

# **LODI UNIFIED SCHOOL DISTRICT**

## **2020 Fire Alarm Projects – Phase 2**

**PROJECT NUMBER: 0945-8245**

**DSA #:02-118023**

**Liberty High School**

**PROJECT NUMBER: 0934-8234**

**DSA #:02-118024**

**Turner Academy**

## **ADDENDUM NO. 1**

April 1, 2020

Owner: Lodi Unified School District  
1305 E. Vine Street  
Lodi, CA 95240

Engineer: The Engineering Enterprise  
1125 High Street  
Auburn, CA 95603

Project Manager: Capital Program Management, Inc.  
1851 Heritage Lane, Suite 210  
Sacramento, CA 95815

This Addendum has been prepared to clarify, modify, delete, or add to the drawings and/or specifications for the above referenced project, and revisions to items listed here shall supersede description thereof prior to the above stated date. All conditions not specifically referenced here shall remain the same. It is the obligation of the Prime Contractor to make subcontractors aware of any items herein that may affect submitted bids.

Acknowledge receipt of this addendum by inserting its number and date in the bidding documents. Failure to do so may subject bidder to disqualification.

All addenda items refer to the plans and specifications unless specifically noted otherwise.

TOTAL PAGES IN THIS ADDENDUM (including attachments): 26 pages

# **LODI UNIFIED SCHOOL DISTRICT**

## **2020 Fire Alarm Projects – Phase 2**

**PROJECT NUMBER: 0945-8245**

**DSA #:02-118023**

**Liberty High School**

**PROJECT NUMBER: 0934-8234**

**DSA #:02-118024**

**Turner Academy**

### **ADDENDUM NO. 1**

#### **PART A - BIDDING AND CONTRACT REQUIREMENTS**

- 1.1 **ADD** Document 00 45 01 – Site Visit Certification, Addendum No. 1
- 1.2 **ADD** Document 00 57 00 – Escrow Agreement in Lieu of Retention, Addendum No. 1.

#### **PART B - TECHNICAL REQUIREMENTS**

- 1.3 **ADD** Entek Asbestos and Lead Work Practices Report Exhibit C Liberty, dated March 18, 2020.
- 1.4 **ADD** Entek Asbestos and Lead Work Practices Report Exhibit C Turner, dated March 18, 2020.
- 1.5 Refer to Liberty High School, Specification Section 26 61 16 Fire Alarm Safety System, 1.09 Warranty, **REPLACE** wording in “A” as follows: “A. Units and components under this Section shall be covered by a (2) year parts and labor warranty for malfunctions resulting from defects in materials and workmanship. Warranty shall begin upon acceptance by the Owner”
- 1.6 Refer to Turner Academy, Specification Section 26 61 16 Fire Alarm Safety System, 1.09 Warranty, **REPLACE** wording in “A” as follows: “A. Units and components under this Section shall be covered by a (2) year parts and labor warranty for malfunctions resulting from defects in materials and workmanship. Warranty shall begin upon acceptance by the Owner”
- 1.7 Refer to Liberty High School Division 26 Specifications, **REPLACE** wording “**Vinewood Elementary School**” “in the footer of all the technical specifications with “ **Liberty High School**”

#### **PART C - DRAWINGS**

- 1.8 N/A

#### **PART D – RESPONSES TO CONTRACTOR QUESTIONS**

- 1.9 N/A

**LODI UNIFIED SCHOOL DISTRICT**

**2020 Fire Alarm Projects – Phase 2**

**PROJECT NUMBER: 0945-8245**

**DSA #:02-118023**

**Liberty High School**

**PROJECT NUMBER: 0934-8234**

**DSA #:02-118024**

**Turner Academy**

**ADDENDUM NO. 1**

**PART E – List of Attachments**

- 1.10 Pre-bid Conference & Site Visit Agenda (1 Page)
- 1.11 Pre-Bid Conference & Site Visit - Sign-In Sheet (1 Page)
- 1.12 Document 00 45 01 – Site Visit Certification, Addendum No. 1 (2 Pages)
- 1.13 Document 00 57 00 – Escrow Agreement in Lieu of Retention, Addendum No. 1 (3 Pages)
- 1.14 Entek Asbestos and Lead Work Practices Report Exhibit C Liberty,  
dated March 18, 2020. (8 pages)
- 1.15 Entek Asbestos and Lead Work Practices Report Exhibit C Turner,  
dated March 18, 2020. (8 pages)

**End of Addendum**

**Lodi Unified School District  
Project No. 0945-8245 & 0934-8234  
2020 Phase II Fire Alarm Project(s)  
Liberty High School & Turner Academy**

**PRE-BID CONFERENCE & SITE VISIT AGENDA**

**Date:** Wednesday, March 18, 2020  
**School:** Liberty High School & Turner Academy  
**Bid Date:** Thursday, April 7, 2020 by 2:00:00 p.m.

**Time:** 3:00 p.m.

- I. Meeting Called to Order**
- II. Introduction of Project Team**
  - A. District Representatives, Vickie Brum and Joe Patty, Planning & Facilities
  - B. Capital Program Management, Doug McCalla and Mark Rosson
  - C. The Engineering Enterprise (TEE), Electrical Engineer, Jesse Wheeler
- III. Bidding Documents:** Available from District <https://www.lodiUSD.net/district/departments/business-services/facilities-and-planning/fp-projects>
- IV. Contracting Format:** (1) Prime Contract
- V. Scope of Work Descriptions:** Document 01 11 00 Part 1.02 A Summary of Work and Drawings
- VI. Engineer's Estimated Construction Budget:** \$62,000 (Liberty) and \$52,000 (Turner)
- VII. Bidding and Contract Award Requirements:**
  - A. License requirement(s): C-10
  - B. Bid Bond or Certified Check, 10% of bid
  - C. Prevailing Wages - certified payrolls, payroll records and other documents shall be required along with your progress billings: [www.dir.ca.gov/dlsr/DPreWageDetermination.htm](http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm)
  - D. DIR Registration of Contractor & Subcontractors (See General Conditions, Section 0072 13)
  - E. Disabled Veterans Business Enterprise (DVBE – Section 00 45 46.02)
  - F. Bond and Insurance Requirements (See General Conditions, Section 00 72 13)
  - G. Bid Form (See Bid Form, Section 00 41 13):
    - 1. Completed Forms
    - 2. No exclusions
    - 3. No faxes, phone or email bids
    - 4. Bids good for 90 days
  - H. Pre-Qualified Bid Requirements - <https://pqbids.com/lodi/>
- VIII. Inspection Procedures:** DSA Project Inspector: Jason Zachary
- IX. Project Schedule:** See General Conditions, Section 00 01 20
  - Construction Start: June 1, 2020
  - Construction Completion: October 16, 2020
- X. Department of Justice (DOJ) Clearance, Badges and Security:** District Protocols
- XI. Site Information:**
  - A. Contact: Vickie Brum, 209-331-7223
  - B. Site access, temporary facilities, staging areas and parking
  - C. Conduct on school premises: No dialogue or contact with students, no smoking or tobacco and all employees on site are to conduct themselves professionally.
  - D. Contractor's working hours
  - E. Contractor's supervision: The designated Superintendent must be present at all times when subcontractors or self-performance work is taking place.
- XII. Owner Meetings:**
  - A. Weekly meeting day, time and location TBD
- XIII. Questions**
- XIV. Adjournment**

**Important note:** Responses to inquiries and discussions occurring at this pre-bid walk-through shall in no way change or modify the bid documents. The bid documents will be affected only by addenda issued prior to the bid date.

**Send written inquiries by March 25, 2020 to:** Doug McCalla, [dougmc@capitalpm.com](mailto:dougmc@capitalpm.com)

**Lodi Unified School District  
PRE-BID CONFERENCE AND SITE VISIT SIGN-IN SHEET FOR  
PROJECT NO. 0945-8245 & 0934-8234  
2020 Phase II Fire Alarm Projects  
Liberty High School & Turner Academy  
Wednesday, March 18, 2020  
3:00 PM**

[illegible]

DOCUMENT 00 45 01

**SITE VISIT CERTIFICATION**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID  
IF SITE VISIT WAS MANDATORY

PROJECT: 2020 Fire Alarm – Phase 2; Liberty High and Turner Academy

Check option that applies:

\_\_\_\_\_ I certify that I visited the Site of the proposed Work, received the attached \_\_\_\_\_ pages of information, and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

\_\_\_\_\_ I certify that \_\_\_\_\_ (Bidder's representative) visited the Site of the proposed Work, received the attached \_\_\_\_\_ pages of information, and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully indemnifies the Lodi Unified School District, its Architect, its Engineers, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: \_\_\_\_\_

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

**ATTACHMENTS:**

- 1.**
- 2.**
- 3.**

END OF DOCUMENT

DOCUMENT 00 57 00

**ESCROW AGREEMENT IN LIEU OF RETENTION**  
**(Public Contract Code Section 22300)****(Note: Contractor must use this form.)**

This Escrow Agreement in Lieu of Retention ("Escrow Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the Lodi Unified School District ("District"), whose address is 1305 E. Vine Street , Lodi , California 95240 , and \_\_\_\_\_ ("Contractor"), whose address is \_\_\_\_\_, and \_\_\_\_\_ ("Escrow Agent"), a state or federally chartered bank in the state of California, whose address is \_\_\_\_\_.

For the consideration hereinafter set forth, District, Contractor, and Escrow Agent agree as follows:

1. Pursuant to section 22300 of Public Contract Code of the State of California, which is hereby incorporated by reference, Contractor has the following two (2) options:
  - ☐ Deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by District pursuant to the Construction Contract No. \_\_\_\_\_ entered into between District and Contractor for the \_\_\_\_\_ Project, in the amount of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) dated, \_\_\_\_\_, 20\_\_\_\_, (the "Contract"); **or**
  - ☐ On written request of Contractor, District shall make payments of the retention earnings for the above referenced Contract directly to Escrow Agent.

When Contractor deposits the securities as a substitute for Contract earnings (first option), Escrow Agent shall notify District within ten (10) calendar days of the deposit. The market value of the securities at the time of substitution and at all times from substitution until the termination of the Escrow Agreement shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between District and Contractor.

Securities shall be held in the name of Lodi Unified School District, and shall designate Contractor as beneficial owner.

2. District shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to Contract provisions, provided that Escrow Agent holds securities in form and amount specified above.
3. When District makes payment of retentions earned directly to Escrow Agent, Escrow Agent shall hold them for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the Parties shall be equally applicable and binding when District pays Escrow Agent directly.



4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of District. The District will charge Contractor \$\_\_\_\_\_ for each of District's deposits to the escrow account. These expenses and payment terms shall be determined by District, Contractor, and Escrow Agent.
5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to District.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from District to Escrow Agent that District consents to withdrawal of amount sought to be withdrawn by Contractor.
7. District shall have the right to draw upon the securities and/or withdraw amounts from the Escrow Account in the event of default by Contractor. Upon seven (7) days' written notice to Escrow Agent from District of the default, if applicable, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by District. Escrow Agent shall not be authorized to determine the validity of any notice of default given by District pursuant to this paragraph, and shall promptly comply with District's instructions to pay over said escrowed assets. Escrow Agent further agrees to not interplead the escrowed assets in response to a conflicting demand.
8. Upon receipt of written notification from District certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on written notifications from District and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Escrow Agreement and District and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth above.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

10. Names of persons who are authorized to give written notice or to receive written notice on behalf of District and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of District:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

On behalf of Contractor:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

On behalf of Escrow Agent:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

At the time that the Escrow Account is opened, District and Contractor shall deliver to Escrow Agent a fully executed copy of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

On behalf of District:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

On behalf of Contractor:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

END OF DOCUMENT

**ASBESTOS and LEAD IN PAINT WORK PRACTICES  
TABLE OF CONTENTS**

SECTION 1.	DESCRIPTION OF PROJECT . . . . .	<u>1</u>
	Part 1.1 - Project Overview. . . . .	<u>1</u>
SECTION 2.	DEFINITIONS.. . . .	<u>2</u>
SECTION 3.	NOTIFICATIONS. . . . .	<u>3</u>
	Part 3.1 - Notification. . . . .	<u>3</u>
SECTION 4.	TRAINING. . . . .	<u>3</u>
SECTION 5.	SPECIFIC PROCEDURES AND REQUIREMENTS. . . . .	<u>3</u>
SECTION 6.	SUBMITTALS.. . . .	<u>4</u>
	Part 6.1 - Pre-Construction Submittal. . . . .	<u>4</u>
	Part 6.2 - Post-Construction Submittal. . . . .	<u>4</u>
	Part 6.3 - Pre-Construction Submittal List. . . . .	<u>5</u>
	Part 6.4 - Post Construction Submittal List. . . . .	<u>5</u>

**SECTION 1. DESCRIPTION OF PROJECT**

**Part 1.1 - Project Overview**

This project includes installation of fire alarm systems associated with the Fire Alarm Upgrade Project. The project primarily involves installation of these systems throughout the campus by attachment to wall or ceiling systems. The installation process includes drilling small holes and surface attachment in building systems.

The age of the buildings included in this project can date back to the 1950/1960's when it was common for lead to be present in paint and for asbestos to be present in building materials. In order to save the school district money for sampling all the different building systems for asbestos and lead in paint, the school district is assuming all building materials might contain asbestos in finish materials and/or lead in paints or coatings. Data from the district's AHERA inspections indicate asbestos is present in drywall wall or ceiling systems in most locations, with various other ceiling and wall materials also known to contain asbestos. It is assumed all interior and exterior wall and hard ceiling systems contain low levels of asbestos (as either joint compound, texture or in stucco) and it is assumed the various wall and ceiling systems also contain various concentrations of lead in the painted surfaces.

With this premise, the focus of these Asbestos and Lead in Paint Work Practices is for the contractor to follow prescribed work practices to control all dust while drilling holes or attaching components onto building systems. This project is not considered asbestos abatement or lead abatement, since this is not the reason for the project. Installation and attachment of the new systems will disturb small amounts of the building components that might contain asbestos and might contain lead in paint, which can be managed by the contractor performing the work.

These work practices/specifications for asbestos and lead are provided to assist the contractor in performing the work safely and meeting the requirements of Cal/OSHA for Asbestos in Construction Section 1529 and lead in Construction Section 1532.1. This project does not require a licensed asbestos contractor nor a contractor with lead certification typically by the California Department of Public Health (CDPH). It does require a contractor to have some asbestos and lead training to perform the work efficiently and safely. These work practices/specifications outline these work practices and requirements.

The owner's third party Certified Asbestos Consultant (CAC) will conduct personal air sampling for asbestos and lead during hole drilling activity of the contractor to assess effectiveness of the HEPA vacuum/shroud combination engineering controls that are required on this project. The air sampling will be provided for compliance with the Cal/OSHA regulations for Title 8 1529 Asbestos and Title 8 1532.1 Lead.

## SECTION 2. DEFINITIONS

**Air monitoring** - The process of measuring the fiber content or lead content of a known volume of air collected during a specific period of time. The procedure normally utilized for asbestos follows the NIOSH Standard Analytical Method for Asbestos in Air P&CAM 239 or Method 7400. The procedure normally utilized for lead follows the NIOSH Method 7082.

**Asbestos** - Means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite grunerite (amosite), anthophyllite, actinolite, and tremolite.

**Asbestos-Containing Hazardous Waste** - Materials defined by the State of California to be packaged, labeled, transported, and disposed of as an asbestos hazardous waste. This includes all friable asbestos-containing material over one-percent (1%) asbestos. This also includes all asbestos-containing construction materials containing less than one-percent asbestos for which one or more bulk samples have not been point counted and found to contain less than one-percent (1%) asbestos.

**Asbestos-Containing Construction Material** - Materials defined by the State of California as any manufactured construction material which contains more than 1/10th of 1% asbestos by weight.

**Asbestos-Containing Material (ACM)** - Cal/OSHA - Material composed of asbestos of any type and in an amount greater than one percent (1%) either alone or mixed with fibrous or non-fibrous materials. EPA - Asbestos-containing materials with more than one percent asbestos.

**Class I, II, III, or IV Work** - Work classes described in 8 CCR 1529 that describe different levels of asbestos work.

**DOP** - Dispersed oil particles which are normally used as an agent for testing the efficiency of HEPA filters.

**Friable asbestos** - Asbestos-containing material which can be crumbled to dust when dry, under hand pressure.

**HEPA Filter** - A high efficiency particulate air filter capable of removing particles 0.3 microns in diameter from an air stream with 99.97% efficiency.

**HEPA-Filtered-Vacuum With Shroud** - This is a mechanical tool that has a shroud or covering over the area of a surface disturbed by a mechanical system in order to eliminate or significantly reduce the amount of dust released to the ambient air by the mechanical process. The shroud must be attached to a working vacuum with HEPA filtration.

**HEPA Vacuum** - A vacuum system equipped with HEPA filtration. These units will need to be challenge tested before being allowed to be used inside of buildings on this project.

**Lead-Based Paint** - Materials meeting the definition of lead-based paint as defined by the California Department of Public Health and the United States Environmental Protection Agency. Currently defined as containing lead in concentrations equal to or greater than 1.0 mg/cm<sup>2</sup>, 5000 ppm, or 0.5% by weight.

**Lead-Containing Material** - Materials that contain measurable, quantifiable amounts of lead. The disturbance of these materials is regulated by Cal/OSHA.

**Permissible Exposure Limit (PEL)** - Permissible Exposure Limit in 8 CCR is based on an eight hour average for asbestos of 0.1 fiber/cubic centimeter and a 30 minute PEL for asbestos at 1 fiber/cc. The 8 hour PEL for lead is 50 µg/m<sup>3</sup> for lead.

**Regulated Area** - Means an area established by a Contractor to demarcate areas where airborne concentrations of asbestos or lead exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit. Additionally "Regulated Area" means any measure used to restrict access to an area where personnel impacting asbestos or lead containing materials are required to wear respiratory protection and/or protective clothing by the project specifications regardless of airborne asbestos concentration levels.

**Regulations** - shall include but not be limited to:

- a. Title 8 California Code of Regulations (CCR) Construction Safety Orders, Section 1529 Asbestos.
- b. Title 8 California Code of Regulations (CCR) Construction Safety Orders, Section 1532.1 Lead.
- c. "Asbestos Hazard Emergency Response Act", U. S. Environmental Protection Agency, 40 CFR, Part 763. Final Rule and Notice.

**Removal** - The stripping of any asbestos-containing materials from surface or components of a facility.

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

### **SECTION 3. NOTIFICATIONS**

#### **Part 3.1 - Notification**

This asbestos and lead related work on this project will not trigger notifications to Cal/OSHA, EPA, San Joaquin Valley Air Pollution Control District (SJAPCD) or CDPH, since the asbestos and lead related work will include disturbance and not "removal" of materials.

### **SECTION 4. TRAINING**

Prior to commencement of asbestos and lead in paint related work all personnel will be required to have received a limited Class III asbestos training class for drilling holes and lead awareness training for drilling holes in building materials. The anticipated total length of such a training class to meet the requirements of Cal/OSHA Title 8 1529 Asbestos is 4 hours and for Title 8 1532.1 Lead 2-4 hours for a total length of class of 6-8 hours.

### **SECTION 5. SPECIFIC PROCEDURES AND REQUIREMENTS**

The contractor will be required to use a HEPA filtered vacuum in conjunction with a shroud attached to collect all dust that is being generated during the drilling activity and when screwing into building systems. This method has been proven to be extremely effective at capturing and controlling dust emissions when drilling and screwing activities are done. Attached to this document are pictures of two well known manufactured shrouds that work excellent when attached to a vacuum. There are many readily available shrouds on the market for the contractor to choose that may be just as effective.

The HEPA vacuum with attached dust shroud will be the primary engineering control for all dust that may include asbestos in finish materials and lead in paint if they are present in the building system being drilled or screwed into for various electrical equipment or conduit.

**SECTION 6. SUBMITTALS**

**Part 6.1 - Pre-Construction Submittal**

The contractor performing the work shall have received asbestos and lead training as specified in this document. Proof of such training shall be provided to the owner prior to the start of the work.

Submit Safety Data Sheets (SDS) for any and all applicable materials that will be used on the project. These documents must be legible and completely reveal information required to be communicated to the Contractor's employees, visitors, and Owner Representatives.

Submit information on the type of shroud that will be used in conjunction with the HEPA vacuum while making any holes or screwing into building systems for dust control.

Submit information on the successful third party DOP testing of all HEPA vacuums that will be used on the project. All HEPA filtered systems used on this project shall be tested and certified by an independent company, approved in advance by Owner's agent/site representative, on-site and prior to use. All vacuums shall meet ANSI Z9.2, using an appropriate testing agent. Documentation of these tests shall be provided to the Owner's agent/site representative prior to the use of any HEPA system.

All HEPA filtered vacuums shall be tested onsite by an independent testing company. Testing of HEPA vacuums must include testing of the wheel attachments, control panel, and seam and rivets of the housing, as well as, the HEPA filter itself.

All HEPA equipped equipment to be used on the project must be delivered to the site empty of all debris, clean and free of dust, and in full operating condition. DOP or equivalent testing must be conducted approved in advance by Owner's agent/site representative. Contractors may not test their own equipment. DOP or equivalent testing is required when any HEPA filters are changed or if the HEPA filtered systems are moved off site and brought back onto the site. The DOP testing is good for one year or until the filter bags are removed, in which case DOP testing is required again.

**Part 6.2 - Post-Construction Submittal**

Contractor shall provide the following post-construction submittals to Owner's Representative within thirty (30) days of the completion of asbestos and lead related work. Receipts from the licensed asbestos contractor who removed the vacuum bags from those used on the project for asbestos and lead related work. The abatement contractor would be responsible for disposal of the vacuum bags with the waste debris.

**Part 6.3 - Pre-Construction Submittal List**

1. \_\_\_\_\_ Worker Documentation
  - a) \_\_\_\_\_ Training Records for Asbestos - Cal/OSHA Limited Class III for Drilling Holes and for Lead for Drilling Holes
2. \_\_\_\_\_ Equipment used on the project including the type of HEPA filtered vacuum and type of shroud that will be required to be used in conjunction with the vacuum
3. \_\_\_\_\_ Safety Data Sheets (SDS) for all materials to be used on the project
4. \_\_\_\_\_ Name of Asbestos Contractor or Hazardous Waste Hauler who will be taking waste from HEPA vacuum for disposal of asbestos and possible lead in paint drilling dust

**Part 6.4 - Post Construction Submittal List**

Contractor shall provide the following post-construction submittals to the Owner within thirty (30) days of the completion of asbestos abatement work.

1. \_\_\_\_\_ Receipts from the licensed asbestos contractor who removed the vacuum bags from those used on the project for asbestos and lead related work. The abatement contractor would be responsible for disposal of the vacuum bags with the waste debris



## **Lodi Unified School District - Liberty High School**

## **EXHIBIT C**

### **PREPARED BY:**

Blake Howes, CAC  
Senior Project Manager  
Entek Consulting Group, Inc.  
CAC #13-5015  
CDPH Lead #3315  
March 18, 2020

C:\Users\bhowes\Entek Consulting Group, Inc\Entekgroup - Documents\Clients\Lodi USD\20-5478 Liberty HS Fire Alarm\Specs\Asbestos and Lead Work Practices Exhibit C Liberty HS 3-18-20.wpd



BOSCH HDC200 Shroud attached to a HEPA Vacuum



Bit Buddy Shroud attached to a HEPA vacuum

**ASBESTOS and LEAD IN PAINT WORK PRACTICES  
TABLE OF CONTENTS**

SECTION 1.	DESCRIPTION OF PROJECT . . . . .	<u>1</u>
	Part 1.1 - Project Overview. . . . .	<u>1</u>
SECTION 2.	DEFINITIONS.. . . .	<u>2</u>
SECTION 3.	NOTIFICATIONS. . . . .	<u>3</u>
	Part 3.1 - Notification. . . . .	<u>3</u>
SECTION 4.	TRAINING. . . . .	<u>3</u>
SECTION 5.	SPECIFIC PROCEDURES AND REQUIREMENTS. . . . .	<u>3</u>
SECTION 6.	SUBMITTALS.. . . .	<u>4</u>
	Part 6.1 - Pre-Construction Submittal. . . . .	<u>4</u>
	Part 6.2 - Post-Construction Submittal. . . . .	<u>4</u>
	Part 6.3 - Pre-Construction Submittal List. . . . .	<u>5</u>
	Part 6.4 - Post Construction Submittal List. . . . .	<u>5</u>

**SECTION 1. DESCRIPTION OF PROJECT**

**Part 1.1 - Project Overview**

This project includes installation of fire alarm systems associated with the Fire Alarm Upgrade Project. The project primarily involves installation of these systems throughout the campus by attachment to wall or ceiling systems. The installation process includes drilling small holes and surface attachment in building systems.

The age of the buildings included in this project can date back to the 1950/1960's when it was common for lead to be present in paint and for asbestos to be present in building materials. In order to save the school district money for sampling all the different building systems for asbestos and lead in paint, the school district is assuming all building materials might contain asbestos in finish materials and/or lead in paints or coatings. Data from the district's AHERA inspections indicate asbestos is present in drywall wall or ceiling systems in most locations, with various other ceiling and wall materials also known to contain asbestos. It is assumed all interior and exterior wall and hard ceiling systems contain low levels of asbestos (as either joint compound, texture or in stucco) and it is assumed the various wall and ceiling systems also contain various concentrations of lead in the painted surfaces.

With this premise, the focus of these Asbestos and Lead in Paint Work Practices is for the contractor to follow prescribed work practices to control all dust while drilling holes or attaching components onto building systems. This project is not considered asbestos abatement or lead abatement, since this is not the reason for the project. Installation and attachment of the new systems will disturb small amounts of the building components that might contain asbestos and might contain lead in paint, which can be managed by the contractor performing the work.

These work practices/specifications for asbestos and lead are provided to assist the contractor in performing the work safely and meeting the requirements of Cal/OSHA for Asbestos in Construction Section 1529 and lead in Construction Section 1532.1. This project does not require a licensed asbestos contractor nor a contractor with lead certification typically by the California Department of Public Health (CDPH). It does require a contractor to have some asbestos and lead training to perform the work efficiently and safely. These work practices/specifications outline these work practices and requirements.

The owner's third party Certified Asbestos Consultant (CAC) will conduct personal air sampling for asbestos and lead during hole drilling activity of the contractor to assess effectiveness of the HEPA vacuum/shroud combination engineering controls that are required on this project. The air sampling will be provided for compliance with the Cal/OSHA regulations for Title 8 1529 Asbestos and Title 8 1532.1 Lead.

## SECTION 2. DEFINITIONS

**Air monitoring** - The process of measuring the fiber content or lead content of a known volume of air collected during a specific period of time. The procedure normally utilized for asbestos follows the NIOSH Standard Analytical Method for Asbestos in Air P&CAM 239 or Method 7400. The procedure normally utilized for lead follows the NIOSH Method 7082.

**Asbestos** - Means the asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite grunerite (amosite), anthophyllite, actinolite, and tremolite.

**Asbestos-Containing Hazardous Waste** - Materials defined by the State of California to be packaged, labeled, transported, and disposed of as an asbestos hazardous waste. This includes all friable asbestos-containing material over one-percent (1%) asbestos. This also includes all asbestos-containing construction materials containing less than one-percent asbestos for which one or more bulk samples have not been point counted and found to contain less than one-percent (1%) asbestos.

**Asbestos-Containing Construction Material** - Materials defined by the State of California as any manufactured construction material which contains more than 1/10th of 1% asbestos by weight.

**Asbestos-Containing Material (ACM)** - Cal/OSHA - Material composed of asbestos of any type and in an amount greater than one percent (1%) either alone or mixed with fibrous or non-fibrous materials. EPA - Asbestos-containing materials with more than one percent asbestos.

**Class I, II, III, or IV Work** - Work classes described in 8 CCR 1529 that describe different levels of asbestos work.

**DOP** - Dispersed oil particles which are normally used as an agent for testing the efficiency of HEPA filters.

**Friable asbestos** - Asbestos-containing material which can be crumbled to dust when dry, under hand pressure.

**HEPA Filter** - A high efficiency particulate air filter capable of removing particles 0.3 microns in diameter from an air stream with 99.97% efficiency.

**HEPA-Filtered-Vacuum With Shroud** - This is a mechanical tool that has a shroud or covering over the area of a surface disturbed by a mechanical system in order to eliminate or significantly reduce the amount of dust released to the ambient air by the mechanical process. The shroud must be attached to a working vacuum with HEPA filtration.

**HEPA Vacuum** - A vacuum system equipped with HEPA filtration. These units will need to be challenge tested before being allowed to be used inside of buildings on this project.

**Lead-Based Paint** - Materials meeting the definition of lead-based paint as defined by the California Department of Public Health and the United States Environmental Protection Agency. Currently defined as containing lead in concentrations equal to or greater than 1.0 mg/cm<sup>2</sup>, 5000 ppm, or 0.5% by weight.

**Lead-Containing Material** - Materials that contain measurable, quantifiable amounts of lead. The disturbance of these materials is regulated by Cal/OSHA.

**Permissible Exposure Limit (PEL)** - Permissible Exposure Limit in 8 CCR is based on an eight hour average for asbestos of 0.1 fiber/cubic centimeter and a 30 minute PEL for asbestos at 1 fiber/cc. The 8 hour PEL for lead is 50 µg/m<sup>3</sup> for lead.

**Regulated Area** - Means an area established by a Contractor to demarcate areas where airborne concentrations of asbestos or lead exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit. Additionally "Regulated Area" means any measure used to restrict access to an area where personnel impacting asbestos or lead containing materials are required to wear respiratory protection and/or protective clothing by the project specifications regardless of airborne asbestos concentration levels.

**Regulations** - shall include but not be limited to:

- a. Title 8 California Code of Regulations (CCR) Construction Safety Orders, Section 1529 Asbestos.
- b. Title 8 California Code of Regulations (CCR) Construction Safety Orders, Section 1532.1 Lead.
- c. "Asbestos Hazard Emergency Response Act", U. S. Environmental Protection Agency, 40 CFR, Part 763. Final Rule and Notice.

**Removal** - The stripping of any asbestos-containing materials from surface or components of a facility.

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

### **SECTION 3. NOTIFICATIONS**

#### **Part 3.1 - Notification**

This asbestos and lead related work on this project will not trigger notifications to Cal/OSHA, EPA, San Joaquin Valley Air Pollution Control District (SJAPCD) or CDPH, since the asbestos and lead related work will include disturbance and not "removal" of materials.

### **SECTION 4. TRAINING**

Prior to commencement of asbestos and lead in paint related work all personnel will be required to have received a limited Class III asbestos training class for drilling holes and lead awareness training for drilling holes in building materials. The anticipated total length of such a training class to meet the requirements of Cal/OSHA Title 8 1529 Asbestos is 4 hours and for Title 8 1532.1 Lead 2-4 hours for a total length of class of 6-8 hours.

### **SECTION 5. SPECIFIC PROCEDURES AND REQUIREMENTS**

The contractor will be required to use a HEPA filtered vacuum in conjunction with a shroud attached to collect all dust that is being generated during the drilling activity and when screwing into building systems. This method has been proven to be extremely effective at capturing and controlling dust emissions when drilling and screwing activities are done. Attached to this document are pictures of two well known manufactured shrouds that work excellent when attached to a vacuum. There are many readily available shrouds on the market for the contractor to choose that may be just as effective.

The HEPA vacuum with attached dust shroud will be the primary engineering control for all dust that may include asbestos in finish materials and lead in paint if they are present in the building system being drilled or screwed into for various electrical equipment or conduit.

**SECTION 6. SUBMITTALS**

**Part 6.1 - Pre-Construction Submittal**

The contractor performing the work shall have received asbestos and lead training as specified in this document. Proof of such training shall be provided to the owner prior to the start of the work.

Submit Safety Data Sheets (SDS) for any and all applicable materials that will be used on the project. These documents must be legible and completely reveal information required to be communicated to the Contractor's employees, visitors, and Owner Representatives.

Submit information on the type of shroud that will be used in conjunction with the HEPA vacuum while making any holes or screwing into building systems for dust control.

Submit information on the successful third party DOP testing of all HEPA vacuums that will be used on the project. All HEPA filtered systems used on this project shall be tested and certified by an independent company, approved in advance by Owner's agent/site representative, on-site and prior to use. All vacuums shall meet ANSI Z9.2, using an appropriate testing agent. Documentation of these tests shall be provided to the Owner's agent/site representative prior to the use of any HEPA system.

All HEPA filtered vacuums shall be tested onsite by an independent testing company. Testing of HEPA vacuums must include testing of the wheel attachments, control panel, and seam and rivets of the housing, as well as, the HEPA filter itself.

All HEPA equipped equipment to be used on the project must be delivered to the site empty of all debris, clean and free of dust, and in full operating condition. DOP or equivalent testing must be conducted approved in advance by Owner's agent/site representative. Contractors may not test their own equipment. DOP or equivalent testing is required when any HEPA filters are changed or if the HEPA filtered systems are moved off site and brought back onto the site. The DOP testing is good for one year or until the filter bags are removed, in which case DOP testing is required again.

**Part 6.2 - Post-Construction Submittal**

Contractor shall provide the following post-construction submittals to Owner's Representative within thirty (30) days of the completion of asbestos and lead related work. Receipts from the licensed asbestos contractor who removed the vacuum bags from those used on the project for asbestos and lead related work. The abatement contractor would be responsible for disposal of the vacuum bags with the waste debris.

**Part 6.3 - Pre-Construction Submittal List**

1. \_\_\_\_\_ Worker Documentation
  - a) \_\_\_\_\_ Training Records for Asbestos - Cal/OSHA Limited Class III for Drilling Holes and for Lead for Drilling Holes
2. \_\_\_\_\_ Equipment used on the project including the type of HEPA filtered vacuum and type of shroud that will be required to be used in conjunction with the vacuum
3. \_\_\_\_\_ Safety Data Sheets (SDS) for all materials to be used on the project
4. \_\_\_\_\_ Name of Asbestos Contractor or Hazardous Waste Hauler who will be taking waste from HEPA vacuum for disposal of asbestos and possible lead in paint drilling dust

**Part 6.4 - Post Construction Submittal List**

Contractor shall provide the following post-construction submittals to the Owner within thirty (30) days of the completion of asbestos abatement work.

1. \_\_\_\_\_ Receipts from the licensed asbestos contractor who removed the vacuum bags from those used on the project for asbestos and lead related work. The abatement contractor would be responsible for disposal of the vacuum bags with the waste debris



**PREPARED BY:**

Blake Howes, CAC  
Senior Project Manager  
Entek Consulting Group, Inc.  
CAC #13-5015  
CDPH Lead #3315  
March 18, 2020

C:\Users\bhowes\Entek Consulting Group, Inc\Entekgroup - Documents\Clients\Lodi USD\20-5482 Turner Academy Fire Alarm\Specs\Asbestos and Lead  
Work Practices Exhibit C Turner 3-18-20.wpd



BOSCH HDC200 Shroud attached to a HEPA Vacuum



Bit Buddy Shroud attached to a HEPA vacuum