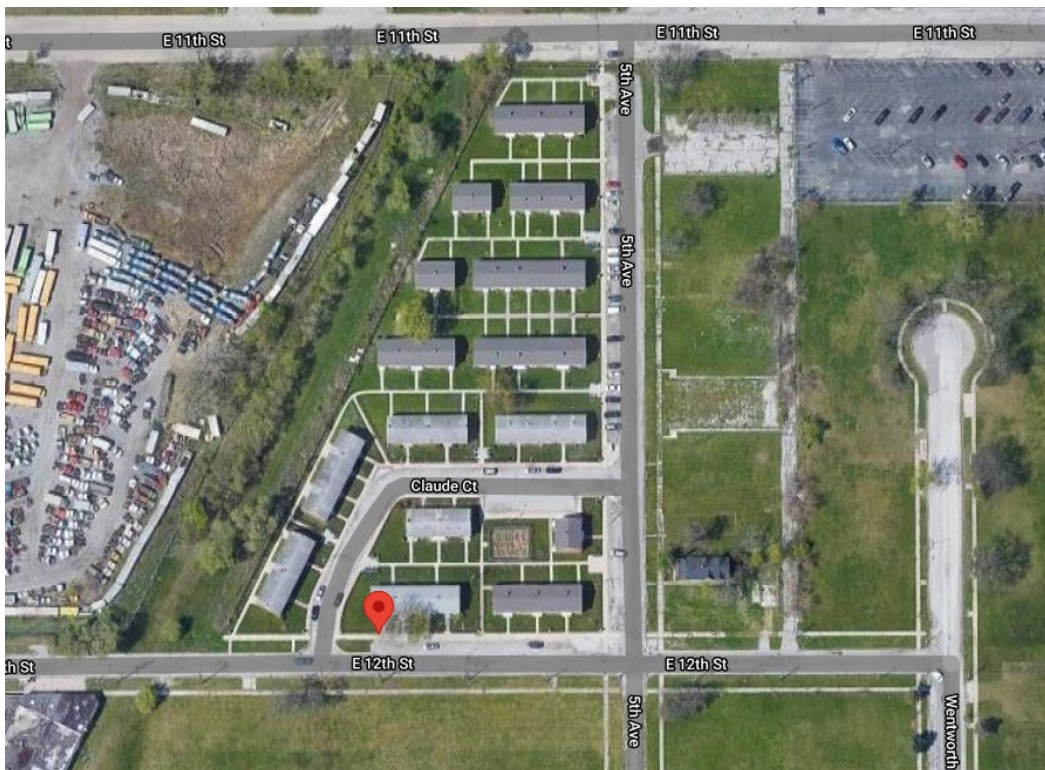

Pre-Demolition Asbestos and Lead-Based Paint Abatement Project Manual

Sites: **Sunrise Apartments/John Mackler Homes**
1101-1133 Claude Court
281-303 E. 12th Street
1100-1140 5th Avenue
Chicago Heights, Illinois 60411

Date: **August 12, 2021**



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SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

All terms and conditions of the Contract apply to this section.

1.2 SUMMARY

- A. Description: Furnish, install and maintain temporary facilities and controls required for performance of the Work including, but not limited to, safety and health of public and personnel at project site, and public and private property and facilities.
 - 1. Take over and maintain any temporary facility or control existing in-place at project site. Accept and assure ownership and be responsible and assume liability for such temporary facility or control.
 - 2. Provide whatever means of temporary facilities and controls necessary for performance of the Work.
 - 3. Modify and extend temporary facilities and controls as necessary for the Work and as Work progress requires.
 - 4. Remove temporary facilities and controls after completion of the Work, except when such temporary facilities and controls are to remain in-place.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Meet requirements of Federal, State and Local codes and regulations, including safety, health, energy and pollution regulations; of public authorities bearing on performance of the Work, of applicable utility companies, insurance companies and trade unions, and of applicable ANSI and NFPA Standards.
- B. Ownership: Materials, equipment and other facilities provided by Contractor for temporary facilities and controls shall remain property of Contractor, except as otherwise required.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Product shall be option of Contractor as suitable for accomplishment of intended purpose, except as otherwise required.
- B. Condition: Products may be new and adequate in type, size, capacity and arrangement

for use intended, shall not create unsafe and unhealthy conditions and shall meet requirements of codes and regulations of public authorities bearing on performance of the Work, and applicable standards.

2.2 PROTECTION

- A. Ingress and Egress: Means of ingress and egress from project site shall not be impeded. Maintain a clear lane or traffic-way leading to and from construction areas, free of materials, equipment, tripping hazards and other conditions that present a safety hazard.
- B. Earthwork Hazards: Protect buildings, structures, utilities, sidewalks, pavements and other facilities from damages caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork, foundation Work or other substructure Work operations.
- C. Existing Utilities
 - 1. Before beginning any Work, Contractor shall investigate and inform himself of locations and extent of all utilities on and in vicinity of project site which may be encountered in performing the Work and shall take suitable care to protect and prevent damage and cessation of operation to such utilities from his operations.
 - 2. When performing Work adjacent to existing sewers, drains, water and gas lines; electric, telephone or telegraph conduits or cables; pole lines or poles, or other utility facilities, equipment or structures, which are to remain in operation, Contractor shall maintain such utility facilities, equipment and structures in place and protect from damage and cessation of operation and shall cooperate with applicable utility company and any other party owning, operating or maintaining such utility facilities, equipment or structures.
 - 3. Methods of protection shall be subject to approval of utility company and any other party owning, operating or maintaining such utility facility, equipment or structure.
 - 4. Damages:
 - a. Should existing utilities which are to remain in operation be damaged during construction operations, Contractor shall immediately notify utility company and any other party owning, operating or maintaining such utility.
 - b. Contractor shall be responsible for and shall repair or replace, as applicable, damages to any such utility facilities, equipment or structures caused by his acts, whether negligent or otherwise, or his omission to act, whether negligent or otherwise, and shall leave such utility facilities, equipment or structures in as good condition as existed prior to commencement of his operations as approved by utility company and any other party owning, operating or maintaining such utility. In addition, Contractor shall be responsible for any damages or liability which Housing Authority of Cook County may be held liable. Materials and methods of repair or replacement shall be subject to approval of utility company and other party owning, operating or maintaining such utility.
 - c. However, any such utility equipment or structures damaged as a result of any act, or omission to act, of Contractor, may, at option of applicable utility

company and any other party owning, operating or maintaining such utility facilities, equipment or structures damaged, be repaired or replaced by such applicable utility company or other party. In such event cost of repairs or replacement shall be responsibility of Contractor at no additional cost to Housing Authority of Cook County.

2.3 CONSTRUCTION AND ENCLOSURES

- A. General: Provide and maintain temporary or interim construction, enclosures and like items, required to assure:
 - 1. Safety and health protection of personnel and public.
 - 2. Protection of property, operations and contents thereof.
 - 3. Prevent entry of unauthorized persons.
- B. Control: Work shall be protected to prevent damage, defacement and contamination from temporary or interim construction provisions.
- C. Materials: Materials for temporary or interim construction and enclosures shall be as required.

2.4 CONSTRUCTION AIDS

- A. Apparatus, equipment and other construction aids shall meet codes, regulations and requirements of public and other authorities bearing on performance of the Work and requirements of insurance and union authorities.
- B. Shoring and Bracing:
 - 1. General: Provide and maintain temporary shoring and bracing as necessary to protect against movement or settlement of existing and new conditions, improvements or construction and for safety and health of personnel and public. Maintain shoring and bracing in a stable and safe condition.
 - 2. Control:
 - a. Establish requirements for shoring and bracing which shall meet codes, regulations and requirements of public and other authorities bearing on performance of the Work. Be responsible for adequacy and strength of shoring and bracing, and for damage and injury caused by insufficiency of shoring and bracing. Protect existing and new conditions and permanent Work from damage, defacement and loss of service resulting from shoring and bracing provisions.
 - b. Shoring and bracing shall be designed, certified, reviewed and inspected by licensed engineer of Contractor.

2.5 BARRIERS

- A. General: Provide and maintain barricades, fences, footways and other devices as

necessary to protect personnel and employees at project site, and public, against hazards on or adjacent to project and construction site. Temporary barriers shall remain in-place until completion of Work.

- B. All Barriers: Be responsible and assume liability for all temporary barriers, including any existing barriers remaining in-place at project site which may have been provided by the Housing Authority of Cook County or other separate contractors, and maintain in safe condition regardless of by whom provided.
- C. Signs and Lights: Provide signs, warning lights, signals, flags and illumination as necessary to alert persons to hazards, and to provide safe and adequate visibility in areas of hazards.
- D. Project Site Fence: Install and maintain temporary fence and gates at perimeter of project site as required to provide protection and security against intrusion of unauthorized entry onto project site premises. Dust screen shall be installed on new temporary construction fence and existing western boundary fence. Provide a minimum of 48 hour notice to Housing Authority of Cook County for removal of the temporary fence.

2.6 SECURITY

- A. General: Safeguard premises and the Work and provide protection and security against intrusion or unauthorized entry onto project site premises.
- B. Guard Weapons: Any guard or watch personnel shall not carry or be armed with firearms or other weapons.

2.7 ROADS AND WALKS

- A. General: Provide and maintain temporary roads and walks at project site as required to facilitate execution of the Work.
- B. Roads and Walks: Provide and maintain roads and walks as required to achieve all-weather ingress to and egress from project site, and access within and adjacent to project site as required to provide uninterrupted access to Work. Provide periodic top dressing with additional surfacing materials as conditions require.
- C. Road and Walk Exits: Provide and maintain stabilized road and walk areas at points of exits from project site. Maintain such areas as to prevent tracking or flowing of sediment carried from project site on feet of people or on wheels and other parts of vehicles and construction equipment onto public and private roads and walks or into drainage systems, prior to leaving project site.
- D. Drainage: Grade and provide drainage facilities to assure runoff of ground surface water and to avoid blockage of flow from adjacent areas.

2.8 CONTROLS

- A. General Cleaning:
1. Maintain Work areas in a reasonably neat and orderly condition and free from accumulations of waste materials and rubbish during construction period. Prevent accumulation of waste, which creates hazardous conditions. Store volatile waste substances in containers of type specifically intended for safe storage of such substances. Remove crates, cartons and other flammable waste materials. Do not permit materials, waste materials and rubbish to lie about that may be blown around premises by wind.
 2. Be responsible for cleaning and maintenance of Work areas. If premises are not maintained properly, Housing Authority of Cook County may have any accumulations of waste materials or trash removed, and charge cost to Contractor at no addition to Contract Sum.
 3. Remove all rubbish and waste of every kind from project site premises on a daily basis.
 4. Do not burn or bury rubbish and waste materials on project site premises. Do not dispose of waste materials, in storm or sanitary drains, waterways or on ground.
- B. Street and Walk Cleaning: Maintain public and private streets, walks and other property adjacent to project site free of materials, dirt, dust, debris and other substances resulting from Work. Prevent such substances from being spilled, dropped, tracked, washed or otherwise deposited onto such properties from personnel, vehicles and construction equipment leaving the project. Clean areas immediately after becoming contaminated and in such time to prevent such substances from affecting vehicular or pedestrian traffic, presenting a safety hazard, causing damage to property or entering drainage systems. Contractor shall provide street sweeper services throughout the duration of the project, as necessary. Contractor shall immediately respond to Housing Authority of Cook County request to provide additional street sweeping in the project area.
- C. Vehicle and Equipment Cleaning: Clean vehicles and construction equipment as required to remove materials, dirt, debris and other substances carried from project site on wheels or other parts of vehicles and construction equipment, prior to leaving project site. If washing is required, perform washing on a stabilized area. Runoff water from wash area shall not leave project site but shall be handled per requirements of Soil Erosion and Water Control, of this Section.
- D. Environmental Controls: Use temporary enclosures and other methods to limit dust and dirt rising and scattering in air to lowest practical level. Meet all governing regulations pertaining to environmental protection. Clean structures and improvements adjacent to the Work of dust, dirt and debris caused by the Work.
- E. Dust Control: Be cognizant of nuisance and inconvenience dust, dirt or refuse can cause to City, adjacent property owners and public. Provide means to control such problems. Perform the Work in a manner so as to affect control of dust.
- F. Noise Control: Be cognizant of nuisance and inconvenience noise generated from operating equipment or tools, Work operations and other similar sources can cause to City, adjacent property owners and public. Provide means to control such problems. Perform the Work in a manner so as to affect control of noise.

- G. Vibration Control: Work operations shall not cause vibrations detrimental to structures, facilities and operations of City. Perform Work so no vibration is transmitted through structures, equipment, mechanical and electrical appurtenances, and like items.
- H. Snow and Ice Control: Remove snow and ice which may impair progress of Work, be detrimental to workmen or impair access to and from point of delivery at project site, subject to no interference whatsoever to facilities and operations of Housing Authority of Cook County and to whatever direction Housing Authority of Cook County may give to Contractor.
- I. Earthwork Control
 - 1. Cold Weather Protection: Protect subgrades and excavated bottoms, where construction will be or is bearing on such surfaces, against freezing when the ambient air temperature is less than 35 degrees Fahrenheit.
- K. Vermin Control: Prevent inroad and multiplication of vermin, including insects and rodents. If conditions prevail, employ a certified exterminator to rid premises of vermin. Treat existing conditions and construction meeting requirements of City and safety and health regulations of public authorities bearing on performance of the Work.

2.9 TRAFFIC REGULATIONS

- A. Site Access: Vehicles delivering products for the Work, construction equipment and vehicles of construction personnel shall enter and exit project site only at designated locations from public thorough fares.
- B. Traffic-Ways:
 - 1. Conduct operations to ensure minimum interference with public and private roads, walks and other occupied or used facilities adjacent to project site.
 - 2. Do not close or obstruct public and private roads, walks and other occupied or used facilities adjacent to project site without permission from authorities having jurisdiction or City as applicable. Provide alternate routes around closed or obstructed traffic-ways or occupied or used facilities as required.
- C. Parking: Control use of parking areas at project site for use by Contractor. Contractor parking shall not interfere with local residential and commercial facilities. Employee parking at or around site shall be sole responsibility of Contractor.

2.10 PROJECT SIGNS

- A. General: No signs shall be displayed at project site, except as otherwise required or acceptable to Housing Authority of Cook County. Do not permit installation of unauthorized signs.
- C. 911 Sign

1. Five "911" signs shall be furnished and erected by the Contractor at the project site in locations selected by the Housing Authority of Cook County. It is required that the temporary signs be maintained in good condition until the development activities are complete.
 2. Signs shall be attached to the temporary construction fence.
- D. Other Signs: Provide following signs at project site as applicable for the Work:
1. Warning signs.
 2. Directional signs.
 3. Traffic Control Signs and barricades.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Consult with Housing Authority of Cook County, and review site conditions and factors which affect construction and temporary facilities, including adjacent properties and public facilities which may be affected by execution of the Work.
- B. Determine locations and extent of temporary facilities and controls required for expeditious accomplishment of the Work.
- C. Determine need for temporary access openings for entry, passage or installation of materials and equipment. Coordinate requirements for temporary access openings with installers of related Work. Any costs for modifications, replacement and removal of the existing temporary fence shall be the responsibility of the Contractor and at no additional cost to the Housing Authority of Cook County.

3.2 GENERAL

- A. Comply with applicable requirements specified in other specification sections.
- B. Install Work in a neat and orderly manner.

END OF SECTION

SECTION 02 26 11
SUMMARY OF EXISTING SITE CONDITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Drawings

1.2 APPLICABILITY

- A. This environmental summary is for information purposes only. Contractor shall become familiar with all site conditions prior to Work.

1.3 INTRODUCTION

- A. Related Work
 - 1. All Work

1.4 AVAILABLE ENVIRONMENTAL ASSESSMENT DOCUMENTS

- A. Asbestos-Containing Material Survey Report submitted July 8, 2020.
- B. Lead-Based Paint Inspection and Risk Assessment Report submitted September 2, 2016.

1.5 SITE DESCRIPTION

- A. The Sunrise Apartments/John Mackler Homes were built in the 1950's. The apartment complex is comprised fifteen (15) residential buildings. Rental units consist of one bedroom, two-bedroom, three bedroom, and four bedroom living spaces. Interior finishes within the rental units typically include 12" x 12" floor tile (multiple layers) and drywall walls and ceilings.
- B. SITE HISTORY
- C. The site is currently vacant. Each building is secured with steel window and door guard panels to prevent unauthorized entry.

1.6 ENVIRONMENTAL CONDITIONS

- A. Reference Asbestos-Containing Material Survey Report submitted July 8, 2020 for a summary of asbestos investigations.
- B. Reference A Lead-Based Paint Inspection and Risk Assessment Report submitted September 2, 2016 for a summary of lead-based paint investigations.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 02 26 11

SECTION 02 82 13

ASBESTOS ABATEMENT - PRIOR TO DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Drawings

1.2 APPLICABILITY

- A. These environmental requirements apply to all Housing Authority of Cook County (HACC) projects. These specifications apply for all demolition, construction and renovation projects that require the removal and disposal of asbestos containing materials prior to the demolition of a building in accordance with all applicable regulations.

1.3 INTRODUCTION

- A. Asbestos abatement work prior to demolition is required to follow all applicable Local, State and Federal regulations. This specification is intended to provide for the removal of friable and Category I and II non-friable asbestos-containing materials prior to a structural demolition. Abatement of these items is specified in the specifications. When only a portion of the structure is being demolished, related specifications may be referenced or included for barrier walls or related ACM in the areas to remain.

1.4 DEFINITIONS

- A. In addition to the terms listed below, all definitions in the laws and regulations specified elsewhere in the specifications are incorporated by reference, whether or not restated herein.
- B. Abatement Contractor (AC) means the entity responsible for performing the work in the specifications and has the training and accreditation to competently perform the work. This entity shall obtain and maintain licenses required for the indoor work in the specifications.
- C. ACM means Asbestos Containing Material.
- D. Architect means any person or firm employed by the HACC for the purpose of designing the project.
- E. Asbestos Abatement Supervisor, hereinafter referred to as "Supervisor" means any person who supervises asbestos abatement workers. This person must be trained, accredited, and meet OSHA competent person criteria for asbestos abatement.

- F. CCDPH means Cook County Department of Public Health.
- G. Competent person means one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f): in addition, for roofing materials (considered Class II work) who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent.
- H. Contractor means the entity responsible for performing the complete scope of work in the documents. The Contractor may elect to self-perform or subcontract out any portion of the work.
- I. Drawings are those enumerated in the Schedule of Drawings, and additional drawings and sketches, if any, incorporated into the Contract by a bulletin issued by the Architect or Change Order as the Work progresses
- J. Environmental Consultant (EC) means the entity with overall responsibility for the environmental aspects of the project, including design, organization, direction, and control as well as investigations, assessments and on-site supervision of project managers.
- K. HACC's Designated Representative means the Housing Authority of Cook County person or entity designated as the official representative of the HACC in connection with a project.
- L. HEPA Filter means a High Efficiency Particulate Air filter capable of trapping 99.97% percent of particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.
- M. Housing Authority of Cook County (HACC) means the owner of the property and the authority ordering the work specified herein.
- N. IDPH means the Illinois Department of Public Health.
- O. OSHA means the federal Occupational Health and Safety Administration.
- P. Plasticize means to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.
- Q. PPE (Personal Protection Equipment) means the protective suits, head and foot covers, gloves, respirators and other items used to protect persons from asbestos or other hazards.
- R. RCRA means the Resource Conservation and Recovery Act and associated regulations.
- S. SDS means Safety Data Sheets, required by OSHA for any chemical in the workplace that that could be expected to cause an exposure to workers during normal use or in emergency situations.

- T. TCLP means the Toxicity Characteristic Leaching Procedure as specified in EPA 530/SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods 3rd edition, November 1986.
- U. User or User Agency means the entity for which or on whose behalf the HACC has undertaken to cause the Work to be performed.
- V. Work means the obligations of the Contractor under the Contract Documents. Work includes, unless specifically excepted by the Contract Documents, the furnishing of all materials, labor, equipment, supplies, plant, tools, scaffolding, transportation, superintendence, permits, inspections, occupancy approvals, insurance, taxes, and all other services, facilities and expenses necessary for the full performance and completion of the requirements of the Contract Documents. Work also means that which is furnished, produced, constructed, or built pursuant to the Contract Documents.
- W. Work Area means the area or areas where asbestos abatement is being conducted.

1.5 WORK INCLUDED

- A. The Work includes all labor, equipment, materials, and supplies necessary to perform the scope of work in the documents by the procedures described herein. The Contractor, by submitting a bid for the Work, represents itself as knowledgeable and expert in the performance of the Work, and includes all things usually and customarily necessary to provide a complete and finished job, whether specifically mentioned or not. Related work may be shown in other related documents, prepared by others, if applicable, and as listed below:
- B. Removal of friable and non-friable asbestos-containing materials listed in the documents, including isolating the Work Areas, protection of adjacent areas, cleanup, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work.
- C. Repair or replacement of damaged surfaces, fixtures, or furnishings in portions of the structure that will not be demolished, if any, to restore them to their pre-existing condition to the satisfaction of HACC's Designated Representative.
- D. Compliance with all applicable laws, regulations, standards, and these specifications. In the case of a conflict, the Contractor shall comply with the most stringent.
- E. All licenses, accreditations, permits, fees, notifications, reports, or other documents required by law, regulation, this specification, or the documents.
- F. Provide project closeout documentation to the EC within thirty (30) days after final clearance. This documentation shall include but is not limited to submittals requirements specified elsewhere in the specifications.

1.6 LAWS, REGULATIONS AND STANDARDS

- A. The following laws, regulations, and standards are incorporated by reference:

1. 29 CFR 1910: US OSHA General Industry Standards
2. 29 CFR 1926: US OSHA Construction Standards
3. 29 CFR 1926.1101: US OSHA Asbestos Construction Standards
4. 40 CFR Part 61: US EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP), 11/90 revision
5. 40 CFR 763 Subpart E, US EPA Asbestos Model Accreditation Plan (MAP): Appendix C - Interim Final Rule

1.7 ASSESSMENT, MONITORING, TESTING AND ANALYSIS

A. The EC will perform inspection, testing and design services prior to the start of work, and monitoring during the project and upon its completion:

1. Prior to the start of work, the EC shall:
 - a. Identify suspect materials and confirm their asbestos content through review of the facility's management plan or by testing.
 - b. Design the project and address any design changes as requested. EC and Air Sampling Professional changes shall be submitted to the IDPH.
 - c. Collect background air samples before conditions are disturbed. Background samples shall be analyzed by PCM.
2. During the work, the EC shall:
 - a. Observe the work with sufficient frequency to ensure contractor compliance with the specifications.
 - b. Assure that all personnel and visitors have the proper current medical screening, respirator fit test, and training for their respective duties prior to entering a regulated area.
 - c. Collect air samples in and around the Work Area, as needed, to verify exposure conditions.
 - d. The EC may stop the work if airborne asbestos concentrations at the Work Area perimeter exceed 0.01 f/cc. Contractor shall be responsible for taking corrective action to reduce exposure levels and prevent recurrence, and cleaning adjacent areas that become contaminated by the asbestos abatement activities.
3. Upon completion of the work, the EC shall:
 - a. Visually inspect for visible debris. Contractor shall be required to re-clean the area or portions of areas until no visible debris remains.
 - b. Conduct final clearance testing as required.
 - c. Prepare the project report.

B. The Contractor shall provide OSHA compliance air monitoring to determine exposures to its employees in accordance with OSHA 29 CFR 1926.1101. Frequency of testing shall comply with OSHA requirements for the anticipated and actual exposure levels.

1. A written Exposure Assessment may be provided prior to the start of the work to determine the requirements for respiratory protection and frequency of OSHA

monitoring for each type of activity. The contractor should note that a Negative Exposure Assessment (NEA) may be possible for many tasks.

2. Analysis may be performed on site.

C. Credentials required for testing and analysis of PCM air samples:

1. Accreditation by AIHA or AAR; or
2. Participation in the Proficiency Analytical Testing (PAT) program.
3. Certification of individual qualification to read samples on site when on site analysis is conducted.

1.8 SUBMITTALS BY THE CONTRACTOR:

NOTE: THE FOLLOWING SHALL BE SUBMITTED TO THE EC NO LESS THAN 10 DAYS PRIOR TO THE START OF THE ASBESTOS ABATEMENT ACTIVITIES.

A. Ten (10) day NESHAP notification to the Illinois EPA when the asbestos quantities reach or exceed 260 linear feet or 160 square feet. Two (2) day IDPH notification for asbestos abatement quantities less than 260 linear feet or 160 square feet.

1. Ten (10) day IEPA Asbestos Notification on revised form, including inspector license number and landfill permit number.
2. Evidence that all contractor employees in the Work Areas are trained and accredited in accordance with OSHA, NESHAP, and EPA MAP requirements:
 - b. Current Annual refresher training certificate.
 - c. Current IDPH asbestos license (optional, in lieu of initial training certificate).
 - d. Current physicians written opinion.
 - e. Current respirator fit test for negative pressure respirators when respirators are used.
3. Copy of OSHA exposure assessment, if available.
4. OSHA compliance air monitoring records generated during the project.
5. Waste shipment records.
6. Worker license and certification log.
7. Safety Data Sheets (SDS) for chemicals used on site.
8. Work plan and schedule.

B. Prior to beginning work, the AC shall submit required notifications to applicable regulatory agencies for buildings where asbestos abatement will take place. The AC shall provide copies of all regulatory notices to HACC and the EC within 24 hours of sending such notices to the regulatory authority. The AC shall not begin a project until such notices are provided to HACC and the EC.

PART 2- PRODUCTS

2.1 TOOLS AND EQUIPMENT

- A. All tools and equipment shall at least conform to minimum industry standards and IDPH regulations.
- B. Equipment:
 - 1. Negative Air Machines shall provide HEPA filtration and conform to ANSI Z9.2 fabrication criteria.
 - 2. Respirators shall be NIOSH approved for use with lead, asbestos, or other contaminants anticipated in the Work.
 - 3. Contractor is fully responsible for complying with OSHA rules for other safety equipment, such as hard hats, safety harnesses, eye protection, gloves, footwear, and any other safety devices used on the site.
 - 4. Pressure differential manometer with readable tape shall be provided by the Contractor including calibration documentation.
- C. Tools:
 - 1. Shovels and scoops shall be rubber or plastic, suitable for use in plasticized containment. Metal shovels are not permitted.
 - 2. Scrapers, brushes, utility knives and other hand tools shall be of good quality and suitable for the intended uses. The Contractor shall keep an ample supply on hand for the completion of the Work.
 - 3. Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders, and needle guns shall be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.

2.2 MATERIALS

- A. All materials shall at least conform to minimum industry standards and IDPH regulations.
- B. Abatement materials:
 - 1. Fire-retardant, poly sheeting for all applications shall be 6 mil nominal thickness for critical seals, floors, ceilings and drop cloths, and 4 mil for walls.
 - 2. Tape shall be 2" or 3" duct tape or other waterproof tape suitable for joining poly seams and attaching poly sheeting to surfaces.
 - 3. Spray adhesives shall be non-flammable and free of methylene chloride solvents.
 - 4. Disposal bags shall be 6 mil.
 - 5. Disposable suits, hoods, and foot coverings shall be TYVEK or similar.
 - 6. Solvents shall be compatible with any primers, mastics, adhesives, paints, coatings, or other surfacing materials to be installed following their use.

PART 3- EXECUTION

3.1 EMPLOYEE TRAINING, QUALIFICATION AND MEDICAL SCREENING

- A. Supervisors and Workers shall be trained, accredited, and licensed in accordance with IDPH rules.
 - 1. Contractor shall keep copies of licenses, initial training course certificate, and most recent annual refresher training certificate at the jobsite at all times for all contractor personnel.
 - 2. A Supervisor (competent person) shall be present at the worksite at all times when work under the specifications is being conducted.
- B. Medical Screening. All contractor personnel shall have a current medical examination in accordance with OSHA requirements. Copies of the Physician's Written Opinions shall be kept on site.

3.2 PERMISSIBLE EXPOSURE LIMITS

- A. The OSHA Permissible Exposure Limit (PEL) for worker exposure to airborne asbestos is 0.1 f/cc as an 8-hour time-weighted average (TWA).
- B. The OSHA short term excursion limit for worker exposure to airborne asbestos is 1.0 f/cc for a 30-minute sample.

3.3 EXPOSURE ASSESSMENT AND MONITORING

- A. The Contractor shall make a written assessment of the potential airborne asbestos fiber exposures for this project. Assessments shall conform with OSHA requirements and may be based upon:
 - 1. Initial monitoring of representative workers who the contractor believes are exposed to the greatest airborne concentrations of asbestos, or
 - 2. Past monitoring (within the past 12 months) or objective data for conditions closely resembling the processes, type of material, control methods, work practices and environmental conditions to be used for this project.
- B. The Contractor shall perform personal monitoring in accordance with the following requirements:
 - 1. Initially, to establish an exposure assessment when past monitoring or objective data are not available for an initial determination.
 - 2. Periodically if the exposures are, or are expected to be, below the PEL.
 - 3. Daily, if exposures are above the PEL.
 - 4. Whenever there has been a change of equipment, process, control, personnel, or a new task has been initiated that may affect employee exposures, the exposure assessment shall be updated, and monitoring shall be re-instituted if exposures are unknown or are expected to exceed the PEL.

3.4 RESPIRATORY PROTECTION

- B. Respiratory protection shall be worn in accordance with all applicable regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications.

3.5 HYGIENE PRACTICES

- C. Eating, drinking, smoking, chewing gum or tobacco, and applying of cosmetics are not allowed in the Work Area.
- D. All persons entering the Work Area are required to wear appropriate PPE, and follow the entry and exit procedures posted in the Personnel Decontamination Enclosure System.
- E. Personal Protection Equipment (PPE) is required when airborne exposures are, or are expected to be above the PEL, or as needed to protect the safety of personnel and visitors. PPE may include:
 - 1. Full body disposable suits, headgear, and footwear.
 - 2. Gloves.
 - 3. Hardhats.
 - 4. Non-disposable footwear and clothing shall remain in the Work Area and shall be disposed of as contaminated waste when the job is completed.
 - 5. Authorized visitors shall be provided with suitable PPE when PPE is required in the Work Area. The EC shall assure that visitors have proper and current medical screening and fit test, and awareness training or other appropriate training.
- F. A Personnel Decontamination Facility is required when worker exposures are expected to exceed the PEL. The decontamination unit may be remotely located if not feasible to locate adjacent to the Work Area.
 - 1. When a remote decon unit is used, personnel shall use a double-suiting procedure for traveling between the Work Area and the decon. Persons shall HEPA-vacuum the exterior of their disposable suits at the entry to the Work Area, put on a clean suit over the existing suit, and proceed to the decon unit for shower decontamination and change into street clothes.
- G. When exposures are below the PEL, protective disposable suits are recommended, but not required. To exit, persons shall HEPA-vacuum down clothing at the Work Area entry and leave the Work Area. When disposable suits are used, they shall be HEPA-vacuumed, stripped off, and deposited in an asbestos disposal bag. Personnel may then leave the Work Area.

3.6 PROHIBITED ACTIVITIES

- H. Dry removal or dry sweeping, except:

1. During freezing weather. In this case, temperature and weather conditions must be recorded at the start, during, and at the end of the shift.
2. On roofs with 3:1 slope or greater. In this case, roofing shall be removed in an intact condition, as much as possible.
3. For roofing areas of less than 25 square feet.
4. When equipment damage or other hazard exists. In this case, written permission from IEPA is required prior to performing dry removal.

- B. Use of compressed air for cleaning.
- C. Use of high speed power tools not equipped with a HEPA-filtered local exhaust or water spray system.
- D. Removing respirators or other PPE in the Work Area.
- E. Contractor shall not salvage or recycle building materials unrelated to abatement scope of work.

3.7 WORK AREA ISOLATION AND PREPARATION

I. General Preparation. Contractor shall:

1. Post:
 - a. Caution signs meeting the specifications of OSHA 29 CFR 1926.1101 (k)(6) at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels.
 - b. Decontamination and work procedures in equipment rooms and clean rooms.
 - c. EPA NESHAP asbestos rules (40 CFR Part 61, subparts A & M) in the clean room.
 - d. OSHA Asbestos Construction Standards (29 CFR 1926.1101) in the clean room.
 - e. List of telephone numbers in the clean room for:
 - 1) Local hospital and/or local emergency squad
 - 2) Security office (if applicable)
 - 3) HACC's Designated Representative reachable 24 hours per day
 - 4) Contractor's headquarters
 - 5) Architects or consultants directly involved in the project

2. Secure the Work Area from entry by unauthorized persons.

C. Exterior Preparation:

1. 6 mil plastic sheeting shall be placed over the ground, foundation, or other surfaces below the abatement area.
2. Unauthorized entry shall be prevented by using appropriate barriers, such as warning tape, fencing, or other suitable barriers.

3. Nearby air intakes, grilles, and other openings into the building interior areas not being demolished above, below, or besides the Work Area that could be exposed to airborne dust shall be closed or sealed off with poly and tape.
4. All electric power in the Work Area shall be protected with ground-fault circuit interrupters.

3.8 ABATEMENT PROCEDURES

A. General Removal Requirements:

1. Asbestos materials shall be wetted and kept wet during removal.
2. ACM shall be bagged or containerized as it is removed. Wastes shall not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it shall be lowered via covered, dust-tight chute, crane, hoist, or other means that prevent the wastes from being dropped or thrown.
3. Appropriate OSHA fall protection shall be provided when appropriate:
 - a. Scaffolding more than one section high shall be equipped with handrails and midrails designed to provide fall protection, or full-body safety harnesses shall be worn and tied off to a secure anchor point.
 - b. Workers in manlifts shall wear full body harnesses and tie to the tie-off point provided on the manlift basket whenever the basket is elevated from ground level.
 - c. Personal fall protection consisting of full body harnesses, lanyards, and OSHA-compliant lifelines, anchorage, and deceleration devices shall be provided whenever personnel are within 6 feet of an opening, hole, or edge where there is a risk of falling 6 feet or more.

D. Roofing:

1. General: Remove in an intact state to the extent feasible. ACM roof mastics, cements, underlayments, and flashings. Asbestos-containing shingles may occasionally break even when removed carefully. The fact that otherwise intact roofing materials become separated or broken does not by itself render them non-intact. However, if they become pulverized, reduced to powder or dust, they have become non-intact.
 - a. The Contractor shall take care to minimize the amount of roofing material damage.
 - b. If the materials are rendered non-intact, the AC shall employ methods to contain the dust and debris and utilize hygiene practices appropriate for friable (OSHA Class I) ACM, including PPE, decontamination units, and monitoring. Monitoring may include area samples at the Work Area perimeter to determine that airborne asbestos fibers are not being released in concentrations above the PEL.
2. Built-up roofing and asphalt shingles:
 - a. Power cutting machines shall be equipped with a HEPA-filtered dust collection system or shall be misted during use.

- b. Dust generated by the cutting operation shall be collected with HEPA vacuums or wet cleaning methods.
- 3. Rigid roofing materials, such as cement asbestos shingles: remove intact and minimize breakage.
- E. Transite, Galbestos sheeting (galvanized metal with a baked-on asbestos paint), Asbestos/Cement pipe, or other rigid panels shall be removed using wet methods.
- F. Other:
 - 1. Coatings, electric cable insulation or joint coverings, and other miscellaneous materials that are to be removed with the substrate or that can be removed without becoming friable may be removed as intact (OSHA Class II, EPA NESHAP Category I or II non-friable) in accordance with procedures described in General Removal Requirements and Roofing paragraphs above.
 - 2. Coatings, and other miscellaneous materials that must be removed from the substrate or that otherwise shall become friable must be removed as non-intact (OSHA Class I, EPA NESHAP friable) in accordance with procedures described in General Removal Requirements and Roofing paragraphs above.

3.9 CLEANING AND DECONTAMINATION

- A. All visible accumulations of ACM, debris, tools, and unnecessary equipment shall be removed from the Work Area.
- B. Protective poly shall be folded in on itself, rolled up, placed in asbestos disposal bags, and disposed as asbestos waste.
- C. Surfaces which have been exposed to friable ACM or its dust shall be HEPA vacuumed.
- D. Dry sweeping of surfaces that have been exposed to friable ACM or its dust is not permitted.

3.10 FINAL CLEARANCE

- A. Cleaning may be discontinued when there is no visible debris and area air monitoring results verify that exposures are below the PEL.
- B. Final (aggressive) clearance sampling will be conducted by the EC. Each sample result, as determined by Phase Contract Microscopy, shall be less than or equal to 0.01 f/cc. If the sampling results indicate a concentration of airborne fibers in excess of this clearance criteria, the contractor shall re-clean the contained and/or regulated area. The Contractor shall not be released until the contained and/or regulated Work Area meets the clearance criteria.

3.11 WASTE DISPOSAL AND EQUIPMENT LOAD-OUT

- A. Category I and II non-friable waste may be adequately wetted and loaded in bulk into lined receptacles, such as dumpsters or trailers. Receptacles shall be closeable and lockable to provide security and to prevent air emissions. It is the abatement contractor's responsibility to determine and provide for more stringent manifesting or packaging requirements that may be imposed by transporters or landfills.
- B. Packaged friable asbestos wastes:
 - 1. Asbestos-containing wastes, including removed ACM and debris, poly, critical barrier materials, suits, respirator filters, vacuum HEPA filters, water filters, and other asbestos-containing items shall be properly packaged for disposal.
 - 2. Use 6 mil plastic bags with a gooseneck seal, drums, or other type of sealed container.
 - 3. Wrap large or irregular items in 6 mil poly sheeting and seal with tape.
 - 4. Sharp, jagged, or other items that may puncture poly shall be packaged in rigid impermeable containers such as drums or boxes, or wrapped in burlap or other protective covering before sealing in bags or poly sheeting.
 - 5. Label containers for friable ACM waste:
 - a. OSHA warning label.
 - b. DOT performance-oriented hazardous material label.
 - c. Name and address of generator and abatement location.
- C. Removing items from the Work Area:
 - 1. Packaged asbestos wastes shall be HEPA-vacuumed before removing from the Work Area.
- D. Storage of packaged asbestos wastes shall be in a completely enclosed dumpster, or other suitable container that can be secured. The secured area shall be kept locked at all times to prevent unauthorized access.
- E. Shipment of items from the project:
 - 1. Decontaminated tools and equipment may be shipped by normal carrier to warehouse, another jobsite, or other destination.
 - 2. For asbestos wastes:
 - a. Line shipping container with 6 mil poly prior to loading packaged friable asbestos wastes.
 - b. Post NESHAP placards during loading of friable asbestos wastes.
 - c. Execute the NESHAP-required Waste Shipment Record (WSR) to be signed by the generator, transporter, and landfill. All WSRs shall be returned to the EC within 30 days of shipment.
 - d. Only landfills approved and permitted for accepting asbestos wastes may be used for disposal.

END OF SECTION

SECTION 02 83 19.13
LEAD-BASED PAINT ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Drawings

1.2 APPLICABILITY

- A. These environmental requirements apply to all Housing Authority of Cook County (HACC) projects. These specifications apply for all demolition, construction and renovation projects that require removal and disposal of lead-based paint in accordance with all applicable regulations.

1.3 INTRODUCTION

- A. The Illinois Department of Public Health regulations apply to all facilities occupied by children 6 years old or younger. The Cook County Department of Public Health inspects for, and regulates, lead contamination in all HACC facilities. Abatement of all interior and exterior lead-bearing substances is covered by these specifications.

1.4 DEFINITIONS

- A. In addition to the terms listed below, all definitions in the laws and regulations specified elsewhere in this Section are incorporated by reference, whether or not restated herein.
- B. Abatement Contractor (AC) means the entity responsible for performing the Work in this Section, with the training and accreditation to competently perform the work. This entity shall obtain and maintain any licenses required for the Work in this Section.
- C. Architect means any person or firm employed by the HACC for the purpose of designing the project.
- D. CCDPH means the Cook County Department of Public Health.
- E. Contractor means the entity responsible for performing the complete scope of work in the Documents. The Contractor may elect to self-perform or subcontract out any portion of the work.
- F. Competent person means one who is capable of identifying existing lead hazards in the workplace and selecting the appropriate control strategy for lead exposure, who

has the authority to take prompt corrective measures to eliminate them, who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan for supervisor, or its equivalent.

- G. Drawings are those enumerated in the Schedule of Drawings, and additional drawings and sketches, if any, incorporated into the Contract by a bulletin issued by the Architect or Change Order as the Work progresses
- H. Environmental Consultant (EC) means the entity with overall responsibility for the environmental aspects of the project, including design, organization, direction, oversight and control as well as investigations, assessments, and supervision of project manager.
- I. HACC's Designated Representative means the Housing Authority of Cook County person or entity designated as the official representative of the HACC in connection with a project.
- J. HEPA Filter means a High Efficiency Particulate Air filter capable of trapping 99.97% percent of particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.
- K. Housing Authority of Cook County (HACC) means the Owner of the property and the authority ordering the Work specified herein.
- L. IDPH means the Illinois Department of Public Health.
- M. Lead Abatement Contractor/Supervisor, hereinafter referred to as "supervisor" means any person who supervises lead abatement workers. This person must be trained, accredited, and licensed as required, and must also meet OSHA "competent person" criteria for lead abatement.
- N. Lead-Based Paint means paints or coatings that are lead bearing substances as defined by IDPH regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications.
- O. Lead Bearing Soil means soil containing an amount of lead in excess of applicable guidelines.
- P. Lead Bearing Substance means any dust on surfaces or furniture or other non-permanent items and any paint or other surface coating material as defined by IDPH regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications.
- Q. OSHA means the federal Occupational Health and Safety Administration.
- R. Plasticize means to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.
- S. RCRA means the Resource Conservation and Recovery Act and associated regulations as referenced in Laws, Regulations and Standards specified elsewhere in the specifications.

- T. SDS means Safety Data Sheets, required by OSHA for any chemical in the workplace that that could be expected to cause an exposure to workers during normal use or in emergency situations.
- U. TCLP means the Toxicity Characteristic Leaching Procedure as specified in EPA 530/SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods 3rd edition, November 1986
- V. User or User Agency means the entity for which or on whose behalf the HACC has undertaken to cause the Work to be performed.
- W. Wet Cleaning means cleaning all surfaces with a phosphate-free lead dissolving detergent.
- X. Work means the obligations of the Contractor under the Contract Documents. Work includes, unless specifically excepted by the Contract Documents, the furnishing of all materials, labor, equipment, supplies, plant, tools, scaffolding, transportation, superintendence, permits, inspections, occupancy approvals, insurance, taxes, and all other services, facilities and expenses necessary for the full performance and completion of the requirements of the Contract Documents. Work also means that which is furnished, produced, constructed, or built pursuant to the Contract Documents.
- Y. Work Area means areas where lead abatement activities are conducted.
- Z. Work Site means the room or rooms undergoing lead abatement activities. All closets/book rooms/coat hanger rooms/vestibules/washrooms within a room are considered part of the Work Site in which abatement work has been identified on the Drawings, whether or not they are numbered separately.

1.5 WORK INCLUDED

- A. The work includes all labor, equipment, materials, and supplies necessary to perform the Scope of Work in the bid documents by the procedures described herein. The contractor, by submitting a bid for the work, represents itself as knowledgeable and expert in the performance of the work, and includes all things usually and customarily necessary to provide a complete and finished job, whether specifically mentioned or not. Related work may be shown in other related documents.
- B. Clean-up of lead-bearing dust, flakes, and residues; abatement of paint, architectural components, substrates, or other lead-bearing items listed in the Bid documents including pre-cleaning, moving of furnishings, establishing regulated areas, isolating the Work Areas, protection of adjacent surfaces, containment when required, cleanup and decontamination to the specified clearance levels, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work.
- C. Repair or replacement of damaged surfaces, fixtures, or furnishings to restore them to their pre-existing condition to the satisfaction of HACC's Designated Representative, EC, and building engineer.

- D. When the Bid documents include lead and asbestos abatement items in the same spaces, they should be performed in the sequence and combinations that produce the most efficient results and the least amount of total waste. That sequence will generally be:
1. Cleanup and removal of failed or delaminated friable asbestos-containing debris, if any.
 2. Cleanup of lead dust, flakes, chips, and residues. If these lead wastes are mixed with asbestos debris, they must be disposed together as regulated lead waste or asbestos waste depending on TCLP results.
 3. Removal of friable asbestos materials and cleanup of visible residues.
 4. Removal of architectural components with lead-based paint still adhered, such as wood trim, doors, plaster, drywall, window frames, etc.
 5. Removal of non-friable asbestos materials from the exterior. If both asbestos and lead are on the same components, for example lead paint and asbestos-containing glazing compound, the components may be removed and disposed as construction debris as long as both the lead- and asbestos-bearing materials remain intact.
 6. Removal of lead-based paint, coatings, or surfacing material.
 7. Final cleanup and decontamination of the workspace. Final air clearance (asbestos) and wipe samples (lead) may be performed concurrently.
 8. When lead and asbestos work is combined, the more stringent regulations and procedures shall apply for both.
 9. Waste disposal:
 - a. Classified waste: loose paint flakes, chips, and dust; lead cleaning and decontamination supplies; combined final decontamination supplies; contaminated soil; disposable suits, gloves, head covers, and foot covers; respirator, vacuum, or negative air machine filters; or other items likely to fail a TCLP or RCRA test.
 - b. Special waste: asbestos-containing waste materials and lead-contaminated waste that has passed TCLP or other RCRA tests.
 - c. Construction and demolition (C&D) debris: lead-bearing architectural components; cleaned poly sheeting from lead projects; concrete and lumber without tile or mastic attached, demolition debris, and other general wastes.
 - d. All asbestos-containing or lead-bearing wastes shall be disposed in a facility permitted to accept asbestos-containing or lead-bearing waste materials.
- E. Compliance with all applicable laws, regulations, standards, and these specifications. In the case of a conflict, the contractor shall comply with the most stringent.
- F. All licenses, accreditations, permits, notifications, reports, or other documents required by law, regulation, this specification, or the Bid documents.

1.6 LAWS, REGULATIONS, AND STANDARDS

- A. HACC contractors shall maintain compliance with all applicable current laws, regulations, and standards including, but not limited to those listed below which are incorporated by reference:
1. 410 ILCS 45: Illinois Lead Poisoning Prevention Act
 2. 77IAC845: Illinois Lead Poisoning Prevention Code (Revision 8/1/2000)
 3. 29 CFR 1910: US OSHA General Industry Standards
 4. 29 CFR 1926: US OSHA Construction Standards
 5. HUD Guidelines: Lead Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing, except Chapter Seven (1995); Chapter 7 of the Guidelines, Lead Based Paint Inspection (Revised, 1997)
 6. 40 CFR Part 61: US EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP)
 7. 40 CFR Part 261: Identification and Listing of Hazardous Waste (Resource Conservation and Recovery Act, RCRA)
 8. 40 CFR 245: Lead Renovation, Repair and Painting.
- B. Regulatory changes shall be incorporated into this specification on their effective date. Contractors shall reflect these changes into ongoing projects without any additional notice or cost to HACC.

1.7 ASSESSMENT, MONITORING, TESTING, AND ANALYSIS

- A. The EC will perform inspection, testing, and monitoring services during the work and upon its completion:
1. Testing of coatings, soils, dust, and debris to determine the presence of lead or other hazardous substances.
 2. Area air monitoring during the work to determine the airborne concentrations of lead inside and outside of the Work Area. The EC shall stop the Work if airborne lead concentrations outside the Work Area exceed the OSHA Action Level of 30 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) as an 8-hour time-weighted average. The Work may re-start when the source of lead release has been identified and resolved, and corrective measures have been instituted to prevent recurrence.
- B. The Abatement Contractor shall perform:
1. An Exposure Assessment prior to the start of the Work to determine the requirements for respiratory protection and frequency of OSHA monitoring for each type of activity.
 2. Perform OSHA compliance air monitoring to determine exposures to its employees in accordance with Laws, Regulations and Standards specified elsewhere in the specifications.
- C. Credentials required for analysis of lead:
1. Accreditation by AIHA or AALA; or

2. Participation in the Environmental Lead Proficiency Analytical Testing (ELPAT) program or Environmental Lead Laboratory Accreditation Program (ELLAP); or
3. Participation in the Proficiency in Analytical Testing (PAT) for metals analysis.

1.8 SUBMITTALS

A. The Abatement Contractor (AC) shall submit the following information to the EPM:

1. Written notification to Illinois Department of Public Health.
2. Written Notification to CDPH.
3. Evidence that all contractor employees in the Work Areas are licensed, trained and accredited in accordance with OSHA, NESHAP, and EPA MAP requirements:
 - a. Current refresher training certificate.
 - b. Current IDPH lead license
 - c. Current physician's written opinion
 - d. Current respirator fit test data.
4. Copy of OSHA Exposure Assessment, if available.
5. OSHA compliance air monitoring records generated during the project.
6. Waste Shipment Records.
7. Worker license and certification log.
8. Safety Data Sheets (SDS) for chemicals used on site.
9. Work Plan and Schedule.
10. Laboratory or analyst credentials and proficiency certificates for contractor samples.

B. Prior to beginning Work, the AC shall submit required notifications to applicable regulatory agencies for buildings where lead abatement will take place. The AC shall provide copies of all regulatory notices to the HACC's Designated Representative and the EC within 24 hours of sending such notices to the regulatory authority. The AC shall not begin a project until such notices are provided to HACC.

1.9 RECORDKEEPING

A. AC shall retain records for 6 years:

1. Name and address of the contractor who performed the project.
2. Location of the project.
3. Summary of abatement techniques used.
4. Location of the disposal site for lead-based substances removed from the Work site.
5. Starting and completion dates of the lead abatement project.

PART 2 - PRODUCTS

2.1 TOOLS AND EQUIPMENT:

- A. All equipment shall at least conform to minimum industry standards.
- B. Equipment:
 - 1. Negative Air Machines shall provide HEPA filtration and conform to ANSI Z9.2 fabrication criteria.
 - 2. The AC should ensure that respirators are NIOSH approved for use with lead, asbestos, or other contaminants anticipated in the Work.
 - 3. Contractor is fully responsible for complying with OSHA rules for other Safety equipment, such as hard hats, safety harnesses, eye protection, gloves, footwear, and any other safety devices used on the site.
- C. Tools:
 - 1. Shovels and scoops shall be suitable for use in a plasticized containment. Plastic or rubber models are preferred, but metal shovels are acceptable when used with care to prevent damage to poly sheeting and permanent surfaces. Appropriate tape may be applied to the leading edges to aid in poly damage prevention.
 - 2. Scrapers, wire and bristle brushes, utility knives and other hand tools shall be of good quality and suitable for the intended uses. The contractor shall keep an ample supply on hand for the completion of the Work.
 - 3. Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders, and needle guns shall be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.

2.2 MATERIALS

- A. Installed materials which become a part of the Work such as, but not limited to, primers, paints, surfacing compounds, and other surface coverings or finishes shall be new unless specified otherwise, of good quality, non-lead-bearing, and shall conform to the respective reinstallation specification sections.
- B. Abatement materials:
 - 1. Poly sheeting for all applications shall be 6 mil nominal thickness for all applications.
 - 2. Tape shall be 2" or 3" tape suitable for joining poly seams and attaching poly sheeting to surfaces.
 - 3. Spray adhesives shall be non-flammable and free of methylene chloride solvents.
 - 4. Chemicals used for LBP removal and cleanup shall be free of methylene chloride solvents. The chemicals shall be low-odor and free of volatile compounds.
 - 5. Disposal bags shall be 6 mil where used for single-bagging, and minimum 4 mil where used for double-bagging.
 - 6. Disposable suits, hoods, and foot coverings shall be TYVEK or similar.

7. Solvents shall be compatible with any primers, paints, coatings, or other surfacing materials to be installed following their use.
8. Cleaning solutions shall cause lead to chelate, precipitate, or otherwise effectively release lead from surfaces. Cleaning solutions shall not leave residue on surfaces to be painted.

PART 3 - EXECUTION

3.1 EMPLOYEE TRAINING, QUALIFICATION AND MEDICAL SCREENING

- A. Supervisors and workers shall be trained, accredited, and licensed in accordance with IDPH rules.
 1. Contractor shall keep current, up-to-date copies of licenses at the job site at all times.
 2. A licensed supervisor (competent person) shall be present at the Work site at all times when Work under this Section is being conducted.
- B. Medical Screening shall be instituted for contractor's employees in accordance with regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications. Medical certificates shall be current.

3.2 PERMISSIBLE LIMITS

- A. Permissible Limits of lead in lead bearing substances. Substances with lead content below the following levels are not regulated and are not subject to the requirements of this Section:
 1. 5,000 parts per million (ppm), or 0.5% lead by weight in any substance. However, note that OSHA regulations apply to any operation that releases lead into the air in concentrations in excess of the action level of 30 $\mu\text{g}/\text{m}^3$ (see Permissible Exposure Limits for contractor employees below), and the CDPH shall require remedial action when dust contains greater than 40 $\mu\text{g}/\text{sf}$ (see sub-paragraph below) of surface area. Actions such as sandblasting, dry sanding, or other dry aggressive abrasive disturbances can generate lead concentrations greater than either of these limits on substances with lower lead contents and, in such instances, shall be required to adhere to this specification, regardless of substance lead content.
 2. 400 micrograms per gram ($\mu\text{g}/\text{g}$) of soil in high contact play areas.
 3. 400 micrograms per gram ($\mu\text{g}/\text{g}$) of soil in other areas.
 4. 40 micrograms per square foot ($\mu\text{g}/\text{sf}$) of surface area of dust on interior floors.
 5. 200 micrograms per square foot ($\mu\text{g}/\text{sf}$) of surface area of dust on other surfaces.
- B. Permissible Exposure Limits for contractor employees:
 1. No person shall be exposed to a lead concentration in excess the regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications.

2. Where exposures exceed regulated levels, medical monitoring shall be instituted by the AC in accordance with the regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications.

3.3 EXPOSURE ASSESSMENT AND MONITORING

- A. The AC shall make an assessment of the exposures expected by the tasks to be used for the scope of work listed in the Bid documents. Assessment may be based upon:
 1. Initial monitoring of representative workers who the contractor believes are exposed to the greatest airborne concentrations of lead, or
 2. Past monitoring (within the past 12 months) or objective data for conditions closely resembling the processes, type of material, control methods, Work practices and environmental conditions to be used for this document, or
 3. In the absence of an exposure assessment or monitoring, the contractor shall assume the following exposure conditions:
 - a. $\leq 400 \mu\text{g}/\text{m}^3$ for manual demolition of lead-bearing substances (i.e., drywall, other architectural components), manual scraping, manual sanding, heat gun use, and power tool cleaning with dust collection systems, or any other task where there is reason to believe an employee may be exposed to airborne lead.
 - b. $\leq 2,500 \mu\text{g}/\text{m}^3$ for lead burning, rivet busting, power tool cleaning without dust collection systems, cleanup of dry spent abrasives, or movement or removal of abrasive blasting enclosures.
 - c. $> 2,500 \mu\text{g}/\text{m}^3$ for abrasive blasting, welding, cutting, and torch burning.
- B. The contractor shall perform personal monitoring in accordance with the regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications.
- C. The contractor may be required to perform air monitoring outside the Work Area if there is observance of contamination escape from the Work Area (such as dust accumulation), or evidence of failure of control methods to contain the release of airborne lead particles.

3.4 RESPIRATORY PROTECTION

- A. Respiratory protection shall be worn in accordance with all applicable regulations referenced in Laws, Regulations and Standards specified elsewhere in the specifications.

3.5 HYGIENE PRACTICES

- A. Eating, drinking, smoking, and applying of cosmetics are not allowed in the Work site or area.

- B. A changing area and shower shall be provided for changing into and removing personal protective clothing and for showering or washing before leaving the Work Area. Any person leaving the Work site or Work Area shall rinse his or her mouth with potable water and wash hands and face thoroughly before eating drinking, or smoking. A portable lavatory facility, potable water supply, or portable decontamination unit shall be provided by the contractor for the washing of face and hands before any abatement activities are started. HACCC lavatory facilities shall not be used.
- C. Equipment decontamination procedures shall be employed to prevent the spread of lead contamination. Disposable items shall not be reused and shall be disposed of properly.
- D. Personal Protection Equipment (PPE) shall include:
 - 1. Full body suits with hoods and shoe covers. Tyvek or similar disposable suits may be worn only once, and must be disposed in accordance with the Waste Disposal Article in the specifications.
 - 2. Appropriate PPE shall be used as required by regulations referenced in Laws, Regulations and Standards specified elsewhere in this Section and established industry practice.

3.6 PROHIBITED ACTIVITIES

- A. The following methods shall not be permitted:
 - 1. open flame burning
 - 2. dry-sanding
 - 3. uncontained hydro-blasting or sandblasting
 - 4. use of methylene chloride
 - 5. dry-scraping

3.7 WORK AREA ISOLATION AND PREPARATION

- A. General Preparation
 - 1. Post caution signs at all entrances and exits to the Work Area in accordance with OSHA rules:
 - a. at least 20" x 14"
 - b. date and location of the lead abatement project
 - c. Wording at least 2" high stating, "Caution, Lead Hazard, Do Not Remain in Work Area Unless Authorized"
 - 2. Secure the Work Area from entry by children, pregnant women, staff or other unauthorized persons.
 - 3. Close off the Work Site from other portions of the building by closing doors tightly, taping shut when necessary, or with 6 mil poly z-flap curtains over doorways or entrances to the Work Site.

4. At Work Area exit, provide walk-off pan, wet towel, or other means to prevent tracking lead contamination to other parts of the facility. A protective liner that is watertight shall be placed under the walk-off pan, wet towel, to prevent damage to the underlying surface.

B. Interior Preparation

1. Furniture, personal items, and other moveable objects in the Work Site shall be protected with 6 mil poly sheeting and sealed with tape, or moved from the Work Site and stored in a location designated by the EC. Items shall be cleaned before being moved to another area to prevent cross-contamination.
2. Turn off all forced air ventilation and seal exhaust and intake points in the Work Site.
3. Turn off electrical circuits in the Work Area to isolate them from contact. Provide temporary power equipped with Ground-Fault Circuit Interrupter (GFCI) devices to prevent electric hazards in the wet working environments. Power cords must be in good condition, not spliced, not more than 100 feet long, and shall be suspended off the floor and out of workers' way to protect the cords from damage. Cords must not be fastened with staples, hung from nails, or suspended with wire.
4. Seal the opening seams of all food storage units, such as cabinets or refrigerators, or cover with poly sheeting taped securely in place.
5. Cover all objects that cannot be moved, such as radiators, stoves, cabinets, built-in furniture, bookcases, or other stationary items with 6 mil plastic sheeting taped securely in place.
6. If required by the scope of work, remove all carpeting from the Work Site. Lightly mist with water prior to removal to prevent lead dust exposure. Carpeting shall be professionally cleaned or replaced, if required by scope of work.
7. Cover and protect floors in the Work Site with 6 mil plastic sheeting, sealed with tape. Additional protection may be required to protect flooring materials from potential damages resulting from the /abatement processes. All additional protection shall be provided as needed to ensure that all building surfaces will be adequately protected during the mitigation/abatement processes and be included in the base bid.
8. Establish a negative pressure system to prevent contaminated air from escaping from the Work Site to uncontaminated areas, and consisting of:
 - a. Negative air machines (NAMs) exhausted from the Work Site, and vented to the outside of the building whenever possible.
 - b. Provide sufficient number of NAMs to provide a negative pressure of 0.02" wc between the Work Area and adjacent spaces, and 4 air changes per hour. Assume NAMs operate at 80% of design capacity. At least one backup NAM shall be available per Work Site.
 - c. The negative air system shall remain in continuous operation until cleanup and clearance is achieved.

C. Exterior Preparation

1. 6 mil plastic sheeting shall be placed over the ground, foundation, or other surfaces adjacent to or below the abatement area.

2. Close or otherwise seal windows, grilles, intakes, or other nearby openings (above, below, or beside) that could be exposed to airborne dust from the work.
3. Sheeting shall extend out from the foundation 3 feet per story to be abated, with a minimum of 5 feet and a maximum of 20 feet. This sheeting shall remain in place until completion of final cleaning.
4. Sheeting shall be secured at the foundation and along all edges and seams.
5. When liquid waste is produced by any abatement method used, the edges of the plastic sheeting shall be raised a sufficient distance to contain the liquid waste.

3.8 LEAD ABATEMENT

A. General:

1. Unless otherwise specified in the Bid documents, lead-bearing substances listed in the Bid documents shall be removed by methods that minimize the generation of dust or debris.
2. Lead-based paint abatement practices shall be compatible with and shall produce surfaces that are in conformance with Division 09. Where existing lead-bearing substances may be disturbed by the installation of new work, they shall be removed sufficiently to prevent such disturbances.
3. Following any window dismantlement activity in the Work Area, the abatement contractor shall wet scrape the loose paint off the exposed window lintel and prepare, seal, prime and paint the lintel surface. If the lintel is to be replaced as required by the Architect, the abatement contractor shall only remove all the loose paint and not repaint the lintel surface.
4. Where disturbances of lead-bearing substances produce dust, the dust must be assumed to contain lead until tested and proven otherwise. Dust suppression methods, such as misting with water and HEPA vacuums shall be used.
5. Movement of lead-bearing wastes through unsecured HACC areas:
 - a. Wastes shall be contained in 6 mil impermeable (i.e. poly) bags.
 - b. Architectural components and other debris shall be wrapped in 6 mil plastic sheeting and sealed with tape.
 - c. Load-out only during non-school hours.
 - d. Dust and debris shall not be tracked or spilled outside the Work Site. In the event of spillage or tracking, contractor shall HEPA vacuum visible debris and wet wipe all affected areas with a non-TSP lead-dissolving detergent solution.

B. Interior Abatement methods may include:

1. Removal and replacement of the component or surface.
2. Wet scraping of lead-bearing material.
3. Heat gun with operating temperatures not to exceed 700° F.
4. Nonflammable chemical strippers shall not contain methylene chloride. This method is generally used with unique, irreplaceable, architecturally, or historically significant components. Chemical strippers shall be compatible with new paints, coverings, or coatings to be installed.
5. Sander, needle gun, chipper, scarifier, or other mechanical paint removal system. All such power tools shall be equipped with a HEPA vacuum collection system.

6. Enclosure with a durable material or coating that does not readily tear or peel, such as but not limited to, gypsum board; fiberglass mats; canvas-backed vinyl wall coverings; high pressure, laminated plastic sheet, such as Formica®, tile, vinyl flooring, paneling, plastic, metal, or wood. Enclosures shall only be used when specified in the Bid documents.

C. Exterior abatement methods may include:

1. All methods listed under Interior Abatement.
2. Vacuum-blasting.
3. Contained hydro-blasting or sandblasting.
4. When vacuum-blasting or contained hydro-blasting is used, window interiors shall be sealed with 6 mil plastic sheeting and secured with waterproof tape. All seals shall be checked every two (2) hours to assure integrity. Leaks shall be repaired immediately.
5. Window replacement:
 - a. The room interior shall be sealed off and protected from dust entry. If windows are removed from the inside, the room must be fully protected in accordance with Work Area Isolation and Preparation "Interior Preparation" and "Exterior Preparation" specified elsewhere in Part 3. When windows are removed from the outside, protection must be in accordance Work Area Isolation and Preparation "Exterior Preparation" specified elsewhere in Part 3, including at least a seal over the wall immediately inside the window Work Area. In either case, the AC is responsible for preventing lead dust contamination of interior spaces.
 - b. Damaged lead-based paint must be removed from the wood window frame parts that will remain, both on the inside and on the outside. EC will direct the AC whether to abate or mitigate undamaged lead-based paint from wood window frames or frame parts on a case by case basis.
 - c. Metal window replacements: The contractor is cautioned that high concentrations of lead dust and asbestos containing caulk have been found behind the window frame caps installed over the original lead-based painted frames during previous window replacements. Although a lead license is not required for non-LBP metal window removal, contractor must assume that he or she may encounter concentrated lead dust. When removing these caps, the room interior shall be protected in accordance with Work Area Isolation and Preparation "Interior Preparation" specified elsewhere in Part 3.

D. Soil Removal or Remediation:

1. Identify and eliminate the source of lead contamination if possible, to prevent re-contamination of remediated soil.
2. Dust generation shall be held to a minimum and dust suppression methods shall be performed, such as misting with water during handling.
3. Monitoring of airborne dust shall be performed by the EC and shall not exceed acceptable levels.
4. Soil that is stockpiled prior to disposal shall be:

- a. placed on a layer of impermeable plastic;
 - b. kept moist to avoid dust generation; and
 - c. covered with impermeable plastic which is secured to the ground.
5. Soil shall be subjected to a TCLP test to determine waste classification.
 6. Contaminated soil shall be transported to disposal facility in sealed containers or covered vehicles. Care shall be taken to prevent tracking of contaminated soil off-site by vehicular or foot traffic.
- E. Demolition. Structural demolition of buildings does not require removal of lead-bearing substances or lead-licensed contractors or workers. However, the following minimum requirements must be observed to prevent spread of lead contamination:
1. Close windows and seal doors of adjacent or nearby structures. Cover air intakes or other openings on facing walls or roof areas where dust could enter.
 2. Mist the demolition activities with water to suppress dust release.
 3. Remove and dispose of loose lead-based paint from substrate prior to demolition. Conduct waste characterization for proper disposal.
 4. Remove and dispose of loose lead-based paint from floors and horizontal surfaces. Conduct waste characterization for proper disposal.
 5. Do not spread debris outside the immediate demolition area.
 6. Do not allow foot or other traffic through the demolition area that may spread lead-bearing dust to other building areas.
 7. Pulverized painted components may generate lead dust that may require TCLP testing and waste characterization prior to disposal.

3.9 CLEANING AND DECONTAMINATION

- A. Interior Cleaning: includes any furniture, cabinets, or other item that was located in the Work Area during the lead-based paint /abatement activities.
1. Properly containerize and remove all lead wastes from the Work Site.
 2. HEPA vacuum all surfaces including woodwork, walls, windows, window wells, and floors.
 3. Wet clean all surfaces with a cleaning solution.
 4. Allow all surfaces to dry and HEPA vacuum any remaining visible residue.
- B. Exterior Cleaning:
1. Recover all visible debris from exterior areas.
 2. HEPA vacuum surfaces that have been abated, paying particular attention to horizontal surfaces, such as windowsills, wells, mullions, ledges, etc., both in the abated area and on nearby windows and surfaces.

3.10 FINAL CLEARANCE

- A. A lead abatement Work Area shall be complete if lead dust levels on horizontal interior surfaces are below 10 micrograms per square foot ($\mu\text{g}/\text{sf}$) on floors or 100 micrograms per square foot ($\mu\text{g}/\text{sf}$) on other surfaces by the EC. At least 3 wipe samples per

contained Work Area shall be collected by the EC from floors, windowsills, countertops, tops of cabinets, or other representative surfaces.

- B. The contractor shall restore the Work Area to usable condition including reconnection of electrical, water and HVAC services, removal of barriers and contractor equipment, waste removal and disposal and returning furniture removed as required by Work Area Isolation and Preparation specified elsewhere in Part 3.

3.11 WASTE DISPOSAL

- A. All plaster, paint chips, lead dust, cleaning supplies, HEPA filters, vacuum contents and filters, disposable suits, and other concentrated lead-bearing waste shall be packed in at least two 6 mil plastic bags.
 - 1. Dispose of concentrated lead wastes separately from architectural components.
 - 2. Subject concentrated wastes to TCLP test to determine waste classification.
 - 3. Prepare a Waste Shipment Record, to be signed by the generator, shipper, and disposal site; to be returned to the generator within 45 days. IEPA and USEPA Generator I.D. numbers shall be provided by HACC.
- B. Architectural components, other items to which lead-based paint remains adhered and cleaned plastic sheeting may be disposed of as common construction and demolition debris. Components shall be wrapped in 6 mil plastic sheeting and sealed with tape. Components shall be transported after school hours if carried through the building.
- C. All lead-bearing wastes shall be stored in covered, locked containers until transported off-site.
- D. Remove lead waste from the Work Site in accordance with RCRA and special waste disposal requirements.
- E. Transport all non-hazardous wastes in covered vehicles to an IEPA-approved landfill.
- F. Transport all hazardous wastes in covered vehicles to a hazardous waste landfill permitted to accept lead wastes.
- G. Wastes from the site shall not be mixed with wastes from other sites.

END OF SECTION

APPENDIX A

ADDITIONAL DESIGN DETAILS

1. The abatement contractor is responsible for verifying quantities in the field before pricing. Any questions about the scope or clarifications shall be obtained from the Project Designer prior to pricing. Any interpretations of the design documents shall only be made by the Project Designer.
2. The abatement contractor is responsible for all security to the work area(s) during the environmental abatement activities. Twenty-four-hour security and fire watch is required. In addition, if contractor removes windows or doors for abatement purposes, then contractor responsible for board up or coordination of board-up and any other controls to adequately secure property until demolition.
3. The abatement contractor responsible for coordinating the removal of the "D.A.W.G.S." door and window guard steel security panels.
4. Removal and disposal of any remaining furniture, garbage, carpeting, non-asbestos containing building materials and/or other stored or fixed items from areas impacted by this project shall be the responsibility of the Abatement Contractor.
5. Power and water will NOT be available to the abatement contractor. Abatement contractor shall be responsible for providing power and water as needed to complete the scope of work.
6. Clearance air sampling shall be conducted by Carnow Conibear after abatement is completed within each work area. It is the responsibility of the abatement contractor to give Carnow Conibear 24 hours prior notice as to when a work area will be ready for clearance sampling. Results of clearance sampling will be made available within 24 hours after collection.
7. The removal of asbestos-containing flooring materials shall include all layers of floor tile and floor tile mastic. Multiple layers of flooring and floor tile mastics installed jointly are present and shall be included in the contractor's price.
8. Contractor to perform exploratory demolition to access and remove ALL concealed asbestos containing materials. The anticipated selective demolition locations include above ceilings and within interstitial wall cavities. The selective demolition required to access and remove asbestos-containing materials shall be included in the contractor's price.
9. Contractor shall complete all work within normal work hours, 7:00 A.M.-4:00 P.M.
10. Contractor shall request written authorization from Housing Authority of Cook County not less than 24 hours in advance to perform Work outside the hours of 7:00 am through 4:00 pm, Monday through Friday.
11. The following regulations are incorporated by reference:
 - a. Occupational Safety and Health Administration (OSHA).
 - b. Title 29 Code of Federal Regulations (CFR) Section 1910.1001 - General Industry Standard for Asbestos.
 - c. Title 29 CFR Section 1910.134 General Industry Standard For Respiratory

Protection.

- d. Title 29 CFR 1926.1101 Construction Industry Asbestos
- e. Title 29 CFR Section 1910.20 Access to Employee Exposure and Medical Records
- f. Title 29 CFR Section 1910.1200 Hazard Communication.
- g. Title 29 CFR Section 1926.62 Lead Exposure in Construction
- h. Title 29 CFR Section 1926.103 Respiratory Protection
- i. Title 29 CFR Section 1910.146 US OSHA Confined Spaces
- j. Title 29 CFR Section 1910.1100 Air Contaminants
- k. Environmental Protection Agency (EPA).
- l. Title 40 CFR Part 61 Subparts A and M (Revised Subpart B) - National Emission Standard for Hazardous Air Pollutants (NESHAP).
- m. Illinois Department of Public Health (IDPH)
- n. Rules for Asbestos Abatement for Commercial and Public Buildings in Illinois
- o. National Institute of Occupational Safety and Health (NIOSH).
- p. American National Standards Institute (ANSI).
- q. Include requirements for any Federal, State, City or Local regulations that apply to any phase of the asbestos abatement (e.g. Licensing regulations; disposal requirements).
- r. Cook County Department of Environmental Control

APPENDIX B

SCOPE OF WORK

**ENVIRONMENTAL SCOPE
HOUSING AUTHORITY OF COOK COUNTY
SUNRISE APARTMENTS AND JOHN MACKLER HOMES**

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd.
600 W. Van Buren, Suite 500
Chicago, Illinois 60607

Date: August 12, 2021

Area/I.D.: Sunrise Apartments/John Mackler Homes (15 Buildings) - INTERIOR AREAS ONLY
12th Street and 5th Avenue, Chicago Heights, Illinois 60411

Substrate	Component	Walls				Floor	Ceiling	Response Action	Comments
		N	E	S	W				
Concrete	Floor Tile and Floor Tile Mastic					X		<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Includes all areas of dwelling units where floor tile and floor tile mastic is present. Contractor shall be responsible for the removal of floor tile mastic from 2 nd floor areas and/or areas where floor tile mastic is present on wood substrates. Removal of floor tile and floor tile mastic includes all layers of floor tile and mastic. Multiple layers of flooring are present. Floor tile mastics are installed jointly. Contractor responsible for the removal/relocation of any fixed cabinetry, baseboard, or dwelling contents necessary to access and remove all floor tile and floor tile mastic from each dwelling unit.
Any	Thermal System Insulation	X	X	X	X	X	X	<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Includes duct insulation, furnace flu insulation, pipe insulation, pipe fitting insulation and any thermal system insulation from each dwelling unit. Exploratory demolition is necessary to completely identify and remove all asbestos containing thermal system insulation. Contractor not responsible for the removal of any fiberglass, foam or rubber type insulation. Contractor responsible for the removal/relocation of any fixed cabinetry, baseboard, or building contents necessary to access and remove all thermal system insulation.
Metal	Cloth Vibration Damper	X	X	X	X			<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Contractor not responsible for the removal of any vinyl type vibration damper.
Metal	Duct Sealant	X	X	X	X		X	<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Includes all exploratory demolition necessary to completely identify and remove all asbestos containing duct sealant.

**ENVIRONMENTAL SCOPE
HOUSING AUTHORITY OF COOK COUNTY
SUNRISE APARTMENTS AND JOHN MACKLER HOMES**

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd.
600 W. Van Buren, Suite 500
Chicago, Illinois 60607

Date: August 12, 2021

Area/I.D.: Sunrise Apartments/John Mackler Homes (15 Buildings) - EXTERIOR AREAS ONLY
12th Street and 5th Avenue, Chicago Heights, Illinois 60411

Substrate	Component	Walls				Floor	Ceiling	Response Action	Comments
		N	E	S	W				
Any	Transite Siding	X	X	X	X			<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Material present at exterior each building beneath existing siding.
Any	Window Caulk	X	X	X	X			<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Abatement Contractor responsible for coordinating with board-up company to remove window guards to access windows for abatement purposes, if necessary. Abatement Contractor responsible for controls to adequately secure property until demolition.
Any	Gas Pipe Caulk	X	X	X	X			<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	
Metal	Exterior Window Lintel	X	X	X	X			<u>Lead-Based Paint Mitigation</u> Stabilize failing paint per specification 028319.13.	

**ENVIRONMENTAL SCOPE
HOUSING AUTHORITY OF COOK COUNTY
SUNRISE APARTMENTS AND JOHN MACKLER HOMES**

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd.
600 W. Van Buren, Suite 500
Chicago, Illinois 60607

Date: August 12, 2021

Area/I.D.:	Sunrise Apartments/John Mackler Homes (5 Buildings) - INTERIOR AREAS ONLY Building 3 - 1110A and 1111B 5 th Avenue Building 6 - 1118A, 1118B, 1120A, 1120B, and 1120C 5th Avenue Building 7 - 1122, 1122A, 1124, and 1124A 5th Avenue Building 11 - 1110, 1112, 1114, and 1116 Claude Court Building 14 - 1117, 1119, 1121, and 1123 Claude Court Chicago Heights, Illinois 60411
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Substrate	Component	Walls				Floor	Ceiling	Response Action	Comments
		N	E	S	W				
Concrete	Drywall/Dry wall Joint Compound	X	X	X	X		X	<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Includes all areas of dwelling units. Contractor responsible for the removal/relocation of any fixed cabinetry, baseboard, or dwelling contents necessary to access and remove all drywall/drywall joint compound from each dwelling unit.

**ENVIRONMENTAL SCOPE
HOUSING AUTHORITY OF COOK COUNTY
SUNRISE APARTMENTS AND JOHN MACKLER HOMES**

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd.
600 W. Van Buren, Suite 500
Chicago, Illinois 60607

Date: August 12, 2021

Area/I.D.:	Sunrise Apartments/John Mackler Homes (1 Buildings) - INTERIOR AREAS ONLY Building 14 - 1117, 1119, 1121, and 1123 Claude Court Chicago Heights, Illinois 60411
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Substrate	Component	Walls				Floor	Ceiling	Response Action	Comments
		N	E	S	W				
Any	Textured Ceiling						X	<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	

**ENVIRONMENTAL SCOPE
HOUSING AUTHORITY OF COOK COUNTY
SUNRISE APARTMENTS AND JOHN MACKLER HOMES**

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd.
600 W. Van Buren, Suite 500
Chicago, Illinois 60607

Date: August 12, 2021

Area/I.D.:	Sunrise Apartments/John Mackler Homes (4 Buildings) - EXTERIOR AREAS ONLY Building 4 – 1112, 1112A, 1114C, 1114, 1114B 5 th Avenue Building 11 - 1110, 1112, 1114, and 1116 Claude Court Building 12 - 293, 295, 297, 299, 301, and 303 East 12th Street Building 14 - 1117, 1119, 1121, and 1123 Claude Court Chicago Heights, Illinois 60411
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Substrate	Component	Walls				Floor	Ceiling	Response Action	Comments
		N	E	S	W				
Any	Exterior Door Caulk	X	X	X	X			<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Abatement Contractor responsible for coordinating with board-up company to remove window and door guards for abatement purposes, if necessary. Abatement Contractor responsible for controls to adequately secure property until demolition.

**ENVIRONMENTAL SCOPE
HOUSING AUTHORITY OF COOK COUNTY
SUNRISE APARTMENTS AND JOHN MACKLER HOMES**

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd.
600 W. Van Buren, Suite 500
Chicago, Illinois 60607

Date: August 12, 2021

Area/I.D.:	Sunrise Apartments/John Mackler Homes (8 Buildings) - EXTERIOR AREAS ONLY Building 2 – 1106, 1106A, 1108, 1108A 5 th Avenue Building 4 – 1112, 1112A, 1114C, 1114, 1114B 5 th Avenue Building 5 – 1116A and 1116C 5 th Avenue Building 6 - 1118A, 1118B, 1120A, 1120B, and 1120C 5th Avenue Building 7 - 1122, 1122A, 1124, and 1124A 5th Avenue Building 10 – 1138 and 1140 Claude Court Building 11 - 1110, 1112, 1114, and 1116 Claude Court Building 14 - 1117, 1119, 1121, and 1123 Claude Court Chicago Heights, Illinois 60411
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Substrate	Component	Walls				Floor	Ceiling	Response Action	Comments
		N	E	S	W				
Any	Exterior Window Caulk	X	X	X	X			<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	Abatement Contractor responsible for coordinating with board-up company to remove window and guards for abatement purposes, if necessary. Abatement Contractor responsible for controls to adequately secure property until demolition.

**ENVIRONMENTAL SCOPE
HOUSING AUTHORITY OF COOK COUNTY
SUNRISE APARTMENTS AND JOHN MACKLER HOMES**

Managing Environmental Consultant: Carnow, Conibear & Assoc., Ltd.
600 W. Van Buren, Suite 500
Chicago, Illinois 60607

Date: August 12, 2021

Area/I.D.:	Sunrise Apartments/John Mackler Homes (7 Buildings) - EXTERIOR AREAS ONLY Building 3 - 1110A and 1111B 5 th Avenue Building 8 - 1101A, 1101B, 1103, 1103B, 1105A, 1105B, 1107A, and 1107B Claude Ct. Building 9 - 1109, 1111, 1113, and 1115 Claude Ct. Building 10 - 1138 and 1140 Claude Court Building 11 - 1110, 1112, 1114, and 1116 Claude Court Building 13 - 281, 283, 285, and 287 East 12th Street Building 14 - 1117, 1119, 1121, and 1123 Claude Court Chicago Heights, Illinois 60411
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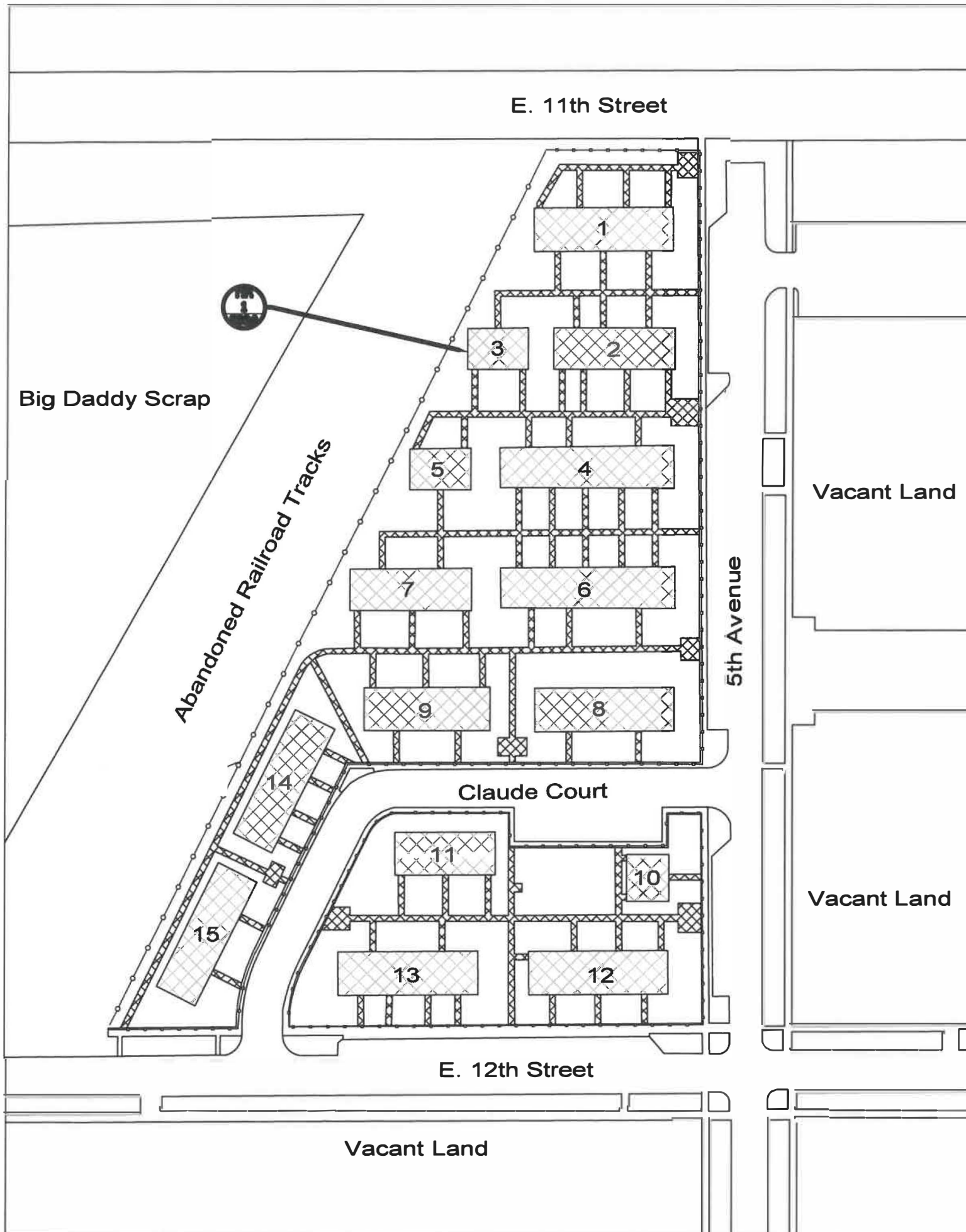
Substrate	Component	Walls				Floor	Ceiling	Response Action	Comments
		N	E	S	W				
Any	Exterior Eave Caulk	X	X	X	X			<u>Asbestos Abatement</u> Removal and disposal per specification 028213.	

APPENDIX C

SITE PLAN

LEGEND - DEMOLITION:

———— Property Boundary



BUILDING #	ADDRESS
1	1100, 1100A, 1102, 1104, 1104A 5th Ave.
2	1106, 1106A, 1108, 1108A 5th Ave.
3	1110A and 1111B 5th Ave.
4	1112, 1112A, 1114C, 1114, 1114B 5th Ave.
5	1116A and 1116C 5th Ave.
6	1118, 1118B, 1120A, 1120B, 1120C 5th Ave.
7	1122, 1122A, 1124, 1124A 5th Ave.
8	1101A, 1101B, 1103, 1103B, 1105A, 1105B, 1107A, 1107B Claude Ct.
9	1109, 1111, 1113, 1115 Claude Ct.
10	1138, 1140 Claude Ct.
11	1110, 1112, 1114, 1116 Claude Ct.
12	293, 295, 297, 299, 301, 303 E. 12th St.
13	281, 283, 285, 287 E. 12th St.
14	1117, 1119, 1121, 1123 Claude Ct.
15	1125, 1127, 1129, 1131 Claude Ct.

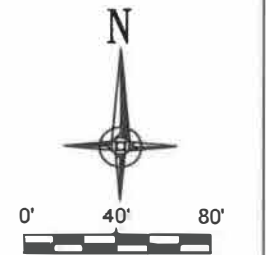
HOUSING AUTHORITY OF COOK COUNTY

CARNOW CONIBEAR

Your Environmental Resource
 Carnow, Conibear & Assoc., Ltd.
 Environmental Consulting Services
 600 W. Van Buren St., Suite 500, Chicago, IL 60607
 T: 312.782.4486 F: 312.782.5145
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SUNRISE APARTMENTS / JOHN MACKLER HOMES

1101-1133 CLAUDE COURT,
 281-303 E. 12TH STREET,
 1100-1140 5TH AVENUE, CHICAGO
 HEIGHTS, ILLINOIS 60411



ISSUANCE		
MARK	DESCRIPTION	DATE
1	ISSUED FOR 100% REVIEW	07.16.21

CCA PROJECT NO: E161190075
 TITLE

ENVIRONMENTAL DRAWING

SHEET
ENV1.0