
HOCKANUM SCHOOL ALTERATIONS AND SITE IMPROVEMENTS

**EAST HARTFORD PUBLIC SCHOOLS
191 MAIN STREET
EAST HARTFORD, CT 06118
Bid #1712-16**

S/P+A Project No. 15.193

DATE: March 10, 2016

The following changes to the Drawings and Project Specifications shall become a part of the Drawings and Project Specifications; superseding previously issued Drawings and Project Specifications to the extent modified by Addendum No. 3.

General Information/Clarifications:

- Pre-Bid Conference sign-in sheet attached for reference. (4)
- As noted on the Bid Form (Page 1, Paragraph 1), the required Bid Bond percentage is as follows:
 - 10% Bid Surety
 - 100% Performance Bond
 - 100% Labor & Materials Bond
- Asbestos-Containing Material (ACM) Removal AWP Approval Letter (Dated 3/1/16) is attached for reference. (2)
- Reminder to Bidders:
 - Refer to Section 011000, “Summary”, Part A.5 for descriptions of Work Covered By Owner (N.I.C.).
 - Refer to Section 012300, “Alternates”, Part 3.1, for descriptions of the Add Alternate Scope of Work.

New Specifications:

- SECTION 020900, LEAD SAFE WORK PRACTICES has been added and is attached as part of this addendum (13).

Changes to the Specifications:

- PROJECT MANUAL COVER SHEET: Revise Mr. Albert Costa’s mailing address to read:
“734 Tolland Street, East Hartford, Connecticut 06108”

Changes to the Drawings:

- TITLE SHEET: DELETE Owner’s information and replace with the following:

OWNER:

ALBERT COSTA
DIRECTOR OF FACILITIES
EAST HARTFORD PUBLIC SCHOOLS;
734 TOLLAND STREET
EAST HARTFORD, CT 06108

- DRAWING AD-104 “PARTIAL DEMOLITION PLAN”:
 1. At Cafeteria 19, ADD new Demolition Key Note #19 that states, “REMOVE EXISTING WALL BASE AND +/- 36-INCH HIGH WAINSCOT FROM E.T.R. FINISHED WALL SURFACE AT PERIMETER OF ROOM (V.I.F.) – PROTECT ADJACENT EXIST. ITEMS TO REMAIN.” Provided as part of the Add Alternate #5 Scope of Work.
 2. At Cafeteria 19, ADD Demolition Key Note #9 as part of the Add Alternate #5 Scope of Work.

- DRAWING A-110 “PARTIAL FLOOR PLAN”:
 1. At Offices 19, ADD Wall Type “B3” at existing to remain wall construction. Wall Type “B3” construction is similar to wall type “B” on Drawing A-002, modified as follows:
 - Wall Type “B3”: “PATCH & REPAIR EXISTING FINISHED WALL SURFACE (V.I.F.) AND PATCH WALL AT AREA OF REMOVED WAINSCOT TO MATCH EXISTING TO REMAIN WALL CONSTRUCTION & FINISHES ABOVE.”

The bid dates are unchanged by this Addendum.

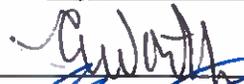
The Addendum consists of twenty-one (21) pages of 8½” x 11” text.

The last day for questions (RFI’s) is unchanged by the Addendum – All RFI’s are due no later than midnight, March 22, 2016, as noted in the Supplementary Instructions to Bidders portion of the Project Manual.

End of Addendum #3

SIGN-IN SHEET (page 1 of 4)
Mandatory Pre-Bid Conference
March 2, 2016 3:45 pm

Bid# 1712-16 Hockanum School Alterations and Site Improvements

Name	Company	Email Address
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	Albert Costa, Director of Facilities EHPS	costa.as@easthartford.org
	AMS Environmental	tworth@amsenviro.com
	Banton Construction Co	mdonohue@bantonconstruction.com
PHIL PRIOR	Bestech	NBoles@bestechCT.com PPRIOR@BESTECHCT.COM
	Centerplan Construction Co	riabanara@centerplan.com
	CFM Construction Corp	c.f.m.construction@snet.net
Thomas Kibey	Cutter Enterprises	rsmith@cutterenterprises.com
	Demolition Services	CReilly@DemolitionServices.com
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	Eastern Energy Services LLC	dstout@easterncos.com
	Enfield Buildings	sales@enfieldbuilders.com
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MARK CASE	ESC Controls ESC HVAC	c.jacques@esccontrols.com m.case@ESCcontrols.com
Damon COKE	G. Donovan Assoc. Inc.	bonnie@gdonovan.com
	Giordano Construction Co. Inc.	vsgiii@giordanomail.com
	ISQFT	efritz@isqft.com
	J. A. Rosa Construction LLC	pete@jarosa.com
	Laroche Builders LLC	luke@larochebuilders.com

RANDY FULTON

J. LAPALUCCIO, INC.

RANDY@JLAPALUCCIO.COM

SIGN-IN SHEET
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Bid# 1712-16 Hockanum School Alterations and Site Improvements

Name	Company	Email Address
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	Martindale & Salisbury Construction	martsals@yahoo.com
RONALD L. STACY	Millenium Builders, Ron Stacy	rstacy@mbict.com
Darin Overton	Milone and MacBroom, Darin Overton	darino@miloneandmacbroom.com
	Milone and MacBroom, Dave Dickson	daved@miloneandmacbroom.com
Rich Miller	Montagno Construction	rmiller@montagno.com
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David Phillips	Newbury Const. LLC	chelsea.phillips@new-bury.com
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SIGN-IN SHEET
Mandatory Pre-Bid Conference
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Bid# 1712-16 Hockanum School Alterations and Site Improvements

Name	Company	Email Address
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	Worth Construction Co	worth@worthconstruction.com
Kevin Ardan 860-296-7450	Oscar's Abatement LLC	oabatment@aol.com
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RAY MORIN	HHS MECHANICAL CONT.	ray@hhs-mech.com
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CONROY SAMUEL KILKENNY RESTORATION OF NEW ENGLAND
CONROY SAMUEL KILKENNY RESTORATION OF NEW ENGLAND

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Patrick Hulton Michael Morris	Associated Construction Co. DEC-TAMON	pth@accgc.com MMORRIS@DECTAM.COM

Floor tile and mastic abatement (WORK AREAS 2, 5,6 and 7)

In lieu of the requirements of subsection 19a-332a-5(e), the work area is to be isolated from the non-work area by barriers as outlined in subsection 19a-332a-5(c) with a layer of six (6) mil polyethylene sheeting. Additionally, a single layer of four (4) mil polyethylene sheeting shall be used to seal wall surfaces in the work area. This approval is granted where floor tiles and mastic are the sole asbestos-containing materials to be abated.

Pipe insulation and pipe fitting insulation (WORK AREAS 8-14)

In lieu of the requirements of subsection 19a-332a-5(e), pipe insulation and fittings will be removed utilizing the glove bag method outlined in 29 CFR, Part 1926.1101 of the U.S. Department of Labor, OSHA regulation. In addition to the glove bag procedure, the work area shall be separated from the non-work area by a single layer of four (4)-mil polyethylene sheeting. The polyethylene sheeting shall cover or compose wall surfaces, and where the barrier does not extend to the ceiling, shall compose the ceiling, to create an airtight enclosure. A drop cloth will be placed under all pipes and/or fittings being abated. **Work areas will be maximized to include as many fittings as possible in any single containment. Individual fittings will be removed utilizing the work practices outlined in section 19a-332a-10 of the RCSA.**

Floor tiles, mastic and pipe insulation and pipe fittings (WORK AREAS 1, 3 and 4)

In lieu of the requirements of subsection 19a-332a-5(e), the work area is to be isolated from the non-work area by barriers as outlined in subsection 19a-332a-5(c) with a layer of six (6) mil polyethylene sheeting. Additionally, a single layer of four (4) mil polyethylene sheeting shall be used to seal wall surfaces, extending to the ceiling and where the barrier does not extend to the ceiling, shall compose the ceiling, to create an airtight enclosure. The material will be removed utilizing the glove bag method outlined in 29 CFR, Part 1926.1101 within the previously contained area. A drop cloth will be placed under all pipes and/or fittings being abated.

Except as noted in this letter, all other work practices specified in the *Standards for Asbestos Abatement* regulation are mandatory. This approval is specific for the abatement at the facility identified in this application. This approval does not relieve the contractor or facility owner from satisfying the requirements of any other federal, state or municipal regulation. The DPH reserves the right to rescind this approval should it determine that equivalent means of asbestos emission control are not maintained.

Please contact this office should you wish to discuss this matter further.

Sincerely,



Kristen M. Day
Environmental Analyst 3
Asbestos Program

PART 1- GENERAL

1.1 SCOPE

- A. Work under this item shall include activities impacting various materials containing or covered by lead paint and associated work by persons who are knowledgeable, qualified, and trained in the removal, treatment and handling of lead contaminated materials, including the transportation and disposal of non-hazardous and hazardous lead construction and demolition bulky waste containing or contaminated with lead, the recycling of metallic components covered with lead paint, and the subsequent cleaning of the affected environment. For OSHA Regulations, lead paint includes paint found to contain **any** detectable amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF). For work under the USEPA regulations, lead is defined as any paint shown to be above 1 mg/cm² utilizing XRF data.
- B. All activities shall be performed in accordance with, but not limited to, the current revision of the OSHA Lead in Construction Regulations (29 CFR 1926.62), the USEPA Lead Safe Renovation, Repairs and Painting (40 CFR 745.80 Subpart E), the USEPA RCRA Hazardous Waste Regulations (40 CFR Parts 260 through 274), and the CTDEP Hazardous Waste Regulations (22a-209-1 and 22a-449(c).
- C. The lead paint activity shall include the disturbance, demolition, removal and/or disposal of building components coated with lead painted surfaces as identified in the lead paint inspection report included in this Project Manual.
- D. Deviations from these Specifications require the written approval of the Project Monitor.
- E. **All Contractors working on this project must perform all work in accordance with OSHA Regulations 29 CFR 1926.62 and the USEPA Regulations 40 CFR 745.80 Subpart E, Lead Safe Renovation, Repair and Painting.**
- F. The Town of East Hartford will retain the services of a State of Connecticut licensed Project Monitor for protection of its interests and those using the building. Air sampling may be conducted to ensure that contractor's are working in a safe manner.
- G. The Contractor shall be responsible for the following general requirements:
 - 1. Obtain all approvals and permits, and submit all notifications required.
 - 2. Provide, erect, and maintain all planking, bracing, shoring, barricades, and warning signs.
 - 3. Unless otherwise specified, all equipment, fixtures, piping and debris resulting from demolition shall become the property of the Contractor and shall be removed from the premises.
 - 4. Materials to be reused shall be removed with the utmost care to prevent damage of any kind. All material to be reused shall be stored as directed. The Contractor shall coordinate with the Town of East Hartford as to the storage location.

5. Materials not scheduled for reuse shall be removed from the site and disposed of in accordance with all applicable Federal, State and Local requirements.
 6. The Contractor shall be responsible for verification of all field conditions affecting performance of the work as described in these Specifications in accordance with OSHA, USEPA, USDOT and CTDEP standards. Compliance with the applicable requirements is solely the responsibility of the Contractor.
- H. It shall be the responsibility of the Contractor to protect and preserve in operating condition, all utilities traversing the building and site. Damage to any utility due to work under this Contract shall be repaired to the satisfaction of the Town of East Hartford at no cost to the Town of East Hartford.

1.2 DESCRIPTION OF WORK

- A. The Contractor shall supply all labor, materials, equipment, services, insurance, and incidentals which are necessary or required to perform the work in accordance with applicable governmental regulations and these specifications.
- B. Building surfaces were tested for lead with an XRF Spectrum Analyzer and the following were found to contain **toxic** levels of lead:

Window casings

Window sills

Wall trim

Ceramic wall tile

Railings

Closet door in Room 7

Tan/Beige painted plaster walls in Room 12

Metal baseboard in the Gym

Red wooden door jamb in Room in Room 17

When painting window casings, sills or trim covered with lead paint, the following apply: if the building material is in good condition, use care but the USEPA Lead Renovator Rules (RRP) rule does not apply. If the material is defective and needs to be scraped and/or sanded, then the OSHA and RRP rules do apply and wipe sampling by the Contractor is required after the painting occurs. Use a poly drop cloth, but a containment is not necessary.

When demolishing lead painted items (other than ceramic), OSHA and RRP rules apply.

When demolishing walls with ceramic tile follow OSHA Lead Regulations. USEPA RRP, Lead Renovator Rules do not apply in the demolition of tiles. No containment or wipe samples are necessary.

Included in this Project Manual is a Lead Inspection Report prepared by TRC. Refer to the XRF data table in the report for information on lead paint conditions.

Under no circumstances shall this information be the sole means used by the Contractor for determining the extent of lead painted materials.

1.3 REFERENCES

A. The current issue of each document shall govern. Where conflict among requirements or with these specifications exists, the more stringent requirements shall apply.

1. Occupational Safety and Health Administration (OSHA)

29 CFR 1910.134 - Respiratory Protection

29 CFR 1926.21 - Safety Training and Education

29 CFR 1926.59 - Hazard Communication.

29 CFR 1926.62 - Lead in Construction

29 CFR 1926.200 - Accident Prevention Signs and Tags

29 CFR 1926.417 - Lockout and Tagging of Circuits

40 CFR 260-271 - Hazardous Waste Disposal

40 CFR 763, Subpart G - Worker Protection Rule

2. United States Environmental Protection Agency (USEPA)

40 CFR 745.80 Subpart E - Lead-Safe Renovation, Repairs and Painting

RCRA Hazardous Waste Regulations (40 CFR Parts 260 through 274)

3. Connecticut Department of Environmental Protection (CTDEP)

Hazardous Waste Regulations (22a-209-1 and 22a-449(c)).

1.4 DOCUMENTATION

A. Submit two copies of the following documentation to ensure compliance with the applicable regulations. An up to date copy shall be retained at the job site at all times. Submission must be made two weeks prior to the start of work.

B. Manufacturer's Catalog Data:

Vacuum Equipment

Respirators

Polyethylene Sheeting

Portable Shower Units

MSDS for All Materials Delivered to the Site

C. Statements:

Worker Medical Certification
Worker Training Certification
Worker Respirator Fit Testing
Safety Plan
Respirator Protection Plan
Initial Exposure Assessment

1. Documentation from a physician certifying that all employees who may be exposed to airborne lead dust have been provided with an opportunity to be medically monitored as required in 29 CFR 1926.62 to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health affects. They shall also be informed of the specific types of respirators the employee shall be required to wear and the work he/she will be required to perform as well as special work place conditions such as high temperature, high humidity and chemical contaminants which to which he/she may be exposed.
2. Documentation dated within the previous year, of biological monitoring including initial blood lead level and zinc protoporphyrin level test results prior to the workers first entry into the Work Areas.
 - a. Workers with blood lead levels in excess of fifty (50) micrograms/deciliter will not be permitted in the Regulated Area. The Contractor shall follow management of employee's blood lead levels in accordance with OSHA 29 CFR 1926.62.
3. Documentation certifying that all employees have received training in the proper handling of materials that contain lead paint; understand the health implications and risks involved, including the illnesses possible from exposure to lead; understands the use and limits of respiratory equipment to be used; and understands the results of monitoring of airborne quantities of lead. Workers shall be trained in lead awareness (OSHA) and in accordance with the hazard communication standard for the construction industry issued by the Occupational Safety and Health Administration of the U.S. Department of Labor at 29 CFR 1926.59. Workers shall also be trained in accordance to USEPA Regulation 40 CFR 745.80 Subpart E, Lead Safe Renovation, Repairs and Painting..
4. Documentation dated within the previous twelve (12) months, of respiratory fit testing for all employees who must don a tight-fitting face piece respirator in order to perform activities impacting lead. This fit testing shall be in accordance with qualitative procedures as detailed in 29 CFR 1910.134.
5. An exposure assessment for each specific lead job which will be performed during the course of this project. The data must meet the requirements of OSHA 29 CFR 1926.62. If data from prior lead project(s) is submitted (i.e. a negative exposure assessment), the following information is required:
 - a. Date of project
 - b. Description of monitoring, analysis and work operations and practices

- c. Type of activity conducted, concentration and application of lead
 - d. Project Monitoring controls
 - e. Experience of workers and supervisors
6. Establish a written Respiratory Protection Plan in accordance with 29 CFR 1910.134. This plan shall establish procedures governing the selection and use of respirators and shall include such information as training in the proper use of respirators; medical examination of workers to determine whether or not they may be assigned an activity where respiratory protection is required; training in proper use and limitations of respirators; respirator fit testing; regular inspection and evaluation of the continued effectiveness of the program; and other elements included in the standard.
7. Prior to the start of any work that will generate hazardous lead waste above conditionally exempt small quantities, the Contractor shall obtain from the CTDEEP a temporary EPA Hazardous Waste Generators ID, unless otherwise directed by the Project Monitor.
- D. During the work, submit to the Project Monitor and receive acknowledgment of the following:
- 1. Results of the personal air sampling data within one (1) working day of when the sampling was done.
 - 2. Copies of all waste shipment records of lead waste that is transported from the facility site.
 - 3. Competent person (supervisor) job log.

1.5 PERSONNEL PROTECTION

- A. The Contractor shall initially determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of 30 micrograms per cubic meter (30 $\mu\text{g}/\text{m}^3$). Assessments shall be based on initial air monitoring results as well as other relevant information. The Contractor may rely on historical air monitoring data obtained within the past 12 months under workplace conditions closely resembling the process, type of material, control methods, work practices and environmental conditions used and prevailing in the Contractors current operations to satisfy the exposure assessment requirements. Monitoring shall continue as specified in the OSHA standard until a negative exposure assessment is developed.

Until a negative exposure assessment is developed for the required tasks impacting lead paint, the Contractor shall ensure that all workers and authorized person entering the work area wear protective clothing and respirators in accordance with OSHA 29 CFR 1926.62. Protective clothing shall include impervious coveralls with elastic wrists and ankles, head covering, gloves and foot coverings. Sufficient quantities shall be provided to last throughout the duration of the project.

- B. Instruct workers in all aspects of personnel protection, work procedures, emergency evacuation procedures and use of equipment including procedures unique to this project.
- C. Protective clothing provided by the Contractor and used during chemical removal operations shall be impervious to caustic materials. Gloves provided by the Contractor and used during chemical removal shall be of neoprene composition with glove extenders.
- D. Respiratory protection shall meet the requirements of OSHA as required in 29 CFR 1910.134 and 29 CFR 1926.1101. Provide appropriate respiratory protection for each worker and ensure usage during potential lead exposure.
- E. Ensure workers do not eat, drink, smoke or chew gum or tobacco while in the Work Area.

1.6 SEQUENCE OF WORK

- A. Proceed in accordance with the sequence of work as mutually agreed upon with the Town of East Hartford.
- B. The following sequence of work shall be used for the work:
 - 1. A visual inspection of the Work Area to determine pre-existing damage to facility components.
 - 2. Release of work area to the Contractor.
 - 3. All temporary utilities required for the project shall be on site and operational prior to the initiation of the work.
 - 4. Cleanup by the Contractor. Work Areas must be returned to their original condition or better.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Six (6) mil polyethylene disposable bags shall have pre-printed OSHA/EPA/DOT labels and shall be transparent.
- B. The cleaning agent detergent shall be lead specific, such as TriSodium Phosphate (TSP).
- C. Labels and warning signs shall conform to OSHA 29 CFR 1926.62, USEPA 40 CFR 260 through 274 and USDOT 49 CFR 172 as appropriate.
- D. Any chemical stripper and chemical neutralizer to be utilized shall be compatible with the substrate as well as with each other.

2.2 TOOLS AND EQUIPMENT

- A. Tools and equipment shall be suitable for working with lead paint.
- B. Protective clothing, respirators, filter cartridges, air filters and sample filter cassettes shall be provided in sufficient quantities for the project.
- C. Electrical equipment, protective devices, emergency generators and power cables shall conform to all applicable codes.
- D. Air monitoring equipment of the type and quantity required to monitor operations and conduct personnel exposure surveillance in accordance with OSHA requirements.
- E. Where lead exposures are above the OSHA Action Level or PEL, the Contractor shall provide wash facilities/shower stalls and plumbing that include sufficient hose length and drain system or an acceptable alternate. One shower stall shall be provided for each eight workers.
- F. Ladders and/or scaffolds shall be of adequate length, strength and sufficient quantity to support the work schedule.
- G. The Contractor shall provide vacuum units of suitable size and capabilities for the project which have HEPA filters capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of three micrometers in diameter or larger.
- H. Protective clothing, respirators, and HEPA P100 filter cartridges shall be provided in sufficient quantities for the project.

PART 3 EXECUTION

3.1 PREPARATION OF WORK AREA

- A. Prior to beginning work, the Design Consultant, Town of East Hartford's Representative and Contractor shall perform a visual survey of the Work Area and list all pre-existing damage to building components. The Contractor shall submit to the Town of East Hartford's Representative a list which shall include all damaged areas not scheduled to be repaired under this Contract and include photographs, video tapes as applicable.
- B. In all areas where airborne exposures may exceed the OSHA PEL (unless proven by air sampling), post warning signs meeting the requirements of OSHA 29 CFR 1926.62 at each regulated area.
- C. In addition, signs shall be posted at all approaches to regulated areas so that an employee may read the sign and take the necessary protective steps before entering the area. These signs shall read:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

- D. Establish a work area, through the use of appropriate barrier tape, etc. and control unauthorized access into the area throughout the lead paint related activity.
- E. Implement appropriate Project Monitoring controls such as critical barriers, poly drop cloths, negative pressure, etc. to prevent the spread of lead contamination from the work area. The use of negative air machines and local exhaust ventilation with HEPA filters may be required if lead contamination continues to spread.
- F. The Contractor shall provide handwash facilities in compliance with 29 CFR 1926.51(f) and 29 CFR 1926.62 regardless of airborne lead exposure. This wash facility will consist, at least, of potable water, towels, soap, and a HEPA vacuum.
- G. If air monitoring data by the Contractor or Project Monitor shows that employee exposure to airborne lead exceeds the OSHA PEL ($50 \mu\text{g}/\text{m}^3$), shower rooms must be utilized. The Shower Room shall be of sufficient capacity to accommodate the number of workers. One shower stall shall be provided for each eight (8) workers. Showers shall be equipped with hot and cold or warm running water through the use of electric hot water heaters supplied by the Contractor. Shower stalls and plumbing shall include sufficient hose length and drain system or an acceptable alternate.
- H. Shut down and isolate heating, cooling, and ventilating air systems to prevent contamination to other areas of the building. Seal all vents.
- D. Clean the proposed Work Areas using HEPA filtered vacuum equipment and/or wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- E. For exterior work areas, the Contractor shall use a High Efficiency Particulate Air (HEPA) filtered vacuum dust collection system to remove any visible existing paint chips from the ground to a distance of 20' out from the base of the exterior surface scheduled for lead paint activity prior to commencement of work and extend a 6 mil polyethylene sheet drop cloth on the ground adjacent to the exterior surface scheduled for lead paint activity to contain debris/contamination.

3.2 LEAD PAINT ACTIVITY PROCEDURES

- A. Ensure that the Competent Person is on the job at all times.
- B. Do not begin work until authorized by the Project Monitor, following a pre-abatement visual inspection by the Project Monitor.
- C. The Contractor shall ensure proper entry and exit procedures for workers and authorized persons who enter and leave the Regulated Area. All workers and authorized persons shall leave the Regulated Area and proceed directly to the wash or shower facilities where they will HEPA vacuum gross debris from work suit, remove and dispose of work suit, wash and dry face and hands, and vacuum clothes. Do not remove lead chips or dust by blowing or shaking of clothing. Wash water shall be collected, filtered, and disposed of in accordance with federal, state and local water discharge standards.

- D. No one shall eat, drink, smoke, chew gum or tobacco, or apply cosmetics while in the Regulated Area.
- E. Utilize appropriate Project Monitoring controls (e.g. wet methods) as directed by 29 CFR 1926.62 to control lead emissions and contamination.
- F. Properly contain wastes containing lead paint for appropriate transport/disposal.
- G. Stop all work in the regulated area and take steps to decontaminate non-work areas and eliminate causes of such contamination should lead contamination be discovered in areas outside of the regulated area.
- H. Special Requirements:
 - 1. Demolition/Renovation:
 - a. Demolish/renovate in a manner which minimizes the spread of lead contamination and generation of lead dust.
 - b. Implement dust suppression controls, such as misters, local exhausts ventilation, etc. to minimize the generation of airborne lead dust.
 - c. Segregate work areas from non-work areas through the use of barrier tape, poly criticals, etc.
 - d. Clean up immediately after renovation/demolition has been completed
 - 2. Component Removal/Replacement:
 - a. Wet down components which are to be removed to reduce the amount of dust generated during the removal process.
 - b. Remove components utilizing hand tools, and follow appropriate safety procedures during removal. Remove the building components by approved methods which will provide the least disturbance to the substrate material. Do not damage adjacent surfaces.
 - c. Clean up immediately after component removals have been completed. Remove any dust located behind the component removed.

3.3 PROHIBITED REMOVAL METHODS

- A. The use of heat guns in excess of 700 degrees Fahrenheit to remove lead paint is prohibited.
- B. The use of sand, steel grit, water, air, CO₂, baking soda, or any other blasting media to remove lead or lead paint without the use of a HEPA ventilated contained negative pressure enclosure is prohibited.

- C. Power tool assisted grinding, sanding, cutting, or wire brushing of lead paint without the use of cowled HEPA vacuum dust collection systems is prohibited.
- D. Lead paint burning, busting of rivets painted with lead paint, welding of materials painted with lead paint, and torch cutting of materials painted with lead paint is prohibited. Where cutting, welding, busting, or torch cutting of materials is required, pre-remove the lead paint in the area affected.
- E. Use of chemical strippers containing Methylene Chloride is prohibited.
- F. Compressed air shall not be utilized to remove lead paint.

3.4 AIR MONITORING REQUIREMENTS

- A. The Contractor shall:
 - 1. Provide air monitoring equipment including sample filter cassettes of the type and quantity required to properly monitor operations and personnel exposure surveillance throughout the duration of the project.
 - 2. Conduct initial exposure monitoring to determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of 30 micrograms per cubic meter. Monitoring shall continue as specified in the OSHA standard until a negative exposure assessment is developed.
 - 3. Conduct personnel exposure assessment air sampling, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1926.62. Documentation of air sampling results must be recorded at the work site within twenty-four (24) hours and shall be available for review until the job is complete.
- B. The Project Monitor will:
 - 1. Collect air samples in accordance with the current revision of the NIOSH 7082 or 7702 Method of Air Sampling for Airborne Lead while overseeing the activities of the Contractor. Frequency and duration of the air sampling during abatement will be representative of the actual conditions at the site. The size and configuration of the project will be a factor in the number of samples required to monitor the activities and shall be determined by the Project Monitor.
- C. As determined by AAS, XRF, or equivalent analysis, if air samples collected outside of the Regulated Area during abatement activities indicate airborne lead concentrations greater than original background levels or greater than 30 ug/m³, whichever is larger, an examination of the Regulated Area perimeter shall be conducted and the integrity of barriers shall be restored. Cleanup of surfaces outside the Regulated Area using HEPA vacuum equipment or wet cleaning techniques shall be done prior to resuming abatement activities.

3.5 CLEAN-UP AND VISUAL INSPECTION

- A. Remove and containerize all lead waste material and visible accumulations of debris, paint chips and associated items.
- B. During clean up the Contractor shall utilize rags and sponges wetted with lead-specific detergent and water as well as HEPA filtered vacuum equipment.
- C. The Project Monitor will conduct a visual inspection of the work areas in order to document that all surfaces have been maintained as free as practicable of accumulations of lead in accordance with OSHA 29 CFR 1926.62(h). If visible accumulations of waste, debris, lead paint chips or dust are found in the work area, the Contractor shall repeat the cleaning, at the Contractor's expense, until the area is in compliance. The visual inspection will detect incomplete work, damage caused by the activity, and inadequate clean up of the work site.
- D. In other parts of the building, OSHA lead regulations do not call for dust wipe clearance testing. However, OSHA may request, under OSHA housekeeping regulations, dust wipe clearance testing. If lead dust wipe levels are above OSHA clearance criteria, the Contractor shall re-clean the work area and retesting shall be conducted at the Contractor's expense. The testing and cleaning sequence shall be repeated until the clearance criteria levels have been achieved.

3.6 POST ABATEMENT WORK AREA DEREGULATION

- A. Following the visual inspection, (and clearance testing if appropriate,) any Project Monitoring controls implemented may be removed and the Work Area deregulated.
- B. A final visual inspection of the work area shall be conducted by the Competent Person and the Project Monitor to ensure that all visible accumulations of suspect materials have been removed and that no equipment or materials associated with the abatement project remain.
- C. The Contractor shall restore all work areas and auxiliary areas utilized during work to conditions equal to or better than original. Any damage caused during the performance of the work activity shall be repaired by the Contractor at no additional expense to the Town.

3.7 NON-HAZARDOUS WASTE DISPOSAL/RECYCLING

- A. Non-metallic building debris waste materials tested and found to be non-hazardous Construction and Demolition (C&D) bulky waste shall be disposed of properly at a CTDEP approved Solid Waste landfill.
- B. Metallic debris shall be segregated and recycled as scrap metal at an approved metal recycling facility. The Contractor shall submit to the Project Monitor all documentation necessary to demonstrate the selected recycling facility is able to accept lead-painted scrap metal.
- C. Concrete, brick, etc. coated with any amount of lead paint cannot be crushed, recycled or buried on-site to minimize waste disposal. Only CTDEP defined "clean fill" can be

recycled on-site or sent to a recycling facility.

3.11 HAZARDOUS LEAD WASTE DISPOSAL

- A. If required to dispose of any hazardous waste, the Contractor shall utilize a certified/permitted transporter for hazardous waste in compliance with DOT 49 CFR Part 172 and USEPA 40 CFR 260-274 and a permitted hazardous waste treatment storage disposal facility (TSDF) in compliance with USEPA 40 CFR 260-274.
- B. Hazardous lead bearing material must be offered for transportation and transported in compliance with the Code of Federal Regulations, Title 49, Chapter 1, Part 173, Subparts A, B, C, and D and Paragraph 178.118. Transport vehicles (hopper or dump type) must be free from leaks and discharge openings must be securely closed during transportation. All storage containers (roll offs or drums) shall have a protective liner and removable lid. These containers shall not have any indentations or damage that would allow seepage of the contained material.
- C. The disposal of hazardous lead bearing material must be in compliance with the requirements of, and authorized by, the Office of Solid Waste Management, Department of Environmental Protection, State of Connecticut, and the USEPA.
- D. The disposal of hazardous lead bearing waste shall comply with the requirements of the Resource Conservation and Recovery Act (RCRA).
- E. Previous waste characterizations have not been completed by the Project Monitor. All generated waste shall be containerized and stored on-site for hazardous waste determination via TCLP testing by East Hartford's Project Monitor.
- F. The Contractor shall collect the wash water generated by the worker shower, wash facilities, or steam cleaning operations in 55 gallon drums and filter the water using a 2 stage filtration system composed of:
 - 1.5 micron porosity in-line cartridge particulate filter followed by:
 - 2. Activated carbon filter in-line cartridgeOnce the contractor has determined that the water is clean, discharge to the sanitary sewer.
- G. The dumpsters/containers containing hazardous waste are to be kept covered and locked when not in active use for the loading of materials.
- H. All containers of hazardous lead bearing material shall be labeled in accordance with 29 CFR 1926.62 and EPA 40 CFR 260-270.
- I. All hazardous lead-bearing waste removed from the site by the Contractor shall be containerized in lined roll-offs or barrels. Store waste materials in U.S. Department of Transportation (49 CFR 178) approved containers. Properly label and placard each container to identify the type of waste (49 CFR 172) and the date the container was filled. The disposal containers shall be labeled with a six inch square, yellow, weatherproof, hazardous waste sticker in accordance with U.S. DOT regulations, by the Contractor.

- J. The Contractor may not store containerized hazardous lead waste on the job site for in excess of 90 calendar days from the accumulation start date.
- K. When required to dispose of hazardous waste, the Contractor shall utilize a certified/permitted transporter for hazardous waste in compliance with USDOT 49 CFR Part 172 and USEPA 40 CFR 260-274 and a permitted hazardous waste treatment storage disposal facility (TSDF) in compliance with USEPA 40 CFR 260-274.
- L. The Contractor shall complete a Uniform Hazardous Waste Manifest, EPA Form 8700-22, and submit to the Project Monitor for review and generator sign-off prior to each load of hazardous waste scheduled to leave the site. Completed copies of the manifest shall be delivered by the Contractor to the Project Monitor within 30 calendar days following the date the load leaves the site.
- M. When all necessary procedures have been completed, then the hazardous waste shall be shipped to the hazardous waste disposal facility.
- N. Any spillage of debris during disposal operation, i.e., loading, transport and unloading, shall be cleaned up in accordance with the Code of Federal Regulations, Title 40, Chapter 1, Part 25, Subparts C and D, at the Contractor's expense.
- O. The Contractor is liable for any fines, costs or remediation costs incurred as a result of the failure to be in compliance with this special provision and all federal, state and local laws.

END OF SECTION 020900