 3 – EXECUTION: (Not Applicable)

***** **END OF SECTION** *****

SUBSTITUTIONS AND PRODUCT OPTIONS

SECTION 01360

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

CONTRACTOR'S OPTIONS:

For products specified only by reference standards, select any product meeting standard.

For products specified by naming several products or manufacturers, select any named.

For products specified by naming products, provide product specifically named.

SUBSTITUTIONS:

Until three (3) days prior to bid date, **CONSULTANT** will consider formal requests for substitution of products in place of those specified.

SUBMITTALS:

Submit three copies, plus copies as needed for return, of each request for substitution, including:

Complete data substantiating compliance of proposed substitution with Contract Documents.

For products:

Product identification, including name and address of manufacturer.

Product description, performance and test data, and reference standards.

For construction methods:

Detailed description of proposed method.

Illustrative drawings.

In making request for substitution, **CONTRACTOR** represents that:

He has investigated proposed substitution and determined that it is equal or superior to that specified for the intended use.

He will provide same warranty as for product or method specified.

He will coordinate installation of accepted substitution into Work, making changes as may be required to complete Work.

He waives claims for additional costs related to substitution which may subsequently become apparent.

Cost data is complete and includes related costs under Contract, excluding **CONSULTANT'S** redesign.

Substitutions will not be considered if:

They are indicated or implied on shop drawings or data submittals without formal request.

Acceptance will require substantial revision of Contract Documents.

CONTRACTOR alone shall be responsible for substantiating acceptability of proposed substitutions. **CONSULTANT'S** decision in acceptance or non-acceptance of substitutions will be final.

PART 2 – PRODUCTS: (Not Applicable)

PART 3 – EXECUTION: (Not Applicable)

***** **END OF SECTION** *****

PRODUCT HANDLING

SECTION 01370

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

QUALITY ASSURANCE:

Include within the **CONTRACTOR'S** quality assurance program such procedures as are required to assure full protection of Work and materials.

MANUFACTURER'S RECOMMENDATIONS:

Except as otherwise approved by the **CONSULTANT**, determine and comply with manufacturer's recommendations on product handling, storage, and protection.

PACKAGING:

Deliver products to the jobsite in their manufacturer's original container, with labels intact and legible.

Maintain packaged materials with seals unbroken and labels intact until time of use.

Promptly remove damaged material and unsuitable items from the jobsite, and promptly replace with material meeting the specified requirements, at no additional cost to the **OWNER**.

The **CONSULTANT** may reject as non-complying such material and products that do not bear identification satisfactory to the **CONSULTANT** as to manufacturer, grade, quality, and other pertinent information.

PROTECTION:

Protect finished surfaces, including jambs and soffits of openings used as passageways, through which equipment and materials are handled.

Provide protection for finished floor surfaces in traffic areas prior to allowing equipment or materials to be moved over such surfaces.

Maintain finished surfaces clean, unmarred, and suitably protected until accepted by the **CONSULTANT**.

REPAIRS AND REPLACEMENTS:

In event of damage, promptly make replacements and repairs to the satisfaction of the **CONSULTANT** and at no additional cost to the **OWNER**.

PART 2 – PRODUCTS: (Not Applicable)

PART 3 – EXECUTION: (Not Applicable)

***** **END OF SECTION** *****

TEMPORARY FACILITIES

SECTION 01380

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF REQUIREMENTS:

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

PART 2 - PRODUCTS

MATERIALS AND EQUIPMENT:

General: Provide new or used materials and equipment that are undamaged and in serviceable condition. Provide only materials and equipment that are recognized as being suitable for the intended use, by compliance with appropriate standards.

SCAFFOLDING:

Provide scaffolding, ladders and/or staging, etc. as necessary to accomplish the work of this contract. Scaffolding may be of suspension type; or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of scaffolding shall comply with applicable OSHA regulations and other applicable regulations.

Equip rungs of metal ladders, etc. with an abrasive non-slip surface.

Provide a nonskid surface on scaffold surfaces subject to foot traffic.

WATER SERVICE:

Temporary Water Service Connection: Connections to the **OWNER'S** water system shall include backflow protection.

Valves shall be temperature and pressure rated for operation of 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 or equipment.

Water Hoses: Employ heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide water into each work area and to each Decontamination Unit. Provide fittings as required to allow for connection to existing wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment.

Hot-Water Heater: The **CONTRACTOR** shall provide UL rated electric hot-water heater to supply hot water for the Decontamination Unit shower. Activate from appropriate amp circuit breaker located within the Decontamination Unit sub panel. Provide with relief valve compatible with water heater operation; pipe relief valve down to drip pan on floor with type L copper. Wiring and installation of the hot-water heater shall be in compliance with NEMA, NECA, and UL standards.

Hot Water: May be secured from the building hot water system, provided backflow protection is installed at point of connection as described in this section under Temporary Water Service connection, and if authorized in writing by the **CONSULTANT**.

ELECTRICAL SERVICE:

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

Temporary Power: Provide service to sub panel with appropriate amp, two (2) pole circuit breaker or fused disconnect sized and equipped to accommodate electrical equipment required for completion of the work.

Voltage Differences: Provide identification warning signs at power outlets which are other than 110-120 volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets. Dry type transformers shall be provided where required to provide voltages necessary for work operations.

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

Electrical Power Cords: The **CONTRACTOR** shall use only grounded extension cords in serviceable condition (no frayed or worn cords); use "hard-service" cords where exposed to abrasion and traffic. Use single lengths or use waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas of work.

Lamps and Light Fixtures: The **CONTRACTOR** shall provide general service incandescent lamps of wattage required for adequate illumination. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Provide exterior fixtures where fixtures are exposed to the weather or moisture.

TEMPORARY HEAT:

Heating Units: If required, the **CONTRACTOR** shall provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the fuel being consumed. Use steam or hot water radiant heat where available, and where not available use electric resistant fin radiation supplied from a branch circuit with ground fault circuit interrupter. Under no circumstances shall forced air or fan type units be utilized inside a work area.

SELF CONTAINED TOILETS:

Self Contained Toilet Units: The **CONTRACTOR** shall provide single-occupant self-contained toilet units of the chemical type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar non-absorbent material. These self-contained toilets shall be made available if no other agreements are made with the **OWNER**.

FIRST AID:

First Aid Supplies: Comply with governing regulations and recognized recommendations within the construction industry.

FIRE EXTINGUISHERS:

Fire Extinguishers: The **CONTRACTOR** shall provide Type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil-flammable liquid fires. In other locations, including inside of the containment (one per 2,000 SF of area), provide type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case.

PART 3 - EXECUTION

SCAFFOLDING:

During the erection and/or moving of scaffolding, care must be exercised so that the polyethylene floor covering is not damaged. If damage occurs, it must be repaired immediately by appropriate means.

Clean as necessary debris from non-slip surfaces.

At the completion of abatement work, clean construction aids within the work area, wrapping one (1) layer of 6 mil polyethylene sheet and seal before removal from the work area.

INSTALLATION GENERAL:

General: Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the Work.

Relocate, modify and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

WATER SERVICE:

General: Water connection (without charge) to **OWNER'S** existing potable water system is limited to one 3/4" pipe-size connection, and a maximum flow of 10 GPM each to hot and cold water supply. Hot water shall be supplied at a minimum temperature of 100EF. Supply hot and cold water to the Decontamination Unit.

Maintain hose connections and outlet valves in leak proof condition.

Where finish work below an outset might be damaged by spillage or leakage, provide a drip pan of suitable size to minimize the possibility of water damage. Drain water promptly from pans as it accumulates.

ELECTRICAL SERVICE:

General: The **CONTRACTOR** shall provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of work during the construction period.

Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work, if no other agreements exist between the **CONTRACTOR** and **OWNER**.

Power Distribution System: The **CONTRACTOR** shall provide circuits of adequate size and proper characteristics for each use. In general, run wiring overhead and rise vertically where wiring will be at least exposed to water and to damage from construction operations.

Temporary Wiring: The **CONTRACTOR** shall provide in the work area a type UF non-metallic sheathed cable located overhead and exposed for surveillance. Do not wire temporary lighting with plain, exposed (insulated) electrical conductors. Provide liquid tight enclosures or boxes for wiring devices.

Provide overload-protected disconnect switch for each temporary circuit located at the power distribution center.

For power hand tools and task lighting, provide a temporary 4-gang outlet. Provide a separate 110-120 Volt, 20 Amp circuit for each 4-gang outlet (four (4) outlets per circuit).

TEMPORARY LIGHTING:

The **CONTRACTOR** shall provide adequate illumination.

TEMPORARY HEAT:

General: The **CONTRACTOR** shall provide temporary heat where indicated or needed for performance of the Work.

Maintain a minimum temperature of 70EF where finished work has been installed.

Maintain a minimum temperature of 75EF in the shower of the Decontamination Unit.

Maintain a minimum temperature of 70EF in the work area at all times that work is going on. At other times and at completion of removal work, but before start of reconstruction work, maintain a minimum temperature of 50EF.

SANITARY FACILITIES:

Toilets: Use of the **OWNER'S** existing toilet facilities, as indicated, will be permitted, so long as these facilities are properly cleaned and maintained in a condition acceptable to the **OWNER**. At substantial completion, restore these facilities to the condition prevalent at the time of initial use. Written permission from the **OWNER** must be obtained, and provisions of these specifications regarding leaving the work area are met.

Toilets (Optional): To avoid excessive travel in and out of the work area; provide one self-contained chemical toilet unit in the work area for each 30 workers. Facilities shall be maintained throughout the Work. At the end of the job, facilities shall be decontaminated in accordance with these specifications.

FIRE EXTINGUISHERS:

Fire Extinguishers: Comply with the applicable recommendations of NFPA Standard 10 "Standard for Portable Fire Extinguishers". Locate fire extinguishers where they are most convenient and effective for their intended purpose, but provide not less than one (1) extinguisher per 2,000 square feet of Work Area, one (1) in Equipment Room and one (1) outside Work Area in Clean Room.

***** **END OF SECTION** *****

PROJECT CLOSEOUT

SECTION 01390

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF REQUIREMENTS:

Definitions: Project closeout is the term used to describe certain collective project requirements, indicating completion of the Work, that are to be fulfilled near the end of the Contract Time in preparation for final acceptance and occupancy of the Work by the **OWNER**, as well as final payment to the **CONTRACTOR** and the normal termination of the Contract.

Specific requirements for individual units of work are included in appropriate Sections.

Time of closeout is directly related to "Substantial Completion"; therefore, the time of closeout may be either a single time period for the entire Work or a series of time periods for individual elements of the Work that have been certified as substantially complete at different dates. This time variation, if any, shall be applicable to the other provisions of this section.

PREREQUISITES TO SUBSTANTIAL COMPLETION:

General: Complete the following before requesting the **CONSULTANT** to inspect for substantial completion, either for the entire Work or for portions of the Work. Include list of known exceptions.

In the progress payment request that coincides with, or is the first request following, the date substantial completion is claimed, show either 100% completion for the portion of the Work claimed as "substantially complete" or list incomplete items, the value of incomplete work, and reasons for the Work being incomplete.

Include supporting documentation for completion as indicated in these Contract Documents.

Submit a statement showing an accounting of changes to the Contract Sum.
Advise **OWNER** of pending insurance change-over requirements.

Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.

Obtain and submit releases enabling **OWNER'S** full, unrestricted use of the Work and access to services and utilities. Where required, include occupancy permits, operating certificates and similar releases.

Complete final cleaning requirements.

Touch-up, repair, restore and/or replace marred exposed finishes affected by the work when such damaged or marred finishes are in excess of anticipated results of normal abatement operations. Degree of excessive damage and necessary repair procedures will be as determined by the **CONSULTANT**.

Inspection Procedures: Upon receipt of **CONTRACTOR'S** request for inspection, the **CONSULTANT** will either proceed with inspection or advise **CONTRACTOR** of unfulfilled prerequisites.

Following initial inspection, the **CONSULTANT** will advise **CONTRACTOR** of Work which is incomplete. The **CONSULTANT** will repeat the inspection when requested and when assured that the Work has been substantially completed.

Results of the completed inspection will form the "punch-list" for final acceptance.

PREREQUISITES TO FINAL ACCEPTANCE:

General: Complete the following before requesting the **CONSULTANT'S** final inspection for final acceptance, and final payment as required by the General Conditions. List known exceptions, if any, in request:

Submit the final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.

Submit **CONTRACTOR'S** Certificate of Completion enclosed at the end of this section.

Submit consent of surety.

Submit evidence of final, continuing insurance coverage complying with insurance requirements.

Re-inspection Procedure: The **CONSULTANT** will re-inspect the Work upon receipt of the **CONTRACTOR'S** notice that the work, including punch-list items resulting from earlier inspections, has been completed, except for these items whose completion has been delayed because of circumstances that are acceptable to the **CONSULTANT**.

Upon completion of re-inspection, the **CONSULTANT** will either prepare final acceptance documents, or will advise the **CONTRACTOR** of work that is incomplete or of obligations that have not been fulfilled, but are required for final acceptance.

If necessary, the re-inspection procedure will be repeated.

MODIFICATION OF PROCEDURES:

The **OWNER** and **CONSULTANT** may modify, waive, and/or combine all procedures, submittals and requirements of the project documents as may be deemed in the **OWNER'S** best interest and as may be suitable to the size and scope of the Project.

PART 2 – PRODUCTS: (Not applicable)

PART 3 - EXECUTION: (Not Applicable)

FINAL CLEANING:

General: Special cleaning requirements for specific units of Work are included in the appropriate Sections. General Cleaning during the regular progress of the Work is required by the General Conditions and is included under Section 1380.

Cleaning: Provide final cleaning of the Work at the time indicated. Employ experienced workers or professional cleaners for final cleaning.

Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.

Complete the following cleaning operations before requesting the **CONSULTANT** inspection for certification of substantial completion: Remove exposed labels in finished spaces which are not required as permanent labels on materials supplied as part of the work, except for "Asbestos", "Asbestos Free", or Thermal Insulation Labels specified elsewhere.

Clean transparent materials affected by the work, including mirrors and window/door glass, to a polished condition, removing substances which are noticeably vision-obscuring materials.

Wax and polish hard surfaced floors affected by the work, using materials supplied by the **CONTRACTOR**.

Clean exposed hard-surfaced finishes affected by the work, to a dirt-free condition, free of dust, stains, films and similar distracting substances. Except as otherwise indicated, avoid disturbance of natural weathering of exterior surfaces.

Restore reflective surfaces to original reflective condition prior to work.

Vacuum clean with HEPA vacuum carpeted surfaces and similar soft surfaces and/or professionally clean to remove staining caused by Work of this contract.

Clean plumbing fixtures affected by the work to a sanitary condition, free of stains including those resulting from water exposure.

Replace disposable type HVAC Filters affected by the Work Area using materials supplied by **OWNER**. Clean permanent type filters after minimum of 48 hours of operation of HVAC equipment after Final Clearance.

Clean light fixtures and lamps which have been affected by the work.

Clean project site (yard and grounds), including landscaped areas, of litter and foreign substances left during the course of the Work.

Sweep paved areas which have been affected by the Work to a broom-clean condition; remove stains, petrochemical spills and other foreign deposits left by the Work.
Rake unplanted grounds which have been disturbed by the Work, to a smooth, even-textured surface.

Removal of Protection: Except as otherwise indicated or requested by the **CONSULTANT'S**, remove temporary protection devices and facilities which were installed during the course of the Work to protect previously completed work during the remainder of the construction period.

Compliances: Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site.

Do not bury debris or excess materials on the **OWNER'S** property.

Do not discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

Where extra materials of value remaining after completion of associated Work have become the **OWNER'S** property, store materials as directed by the **OWNER**.

CONTRACTOR'S CERTIFICATE OF COMPLETION

=====

TO: _____
Owner/Manager

PROJECT: _____

BUILDING NAME: _____

LOCATION WITHIN BUILDING: _____

The work for the above referenced project has been completed in accordance with applicable requirements of the United States Environmental Protection Agency, the Occupational Safety and Health Administration, the National Institute for Occupational Safety and Health, and state, county, and local agencies. The work has also been performed in accordance with the Project Manual as prepared by the **CONSULTANT**.

SIGNED: _____
Authorized Representative

TITLE: _____

DATE: _____

SEAL: _____

***** **END OF SECTION** *****

**AIR MONITORING, INSPECTION AND
LABORATORY TESTING SERVICES**

SECTION 01400

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF THE WORK:

This section describes air monitoring and inspection services to be carried out by the **CONSULTANT** to verify that the Work performed is in compliance and that the building areas beyond the Work Area and the outside environment remain uncontaminated. This section also sets forth airborne levels both inside and outside the Work Area as action levels, and describes the action required by the **CONTRACTOR** if an action level is met or exceeded.

AIR MONITORING:

The **CONSULTANT** will be conducting air monitoring throughout the course of the project.

Base Line Counts: The **CONSULTANT** will monitor counts prior to start of Work. The purpose of this air monitoring will be to establish existing airborne counts prior to beginning abatement operations.

Work Area Isolation: The **CONSULTANT** will monitor airborne fiber counts outside the Work Area.

The purpose of this air monitoring will be to detect faults in the Work Area isolation including, but not limited to, contamination of the building outside of the Work Area with airborne contaminants, failure of filtration or rupture in the ventilation system, or contamination of the exterior of the building with airborne contaminants.

Should any of the above occur the **CONTRACTOR** shall immediately cease abatement activities until the fault is corrected. Work shall not recommence until authorized by the **CONSULTANT**.

Work Area Airborne Count: The **CONSULTANT** will monitor airborne counts in the Work Area.

The purpose of this air monitoring will be to detect airborne counts which may significantly challenge the integrity of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne counts.

Final Clearance: The **CONSULTANT** will conduct Final Clearance air sampling per Section 01420.

Outside Work Area: Maintain an average airborne count outside the Work Area of less than or equal to Base Line as established below.

If any air sample taken outside the Work Area exceeds the Base Line, immediately and automatically stop Work until the source of the high readings can be determined by the **CONSULTANT**. If no outside source can be located by the **CONSULTANT** and if this air sample was taken inside the building and outside of Critical Barriers around the Work Area, immediately erect new Critical Barriers as set forth in

Section 01500 to isolate the affected area from the balance of the building or as instructed by the **CONSULTANT**.

Erect Critical Barriers at the next existing structural isolation of the involved space (e.g. wall, ceiling, and floor).

Decontaminate the affected area in accordance with Section 01510.

Respiratory protection as set forth in Section 01710 shall be worn in affected area until area is cleared for re-occupancy in accordance with Section 01410.

ANALYTICAL METHODS:

The following methods will be utilized at the discretion of the **CONSULTANT** in collecting and analyzing air samples:

Air-O-Cell Cassettes

Anderson Impactor

Scanning Electron Microscopy

Transmission Electron Microscopy (NIOSH 7402, Yamate, or 40 CFR Part 763).

SAMPLE PROTOCOLS:

General: The number and volume of air samples taken by the **CONSULTANT** will generally be in accordance with the following schedule. Sample quantities, locations, volumes and methodologies may vary depending upon the analytical method and project layout used and at the discretion of the **CONSULTANT**.

SCHEDULE OF AIR SAMPLES:

Base Line Sample Schedule: The **CONSULTANT** will secure the following air samples to establish a Base Line before start of Work. The number of samples may vary according to site plan and on authorization of **CONSULTANT**.

Location Sampled	Minimum Number of Samples	Planned Analytical Method
Each Work Area	3	PCM
Outside Each Work Area	1	PCM
Outside Building	1	PCM

Base Line Fiber Level: is an action level expressed in fibers per cubic centimeter which is the larger of the following:

Average of the samples collected outside each work area.

0.01 fibers per cubic centimeter.

Daily Sample Schedule (per 8-hour work period): From start of Work of Section 01500 through the Work of Section 01570, the **CONSULTANT** will generally take the following samples on a daily (8-hour work period) basis. The number of samples may vary according to site plan and on authorization of the **CONSULTANT**.

Location Sampled Per 8-hour shift	Number of Samples	Planned Analytical Method
Outside Building	1	PCM
Output Reduced Air Pressure System	1	PCM

If airborne fiber counts exceed baseline limits, additional samples will be taken (and classified as retests) as necessary to monitor fiber levels and confirm sources.

Release Criteria: Gross decontamination is complete when every Work Area sample is below 0.01 fibers/cc or the Base Line outside the Work Area, whichever is greater. If any sample is above the limit indicated, then the gross decontamination is incomplete and re-cleaning by decontamination procedures and/or ventilation system cycling is required and primary containment barriers cannot be removed.

LABORATORY TESTING:

The **CONSULTANT** will perform laboratory analysis of the air samples. A microscope and technician will be set up at the jobsite, at the option of the **CONSULTANT**, so that verbal reports on air samples can be obtained promptly after collection.

Daily reports to the **OWNER** by the **CONSULTANT** will include air monitoring data and pertinent information on work being conducted such as: work hours, number of workers, procedures used, contractor discrepancies and corrective measures, containment methods and construction, and amount of **ACM** removed.

INSPECTIONS:

The **CONSULTANT**, in addition to providing air monitoring services, will provide full-time, on-site inspection of Work activities. Work shall not proceed without prior notice to the **CONSULTANT** and presence of the **CONSULTANT** on the Work site (requires 48 hours advance notice of Work).

The **CONSULTANT** will conduct the following key Project inspections and no work by the **CONTRACTOR** will proceed beyond these points until all discrepancies noted during the inspection have been corrected. The **CONSULTANT'S** inspections do not relieve the **CONTRACTOR** of his Contract obligations and are not designed to locate all project discrepancies. The **CONTRACTOR** is responsible for project quality.

First Key Inspection:

Inspection of Work Area and Containments Prior to Start of Removal: Removal operations shall not proceed until the **CONSULTANT** has completed inspection of the Work Area preparations and until all discrepancies noted have been corrected.

Second Key Inspections:

Inspection during Removal: Removal Work shall not be conducted unless the **CONSULTANT** is on the Project site. Inspection of the Work Area and Work practices will be conducted; upon discovery and report of a discrepancy the **CONTRACTOR** shall immediately stop Work and correct the discrepancy.

Third Key Inspections:

Inspection of Work Area or Containment After Completion of Removal Work, but Prior to Encapsulation of Surfaces: A visual inspection of the Work site and/or Containment areas and removal surfaces will be conducted at this point by the **CONSULTANT** and lockdown encapsulation shall not proceed until discrepancies noted have been corrected.

Fourth Key Inspection:

Inspection of Work Area After Encapsulation but Prior to Work Area or Containment Disassembly: Visual inspection of the encapsulation, but not until the encapsulant is fully dry (minimum 4 hours).

Fifth Key Inspection:

Final Clearance: After final clean-up of the Work Area, but prior to removal of Critical Barriers, the **CONSULTANT** will conduct a visual inspection followed by final air tests. Final air sampling for full containment areas will be conducted in accordance with Section 01420.

Final Key Inspections:

Project Closeout Inspection: Will be conducted by the **CONSULTANT** after the **CONTRACTOR** has removed Critical Barriers, equipment, and supplies. A Project "Punch List" will be provided of any items requiring correction or completion. Punch List items shall be completed prior to issuance of final completion notice by the **CONSULTANT**.

Discrepancies or needed corrective measures observed by the **CONSULTANT** will be reported to the **CONTRACTOR'S** Superintendent on-site and shall be immediately corrected.

The above inspections are not necessarily single events. Failed inspections will be re-conducted and time classified as retests and charged back to the **CONTRACTOR** in accordance with the project documents.

Inspections will require 48 hours advance notice to the **CONSULTANT**.

PERSONAL MONITORING:

The **CONTRACTOR** shall perform air monitoring as required to meet OSHA Requirements for maintenance of Time Weighted Average (TWA) and excursion limit fiber counts for types of respiratory protection provided. The **OWNER** will not be providing air monitoring services to meet these OSHA requirements. The sample collection method and laboratory providing analysis of these samples must be acceptable to the **OWNER**.

***** END OF SECTION *****

FINAL CLEARANCE (AGGRESSIVE PCM)

SECTION 01410

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

AIR MONITORING:

To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to the specified level, the **CONSULTANT** will secure samples and analyze them according to the following procedures.

AGGRESSIVE SAMPLING:

Air Samples from work areas will be collected using aggressive sampling techniques at locations determined by the **CONSULTANT** as follows:

Before sampling pumps are started, the exhaust from forced air equipment (leaf blower with electric motor) will be swept against walls, ceilings, floors, ledges and other surfaces in the room.

If required, 20 inch diameter fans will be mounted in central locations directed toward ceilings and operated at low speed for the period of sample collection to maintain fiber suspension.

After air sampling pumps have been shut off, fans (if used) will be shut off.

SCHEDULE OF AIR SAMPLES:

General: The number and volume of air samples taken and analytical methods used by the **CONSULTANT** will generally be in accordance with the following schedule. Sample quantities, volumes, and analytical methodologies given may vary and will be at the discretion of the **CONSULTANT**.

PHASE CONTRAST MICROSCOPY (PCM):

In each homogeneous work area or as required by the **CONSULTANT**, **PCM** samples will be taken and will be analyzed as follows:

Location Sampled	Scheduled Number of Samples	Filter Media
Work Area	5	Cellulose Ester
Outside of Work Area	5	Cellulose Ester

Analysis: Fibers on each filter will be measured using the NIOSH 7400 procedures, or OSHA Reference Method (ORM) procedures.

Release Criteria: Decontamination of the Work site is complete when every Work Area sample is below 0.01 fibers/cc or the current Base Line level, whichever is greater.

If the results of analysis of the Work Area samples fail to meet the release criteria, then the decontamination is incomplete and re-cleaning per Section 01570 is required.

LABORATORY TESTING:

The **CONSULTANT** will be employed by the **OWNER** to perform laboratory analysis of the air samples.

PART 2 – PRODUCTS: (Not Applicable)

PART 3 – EXECUTION: (Not Applicable)

***** **END OF SECTION** *****

FINAL CLEARANCE (AGGRESSIVE TEM)

SECTION 01420

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

AIR MONITORING:

To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to the specified level, the **CONSULTANT** will secure samples and analyze them according to the following procedures.

AGGRESSIVE SAMPLING:

Air Samples from work areas will be collected using aggressive sampling techniques at locations determined by the **CONSULTANT** as follows:

Before sampling pumps are started, the exhaust from forced air equipment (leaf blower with electric motor) will be swept against walls, ceilings, floors, ledges and other surfaces in the room.

If required, 20 inch diameter fans will be mounted in central locations directed toward ceilings and operated at low speed for the period of sample collection to maintain fiber suspension.

After air sampling pumps have been shut off, fans (if used) will be shut off.

SCHEDULE OF AIR SAMPLES:

General: The number and volume of air samples taken and analytical methods used by the **CONSULTANT** will generally be in accordance with the following schedule. Sample quantities, volumes, and analytical methodologies given may vary and will be at the discretion of the **CONSULTANT**.

TRANSMISSION ELECTRON MICROSCOPY (TEM):

In each homogeneous work area or as required by the **CONSULTANT**, **TEM** samples will be taken and will be analyzed as follows:

Location Sampled	Scheduled Number of Samples	Filter Media
Each Work Area	5	Cellulose Ester
Outside Work Area	5	Cellulose Ester
Field Blank	2	Cellulose Ester
Lab	1	Cellulose Ester

Analysis: Asbestos fibers on each filter will be measured using analysis per AHERA rules (40 CFR 763, appendix A and B).

Release Criteria: Decontamination of the Work site is complete as determined by the analytical protocol if the average fiber concentration of the Work Area samples is below seventy (70) structures per square millimeter in accordance with 40 CFR 763.90(4). The **CONSULTANT** may elect at his option to utilize the Z-test clearance alternative described in 40 CFR Part 763 in lieu of the above Method.

If the results of analysis of the work area samples fail to meet the release criteria, then the decontamination is incomplete and re-cleaning per Section 01570 is required.

LABORATORY TESTING:

TRANSMISSION ELECTRON MICROSCOPY (TEM):

Samples will be sent by overnight courier for analysis by Transmission Electron Microscopy to the **CONSULTANT'S** laboratory in Dallas, Texas. Verbal results will generally be available within twenty-four (24) hours after receipt of samples by the laboratory. The **OWNER** and **CONSULTANT** will, however, not bear any responsibility for delays in availability of laboratory results for whatever reason.

PART 2 – PRODUCTS: (Not Applicable)

PART 3 – EXECUTION: (Not Applicable)

***** END OF SECTION *****

TEMPORARY CONTAINMENT

SECTION 01500

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

PART 2 - PRODUCTS

Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 4 or 6 mils thick as indicated, clear, frosted, or black as indicated.

When working near hot equipment or in fire potential area, provide flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films.

Reinforced Polyethylene Sheet: Where a plastic sheet is the only separation between the work area and building exterior and stressing of the sheeting is likely, provide nylon, reinforced, laminated, flame resistant, polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 4 or 6 mils thick, as indicated, opaque.

Spray Plastic: Provide spray plastic in aerosol cans or premixed for spray application which is formulated to adhere gently to surfaces and remove cleanly by peeling off at the completion of the work. Use of spray plastic must be approved in advance by the **CONSULTANT**.

Adhesive Tape: Provide adhesive tape in 2" or 3" widths as indicated, with an adhesive which is formulated to aggressively stick to sheet polyethylene and other surfaces in a wet, humid, hot environment. Any adhesive residue remaining after clean-up must be removed and surfaces restored to prior-work condition.

Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene, and other surfaces in a wet, humid, hot environment. Any adhesive residue remaining after clean-up must be removed and surfaces restored to prior-work condition.

Window: Provide 1/4" thick, 18" x 18" minimum clear plastic window(s) to be located to provide view into the Containment Area. A viewing window will be included in each wall for each 260 linear feet or fraction of that distance which will permit the viewing of at least 51% of the abatement work area. The window shall be constructed of Plexiglas which measures approximately 18" X 18". The bottom of the window will be at a reasonable viewing height from the outside floor.

Paint: Provide luminescent paint capable of adhering to sheet polyethylene in a wet, humid, hot environment.

PART 3 - EXECUTION

SEQUENCE OF WORK:

Carry out work of this section sequentially. Complete each activity before proceeding to the next.

GENERAL:

Work Area: Is the location where asbestos-abatement work occurs. It is a variable of the extent of work of the Contract. It may be a portion of a room, a single room, or a complex of rooms. A "work area" is considered contaminated during the work, and must be isolated from the balance of the building, and decontaminated at the completion of the asbestos-control work.

Provide Warning Signs meeting regulatory requirements at each visual and physical barriers reading as generally follows:

Legend

DANGER

ASBESTOS

CANCER AND LUNG DISEASE HAZARD

AUTHORIZED PERSONNEL ONLY

RESPIRATORS AND PROTECTIVE
CLOTHING ARE REQUIRED IN THIS AREA

BREATHING ASBESTOS DUST MAY
BE HAZARDOUS TO YOUR HEALTH

Signage is to be placed at approaches to the work area at such positions that personnel will have adequate time to take precautions. Post signage so as to not be in view of the general public inside or outside of the building.

If necessary, post preliminary signs in public areas reading similar to "CAUTION -- CONSTRUCTION AREA". Signage posting plan must meet the requirement of and be approved by the **CONSULTANT**.

ALTERNATE METHODS OF CONTAINMENT:

Alternate methods of containing the work area may be submitted to the **CONSULTANT** for approval in accordance with procedures set forth in Section 01360. Do not proceed with any such method(s) without prior approval of the **CONSULTANT**.

RESPIRATORY AND WORKER PROTECTION:

Before proceeding beyond this point in providing Temporary Containments:

Provide Worker Protection per Section 01700

Provide Respiratory Protection per Section 01710

CRITICAL BARRIERS:

Completely Separate the work area from other portions of the building, and the outside by sheet plastic barriers at least 6 mil in thickness, sealing with adhesive tape.

Clean surfaces per Section 01510 procedures with HEPA filtered vacuum and/or wet wiping prior to installation of critical barriers.

Individually seal ventilation openings in walls (supply and exhaust), wall mounted fixtures, doorways, windows, convectors, and other wall and floor openings into the work area with adhesive tape alone or with polyethylene sheeting at least 6 mil thickness, taped securely in place with adhesive tape. Maintain seal until Work including Final Clearance is completed. Exercise care in sealing active lighting and other fixtures to avoid melting or burning of sheeting.

Clean contaminated furniture, carpeting, equipment, and/or supplies with a HEPA filtered vacuum cleaner or by wet cleaning, as specified in Section 01510, prior to being moved or covered. Equipment, furniture, etc. is to be deemed contaminated unless specifically declared as uncontaminated on the Contract Documents or by the **CONSULTANT**.

Clean housings and ducts of overspray materials prior to erection of the Critical Barrier polyethylene sheeting.

Decontaminate furniture, walls, floor surfaces, carpeting, equipment, and/or supplies within the Work Area per Section 01510, prior to being moved or covered. Equipment, furniture, etc. is to be deemed contaminated unless specifically declared as uncontaminated on the Contract Documents or by the **Consultant**.

Provide Sheet Plastic barriers at least 6 mil in thickness as required to completely seal openings from the work area into adjacent areas. Seal the perimeter of sheet plastic barriers with adhesive tape. Completely seal seams with adhesive tape stripping.

Cover Carpeting (where occurs) with a minimum on one (1) additional layer of 10-mil polyethylene sheeting or additional layers as required to protect carpeting as critical barrier if carpeting is to remain in place during and after abatement of area.

Provide Decontamination Units per Section 01520.

Provide Ventilation System per Section 01530.

PRIMARY CONTAINMENT BARRIERS:

Clean Surfaces in Work Area with a HEPA filtered vacuum or by wet wiping prior to the installation of any sheet plastic.

Contain Work Areas with two (2) layers of 6 mil plastic sheeting on floor and two (2) layer of 4 mil on walls as follows, or as otherwise directed in writing by the **CONSULTANT**.

Cover floor of Work Area with a minimum of two (2) individual layers of clear polyethylene sheeting, each at least 6 mil in thickness, turned up walls at least 12 inches. Form a sharp right angle bend at junction of floor and wall so that there is no radius which could be stepped on causing the wall attachment to be pulled loose. Both spray-glue and adhesive tape seams in floor covering. Locate seams in top layer at a minimum of six (6) feet from, or at right angles to, seams in bottom layer. Install sheeting so that top layer can be removed independently of bottom layer.

As required to protect floor plastic, cover sheet plastic in areas where scaffolding is to be used with a plywood or hardboard of sufficient thickness to protect plastic from punctures and tears.

Wrap edges and corners of each sheet with adhesive tape. At completion of abatement work, wrap plywood or hardboard with two (2) layers of 6 mil polyethylene and remove to next Work Area or dispose of asbestos-contaminated waste materials in accordance with Section 01590.

Remove electrical and mechanical items, such as lighting fixtures, clocks, diffusers, registers, escutcheon plates, etc., which cover any part of the surface involved with the Work.

Remove general construction items, such as cabinets, casework, doors and window trim, moldings, ceilings, trim, etc., which cover any part of the surface involved with the Work, or as required to prevent interference with the Work. Decontaminate and reinstall such materials, upon completion of removal Work with materials, finishes and workmanship to match existing installations prior to start of Work to the satisfaction of the **CONSULTANT**.

Wall covering, double layer: Cover walls in Work Area not including Critical Barriers with a minimum of two (2) layers of polyethylene sheeting, at least 4 mil in thickness supported, as required to maintain barrier throughout Project Duration. Seal perimeters and joints including the joining with the floor covering with adhesive tape.

Double Wall construction will be required. Attach first layer of minimum 4 mil polyethylene to wall at least eight inches (8") below **ACM**. Overlap and attach second layer of minimum 4 mil polyethylene eight inches (8") above first layer. Take precautions to prevent disturbance of **ACM**.

Emergency Exits: At each existing door from the Work Area, provide the following means for emergency exiting:

Arrange exit door so that it is secure from outside the Work Area but permits exiting from the Work Area. Mark outline of door on Primary Barrier with luminescent paint or tape at least one inch (1") wide. Hang a razor knife on a string beside outline. Arrange Critical and Primary Barriers so that they can be easily cut with one pass of razor knife. Tape or paint with

luminescent paint, the word "EXIT" inside outline in letters at least six inches (6") high and one inch (1") thick.

Elevator: Cover walls, floor and ceiling of elevator, if used, with two (2) layers of 6 mil polyethylene. Arrange entry to Work Area so that elevator door is in a positively pressurized space outside the clean room of the decontamination unit. At completion of the Work, elevator shall be cleaned as set forth in Section 01580. Refer to Section 00800, Supplementary Conditions, for additional requirements for protection of elevator.

Stairs and Ramps: Do not cover stairs or ramps with unsecured sheet plastic. Where stairs or ramps are covered with plastic, provide treads securely held in place, over plastic. Do not cover rungs or rails with any type of protective materials.

Windows: Install window or windows into Containment Area to allow view to full extent possible. Locate as required by the **CONSULTANT**.

DROP CLOTH:

Drop Cloth: Over the Primary Barrier, install as a drop cloth a clear 6 mil sheet plastic in areas where asbestos removal work is to be carried out. Completely cover floor with sheet plastic. Where the work is within 10' of a wall, extend the Drop Cloth up wall. Support sheet plastic on wall with duct tape, seal top of Drop Cloth plastic to Primary Barrier with duct tape so that debris is unable to get behind it. Provide cross strips of duct tape at wall support as necessary to support sheet plastic and prevent its falling during removal operations.

Install Drop Cloth end of each work shift or as work in an area is completed. Fold plastic toward center of sheet and pack in disposal bags. Keep material on sheet continuously wet until bagged.

Remove Drop Cloth at end of each work shift or as work in an area is completed. Fold plastic toward center of sheet and pack in disposal bags. Keep material on sheet continuously wet until bagged.

Install Walkways of 6 mil plastic between active removal areas and decontamination units to protect Primary Layer from tracked material. Install walkways at the beginning of, and remove at the end of each work shift.

EXTENSION OF WORK AREA:

If the containment barrier is breached in any manner that could allow the passage of asbestos debris or airborne fibers, then add affected area to the Work Area, provide temporary containment as required by this Section and decontaminate new Work Area as described in Section 01510.

***** **END OF SECTION** *****

PRE-CLEANING AND DECONTAMINATION PROCEDURES

SECTION 01510

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF THE WORK:

The work includes decontamination of areas prior to containment construction.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

GENERAL:

Complete the following before start of work of this section:

Section 01700 – Worker Protection
Section 01710 - Respiratory Protection

WET CLEANING:

Accomplish wet cleaning during decontamination with paper towels or disposable rags:

Immerse paper towel or rag in bucket of water with surfactant or diluted removal encapsulant.

If a removal encapsulant is used, test first to insure that it will not either leave a residue that will impede visual inspection or become gummy during cleaning.

Wring out, Fold into quarters,

Wipe surface once and refold to a fresh face of cloth. Proceed in this manner until available faces of paper towel or rag have been used.

Dispose of paper towel or rag.

Do not place rag back in bucket to rinse out or for any other purpose. If a used towel or rag comes in contact with water, empty bucket and refill.

Material adhered to a surface with removal encapsulant may require the application of additional removal encapsulant to facilitate cleaning.

REMOVAL OF ASBESTOS-CONTAINING DEBRIS:

Work of this section is limited to the cleanup of a small quantity of amassed debris which has fallen from an architectural finish, fireproofing, or thermal insulation on pipes, boilers and other thermal equipment.

Remove asbestos-containing debris and decontaminate the area involved using the following sequence:

Shut down ventilation into room.

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

Start HEPA vacuum before entering the area.

Use the HEPA vacuum to clean a path at least six (6) feet wide from the entry point of the work area to the site of the fallen material.

Remove small debris with the HEPA vacuum.

HEPA vacuum surfaces of pieces too large to be removed by the suction of the HEPA vacuum.

Pick up such pieces and place in the bottom of a 6 mil polyethylene disposal bag conforming to the requirements of Section 01590 of these specifications.

Place pieces in the bag without dropping and avoiding unnecessary disturbance and release of material.

Remove remaining visible debris with HEPA vacuum.

HEPA vacuum an area three (3) feet beyond the location in which any visible debris was found in two directions each at right angles to the other.

Place a 6 mil polyethylene drop cloth in accordance with Section 01600 immediately on top of the HEPA vacuumed area before performing any repair work on site from which fall-out occurred.

HEPA vacuum the site from which material fell removing loose material which can be removed by the vacuum's suction.

Repair or remove remaining material.

HEPA vacuum ladder and/or any tools used and pass out of the work area.

FOR HEAVILY CONTAMINATED AREAS:

HEPA vacuum surfaces in the room starting at the top of wall and working downward to the floor. Then start at corner of floor farthest from work area entrance and work towards entrance.

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 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.

Secure area from occupancy until air monitoring results per Section 01410 indicates that the area is safe for re-occupancy, if required by the **CONSULTANT**.

CLEANING AND DECONTAMINATING OBJECTS:

Following is a procedure for cleaning contaminated objects.

Perform work of decontaminating objects wherever possible on a plastic drop sheet installed in conformance with Section 01600.

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

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

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

DECONTAMINATION OF ROOMS:

Procedures for cleaning spaces adjacent to a work area which have been contaminated by fiber migration or which have been contaminated by gross debris.

Shut down ventilation into space.

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

Install ventilation system in accordance with Section 01530.

If, in the opinion of the **CONSULTANT**, it is infeasible to exhaust the ventilation unit, use the following:

Short Cycle Ventilation Unit in space by operating so that discharge from machine is into space. Use one ventilation unit for each 2,500 cubic feet.

HEPA vacuum surfaces in the room starting at the ceiling, then top of wall and working downward to the floor.

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 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.

Operate Ventilation Unit in space for 24 hours minimum.

At completion of decontamination work, workers shall decontaminate in accordance with Section 01620.

Secure area from occupancy until air monitoring results per Section 01410 indicates area is safe for re-occupancy, if required by **CONSULTANT**.

***** **END OF SECTION** *****

DECONTAMINATION UNITS

SECTION 01520

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF WORK:

Provide personnel and equipment decontamination facilities.

PART 2 - PRODUCTS

PLASTIC SHEETING: Use specified as applicable for performance of the work.

Polyethylene Sheet: In non-fire hazard areas, a single polyethylene film in the largest sheet size possible to minimize seams, 4 or 6 mils thick as indicated, clear, frosted, or black as indicated.

Polyethylene Sheet: In fire hazard areas, provide flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 4 or 6 mils thick as indicated, frosted or black as indicated.

Reinforced Polyethylene Sheet: Where plastic sheet is the only separation between the work area and building exterior, provide translucent, nylon reinforced, laminated, flame resistant, polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films.

Provide largest size possible to minimize seams, 4 or 6 mils thick as indicated, frosted or black as indicated.

Adhesive Tape: Provide adhesive tape in 2" or 3" widths as indicated, with an adhesive which is formulated to aggressively stick to sheet polyethylene.

Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

Shower Pan: Provide one piece waterproof shower pan fabricated from seamless fiberglass, stainless steel with welded seams, or other system acceptable to the **CONSULTANT**.

Shower Walls and Roof: Provide walls and roof fabricated from impervious, waterproof material. Structurally support as necessary for stability.

Shower Head and Controls: Provide a factory made, personal use, commercial shower head producing a spray of water which can be adjusted for spray size and intensity. Feed shower with water mixed from hot and cold supply lines. Arrange so that control of water temperature, flow rate, and shut off is from inside shower without outside aid.

Filters: Provide cascaded filter units on drain lines from showers or any other water source carrying asbestos contaminated water from the work area. Provide units with disposable filter elements as indicated below. Connect so that discharged water passes primary filter and output of primary filter passes through secondary filter.

Primary Filter - Pass particles 20 microns and smaller
Secondary Filter - Pass particles 5 microns and smaller

Shower Stall: For Wash Down Station, provide leak tight shower enclosure with drain pan fabricated from fiberglass or other durable waterproof material, approximately 3' x 3' square with minimum 6' high sides and back. Structurally support as necessary for stability. Provide drain platform in drain pan for occupant to stand out of the drain water. Connect drain to a reservoir, pump water from reservoir through filters to a drain.

Lumber: Provide kiln dried lumber of any grade or species.

Sump Pump: Provide totally submersible waterproof sump pump with integral float switch. Provide unit sized to pump two (2) times the flow capacity of showers or hoses supplying water to the sump, through the filters specified herein when they are loaded to the extent that replacement is required. Provide unit capable of pumping debris, sand, plaster or other materials washed off during decontamination procedures without damage to mechanism of pump. Adjust float switch so that a minimum of 3" remains between top of liquid and top of sump pan.

PART 3 - EXECUTION

GENERAL:

PERSONNEL DECONTAMINATION UNIT:

Provide a Personnel Decontamination Unit consisting of a serial arrangement of connected rooms or spaces, with a minimum of a Changing room, Shower Room, and Equipment Room. Require persons without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit. Provide temporary lighting within decontamination units as necessary.

Changing Room (clean room): Provide a room that is physically and visually separated from the rest of the building for the purpose of changing into protective clothing. Construct using opaque polyethylene sheeting, at least 6 mil in thickness, between the Changing room and the rest of the building. Locate so that access to Work Area from Changing Room is through Shower Room. Separate Changing Room from the building by a sheet polyethylene curtained doorway.

Require workers to remove street clothes in this room, dress in clean disposable coveralls, and don respiratory protection equipment. Do not allow asbestos contaminated items to enter this room. Require Workers to enter this room either from outside the structure dressed in street clothes, or naked from the showers.

An existing room may be utilized as the Changing Room if it is suitably located and of a configuration whereby workmen may enter the Changing Room directly from the Shower Room. Protect surfaces of room with sheet plastic as set forth in Section 01500. Authorization for this configuration must be obtained from the **CONSULTANT** prior to start of construction.

Maintain floor of Changing Room dry and clean at all times. Do not allow overflow water from shower to wet floor in Changing Room.

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

Provide a continuously adequate supply of disposable bath towels.

Provide one (1) clothes hanger or storage locker per employee and visitor.

Emergency Numbers: Post clearly in changing room (clean room) the telephone numbers and locations of emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company.

Shower Room: Provide a completely water tight operational shower to be used for transit by cleanly dressed workers heading for the Work Area from the Changing Room, or for showering by workers headed out of Work Area after undressing in the Equipment Room.

Construct room by providing a shower pan and shower walls in a configuration that will cause water running down walls to drip into pan. Install a freely draining floor in shower pan at minimum one (1) inch from top of pan.

Separate this room from the rest of the building with air tight walls fabricated of 6 mil polyethylene. Separate this room from the Changing and Equipment Rooms with air tight walls fabricated of 6 mil polyethylene.

Provide splash proof entrances to Changing and Equipment Rooms with two (2) curtained doorways.

Provide temporary extensions of existing hot and cold water and drainage, as necessary for a complete and operable shower.

Provide a soap and shampoo dish and a continuously adequate supply of soap and shampoo, and maintain in sanitary condition.

Arrange so that water from showering does not splash into the Changing or Equipment Rooms.

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

Provide flexible hose shower head.

Pump waste water to drain, providing 20 micron and 5 micron waste water filters in line to drain.

Change filters as necessary to maintain efficiency.

Provide other items indicated and as required for an effective system.

Equipment Room (contaminated area): Require work equipment, footwear and additional contaminated work clothing to be left here. This is a change and transit area for workers. Separate this room from the work area by a 6 mil polyethylene curtained doorway.

Separate this room from the rest of the building with air tight walls fabricated of 6 mil polyethylene.

Separate this room from the Shower Room and Work Area with air tight walls fabricated of 6 mil polyethylene.

Work Area: Separate work area from the Equipment Room by polyethylene barriers. Damp wipe clean surfaces after each shift change. Provide one additional floor layer of 6-mil polyethylene per shift change and remove contaminated layer after each shift.

Construction:

Walls and Ceiling: Construct air tight walls and ceiling using polyethylene sheeting, at least 6 mil in thickness. Attach to existing building components or a temporary framework.

Floors: Use a minimum of two (2) layers of 6 mil polyethylene sheeting to cover floors in the Equipment, Shower (underneath shower pan), and Changing Rooms. Provide an additional layer in the Equipment Room for every shift change expected. Provide a minimum of two (2) layers of plastic. Use only clear plastic to cover floors.

Curtained Doorways: Fabricated from two (2) overlapping polyethylene sheets with openings a minimum of three feet (3') wide. Configure so that sheeting overlaps adjacent surfaces. Weight sheets at bottoms so that they quickly close after being released.

Put arrows on sheets to indicate direction of overlap and/or travel. Provide a minimum of four feet (4') between entrance and exit of any room. Attach top and right side of outer sheet to doorway frame. Attach top and left side of inner sheet to doorway frame.

If the decontamination area is located within an area containing friable asbestos on overhead ceilings, ducts, piping, etc., provide the area with a minimum 1/4 inch hardboard or 1/2 inch plywood "ceiling" with polyethylene sheeting, at least 4 mil in thickness covering the top of the "ceiling".

Visual Barrier: Where the decontamination area is immediately adjacent to and within view of occupied areas, provide a visual barrier of opaque polyethylene sheeting at least 4 mil in thickness so that worker privacy is maintained and work procedures are not visible to building occupants. Where the area

adjacent to the decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs covered with minimum 1/4 inch thick hardboard or 1/2 inch plywood. Where the solid barrier is provided, sheeting need not be opaque.

Alternate methods of providing decontamination facilities may be submitted to the **CONSULTANT** for approval. Do not proceed with any such method(s) without authorization of the **CONSULTANT**

Electrical: Provide sub-panel at Changing room or other outside location to accommodate removal equipment. Power sub-panel directly from a building electrical panel. Connect electrical branch circuits in decontamination unit and any pumps in shower room to a ground-fault circuit protection device, and in accordance with applicable regulations.

DECONTAMINATION SEQUENCE:

Entering Work Area:

Worker enters Changing room and removes street clothing, puts on clean disposable overalls and respirator, and passes through the Shower Room into the Equipment Room.

Any additional clothing and equipment left in Equipment Room needed by the worker are put on in the Equipment Room.

Worker proceeds to Work Area.

Exiting Work Area:

Before leaving the work area, require the worker to remove gross contamination and debris from overalls and feet. The worker then proceeds to the Equipment Room and removes clothing except respiratory protection equipment.

Extra work clothing may be stored in contaminated end of the Equipment Room. Disposable coveralls are placed in a bag for disposal with other material. Decontamination procedures found in Section 01700 shall be followed by individuals leaving the work area.

After showering, the worker moves to the changing room and dresses in either new coveralls for another entry or street clothes if leaving.

EQUIPMENT AND BAG-OUT DECONTAMINATION UNITS:

The **CONTRACTOR** may provide an Equipment and Bag-out Decontamination Unit consisting of a serial arrangement of rooms, Clean Room, Holding Room, Wash Room for removal of equipment and material from work area. Do not allow personnel to enter or exit work area through Equipment Decontamination Unit.

Wash Down Station: Provide an enclosed shower unit located in work area just outside Wash Room as an equipment, bag and container cleaning station.

Wash Room: Provide wash room for cleaning of bagged or containerized asbestos-containing waste materials passed from the work area. Construct wash room of 2 X 4 wood framing and polyethylene sheeting, at least 6 mil in thickness and located so that packaged materials, after being wiped clean can be passed to the Holding Room. Separate this room from the work area by a curtained doorway of 6 mil polyethylene sheeting.

Holding Room: Provide Holding Room as a drop location for bagged asbestos-containing materials passed from the Wash Room. Construct Holding room of 2 X 4 wood framing and polyethylene sheeting at least 6 mil in thickness and located so that bagged materials cannot be passed from the Wash Room through the Holding Room to the Clean Room. Separate this room from the adjacent rooms by a curtained doorway of 6 mil polyethylene sheeting.

Clean Room: Provide Clean Room to isolate the Holding Room from the building exterior. Construct Clean room of 2 X 4 wood framing and polyethylene sheeting, at least 6 mil in thickness and locate to provide access to the Holding Room from the building exterior. Separate this room from the exterior by a curtained doorway of 6 mil polyethylene sheeting.

Equipment or Material: Take equipment or material from the work area through the Equipment Decontamination Unit according to the following procedure:

At wash down station, thoroughly wet-clean contaminated equipment or sealed polyethylene bags and pass into Wash Room.

When passing equipment or containers into the Wash Room, close doorways of the Equipment Decontamination Unit, other than the doorway between the Wash down Station and the Wash Room. Keep outside personnel clear of the Equipment Decontamination Unit.

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

When cleaning is complete, pass items into Holding Room. Close doorways except the doorway between the Holding Room and the Clean Room.

Workers from the building exterior enter Holding Area and remove decontaminated equipment and/or containers for disposal.

Require these workers to wear full protective clothing and appropriate respiratory protection.

At no time is a worker from an uncontaminated area to enter the enclosure when a removal worker is inside.

CLEANING OF DECONTAMINATION UNITS:

Clean debris and residue from inside of Decontamination Units on a daily basis. Damp wipe or hose down surfaces after each shift change. Clean debris from shower pans on a daily basis.

If the Changing Room of the Personnel Decontamination Unit becomes contaminated with **ACM**, abandon the entire decontamination unit and erect a new decontamination unit. Use the former Changing Room as an inner section of the new Equipment Room.

SIGNS:

Post an approximately 20 inch by 14 inch manufactured danger sign at each entrance to the work area displaying the following general legend with letter sizes and styles of a visibility required by 29 CFR 1926:

LEGEND:

DANGER

ASBESTOS

CANCER AND LUNG DISEASE HAZARD

RESPIRATORS AND PROTECTIVE CLOTHING ARE
REQUIRED IN THIS AREA

***** **END OF SECTION** *****

VENTILATION SYSTEM

SECTION 01530

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

PART 2 - PRODUCTS

VENTILATION UNITS:

General: Supply the required number of asbestos air filtration units to the site in accordance with these specifications. Each unit shall include the following:

Cabinet: Constructed of steel or other durable materials able to withstand damage from rough handling and transportation. The width of the cabinet should be less than 30 inches to fit through standard-size doorways.

Cabinet shall be factory sealed to prevent asbestos-containing dust from being released during use, transport, or maintenance. Access to and replacement of air filters shall be from intake end. Unit shall be mounted on casters or wheels.

Fans: Rate capacity of fan according to usable air-moving capacity under actual operating conditions. Use centrifugal-type fan.

HEPA Filters: The final filter shall be the HEPA type. The filter media (folded into closely pleated panels) must be completely sealed on edges with a structurally rigid frame.

A continuous rubber gasket shall be located between the filter and the filter housing to form a tight seal.

Each filter shall be individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 % when challenged with 0.3 um dioctyl phthalate (DOP) particles. Testing shall be in accordance with Military Standard Number 282 and Army Instruction Manual 136-300-175A. Each filter shall bear a UL586 label to indicate ability to perform under specified conditions.

Each filter shall be marked with: the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of the air flow.

NOTE: Filters with 99.99% efficiency are becoming available. The **CONTRACTOR** may use if available.

Pre-filters, which protect the final filter by removing the larger particles, are required to prolong the operating life of the HEPA filter. Two stages of pre-filtration are required. The first-stage pre-filter shall be a low-efficiency type (e.g., for particles 10 um and larger). The second-stage (or intermediate) filter shall have a medium efficiency (e.g., effective for particles down to 5 um). Pre-filters and intermediate

filters shall be installed either on or in the intake grid of the unit and held in place with special housings or clamps.

Instrumentation: Each unit shall be equipped with a Magnehelic gauge or manometer to measure the pressure drop across filters and indicate when filters have become loaded and need to be changed. A table indicating the usable air-handling capacity for various static pressure readings on the Magnehelic gauge shall be affixed near the gauge for reference, or the Magnehelic reading indicating at what point the filters should be changed, noting Cubic Feet per Minute (CFM) air delivery at the point. Provide units equipped with an elapsed time meter to show the total accumulated hours of operation.

Safety and Warning Devices: The unit shall have an electrical (or mechanical) lockout to prevent fan from operating without a HEPA filter. Units shall be equipped with an automatic shutdown system to stop fan in the event of a major rupture in the HEPA filter or blocked air discharge.

Warning lights are required to indicate normal operation, too high a pressure drop across the filters (i.e., filter overloading) and too low a pressure drop (i.e., major rupture in HEPA filter or obstructed discharge).

Electrical components shall be approved by the National Electrical Manufacturers Association (NEMA) and Underwriter's Laboratories (UL). Each unit shall be equipped with overload protection sized for the equipment. The motor, fan, fan housing, and cabinet shall be grounded.

PART 3 - EXECUTION

The following requirement is intended to provide a satisfactory reduced air pressure and ventilation rate in the work area.

PRESSURE DIFFERENTIAL:

Provide a fully operational ventilation system within the work area maintaining continuously a pressure differential across work area containment of 0.02 inches of H₂O.

PREPARATION OF THE WORK AREA:

Determining the Ventilation Requirements: Provide a sufficient number of fully operational ventilation systems to provide the equivalent of a minimum of one air change every 12 minutes, within the contained work area. Determine the volume in cubic feet of the work area by multiplying floor area by ceiling (or roof) height as applicable.

Determine total ventilation requirement in cubic feet per minute (CFM) for the work area by dividing this volume by the air change rate.

Ventilation Requirement (CFM) - Volume of work area (cu. ft.) 12(min)

Determine Number of Units needed to achieve 12 minute change rate by dividing the ventilation requirement (CFM) above by capacity of exhaust unit(s) used. Capacity of a unit for purposes of this section is the capacity in cubic feet per minute with fully loaded filters (pressure differential which caused loaded filter warning lights to come on) in the machines labeled operating characteristics.

Number of Units - $\frac{\text{Ventilation Requirement (CFM)}}{\text{Capacity of Unit with Loaded Filters (CFM)}}$

Location of Exhaust Units: Locate exhaust unit(s) so that makeup air enters work area primarily through decontamination facilities and traverses work area as much as possible. This may be accomplished by positioning the exhaust unit(s) at a maximum distance from the worker access opening or other makeup air sources.

Place End of Unit or its exhaust duct through an opening in the plastic barrier or wall covering. Thoroughly seal the plastic around the unit.

Vent to Outside of Building, unless authorized in writing by the **CONSULTANT**. This may involve the use of additional lengths of flexible or rigid duct connected to the air outlet and routed to the nearest outside opening. At the completion of the work, reinstall window panes which have to be removed temporarily.

Supplemental Makeup Air Inlets: Provide where required for proper air flow through the work space in location approved by the **CONSULTANT** by making opening in the plastic sheeting that allows air from outside the building into the work area. Locate auxiliary makeup air inlets as far as possible from the exhaust unit(s) (e.g., on an opposite wall), off the floor (preferably near the ceiling), and away from barriers that separate the work area from occupied clean areas. Cover with flaps to reseal automatically if the ventilation system should shut down for any reason. Spray flap and around opening with spray adhesive so that flap seals if it closes.

If makeup air is coming from a contaminated or potentially contaminated source, then it should pass through a HEPA filter before entering work area. The arrangement must be approved in advance by the **CONSULTANT**. Provide supply air fans to overcome the resistance of the HEPA filter. Use of a ventilation unit may be a practical means of accomplishing this.

Caution must be used to insure that work area remains under reduced air pressure.

USE OF THE VENTILATION UNITS:

General: Each unit shall be serviced by a dedicated minimum 115V-20A circuit with overload device tied into an existing building electrical panel which has sufficient spare capacity to accommodate the load of ventilation units connected. Dedication of an existing circuit may be accomplished by shutting down existing loads on the circuit. This arrangement must be approved in advance by the **CONSULTANT**.

Testing the System: Test ventilation system before any asbestos-containing material is wetted or removed. After the work area has been prepared, the decontamination facility set up, and the exhaust unit(s) installed, start the unit(s) (one at a time). Demonstrate operation of ventilation system to **CONSULTANT**.

Demonstration of the Operation of the ventilation system to the **CONSULTANT** shall include, but not to be limited to, the following:

Plastic barriers, sheeting move lightly in toward work area.

Curtain of decontamination units move lightly in toward work area.

There is a noticeable movement of air through the decontamination unit.

Measurement of the reduced air pressure.

Modify the Ventilation System as necessary to successfully demonstrate the above to the satisfaction of the **CONSULTANT**.

Use of System During Abatement Operations:

Start exhaust units before beginning work (before any asbestos- containing material is disturbed). After abatement work has begun, run units continuously to maintain a constant reduced air pressure until decontamination of the work area is complete. Do not turn off units at the end of the work shift or when abatement operations temporarily stop. Provide full-time, 24 hr/day monitoring of the work area to assure security, continuous operation of the ventilation system, and fire safety.

Do not shut down ventilation system during encapsulating procedures, unless authorized by the **CONSULTANT**.

Start abatement work at a location farthest from the exhaust units and proceed toward them. If an electric power failure occurs, immediately stop abatement work and do not resume until power is restored and exhaust units are operating again.

At completion of abatement work, allow exhaust units to run to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the work area with clean makeup air.

The units may be required by the **CONSULTANT** to run for a longer time after decontamination, if dry or only partially wetted asbestos material was encountered during any abatement work.

Dismantling the System:

When a final inspection and the results of final air tests indicate that the area has been decontaminated, exhaust units may be removed from the work area. Before removal from the work area, remove and properly dispose of pre-filter, and seal intake to the machine with 6 mil polyethylene to prevent environmental contamination from the filters.

***** **END OF SECTION** *****

REMOVAL OF ASBESTOS-CONTAINING MATERIALS

SECTION 01540

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

PART 2 - PRODUCTS

Wetting Materials: For wetting prior to disturbance of **ACM**, use either amended water or a removal encapsulant:

Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the ACM 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 ACM. Use a material which results in wetting of the ACM 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 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.

Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 4 or 6 mils thick as indicated, clear, frosted, or black as indicated.

Polyethylene Sheet: Provide flame resistant polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 4 or 6 mils thick as indicated, frosted or black as indicated.

Adhesive Tape: Provide adhesive tape in 2" or 3" widths as indicated, with an adhesive which is formulated to aggressively stick to sheet polyethylene.

Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

Disposal Bags: Provide 6 mil thick leak-tight polyethylene bags labeled in accordance with regulatory requirements generally as follows:

DANGER
Contains Asbestos Fibers
Avoid Opening or Breaking Container
Breathing Asbestos is Hazardous to Your Health

PART 3 - EXECUTION

WORKER PROTECTION:

Before beginning work with any material, provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

WET REMOVAL:

Thoroughly wet to satisfaction of **CONSULTANT**, **ACM** to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal encapsulant applied with airless spray equipment. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for water or removal encapsulant to penetrate material thoroughly. Spray material repeatedly during the work process to maintain a continuously wet condition. If a removal encapsulant is used, apply in strict accordance with manufacturer's written instructions. Perforate outer covering of any installation which has been painted and/or jacketed in order to allow penetration of amended water or removal encapsulant, or where necessary, carefully strip away while simultaneously spraying amended water or removal encapsulant on the installation to minimize dispersal of asbestos fibers into the air.

Mist work area continuously with amended water whenever necessary to reduce airborne fiber levels. Apply mist with airless spray equipment.

The use of compressed air or other non-airless type equipment to wet **ACM** will not be permitted.

Remove saturated ACM in small sections from areas. Do not allow material to dry out. As it is removed, simultaneously pack material while still wet into disposal bags. Twist neck of bags, bend over and seal with minimum three wraps of duct tape. Clean outside and move to wash down station adjacent to material decontamination unit.

Evacuate air from disposal bags with a HEPA filtered vacuum cleaner before sealing.

Fireproofing or Architectural Finish on Scratch Coat: Spray asbestos-containing fireproofing or architectural acoustic finish with a fine mist of amended water or removal encapsulant. Allow time for amended water or removal encapsulant to saturate materials to substrate. Do not over saturate to cause excess dripping. Scrape materials from substrate. Remove materials in manageable quantities and control the descent to staging or floor below, if over 20' use drop chute to contain material through descent. Spray mist surface continuously during work process. If using removal encapsulant, follow manufacturer's written instructions.

Remove residue remaining on scratch coat after scraping using stiff bristled hand brush, or high pressure washer. If a removal encapsulant is used, remove residue completely before encapsulant dries. If substrate dries before complete removal of residue, re-wet with amended water or removal encapsulant.

Fireproofing or Architectural Finish on Wire Lath: Spray Asbestos containing fireproofing or architectural acoustic finish with a fine mist of amended water or removal encapsulant. Allow time for amended

water or removal encapsulant to completely saturate material. Do not over saturate to cause excess dripping. If surface of material has been painted or otherwise coated, cut small holes as required and apply amended water or removal encapsulant from above. Cut wire lath into manageable sections and cut hanger wires. Roll up complete with **ACM** and place in disposal drum (metal or fiberglass). Do not drop on floor. After removal of lath and **ACM**, remove any overspray on decking and structure above using stiff bristled brush, or high pressure washer.

Hold the nozzle from an operating HEPA filtered vacuum cleaner in the immediate vicinity of and below the work while cutting the wire lath or otherwise disturbing the **ACM**. Use a two worker crew for cutting, with one worker cutting and one worker holding the HEPA vacuum nozzle.

Pipe Insulation: Spray with a mist of amended water or removal encapsulant. Allow amended water or removal encapsulant to saturate material to substrate. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Cut bands holding preformed pipe insulation, slit jackets at seams, remove and hand-place in a disposal bag. Remove job molded fitting insulation in chunks and hand place in a disposal bag. Do not drop to floor. Remove any residue on pipe or fitting with stiff bristle hand brush.

In locations where pipe fitting insulation is removed from pipe with straight runs insulated with fibrous glass or other non-asbestos-containing fibrous material, remove fibrous material 6" from the point where it contacts the asbestos-containing insulation and seal exposed.

Cement Fiber Board: Spray cement fiber board with a fine mist of removal encapsulant. Allow time for removal encapsulant to saturate materials. Do not over saturate to cause excess dripping. Remove materials in manageable quantities and control the descent to staging or floor below, if over 20' use drop chute to contain material through descent. If using removal encapsulant, follow manufacturer's written instructions.

DISPOSAL

As it is removed, simultaneously pack **ACM** material while still wet into disposal bags. Twist neck of bags, bend over and seal with minimum three wraps of duct tape. Clean outside and move to wash down station adjacent to material decontamination unit.

After wash down of first bag, place second bag around first. Twist neck of bags, bend over and seal with minimum of three wraps of duct tape. Clean outside and move to wash down station adjacent to material decontamination unit. Evacuate air from disposal bags with a HEPA filtered vacuum cleaner before sealing. After sealing, attach label to each disposal bag in accordance with regulatory requirements. Dispose of bagged, labeled, asbestos-containing waste material in accordance with Section 01590.

***** **END OF SECTION** *****

REMOVAL OF RESILIENT FLOOR TILE AND MASTIC

SECTION 01546

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF THE WORK:

Removal of asbestos-containing resilient floor tile and/or associated mastic adhesive.

SUBMITTALS:

Before Start of Work: Submit the following to the **CONSULTANT** for review:

OSHA Material Safety Data Sheet for solvents, encapsulants, and other chemicals utilized or stored at the jobsite.

Manufacturer's Product Information Sheet for each type of mechanical equipment utilized in the Work Area.

PART 2 - PRODUCTS

Wetting Materials: Refer to Section 01540.

Removal Equipment: Refer Section 01000, Summary of Work, for specific indications regarding use of hand tools or mechanical equipment.

Mechanical equipment utilized at the jobsite shall be owned by the **CONTRACTOR**.

Provide machinery that meets the following minimum standards:

- will not damage the sub-floor
- will not pulverize or crush the resilient floor covering
- causes release of flooring material with minimal destructive force

Use of the following types of machinery will not be permitted:

Shot Blaster: designed to aggressively break up flooring material with destructive propellants.

Rotary Machine: designed to aggressively break up flooring material with centrifugally controlled spikes or blades.

Floor Buffers: High speed machines rated at 190 RPM or greater. (Low speed floor buffers, rated at less than 190 RPM, will be allowed.)

Sealants: Provide water resistant sealant compatible with mastic solvent.

Solvent: Provide solvent specifically formulated for removal of resilient flooring mastic.

Sentinel 747, Low Odor Mastic Remover, Sentinel Chemical Co.
Sentinel 7200, High Flash Mastic Remover Sentinel Chemical Co.
Limo Sol, Emulsifiable Solvent Degreaser, Amrep Inc.

Safety Device: Provide dry chemical type fire extinguisher, capable of being hand carried.

PART 3 - EXECUTION

WORK AREA PROTECTION:

Unless Work Area is scheduled for demolition, protect walls from water, solvent and machine damage and utilize sealant to prevent wetting and chemical solutions from leaking under walls.

Provide leak-tight seal over floor drain openings.

VENTILATION REQUIREMENTS:

If Work is performed adjacent to occupied areas, provide ventilation adequate to prevent release of detectable chemical odors and fumes outside the Work Area.

WORKER PROTECTION:

In addition to requirements in Section 01700, Worker Protection, provide the following:

Maintain a fire watch during operation of mechanical floor buffers. Fire watch shall consist of one person, with fire extinguisher in hand, to accompany and remain in the proximity of each buffer operator during buffer operation.

Suspend electrical cords above floor during operation of mechanical equipment and take precautions to prevent suspended cords from becoming an impediment or hazard to workers.

HAND TOOL REMOVAL REQUIREMENTS: Unless indicated otherwise in Section 01000, Summary of Work, comply with the following minimum procedures when removal of floor covering materials is accomplished utilizing hand tool methods alone:

Erect Temporary Containment consisting of critical barriers, two layers of four mil polyethylene to the ceilings on walls, negative pressure ventilation system and wet decontamination procedures.

Wet flooring material with amended water or removal encapsulant and allow to soak in.

Remove excess water before removing floor covering.

Utilize hand tools for gross and detail removal work.

Apply solvent to mastic area and remove utilizing hand tools and in accordance with manufacturer's instructions.

MECHANICAL EQUIPMENT REMOVAL REQUIREMENTS: Unless indicated otherwise in Section 01000, Summary of Work, comply with the following minimum procedures if removal of floor covering materials and mastic is accomplished utilizing mechanical equipment:

Erect Temporary Containment in compliance with Section 01500, Temporary Containment

Place one (1) layer of four (4) mil polyethylene on ceiling and one layer of (6) mil poly on walls creating a full containment.

Wet flooring material with amended water or removal encapsulant.

Utilize mechanical equipment for floor covering in strict accordance with manufacturer's instructions.

Apply solvent to mastic area according to manufacturer's instructions.

Utilize mechanical equipment for gross removal of mastic. Follow with detail removal utilizing hand tools.

CLEANING:

Vent or clean Work Area, as necessary, to remove residual chemical odors associated with work of this Section.

DISPOSAL:

In addition to requirements in Sections 01540 and 01590, remove and dispose of chemical solution and water control materials as **ACM**, including, but not limited to sealants and absorption materials.

***** **END OF SECTION** *****

REMOVAL OF PIPE INSULATIONS (GLOVE BAG METHOD)

SECTION 01550

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF THE WORK:

Removal of asbestos-containing piping insulations within mini-containments by the glove bag method.

PART 2 - PRODUCTS:

Provide local exhaust ventilation systems that comply with ANSI 29.2-1971.

Wetting Materials: For wetting prior to disturbance of asbestos-containing materials, use either amended water or a removal encapsulant:

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 the 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 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.

Glove bag: Provide minimum 6 mil polyethylene, or equivalent plastic sack, with two sealed inward projecting long-sleeved gloves or mittens, pre-printed with same warning notice as a disposal bag, equipped with a pouch for storage of tools, with designated location for wand or HEPA vacuum wand, and sufficient capacity to hold removed materials and permit sealing as specified.

Sprayer: Provide a hand pump type pressure-can garden sprayer fabricated out of either metal or plastic, equipped with a metal wand at the end of a hose that can deliver a stream or spray of liquid under pressure.

PART 3 - EXECUTION

GENERAL:

Complete the following before start of work of this section:

Section 01500 - Temporary Containment

Section 01700 - Worker Protection

Section 01710 - Respiratory Protection

WORKER PROTECTION:

Before beginning work with any material, provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

WORK PROCEDURES:

REMOVAL OF PIPE INSULATION (GLOVEBAG METHOD):

Erect critical barriers per Section 01500.

Thoroughly wet with amended water or removal encapsulant and allow to soak in. Wet adequately to penetrate and soak material through to substrate.

After material is saturated, remove inside a glove bag within mini-containment according to the following procedure:

Check pipe where the work will be performed. Wrap damaged (broken lagging, hanging, etc.), pipe in 6 mil plastic and "candy-stripe" with adhesive tape. Place one layer of adhesive tape around undamaged pipe at each end where the glove bag will be attached.

Slit top of the glove bag open (if necessary) and cut down the sides to accommodate the size of the pipe (about two inches longer than the pipe diameter).

Place necessary tools into pouch located inside glove bag. This will usually include: bone saw, utility knife, rags, scrub brush, wire cutters, tin snips and pre-wetted cloth.

Place one strip of adhesive tape along the edge of the open top slit of glove bag for reinforcement.

Place the glove bag around section of pipe to be worked on, then staple top together through reinforcing adhesive tape.

Next, adhesive tape the ends of glove bag to pipe itself, where previously covered with plastic or adhesive tape.

Use smoke tube and aspirator bulb to test seal. Place tube into water sleeve (two-inch opening to glove bag) squeezing bulb and filling bag with visible smoke. Remove smoke tube and twist water sleeve closed. While holding the water sleeve tightly, gently squeeze glove bag and look for smoke leaking out (especially at top and ends of the glove bag). If leaks are found, tape closed using adhesive tape and re-test.

Insert wand from garden sprayer through water sleeve. Adhesive tape water sleeve tightly around the wand to prevent leakage.

One person places his hands into the long-sleeved gloves while the second person directs garden sprayer at the work.

Use bone saw, if required, to cut insulation at each end of the section to be removed. A bone saw is a serrated heavy gauge wire with ring-type handles at each end. Throughout this process, spray amended water or removal encapsulant on the cutting area to keep dust to a minimum.

Remove insulation using putty knives or other tools. Place pieces in bottom of bag without dropping.

Rinse tools with water inside the bag and place back into pouch.

Using scrub brush, rags and water, scrub and wipe down the exposed pipe. (Inexpensive horse rub-down mittens work well for this.)

Remove water wand from water sleeve and attach the small nozzle from HEPA-filtered vacuum. Turn on the vacuum only briefly to collapse the bag.

Remove the vacuum nozzle, twist water sleeve closed and seal with adhesive tape. From outside the bag, pull the tool pouch away from the bag. Place adhesive tape over twisted portion and then cut the tool bag from the glove bag, cutting through the twisted-taped section. Contaminated tools may then be placed directly into next glove bag without cleaning.

Alternatively, tool pouch with the tools can be placed in a bucket of water, opened underwater, and tools cleaned and dried. Discard rags and scrub brush with asbestos waste.

If more than one adjacent section of pipe is to be removed, glove bag may be loosened at each end and slid along the pipe to the next section. In this case, the tools may remain in the bag for continued use. Bag can be moved only if bag is twisted off and sealed prior to moving to next piping section.

With removed insulation in the bottom of the bag, twist the bag several times and tape it to keep the material in the bottom during removal of the glove bag from the pipe.

Slip a 6 mil disposal bag over the glove bag (still attached to the pipe). Remove tape or cut bag and open the top of the glove bag and fold it down into disposal bag.

Clean surfaces in the work area using disposable cloths wetted with water with surfactant or removal encapsulant added. When these surfaces have dried clean with a HEPA filtered

vacuum. Material adhered to a surface with removal encapsulant may require the application of additional removal encapsulant to facilitate cleaning.

If a removal encapsulant is used, test to insure it will neither leave a residue that will impede visual inspection nor become gummy during cleaning.

Seal exposed ends of remaining pipe insulation.

Remove disposable suits and place these into bag with waste.

Collapse the bag with a HEPA vacuum, twist top of bag, seal with at least three (3) wraps of adhesive tape, bend over and seal again with at least three (3) wraps of adhesive tape.

Conduct final Clearance Testing per Section 01420.

***** **END OF SECTION** *****

ENCAPSULATION PROCEDURES

SECTION 01570

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF WORK:

Encapsulation of surfaces and treatments shall consist of one (1) coat of penetrating encapsulant followed by one (1) coat of a bridging encapsulant or as otherwise noted in this specification.

DELIVERY AND STORAGE:

Deliver materials to the job site in original, new and unopened packages and containers bearing manufacturer's name and label, and following information:

- Name or title of material
- Manufacturer's stock number and date of manufacture
- Thinning Instructions
- Application instructions

Deliver materials together with a copy of the OSHA Material Safety Data Sheet for the material.

JOB CONDITIONS:

Apply encapsulating materials only when environmental conditions in the work area are as required by the manufacturer's instructions.

PART 2 - PRODUCTS

Encapsulants: Provide penetrating or bridging type encapsulants specifically designed for application to asbestos-containing material.

Provide encapsulant suitable to receive painted or acoustical finishes. Indicate clearly on submittals other finishes or coatings (if any) which may be incompatible with proposed encapsulant.

Fire Safety: Use only materials that have a flame spread index of less than 25, when dry, when tested in accordance with ASTM E-84.

PART 3 - EXECUTION

GENERAL:

Prior to applying any encapsulating material, ensure that application of the sealer will not cause the base material to fail and allow the sealed material to fall of its own weight or separate from the substrate. Should **CONTRACTOR** doubt the ability of the installation to support the sealant, request direction from **CONSULTANT** before proceeding with the encapsulating work.

Do Not Commence Application of encapsulating materials until removal work within the work area has been completed.

Do Not Commence Application until a visual inspection has been carried out by **CONSULTANT** and notification is given as approval.

WORKER PROTECTION:

Before beginning work with any material for which a Material Safety Data Sheet has been submitted, provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

In addition to protective breathing equipment required by OSHA requirements or by this specification, use painting pre-filters on respirators to protect the dust filters when organic solvent based encapsulants are in use.

SCRATCH COAT PLASTER:

Apply two (2) coats of encapsulant to the scratch coat plaster after asbestos-containing material has been removed. Apply in strict accordance with the manufacturer's printed instructions for use of the encapsulant as an asbestos coating. Any deviations from such printed instructions must be approved by the **CONSULTANT** prior to commencing work.

Apply encapsulant with an airless spray gun with air pressure and nozzle orifice as recommended by the encapsulant manufacturer.

Apply the first coat encapsulant while the scratch coat is still damp from the asbestos removal procedures. If the surface has been permitted to dry, vacuum surface with a HEPA filtered vacuum cleaner prior to spraying with the encapsulant.

Apply second coat over first coat in strict conformance with manufacturer's instructions.

SEALING EXPOSED EDGES:

Seal edges of asbestos-containing material exposed by removals up to an inaccessible spot such as a sleeve, wall penetration, etc. with two (2) coats of encapsulant.

Prior to sealing, permit the exposed edges to dry completely to permit penetration of the sealer.

ARCHITECTURAL FINISH:

Examine Existing Conditions: Determine if the friable asbestos material to be encapsulated remains sufficiently bonded to receive the encapsulation process and if process will effectively prevent release of asbestos fibers from the material. If the existing asbestos material is loose and deteriorated, the **CONTRACTOR** must immediately notify the **CONSULTANT** that removal of friable asbestos material must be accomplished before encapsulation.

Provide worker protection and respiratory protection as indicated elsewhere in this specification.

Comply with manufacturer's instructions for particular conditions of installation in each case. Consult with manufacturer's technical representative for conditions not covered.

Encapsulate surfaces in full compliance with manufacturer's procedures.

***** **END OF SECTION** *****

PROJECT DECONTAMINATION

SECTION 01580

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF REQUIREMENTS:

General: Decontamination of the Work Area following asbestos abatement requires cleaning of the primary barrier plastic prior to its removal and cleaning of the room surfaces to remove any new or existing contamination. Operation of the ventilation system is used to remove airborne fibers generated by the abatement work and multiple cleaning stages may be necessary to achieve Work Area Clearance.

Work Area Clearance: Air testing and other requirements which must be met before release of **CONTRACTOR** and re-occupancy of the work area are specified in Section 01420.

DELIVERY AND STORAGE:

Deliver materials to the job site in original, new and unopened packages and containers bearing manufacturer's name and label, and following information:

- Name or title of material
- Manufacturer's stock number and date of manufacture
- Thinning Instructions
- Application instructions

Deliver materials together with a copy of the OSHA Material Safety Data Sheet for the material.

JOB CONDITIONS:

Apply encapsulating (lockdown) materials only when environmental conditions in the work area are as required by the manufacturer's instructions.

PART 2 - PRODUCTS

Lockdown Encapsulants: Provide penetrating or bridging type encapsulants specifically designed for application to asbestos-containing material.

Provide encapsulant suitable to receive painted or acoustical finishes. Indicate clearly on submittals other finishes or coatings (if any) which may be incompatible with proposed encapsulant.

Fire Safety: Use only materials that have a flame spread index of less than 25, when dry, when tested in accordance with ASTM E-84.

PART 3 - EXECUTION

Work of This Section:

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

Includes the cleaning, decontamination, and removal of temporary facilities installed prior to abatement work, including:

Primary and Critical barriers erected under Section 01500.

Decontamination Unit erected under Section 01520.

Ventilation System installed under Section 01530.

Includes the cleaning, and decontamination of surfaces (ceiling, walls, floor, etc.) of the Work Area, and furniture or equipment in the Work Area.

START OF WORK:

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 (as asbestos-contaminated waste).

Start of Work: Work of this section begins with the cleaning of the Primary Barrier and follows sequentially. At start of work, the following will be in place:

Primary Barrier: Two (2) layers of polyethylene sheeting on floor and two layers on walls.

Critical Barrier which forms the sole 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.

Ventilation System: in operation.

Carry out a cleaning of surfaces of the work area including items of remaining sheeting, tools, scaffolding and/or staging by use of damp-cleaning and mopping, and/or a wet/dry High Efficiency Particulate Air (HEPA) filtered vacuum. 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.

Wait a sufficient time period to allow ventilation units to clean air of airborne asbestos fibers. Maintain ventilation system in operation for the entire period.

CONSULTANT will conduct inspection of the Work Area at this point per Section 01400 to confirm the completeness of removal and initial cleaning prior to lockdown encapsulation.

Encapsulation of Substrate: Perform encapsulation of substrate and lockdown of Primary Barrier plastic where required at this time. Use Encapsulant to which a light tinted coloring agent has been added to assist in inspection. Maintain ventilation system in operation during encapsulation work.

CONSULTANT will conduct inspection of the Work Area after the encapsulant is fully dry (minimum 4 hours drying time) per Section 01400 and will collect static (non-aggressive) PCM containment clearance air samples to confirm that fiber levels have been reduced to below the baseline level before work proceeds beyond this point.

Remove 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: over lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers and other openings.

Decontamination Unit: for personnel in operating condition.

Ventilation System: maintain in continuous operation.

Carry out cleaning of surfaces in the work area in the same manner as the previous cleaning immediately after removal of primary plastic. This cleaning is being applied to existing room surfaces. Take care to avoid water marks or other damage to surfaces.

Wait a sufficient time period to allow ventilation units to clean air of airborne asbestos fibers. Maintain ventilation system in operation for the entire period.

Carry out a final cleaning of surfaces in the work area in the same manner as the previous cleaning.

Wait a sufficient time period to allow ventilation units to clean air of airborne asbestos fibers. Maintain ventilation system in operation for the entire period.

Repeat the above process until visible dust and debris has been removed.

VISUAL INSPECTION:

After a sufficient time period as determined by the **CONSULTANT**, perform a Complete Visual Inspection of the entire work area including: decontamination unit, plastic sheeting, seals over vent openings, doorways, and other openings; look for visible debris from any sources, residue on surfaces, dust or other matter.

If any such debris, residue, dust or other matter is found, repeat cleaning and continue decontamination procedure from that point. Visual inspection is not complete until discrepancies reported by the **CONSULTANT** have been corrected.

FINAL CLEARANCE AIR SAMPLING:

After the work area is found to be visually clean, air samples will be taken and analyzed in accordance with the procedures set forth in Section 01410:

If Release Criteria are not met, repeat cleaning and continue decontamination procedure from that point.

If Release Criteria is met, remove the interior of the decontamination unit leaving in place only the Critical Barriers separating the work area from the rest of the building and the operating ventilation system.

Any small quantities of residual material found upon removal of the plastic sheeting shall be removed with a HEPA filtered vacuum cleaner and local area protection. If significant quantities, as determined by the **CONSULTANT**, are found then the entire area affected shall be decontaminated as specified herein.

COMPLETION OF ABATEMENT WORK:

Seal ventilation units with 6 mil polyethylene sheet and duct tape to form a tight seal at intake end before being moved from work area.

Remove remaining critical barriers using local area procedures.

Asbestos Abatement Work is Complete upon meeting the work area clearance criteria and fulfilling the following:

Remove equipment, materials, debris from the work site.

Dispose of asbestos-containing waste material as specified in Section 01590.

Repair or replace interior finishes damaged during the course of asbestos abatement work.

Fulfill Project Closeout Requirements of Section 01390.

***** **END OF SECTION** *****

DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL **SECTION 01590**

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DISPOSAL:

Friable and non-friable asbestos-containing waste material shall be disposed of in accordance with the provisions of this Specification and in accordance with Federal, State, and Local disposal regulations in a permitted landfill. Disposal site (landfill) must be approved of in advance by the **OWNER**.

SUBMITTALS:

Submit copies of manifests and landfill receipts to **CONSULTANT** on a weekly basis.

PART 2 – PRODUCTS: (NOT APPLICABLE)

PART 3 – EXECUTION:

GENERAL:

Carefully load containerized waste on sealed trucks or other appropriate sealed vehicles for transport. Exercise care before and during transport, to insure that no unauthorized persons have access to the material.

Do not store disposal bagged material outside of the work area.

Take bags from the work area directly to a sealed polyethylene lined truck or dumpster.

Do not transport disposal bagged materials on open trucks. Double-bagged material may be transported on open trucks if they are first loaded in sealed drums.

Label drums with same warning labels as bags.

Uncontaminated drums may be reused. Treat drums that have been contaminated as asbestos-containing waste and dispose of in accordance with this specification.

Advise the **CONSULTANT** and landfill operator, at least twenty-four hours in advance of transport, of the quantity of material to be delivered.

At the burial site, sealed plastic bags may be carefully offloaded from the truck. If bags are broken or damaged, leave in the truck and clean entire truck and contents using procedures set forth in Section 01570.

Retain receipts from landfill for disposed materials.

Provide copies of disposal manifests to **CONSULTANT**.

***** **END OF SECTION** *****

WORKER PROTECTION

SECTION 01700

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to the Work of this section.

DESCRIPTION OF WORK:

This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.

WORKER TRAINING:

Train, in accordance with applicable regulations, workers in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. Include but do not limit the topics covered in the course to the following:

Methods of recognizing asbestos.

Health effects associated with asbestos.

Relationship between smoking and asbestos in producing lung cancer.

Nature of operations that could result in exposure to asbestos.

Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:

Engineering controls	Work Practices
Respirators	Housekeeping procedures
Hygiene facilities	Protective clothing
Decontamination procedures	Emergency procedures
Waste disposal procedures	

Purpose, proper use, fitting, instructions, and limitations of respirators.

Appropriate work practices for the work.

Requirements of medical surveillance program.

Review of applicable regulations.

Ventilation systems.

Work practices including hands-on or on-job training.

Personal decontamination procedures.

Air monitoring, personal and area.

MEDICAL EXAMINATIONS:

Provide medical examinations for workers on the project. Examination will, as a minimum, meet OSHA requirements as set forth in 29 CFR 1926.

SUBMITTALS:

Before Start of Work: Submit the following to the **CONSULTANT** for review.

List of Workers and other of **CONTRACTOR'S** personnel for the project. Only persons on this list will be permitted on the project site. Post a copy of the list at the entry to the Work Area. The list shall be updated if any additional workers are to be working on the project.

Certificate Worker Acknowledgment: Submit an original signed copy of the Certificate of Worker's Acknowledgment found at the end of this section, for each worker who is to be at the jobsite or enter the work area.

Submit a true copy of the results of the Medical Examination conducted within last 12 months as part of compliance with OSHA medical surveillance requirements for each worker who is to be on the project site. Submit, at a minimum, for each worker the following:

Physician's Written Opinion from examining physician including at a minimum the following:

Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.

Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.

Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

Statement that worker is able to wear and use the type of respiratory protection proposed for the project, and is able to work safely in an environment capable of producing heat stress in the worker.

PART 2 - EQUIPMENT

PROTECTIVE CLOTHING:

Coveralls: Provide disposable full-body coveralls, footwear, and disposable head covers of polyolefin or polypropylene, and require that they be worn by workers in the work area. Provide a sufficient number for required changes, for workers and visitors in the work area. Non-disposable or cloth protectives will not be permitted unless authorized in writing by the **CONSULTANT**.

Boots and Shoes: Waterproof boots or shoes will be used in the work area. They shall have non-skid soles and hard toes as required by applicable regulations.

Hard Hats: Provide head protectives (hard hats) for workers, and provide four (4) spares for use by **CONSULTANT** and **OWNER**. Label hats with same warning labels as used on disposal bags. Require hard hats to be worn at times that work is in progress. Provide hard hats of type with plastic strap type suspension. Require hats to remain in the work area throughout the work. Thoroughly clean, decontaminate and bag hats before removing them from work area at the end of the work or dispose of as contaminated waste.

Goggles: Provide eye protectives (goggles) for workers involved in scraping, spraying, or any other activity which may potentially cause eye injury.

Gloves: Provide durable waterproof work gloves to workers and require that they be worn at all times in the work area. Do not remove gloves from work area; dispose of as asbestos contaminated waste at the end of the work. Tape gloves to the sleeves of coveralls. Provide additional protectives as required by applicable regulations.

ADDITIONAL PROTECTIVE EQUIPMENT:

Respirators, disposable coveralls, head covers, and footwear covers shall be provided by the **CONTRACTOR** for the **OWNER, CONSULTANT**, and other authorized representatives who may inspect the jobsite.

PART 3 - EXECUTION

GENERAL:

Provide worker protection as required by the most stringent standards applicable to the work. The following procedures are minimums to be adhered to regardless of fiber count in the work area.

Require that protective clothing be worn at all times in work area. Replace damaged or torn items immediately.

Each time work area is entered, remove street clothes in the Changing Room of the Personnel Decontamination Unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room (put on work boots in equipment room).

DECONTAMINATION PROCEDURES:

Require workers to adhere to the following personal decontamination procedures whenever they leave the work area:

Type C Supplied Air or Powered Air-Purifying Respirators: Require that workers use the following decontamination procedure as a minimum requirement whenever leaving the work area:

When exiting area, remove disposable coveralls, disposable head covers, and boots in the equipment room.

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

Thoroughly wet body including hair and face. If using a Powered Air-Purifying Respirator (PAPR), hold blower unit above head to keep canisters dry.

With respirator still in place, thoroughly wash body, hair, respirator facepiece, and parts of the respirator except the blower unit and battery pack on a PAPR with soap/shampoo. Pay particular attention to seal between face and respirator and under straps.

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

Carefully wash facepiece of respirator inside and out.

If using PAPR: shut down in the following sequence, first cap inlets to filter cartridges, then turn off blower unit (this sequence will help keep debris which has collected on the inlet side of filter from dislodging and contaminating the outside of the unit). Thoroughly wash blower unit and hoses. Carefully wash battery pack with wet rag. Be extremely cautious of getting water in battery pack as this will short out and destroy battery.

Shower completely with soap/shampoo, and water.

Rinse thoroughly.

Rinse shower room walls and floor prior to exit.

Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

Air Purifying-Reduced Air Pressure Respirators: Require that workers use the following decontamination procedure as a minimum requirement whenever leaving the work area with a half or full face cartridge type respirator (non-powered):

When exiting area, remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.

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

Thoroughly wet body from neck down.

Wet hair as thoroughly as possible without wetting the respirator filter if using an air purifying type respirator.

Take a deep breath, hold it and/or exhale slowly, complete wetting of hair, thoroughly wetting face, respirator and filter (air purifying respirator). While still holding breath, remove respirator and hold it away from face before starting to breath.

Dispose of wet filters from air purifying respirator.

Carefully wash facepiece of respirator inside and out.

Shower completely with soap/shampoo, and water.

Rinse thoroughly.

Rinse shower room walls and floor prior to exit.

Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

WITHIN WORK AREA:

Require that workers NOT eat, drink, smoke, chew gum or tobacco in the work area. To eat, chew, drink or smoke, workers shall follow the procedure described above, then dress in street clothes before entering the non-work areas of the building.

CERTIFICATE OF WORKER'S ACKNOWLEDGMENT:

Following this section is a Certificate of Worker's Acknowledgment. After each worker has been included in the **CONTRACTOR'S** Respiratory Protection Program, completed the training program, and medical examination, secure a fully executed copy of this form. This form must be provided for each employee on the site before work commences.

CERTIFICATE OF WORKER'S ACKNOWLEDGMENT:

PROJECT NAME _____ DATE _____

PROJECT ADDRESS _____

CONTRACTOR'S NAME _____

WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS, THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.

Your employer's contract with the Owner for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you. By signing this certification you are assuring the Owner that your employer has met these obligations to you and are agreeing to hold the Owner, his Consultant, Testing Laboratory, and representative harmless in any and all claims arising from or related to this project.

RESPIRATORY PROTECTION: I have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. I have a copy of the written respiratory protection manual issued by my employer. I have been equipped at no cost with the respirator to be used on the above project.

TRAINING COURSE: I have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course included the following:

- Physical characteristics of asbestos
- Health hazards associated with asbestos
- Respiratory protection
- Use of protective equipment
- Ventilation systems
- Work practices including hand-on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

MEDICAL EXAMINATION: I have had a medical examination within the past 12 months which was paid for by my employer. This examination included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray and I have been approved by the Physician to work on asbestos abatement projects without limitations.

Signature _____

Printed Name _____ Social Security Number _____

Witness _____

CERTIFICADO DE CONOCIMIENTO DEL TRABAJADOR:
(CERTIFICATE OF WORKER'S ACKNOWLEDGMENT: Spanish Version)

NOMBRE DEL PROYECTO _____ FECHA _____

DOMICILIO DEL PROYECTO _____

NOMBRE DEL CONTRATISTA _____

TRABAJAR CON ASBESTOS PUEDE SER PELIGROSO. EL RESPIRAR FIBRAS DE ASBESTOS A SIDO ASOCIADO CON VARIOS TIPOS DE CANCER. SI TU FUMAS Y RESPIRAS FIBRAS DE ASBESTOS, LAS POSIBILIDADES DE DESARROLLAR CANCER EN LOS PULMONES SON MAYORES QUE EN LAS PERSONAS QUE NO FUMAN.

El contrato de trabajo de tu patron con el dueñ~o de este proyecto requiere que: se te debe proporcionar un respirador apropiado y se te ensen~e como usarlo. Tu debes ser entrenado para trabajar con medidas de seguridad y se te ensen~e a usar el equipo y herramienta que se requiere para trabajar. Que seas examinado por un medico. Estas cosas deben ser hechas sin costo alguno para ti. Al firmar este certificado tu estas asegurando al dueñ~o del proyecto que tus patrones ya cumplieron con estas obligaciones (de proporcionarte equipo adecuado, entrenarte en practicas de seguridad y pasar por un chequeo medico). Por lo que se esta de acuerdo en mantener al dueñ~o del proyecto, sus consejeros, laboratorio de analisis y sus representantes fuera de responsabilidad en todas y cada una de las quejas que puedan resultar de, o relacionadas con este proyecto.

PROTECCION RESPIRATORIA: Yo he sido entrenado en el use apropiado de respiradores, y he sido informado del tipo de respirador que debe ser usado en este proyecto. Yo tengo una copia escrita del manual de proteccion respiratoria proporcionado por mis patrones. Yo he sido equipado sin costo alguno para me con el respirador que debe ser usado en este proyecto.

CURSO DE ENTRENAMIENTO: Yo he sido entrenado en los peligros relacionados con el manejo de asbestos y con el respirar polvo de asbestos y he sido entrenado en los procedimientos de trabajo adecuados y medidas de proteccion personales en el area de trabajo. Los temas vistos en el curso incluyen los siguientes:

- Caracteristicas fisicas de asbestos
- Peligros de salud asociado con asbestos
- Uso de equipo de proteccion
- Sistemas de aire negativos
- Practicas de trabajo mientras se trabaja o se entrena
- Procedimientos de descontaminacion personal
- Muestreo del aire, personal y del area

EXAMEN MEDICO: Yo he sido examinado dentro de los ultimos 12 meses el cual fue pagado por mis patrones. Esta examinacion incluye: historia de salud, pruebas de funcion pulmonares y podria tener incluida una evaluacion de rayos x del torax.

Firma: _____

Nombre Escrito: _____ Numero Del Seguro Social: _____

Testigo: _____

RESPIRATORY PROTECTION

SECTION 01710

PART 1 - GENERAL

Related Documents:

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

Description of Work:

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

Standards: Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.

OSHA	U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 1910.134 29 CFR 1926.
CGA	Compressed Gas Association, Inc., New York, Pamphlet G-7, "Compressed Air for Human Respiration", and Specification G-7.1 "Commodity Specification for Air".
CSA	Canadian Standard Association, Rexdal, Ontario, Standard Z180.1-1978, "Compressed Breathing Air".
ANSI	American National Standard Practices for Respiratory Protection, ANSI Z88.2-1980.
NIOSH	National Institute for Occupational Safety and Health
MSHA	Mine Safety and Health Administration

PART 2 - EQUIPMENT

AIR PURIFYING RESPIRATORS:

Respirator Bodies: Provide half-face or full-face type respirators. Equip full-face respirators with a nose cup or other anti-fogging device as would be appropriate for use in air temperatures less than 32 degrees Fahrenheit.

Filter Cartridges: Provide, at a minimum, HEPA type filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1980). In addition, a chemical cartridge section may

be added, if required, for solvents, etc., in use. In this case, provide cartridges that have each section of the combination canister labeled with the appropriate color code and NIOSH/MSHA Certification

Non-Permitted Respirators: Do not use single use, disposable or quarter face respirators.

EPA and NIOSH recommend the use of a self-contained breathing apparatus (SCBA) with a full facepiece operating in pressure-demand mode or the use of a Type C supplied air respirator with a SCBA emergency backup.

SUPPLIED AIR RESPIRATOR SYSTEMS:

Provide equipment capable of producing air of the quality and volume required by the above reference standards applied to the job site conditions and crew size. Comply with provisions of this specification if more stringent than the governing standard.

Air Quality For Supplied Air Respiratory Systems: Provide air used for breathing in Type "C" supplied air respiratory systems that meets or exceeds standards set for C.G.A. type 1 (Gaseous Air) Grade D.

Facepiece and Hose: Provide full face piece and hose by same manufacturer that has been certified by NIOSH/MSHA as an approved Type "C" respirator assembly operating in pressure demand mode with a positive pressure face piece.

Auxiliary Backup System: In atmospheres which contain sufficient oxygen (greater than or equal to 19.5% oxygen), provide a pressure-demand full face piece supplied air respirator equipped with an emergency backup HEPA filter.

Escape Air Supply: In atmospheres which are oxygen deficient (less than 19.5% oxygen), provide a pressure-demand full face piece supplied air respirator incorporating an auxiliary self-contained breathing apparatus (SCBA) which automatically maintains an uninterrupted air supply in pressure demand mode with a positive pressure face piece.

Backup Air Supply: Provide a reservoir of compressed air located outside the work area which will automatically maintain a continuous uninterruptible source of air automatically available to each connected face piece and hose assembly in the event of compressor shut-down, contamination of air delivered by compressor, power loss or other failure. Provide sufficient capacity in the backup air supply to allow a minimum escape time of one-half hour times the number of connections available to the work area. Air requirement at each connection is the air requirement of the respirators in use plus the air requirement of an average sized adult male engaged in moderately strenuous activity.

Warning Device: Provide a warning device that will operate independently of the building's power supply. Locate so that alarm is clearly audible above the noise level produced by equipment and work procedures in use, in all parts of the work area and at the compressor. Connect alarm to warn of:

Compressor shut-down or other fault requiring use of backup air supply,

Carbon Monoxide (CO) levels in excess of 5 PPM/V.

Carbon Monoxide (CO) Monitor: Continuously monitor and record on a strip chart recorder Carbon Monoxide (CO) levels. Place monitors in the air line between compressor and backup air supply and

between backup air supply and workers. Connect monitors so that they also sound an alarm as specified under "Warning Devices".

Compressor Shut-Down: Interconnect monitors, alarms and compressor so that compressor is automatically shut down and the alarms sounded if any of the following occur:

Carbon Monoxide (CO) concentrations exceed 5 PPM/V in the air line between the filter bank and backup air supply,

Compressor temperature exceeds normal operating range.

Compressor Motor: Provide a compressor driven by an electric motor. Do not use gas or diesel engines to drive compressor. Insure that electrical supply available at the work site is adequate to energize motor.

If a gasoline or diesel compressor motor is made necessary by an inadequate building power supply or other factors, the location for this equipment will be outside of the building. In this instance the following shall apply:

Compressor Location: Locate compressor outside of building in location that will not impede access to the building, and that will not cause a nuisance by virtue of noise or fumes to occupied portions of the building.

Air Intake: Locate air intake remotely from any source or automobile exhaust or any exhaust from motors, or buildings.

After Cooler: Provide an after cooler at entry to filter system which is capable of reducing temperatures to outside ambient air temperatures.

Self-Contained Breathing Apparatus (SCBA): Configure system to permit the recharging of 2 hour 2260 PSI SCBA cylinders.

PART 3 - EXECUTION

GENERAL:

Respiratory Protection Program: Comply with ANSI Z88.2 - 1980 "Practices for Respiratory Protection" and OSHA 29 CFR 1910 and 1926, and other applicable regulations.

Require that respiratory protection be used at all times that there is any possibility of disturbance of asbestos-containing materials whether intentional or accidental.

Require that a respirator be worn by anyone in a work area at all times, regardless of activity, during a period that starts with any operation which could cause airborne fibers until the area has been cleared for re-occupancy.

Regardless of Airborne Fiber Levels: Require that the minimum level of respiratory protection used be half-face air-purifying respirators with high efficiency filters.

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

TYPE OF RESPIRATORY PROTECTION REQUIRED:

Provide respiratory protection to consist of Type "C" Supplied Air or Powered Air Purifying (Full Face Mask) Respirators as specified. Negative Pressure (Half or Full Face Mask) Respirators shall only be utilized for preparatory and glove bag work, and shall not be utilized during full containment removal work.

RESPIRATORY PROTECTION FACTOR:

<u>Respirator Type</u>	<u>Protection Factor</u>
Air purifying: Negative pressure respirator High efficiency filter Half facepiece	10
Air purifying: Negative pressure respirator High efficiency filter Full facepiece	50
Powered-air purifying (PAPR): Positive pressure respirator High efficiency filter Half or Full facepiece	100
Type C supplied air: Positive pressure respirator Continuous-flow Half or Full facepiece	100
Type C supplied air: Positive pressure respirator Pressure demand Full facepiece	1000
Type C supplied air: Positive pressure respirator Pressure demand Full face piece	Over 1000
Equipped with an auxiliary positive pressure Self-contained breathing apparatus (SCBA)	1000
Self-contained breathing apparatus (SCBA): Positive pressure respirator Pressure demand Full facepiece	Over 1000

TYPE "C" SUPPLIED-AIR RESPIRATORS:

Type C "supplied air" respirators can present a hazard for workers on scaffolding due to the difficulty of handling the attached hoses. If a supplied air system is improperly set up or it is not continuously monitored, it can present a very real life safety hazard for workers.

Air Systems Monitor: Continuously monitor the air system operation including compressor operation, filter system operation, backup air capacity and all warning and monitoring devices at all times that system is in operation.

AIR PURIFYING RESPIRATORS:

Negative Pressure - Half or Full Face Mask: Supply a sufficient quantity of respirator filters approved for asbestos, so that workers can change filters during the work day. Require that respirators be wet-rinsed, and filters discarded, each time a worker leaves the work area. Require that new filters be installed each time a worker re-enters the work area. Store respirators and filters at the job site in the changing room in individual, clean plastic bags and protect totally from exposure to asbestos prior to their use.

Powered Air Purifying - Half or Full Face Mask: Supply a sufficient quantity of high efficiency respirator filters approved for asbestos so that workers can change filters at any time that flow through the face-piece decreases to the level at which the manufacturer recommends filter replacement. Require that regardless of flow, filter cartridges be replaced after 40 hours of use. Require that HEPA elements in filter cartridges be protected from wetting during showering. Require entire exterior housing of respirator including blower unit, filter cartridges, hoses, battery pack, face mask, belt, and cords to be washed each time a worker leaves the work area. Caution should be used to avoid shorting battery pack during washing. Provide an extra battery pack for each respirator so that one can be charging while one is in use.

***** **END OF SECTION** *****