



**Cleanup/Demolition Plan
Asbestos Abatement Response
1000 Block of South 4th Street
1000, 1002, 1004, 1006 – 1008, and 1010 – 1012 South 4th Street
Clinton, Iowa**

Cooperative Agreement Number: 4B96705601

Prepared for:

**City of Clinton
611 South 3rd Street
Clinton, Iowa 52733**

Prepared by:



**1465 41st Street, Suite 13
Moline, Illinois 61265
309-798-3487
Project Number: 3563**

December 11, 2023

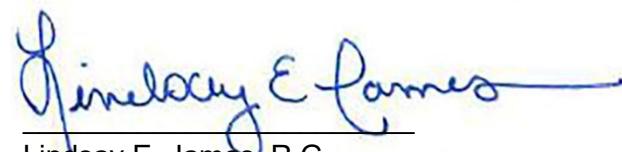
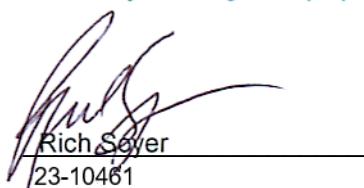
Cleanup Plan/Demolition Plan – Asbestos Abatement Response**1000 Block of South 4th Street****1000, 1002, 1004, 1006 – 1008, and 1010 – 1012 South 4th Street****Clinton, Iowa****Blackstone Project Number: 3563****Prepared for:****City of Clinton****611 South 3rd Street****Clinton, Iowa 52733****Prepared by:****Krista Brodersen****Senior Project Manager****Reviewed by:****Lindsay E. James, R.G.****Senior Project Manager****This Project Design was prepared by:**
Rich Soyer
23-10461
Project Designer Iowa License#**Rich Soyer**
Project Designer, Iowa License # 23-10461**December 11, 2023**

Table of Contents

<u>Section</u>		<u>Page</u>
1	INTRODUCTION	1
2	SITE BACKGROUND	1
3	SCOPE OF WORK.....	2
3.1.	QUALITY ASSURANCE	3
3.2.	SUBMITTALS AND NOTICES	4
3.2.1.	Pre-Abatement Activities.....	4
3.2.2.	During Abatement Response.....	4
3.3.	SITE SECURITY.....	5
3.4.	EMERGENCY PLANNING.....	5
3.5.	EQUIPMENT	6
3.6.	Site Preparation	6
3.6.1.	General Preparation.....	6
3.6.2.	Remote Worker Decontamination Enclosure System.....	7
3.6.3.	Waste Container Prep and Wash Bay	8
3.6.4.	Emergency Exits	8
3.7.	ISOLATION OF THE WORKPLACE.....	9
3.8.	WORKPLACE ENTRY AND EXIT PROCEDURES	9
3.8.1.	Personnel Entry and Exit.....	9
3.8.2.	Waste Container Pass Out Procedures.....	10
3.9.	PERSONNEL PROTECTION REQUIREMENTS	10
3.9.1.	Training	10
3.9.2.	Respiratory Protection	10
3.9.3.	Protective Clothing	11
3.10.	DEMOLITION OF 1010 – 1012 SOUTH 4 TH STREET.....	11
3.11.	REMOVAL OF DEBRIS FROM 1000, 1002, 1004, AND 1006 – 1008 SOUTH 4 TH STREET	12
3.12.	STORMWATER SPECIFICATIONS.....	13
3.13.	AIR MONITORING	13
3.14.	DISPOSAL PROCEDURES	13
3.14.1.	Disposal Procedures	13

3.14.2. Transportation to the Landfill	14
3.14.3. Disposal at the Landfill.....	14
4 LIMITATIONS AND EXCEPTIONS.....	15

FIGURE**APPENDICES**

- A Waste Shipment Record
- B UST Cleanup Contingency Cleanup Plan

1 INTRODUCTION

Blackstone Environmental, Inc. (Blackstone) has developed this Demolition Plan for the 1000 Block of South 4th Street project located at 1000, 1002, 1004, 1006 – 1008, and 1010 – 1012 South 4th Street in Clinton, Iowa (Site; Figure 1). The City of Clinton (City) plans to demolish the structurally unsound building located at 1010 – 1012 South 4th Street and remove the demolition debris from the collapsed and demolished buildings formerly located at 1000, 1002, 1004, and 1006 – 1008 South 4th Street.

2 SITE BACKGROUND

The Site consisted of five 2- and 3-story brick buildings constructed between 1868 and 1912 that were used for retail purposes on the first floor and residential apartments on the second and third floors. Retail occupants have included a grocery, laundromat, hardware store, resale shop, upholstery store, furniture and antique store, used clothing store, offices, barber shop, drug store, restaurants, taverns, and a meeting hall. The buildings are currently vacant and have been for up to a decade. They are in disrepair, having been occupied by squatters for years, and are structurally unsafe with sagging roofs and unstable floors. The City has secured the buildings by boarding windows and doors.

The buildings addressed as 1000, 1002, 1004, and 1006 - 1008 South 4th Street comprise the North Building Block. The buildings are connected and share common walls between each. The building addressed as 1010 - 1012 South 4th Street comprises the South Building Block. This building is severely deteriorated and has been deemed unsafe to enter and structurally unsound.

Address	Gross Building Area in square feet (according to City of Clinton Assessor website)	Stories	Status of Building
NORTH BLOCK			
1000 South 4 th Street	4,412	2 plus basement	Demolished and stockpiled on Site
1002 South 4 th Street	4,908	2 plus basement	Demolished and stockpiled on Site
1004 South 4 th Street	4,676	3 plus basement	Demolished and stockpiled on Site
1006 - 1008 South 4 th Street	11,241	3 plus basement	Collapsed/Demolished and stockpiled on Site
SOUTH BLOCK			
1010 - 1012 South 4 th Street	12,444	3 plus basement	Standing but highly deteriorated and unsound

Based on the age of the buildings, it is assumed asbestos containing materials (ACM) are present. An ACM inspection was conducted on the building located at 1010 – 1012 South 4th Street in

2022 that identified roofing materials, floor tile, and linoleum as ACM. The south and southwest portions of the second and third floors were not able to be inspected due to severe deterioration of the structure. Due to the state of the remaining buildings (severe disrepair and unsafe to enter), an ACM inspection has not been conducted.

On August 11, 2023, the building located at 1006 – 1008 South 4th Street collapsed. Building materials (bricks) from the collapse were strewn into South 4th Street (Lincoln Highway). The same evening, Crandal Excavating, a contractor hired by the City of Clinton, removed the debris on South 4th Street and placed it in the collapsed area. The contractor also pushed in three of the remaining walls of the building to prevent further collapse. The wall connected to the 1004 South 4th Street building was left standing. In a letter dated August 15, 2023, a structural engineer from Willett Hofman & Associates Inc. indicated the collapsed building posed a significant threat to the structural integrity of the connected buildings located at 1000, 1002, and 1004 South 4th Street and recommended they be demolished to a level where a collapse would not allow debris to land on the roadway.

Based on the engineer's recommendation, the structures located at 1000, 1002, and 1004 South 4th Street were demolished to a level where a collapse would not allow debris to land on the roadway and possibly do harm to the public. The demolition was conducted from August 28 through 30, 2023 and was conducted by Lawson Rigging and Excavating, a contractor hired by the City of Clinton, that was overseen by a certified asbestos abatement contractor. The demolition was conducted under wet conditions. The building materials from the four buildings were stockpiled on Site and covered with plastic. Air monitoring for asbestos was conducted during the demolition and periodic air monitoring has been conducted since the demolition. Periodic air monitoring will be conducted until the debris pile can be removed. It is planned that the 1010 – 1012 South 4th Street building be demolished when the debris pile is removed.

Evidence of a suspected underground storage tank (UST) was observed in the basement of 1000 South 4th Street building in the form of a vent pipe. Based on the suspected location in the floor of the basement, the suspected UST is presumed to be a former heating oil UST. There was limited access to the basement and the UST and its presence has not been verified. It is possible that the UST is still located beneath the basement of the 1000 South 4th Street building. The contractor should be aware that removal of the concrete floor and the walls of the basement may reveal the UST and/or associated piping. In the event the UST is uncovered, please see Appendix B for the UST Cleanup Contingency Plan.

3 SCOPE OF WORK

The Scope of Work specified herein shall be the removal of asbestos containing building debris materials by competent persons trained, knowledgeable and qualified in the techniques of abatement, handling and disposal of asbestos containing and asbestos contaminated materials and the subsequent cleaning of contaminated areas, who comply with applicable Federal, State, and local regulations and are capable of, and willing to perform, the Scope of Work.

The Scope of Work shall be conducted done in accordance with all applicable Federal, State, and Local regulations, standards, and codes governing asbestos abatement and other trade work done in conjunction with the removal.

The most recent edition of relevant regulation, standard, document or code shall be in effect. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be utilized. Specific requirements for this Scope of Work include:

- Title 29, Code of Federal Regulations (CFR), Sections 1910.1001, 1910.134, 1910.2, 1910.1200 and 1926.58. Occupational Safety and Health Administration (OSHA), U.S. Department of Labor.
- Title 40, CFR, Part 61, Subparts A and M, National Emission Standards for Hazardous Air Pollutants. U.S. Environmental Protection Agency (EPA).
- Title 40, CFR, Part 763, Subparts E and G, Asbestos Abatement Project.
- Chapter 88B of the Code of Iowa, Removal or Encapsulation of Asbestos.
- Chapter 81 of the Iowa Administrative Code (IAC), Asbestos Control Procedures, Iowa Bureau of Labor.
- Iowa Bureau of Labor Guidelines for removal of non-friable ACM, e.g., floor tile, roofing, etc.

The Scope of Work for activities at the Site will include the following:

- Demolition of the building located at 1010 – 1012 South 4th Street.
- Disposal of building materials generated from the demolition of 1010 – 1012 South 4th Street as regulated asbestos containing materials (RACM).
- Disposal of the demolition debris from the collapsed and demolished buildings located at 1000, 1002, 1004, 1006 - 1008 South 4th Street as RACM.

3.1. QUALITY ASSURANCE

Asbestos abatement workers must be licensed as required by the Iowa Bureau of Labor for the purpose of removal, encapsulation, enclosure, demolition, and maintenance of structures or components covered by or composed of asbestos containing materials.

Asbestos abatement contractor shall submit a notarized statement, signed by an officer of the Company, containing the following information:

- A record of any citations issued by Federal, State, or Local regulatory agencies relating to asbestos abatement activity. Projects, dates, and resolutions should be included.
- A list of penalties incurred through noncompliance with asbestos abatement project specifications including liquidated damages, overruns in schedule time limitations, and resolutions.
- Situations in which an asbestos related contract has been terminated including projects, dates, and reasons for terminations.

- A listing of asbestos related legal proceedings/claims in which the contractor (or employees scheduled to participate in this project) have participated or are currently involved. Include descriptions of role, issue and resolution to date.

3.2. SUBMITTALS AND NOTICES

3.2.1. Pre-Abatement Activities

- The contractor should provide the City with a copy of written notifications to Federal and State agencies, including, but not limited to a 10-day Asbestos Notification of Demolition and Renovation to the Iowa Department of Natural Resources (IDNR).
- Demolition debris will be disposed of at a licensed landfill that accepts RACM waste. The landfill should be contacted prior to transporting the materials to obtain special handling requirements. The Iowa registered asbestos abatement contractor will be responsible for all demolition debris once activities begin on Site.
- Submit the location of the landfill to be used for disposal of the ACM.
- The Iowa-registered asbestos abatement contractor will be responsible for compliance with proper handling and disposal requirements of the EPA and IDNR.
- Submit a list of personnel who will be involved in the abatement activity including supervisors, workers, and other personnel or agents who may be responsible for any aspect of the abatement activities. The list shall include all personnel's Asbestos Abatement Certification numbers and expiration date. Personnel may not be on-site if not certified.
- Submit documentation from a physician that employees or agents have been medically monitored to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects.
- Submit documentation of respirator fit testing for all employees and agents who must enter the work area. Document National Institute for Occupational Safety & Health (NIOSH) approval of respiratory protective devices utilized on-site.
- Submit shop drawings for layout and construction of decontamination enclosure systems and barriers for isolation of the work areas and required by applicable regulations if necessary.
- Submit a list of equipment for this project available for asbestos work.
- When rental equipment is to be used in abatement areas or to transport asbestos contaminated waste, a written notification concerning intended use of the rental equipment must be provided to the rental agency with a copy submitted to the City.

3.2.2. During Abatement Response

- The contractor should submit weekly job progress reports detailing abatement activities.
- Submit copies of transport manifests, trip tickets, and disposal receipts for asbestos waste materials removed from the work area.
- Submit daily copies of work Site entry logbooks with information on worker and visitor access. This must include the names and certification numbers and an outline of work accomplished by those who enter.
- Submit logs documenting filter changes on respirators and other engineering controls.

- Submit results of materials testing conducted during the abatement for purposes of utilization during abatement activities (e.g., testing of encapsulant for depth of penetration, testing of substitute materials for adherence to encapsulated surfaces).
- Submit analysis results of personal air samples collected in the work area. Blackstone and/or their subcontractors will be responsible for collecting the air samples, both 8-hour time weighted average (TWA) and 30-minute excursion.
- Post in the clean room area of the worker decontamination enclosure:
 - A list containing the names, addresses, and telephone numbers of the contractor, the City, the Air Sampling Professionals, the testing laboratory, and other personnel who may be required to assist during abatement activities.
 - A copy of applicable asbestos regulations.
 - A logbook to record the names of all personnel who enter the work area.
 - A copy of emergency procedures.
 - Telephone numbers of emergency personnel and principals for this abatement project.

The project will not be considered completed until all submittals are received by the City.

3.3. SITE SECURITY

The work area is to be restricted only to authorized, trained, and protected personnel. These may include the contractor's employees, employees of subcontractors, City employees and representatives, state and local inspectors, and other designated individuals.

Entry into the work area by unauthorized individuals shall be reported immediately to the City by the contractor.

A logbook shall be maintained in the clean room area of the worker decontamination system. Anyone who enters the work area must record their name, affiliation, time in and time out for each entry.

Access to the work area shall be through a single access gate.

The Contractor shall have control of Site security during operations whenever possible, in order to protect work efforts and equipment.

The contractor will have the City's assistance in notifying adjacent building occupants of impending activity and enforcement of restricted access.

3.4. EMERGENCY PLANNING

Emergency planning shall be developed prior to field activities initiation and agreed to by the contractor and the City. Blackstone will prepare a Health and Safety Plan (HASP) for the Project for use by on Site personnel. Prior to entering the work area, everyone must read and sign the HASP.

3.5. EQUIPMENT

- Air purifying respirators with dual HEPA filters shall be utilized by workers during abatement operations. Air purifying respirators are limited to exposure levels below one fiber per cubic centimeter (cc).
- Powered air purifying respirators equipped with HEPA filters and full facepieces or respirators with a higher NIOSH assigned protection. A sufficient supply of charged replacement batteries and filters and a flow test meter shall be available in the clean change area for use with powered air purifying respirators. Air purifying respirators with dual high efficiency (HEPA) filters may be utilized during work area preparation activities. Spectacle kits and eyeglasses must be provided for employees who wear glasses and who must wear full facepiece respirators. Respirators shall be provided that have been tested and approved by the NIOSH for use in asbestos contaminated atmospheres.
- Type "C" air-supplied respirators in positive pressure or pressure demand mode with full facepieces and HEPA filtered disconnect protection are recommended by the EPA for all full shift abatement work until the successful completion of final clearance air monitoring. Compressed air systems shall be designed to provide air volumes and pressures to accommodate respirator manufacturer's specifications. The compressed air systems shall have a receiver of adequate capacity to allow escape of all respirator wearers from contaminated areas in the event of compressor failure.

Full body disposable protective clothing, including head, body, and foot coverings (unless using footwear as described in Section 2.02 (A)(6) consisting of material impenetrable by asbestos fibers (Tyvek or equivalent) shall be provided to workers and authorized visitors in sizes adequate to accommodate movement without tearing.

- Additional safety equipment (e.g., hard hats, eye protection, safety shoes meeting the applicable American National Standards Institute [ANSI] Standard, disposable polyvinyl chloride [PVC] gloves) as necessary, shall be provided to workers and authorized visitors.
- Nonskid footwear shall be provided to abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.
- If launderable clothing is to be worn underneath disposable protective clothing, it shall be provided by the contractor to abatement workers.
- A sufficient supply of disposable mops, rags, and sponges for work area contamination shall be available.

3.6. Site Preparation

3.6.1. General Preparation

Prior to the beginning of field activities, the following general preparation measures should be taken.

- Post caution signs meeting the specifications of OSHA 29 CFR 1910.1001 (j)(1)(ii) at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels. Signs shall be posted at a distance sufficiently far enough away

from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure.

- The Contractor shall provide sanitary facilities for abatement personnel outside of the enclosed work area and maintain them in a clean and sanitary condition throughout the Project.
- A water hook up for construction purposes should be obtained. The contractor shall connect to the existing water system.
- The work area shall be separated from uncontaminated areas by fencing with proper demarcation.
- Provide the City with a copy of written notification to Federal and State agencies.
- Submit the location of the landfill to be used for disposal of the ACM.
- Submit a list of personnel who will be involved in the abatement activities including, supervisors, workers, and other personnel or agents who may be responsible for any aspect of the abatement activities. The list shall include personnel's Asbestos Abatement Certification numbers and expiration date. No personnel may be on Site if not certified.
- Submit documentation from a physician that employees or agents have been medically monitored to determine whether they are physically capable of working while wearing the respirator required without suffering adverse health effects.
- Submit documentation of respirator fit testing for employees and agents who must enter the work area. Document NIOSH approval of respiratory protective devices utilized on-site.
- Submit shop drawings for layout and construction of decontamination enclosure systems and barriers for isolation of the work areas and required by applicable regulations if necessary.
- Submit a list of equipment for this project available for asbestos work.
- When rental equipment is to be used in abatement areas or to transport asbestos contaminated waste, a written notification concerning intended use of the rental equipment must be provided to the rental agency with a copy submitted to the City.

3.6.2. *Remote Worker Decontamination Enclosure System*

- A remote worker decontamination enclosure system shall be provided at locations where workers will enter or exit the work area.
- Plans for construction, including materials and layout, shall be submitted, and approved in writing by the City prior to work initiation. Detailed descriptions of portable, prefabricated units must be submitted for the City's approval.
- The worker decontamination enclosure system shall consist of at least a clean room, a shower room, and an equipment room, each separated from each other and from the work area by airlocks if space permits.
- Entry and exit from airlocks and decontamination enclosure system chambers shall be through curtained doorways consisting of two sheets of overlapping polyethylene sheeting. If space will not permit airlocks between chambers, three overlapping doorways shall be used between each chamber. One sheet shall be secured at the top and left side, the other sheet at the top and right side. Both sheets shall have weights attached to the bottom to ensure that they hang straight and maintain a seal over the doorway when not in use.

- Access between any two rooms in the decontamination enclosure system shall be through an airlock, if space permits, with at least three feet separating each doorway. Pathways into (from clean to contaminated) and out from (contaminated to clean) the work area shall be clearly designated.
- The clean room shall be sized to adequately accommodate the work crew. Benches shall be provided as well as hooks for hanging up street clothes. Shelves for storing respirators shall also be provided in this area. Clean work clothes, clean disposable clothing, replacement filters for respirators, towels, and other necessary items shall be provided in adequate supply in the clean room. A location for postings shall also be provided in this area. Whenever possible, a lockable door shall be used to permit access into the clean room from outside the work area. Lighting, heat, and electricity shall be provided as necessary for comfort. This space shall not be used for storage of tools, equipment, or materials, or as an office space.
- The shower room shall contain one or more showers as necessary to adequately accommodate workers. Each shower head shall be supplied with hot and cold water adjustable at the tap. The shower enclosure shall be constructed to ensure against leakage of any kind. An adequate supply of soap, shampoo, and towels shall be supplied by the Contractor and available. Shower water shall be drained, collected, and filtered through a system with at least 0.5 - 1.0 micron particle size collection capability.
- The equipment room shall be used for storage of equipment and tools at the end of a shift after they have been decontaminated using a HEPA filtered vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for HEPA vacuums and negative pressure ventilation equipment, extra tools, containers of surfactant and other materials, and equipment that may be required during the abatement may also be stored here as needed. A walk off pan shall be in the work area just outside the equipment room for workers to clean off foot coverings after leaving the work area and prevent excessive contamination of the worker decontamination enclosure system. A drum lined with a labeled six mil polyethylene bag for collection of disposable clothing shall be in this room. Contaminated footwear (e.g., rubber boots, other reusable footwear) shall be stored in this area for reuse the following workday.

3.6.3. Waste Container Prep and Wash Bay

- The waste container prep and wash bay shall be placed in an area away from the worker decontamination enclosure system. Wherever possible, this shall be located where there is direct access from the work area to the non-regulated area of the project.
- This system shall consist of a container staging area, container enclosure area, and tire wash bay before vehicles exit to the non-regulated area outside the work area. Water utilized in the tire wash process must be collected and filtered prior to leaving the controlled area.
- This system shall not be used to enter or exit the work Site.

3.6.4. Emergency Exits

Emergency exits shall be established and clearly marked with duct tape arrows or other effective designations to permit easy identification from anywhere within the work area. They shall be secured to prevent access from uncontaminated areas and still permit emergency exiting. These

exits shall be properly sealed with polyethylene sheeting which can be cut to permit egress if needed. These exits may be the worker decontamination enclosure, the waste pass out airlock and/or other alternative exits satisfactory to fire officials.

3.7. ISOLATION OF THE WORKPLACE

The work area shall be separated from uncontaminated areas by fencing with proper demarcation.

The remote decontamination system must be placed in an area that is separate from the waste container prep and wash bay.

The waste container prep and wash bay must be staged in an area that does not impede worker egress.

3.8. WORKPLACE ENTRY AND EXIT PROCEDURES

3.8.1. Personnel Entry and Exit

- Workers and authorized personnel shall enter the regulated area through the worker decontamination enclosure system. Workers shall not eat, chew, or smoke once they have entered the work area. Eating may take place just outside the clean room. Smoking, at any time during the project, is not recommended, but if need be, smoking may take place outside the fence.
- Personnel who enter the work area must sign the entry log, located in the clean room, upon entry and exit.
- Personnel, before entering the work area, shall read and be familiar with posted regulations, personal protection requirements (including workplace entry and exit procedures) and emergency procedures. A sign-off sheet shall be used to acknowledge that these procedures have been reviewed and understood by personnel prior to entry.
- Personnel shall proceed first to the clean room, remove street clothes and appropriately don respiratory protection and launderable and/or disposable coveralls, head covering, and foot covering. Hard hats, eye protection, and gloves shall also be utilized if required. Clean respirators and protective clothing shall be provided and utilized by each person for each separate entry into the work area.
- Personnel wearing designated personal protective equipment shall proceed from the clean room through the shower room and equipment room to the main work area.
- Before leaving the work area personnel shall remove gross contamination from the outside of respirators and protective clothing by brushing and/or wet wiping procedures. Each person shall clean bottoms of protective footwear in the walk off pan just prior to entering the equipment room.
- Personnel shall proceed to the equipment room where they remove protective equipment except respirators. Deposit disposable and/or launderable clothing into appropriately labeled containers for disposal and/or laundering.
- Reusable, contaminated footwear shall be stored in the equipment room when not in use in the work area. Upon completion of abatement, it shall be disposed of as asbestos

contaminated waste. Rubber/steel toed boots may be decontaminated at the completion of the abatement project for reuse.

- Still wearing respirators, personnel shall proceed to the shower area, clean the outside of the respirators and the exposed face area under running water prior to removal of respirator, and shower and shampoo to remove residual asbestos contamination. Various types of respirators will require slight modification of these procedures.
- After showering and drying off, proceed to the clean room and don clean disposable and/or launderable clothing if there will be later reentry into the work area or street clothes if it is the end of the work shift.
- These procedures shall be posted in the clean room and equipment room.

3.8.2. Waste Container Pass Out Procedures

- Asbestos contaminated waste that has been containerized shall be transported out of the work area through the Waste Container prep and wash bay.
- Waste pass out procedures shall utilize two teams of workers, an “inside” team and an “outside” team.
- The inside team wearing appropriate protective clothing and respirators for inside the work area shall clean the outside, including bottoms, of properly labeled containers using wet wiping techniques. No worker from the inside team shall further exit the work area through waste container prep and wash bay. Building debris shall be enclosed and labeled with six mil polyethylene sheeting prior to leaving the waste container pass out. The exit from this pass out shall be secured when not in use to prevent unauthorized entry.

3.9. PERSONNEL PROTECTION REQUIREMENTS

3.9.1. Training

- Prior to commencement of abatement activities, the contractor shall have one person designated as a competent supervisor as defined in 29 CFR 1926.58. This person shall be on-site at all times.
- Prior to commencement of abatement activities, contractor personnel who will be required to enter the work area, handle containerized asbestos containing materials, or transport ACM must have a current State of Iowa Asbestos Abatement Certificate.

3.9.2. Respiratory Protection

- Respiratory protection shall be provided to workers in accordance with the written respiratory protection program, which includes all items in OSHA 29 CFR 1910.134 (b)(1-11). This program shall be posted in the clean room of the worker decontamination enclosure system.
- Workers shall be provided with personally issued, individually identified respirators.
- Respirator types shall be utilized according to the following schedule:
 - Air purifying respirators with dual HEPA filters shall be utilized by workers during abatement operations.

- Powered air purifying respirators equipped with HEPA filters shall be used during abatement activities where the concentration of asbestos fibers between 1.0 f/cc but not exceeding 2.5 f/cc or 25 times the permissible limit as set forth in 29 CFR 1910.1001b.
- Type "C" supplied air respirators are recommended during abatement activities except as indicated in Section 3.05 (B)(3)(a) and Section 3.05 (B)(3)(b) above.
- Fit Testing
 - Workers must perform positive and negative air pressure fit tests each time a respirator is put on. Powered air purifying respirators shall be tested for adequate flow as specified by the manufacturer.
 - Workers shall be given a qualitative fit test in accordance with procedures detailed in the OSHA Lead Standard (29 CFR 1910.1025, Appendix D, Qualitative Fit Test Protocols) for respirators to be used on this project. An appropriate administered quantitative fit test may be substituted for the qualitative fit test.
 - Documentation of adequate respirator fit must be provided to the City.
 - No one wearing a beard shall be permitted to don a respirator and enter the work area.
 - Additional respirators (minimum of two of each type) and training on their donning and use must be available at the work site for authorized visitors who may be required to enter the work area.

3.9.3. *Protective Clothing*

- Disposable clothing including head, foot, and full body protection shall be provided in sufficient quantities and adequate sizes for workers and authorized visitors.
- Launderable clothing, if required, shall be provided in sufficient quantities and adequate sizes for workers and authorized visitors.
- Hard hats, protective eyewear, gloves, rubber boots, and/or other footwear shall be provided as required for workers and authorized visitors. Steel-toed boots are required.

3.10. DEMOLITION OF 1010 – 1012 SOUTH 4TH STREET

The procedures for the demolition of the 1010 – 1012 South 4th Street building are as follows:

- The structure to be demolished should be properly sprayed with water until adequately wet. Wet asbestos containing material with an amended water solution using equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Saturate the material, however, do not allow excessive water to accumulate in the work area. Keep removed material wet enough to prevent fiber release until it can be containerized for disposal. Maintain a high humidity in the work area by misting or spraying to assist in fiber settling and reduce airborne concentrations. Wetting procedures are not equally effective on all types of asbestos containing materials but shall be used in all cases.
- Saturated asbestos containing material shall be removed in manageable sections. Removed material should be containerized before moving to a new location for continuance of work. Surrounding areas shall be periodically sprayed and maintained in a wet condition until visible material is cleaned up.

- Material should be removed as intact sections or components whenever possible and carefully lowered into the container. Materials between 15 and 50 feet above the ground may be containerized at elevated levels or dropped for subsequent collection and containerization.
- Waste load out containers shall be lined with two layers of six mil polyethylene sheeting secured with tape for transport to the landfill.
- Asbestos containing waste with sharp edged components (e.g., nails, screws, metal lath, tin sheeting) will tear the polyethylene bags and sheet and shall be reinforced as needed with extra wrapping.
- Special circumstances (e.g., live electrical equipment, high amosite content of material, materials previously coated with an encapsulant or paint) may prohibit the adequate use of wet methods to reduce fiber concentrations. For these situations, a dry removal may be required. The contractor will have to acquire special permits, different from those mentioned herein from the NESHAPS enforcement agency.
- In areas contaminated with asbestos, pick up visible suspected asbestos and other debris and seal in six mil plastic bags. Wet the asbestos before picking it up and placing it in the lined load out container.

3.11. REMOVAL OF DEBRIS FROM 1000, 1002, 1004, AND 1006 – 1008 SOUTH 4TH STREET

The procedures for the removal of debris from the collapse and demolition of the buildings located at 1000, 1002, 1004, and 1006 – 1008 South 4th Street are as follows:

- The debris should be properly sprayed with water until adequately wet. Wet asbestos containing material with an amended water solution using equipment capable of providing a fine spray mist, in order to reduce airborne fiber concentrations when the material is disturbed. Saturate the material, however, do not allow excessive water to accumulate in the work area. Keep removed material wet enough to prevent fiber release until it can be containerized for disposal. Maintain a high humidity in the work area by misting or spraying to assist in fiber settling and reduce airborne concentrations. Wetting procedures are not equally effective on all types of asbestos containing materials but shall be used in all cases.
- Saturated asbestos containing material shall be removed in manageable sections. Removed material should be containerized before moving to a new location for continuance of work. Surrounding areas shall be periodically sprayed and maintained in a wet condition until visible material is cleaned up.
- Material should be removed as intact sections or components whenever possible and carefully lowered into the container.
- Waste load out containers shall be lined with two layers of six mil polyethylene sheeting secured with tape for transport to the landfill.

- Asbestos containing waste with sharp edged components (e.g., nails, screws, metal lath, tin sheeting) will tear the polyethylene bags and sheet and shall be reinforced as needed with extra wrapping.
- In areas contaminated with asbestos, pick up visible suspected asbestos and other debris and seal in six mil plastic bags. Wet the asbestos before picking it up and placing it in the lined load out container.

3.12. STORMWATER SPECIFICATIONS

Stormwater runoff controls will be required, including the use of Best Management Practices on the storm grates surrounding the Site.

If the walls and/or flooring of the basements are to be left in place, they will need to be washed down with water and the water filtered through a filter sock or another BMP filter prior to the water being discharged to the storm sewer.

3.13. AIR MONITORING

Exposure monitoring for each job classification will be performed during the demolition work by Blackstone and/or their subcontractors. Air sampling will comply with the requirements of Iowa OSHA's regulatory requirements. This will require that the contractor perform an initial exposure and negative exposure assessment (IEA) for this project.

During the demolition process, an Iowa certified Asbestos Inspector from Blackstone and/or their subcontractors will collect Phase Contrast Microscopy (PCM) personal air samples representative of a full shift including at least one sample for each job classification in each work area either for each shift or for the shift with the highest exposure level. In addition, at least one short term exposure sample will be collected which represents the 30-minute time period in which the highest exposures to fibers are expected.

Area samples will be collected in the following locations:

- Approximately every 200 feet along the designated demolition work area fence.
- Adjacent to the occupied businesses.
- Inside adjacent occupied buildings, as available.

This asbestos air monitoring is performed to assure that the engineering controls in place during the demolition are adequate to protect employees, the public, and the environment.

3.14. DISPOSAL PROCEDURES

The generated materials will need to be disposed of as RACM. The procedures are as follows.

3.14.1. Disposal Procedures

- Disposal must occur at an authorized site in accordance with regulatory requirements of NESHAPS and applicable state and local guidelines and regulations.

- Waste Shipment Records shall be delivered to the City. A recommended record keeping format utilizes the Waste Shipment Record (WSR) (Appendix A) which includes the names and addresses of the Generator (City), Contractor, Transporter, and Disposal Site, the estimated quantity of the asbestos waste, and the type of containers used. The form should be signed by the Contractor, the Transporter, and the Disposal Site Operator, as the responsibility for the material changes hands. Instructions can be found with the Waste Shipment Records.
- The Contractor and Transporter should retain a copy of the WSR upon completing their portion. The Disposal Site Operator should retain a copy and return the completed copy to the City within 45 days of the ACM leaving the abatement site.

3.14.2. Transportation to the Landfill

- ACM that is ready for transport must be labeled with the name of the waste generator and the location at which the waste was generated. The contractor is responsible for providing the label.
- The enclosed cargo area of the truck shall be free of debris and lined with six mil polyethylene sheeting to prevent contamination from leaking or spilling from the containers. Floor sheeting shall be installed first and extended up the side walls. Wall sheeting shall be overlapped and taped into place.
- Personnel loading asbestos containing waste shall be protected by disposable clothing including head, body, and foot protection and at a minimum, half face, air purifying, dual cartridge respirators equipped with high efficiency filters.
- Debris or residue observed on containers or surfaces outside of the work area resulting from cleanup or disposal activities shall be immediately cleaned up using HEPA filtered vacuum equipment and/or wet methods as appropriate.
- Metal dumpsters should have doors or tops that can be closed and locked to prevent vandalism or other disturbance of the bagged asbestos debris and wind dispersion of asbestos fibers (if applicable).

3.14.3. Disposal at the Landfill

- Upon reaching the landfill, trucks are to approach the dump location as closely as possible for unloading of the asbestos containing waste.
- Bags, drums, and components shall be inspected as they are offloaded at the disposal site. Material in damaged containers shall be repacked in empty drums or bags as necessary. Waste containers shall be placed on the ground at the disposal site, not pushed or thrown out of the trucks.
- Personnel offloading containers at the disposal site shall wear protective equipment consisting of disposable head, body, and foot protection and, at a minimum, half face, air purifying, dual cartridge respirators equipped with high efficiency filters.
- Following the removal of containerized waste, the truck cargo area shall be decontaminated using HEPA vacuums and/or wet methods to meet the no visible residue

criteria. Polyethylene sheeting shall be removed and discarded along with contaminated cleaning materials and protective clothing, in bags or drums at the disposal site.

- If landfill personnel are not provided with personal protective equipment for the compaction operation by the landfill operator, the contractor shall supply protective clothing and respiratory protection for the duration of this operation.

4 LIMITATIONS AND EXCEPTIONS

Blackstone has performed the services in a manner consistent with that level of care and skill ordinarily exercised by other members of our profession currently practicing in the same locality and under similar conditions. Blackstone has endeavored to meet this standard of care but may have been limited by conditions encountered during performance, or inability to review information not received by the report date. When appropriate, such limitations are discussed in the report relative to their significance with respect to our findings. No warranties, express or implied, are intended or made.

FIGURE



Property Boundary



Feet
0 25 50 100

FIGURE

1

Project Mgr: KB Date: 10-2023

Designed By: MO Rev.:

Drawn By: MO Rev.:

Checked by: KB Rev.:

Job No.: Rev.:

BLACKSTONE
ENVIRONMENTAL

CLIENT NAME

City of Clinton

SHEET NAME

Site Map

PROJECT NAME AND LOCATION

1000 Block of South 4th Street

Demolition Plan - Asbestos Abatement Response

APPENDIX A

Waste Shipment Record

WASTE SHIPMENT RECORD

ASBESTOS CONTAINING MATERIAL

24 Hour Response Telephone Number:

GENERATOR	1. Work Site Name and Mailing Address:		Owner's Phone No.		
	2. Operator's Name and Address:		Operator's Phone No.		
	3. Waste Disposal Site (WDS) Name, Mailing Address, and Physical Site Location:		WDS Phone No.		
	4. Name and Address of Responsible Agency: Iowa Department of Natural Resources 7900 Hickman Road, Urbandale, IA 50322				
	5. Description of Materials:	6. Containers:	7. Total Quantity:		
		No.	Type	m3 (yd3)	
	8. Special Handling Instructions and Additional Information:				
	9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described as above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.				
	Printed/Typed Name & Title:				
TRANSPORTATION	10. Transporter 1 (Acknowledgement of Receipt of Materials)				
	Printed/Typed Name & Title:	Signature:		Month/Day/Year:	
	Address & Telephone No.:				
11. Transporter 2 (Acknowledgement of Receipt of Materials)					
Printed/Typed Name & Title:	Signature:		Month/Day/Year:		
Address & Telephone No.:					
DISPOSAL	12. Discrepancy Indication Space:				
	13. Waste Disposal Site Operator: Certification of receipt of asbestos materials covered by this manifest		Printed/Typed Name & Title:	Signature:	Month/Day/Year:

APPENDIX B

UST Cleanup Contingency Cleanup Plan

UST Cleanup Contingency Cleanup Plan

Evidence of a suspected UST was observed in the basement of 1000 South 4th Street building in the form of a vent pipe. Based on the suspected location in the floor of the basement, the suspected UST is presumed to be a former heating oil UST. There was limited access to the basement and the UST and its presence has not been verified. It is possible that the UST is still located beneath the basement 1000 South 4th Street building. The following Contingency Plan has been prepared in the event a UST is identified.

1 Scope of Work

The Scope of Work specified herein shall be the removal of an UST located beneath the basement of 1000 South 4th Street, if identified, by competent persons trained, knowledgeable, and qualified in the techniques of UST testing and removal and the subsequent cleaning of contaminated areas, who comply with all applicable Federal, State, and local regulations and are capable of, and willing to perform, the Scope of Work.

The Scope of Work shall be conducted in accordance with applicable Federal, State, and Local regulations, standards, and codes governing UST removal and any other trade work done in conjunction with the removal.

The most recent edition of any relevant regulation, standard, document or code shall be in effect. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be utilized. Specific requirements for this Scope of Work include:

- Title 29, CFR, Section 1910.120 Hazardous Waste Operations and Emergency Response. OSHA, U.S. Department of Labor.
- IAC 567, 455B, Jurisdiction of Department of Natural Resources.
- IAC 567, 455B, Chapter 133, Rules for Determining Cleanup Actions and Responsible Parties.
- IAC 567, 455B, Chapter 134, UST Licensing and Certification Programs.
- IAC 567, 455B, Chapter 135, Technical Standards and Corrective Action Requirements for Owners and Operators of USTs.

The Scope of Work for activities at the Site associated with the suspected UST will include the following:

- Testing of contents of UST.
- Removal and disposal of UST.
- Testing of soil and groundwater in the vicinity of the UST for evidence of impacts.

1.1. QUALITY ASSURANCE

UST removal workers must be licensed as required by the IDNR for the purpose of removal of USTs and persons who wish to submit projects to the UST Section evaluating sites or proposing corrective action.

1.2. SUBMITTALS AND NOTICES

1.2.1. *Pre-Removal Activities*

- If the UST is determined to contain petroleum products other than heating oil, the UST will need to be registered with the IDNR. Blackstone will assist the City of Clinton in completing IDNR UST Section, Registration Form #148. Fees will be associated with the registration including a registration fee of \$10 and a fee for the size of the tank (to be determined). Additional fees including a late fee of \$250 and tank tag fees of \$65 per year may be assigned.
- IDNR Form 542-1308, Notification of Tank Closure or Change-in-Service will need to be completed and submitted to the IDNR UST Section. This form would need to be submitted at least 30 days prior to starting UST closure activities.
- If the UST is determined to contain heating oil, it will not need to be registered with IDNR.
- City of Clinton permits, if required, will need to be obtained.
- One day prior to removal, the IDNR field office should be contacted to confirm the removal date.
- The UST will be disposed of at a licensed landfill. A Clean Tank Certificate will be prepared by the Licensed Tank Remover for the tank to allow for disposal at a landfill.
- The Iowa-registered Tank Remover will be responsible for compliance with all proper handling and disposal requirements of the IDNR.

1.2.2. *During Removal Activities*

- Submit copies of all transport manifests, trip tickets, and disposal receipts for the UST and any soil removed from the work area.
- Submit daily copies of work Site entry logbooks with information on worker and visitor access. This must include the names and certification numbers and an outline of work accomplished by those who enter.

The project will not be considered completed until all submittals are received by the City.

1.3. SITE SECURITY

The work area is to be restricted only to authorized, trained, and protected personnel. These may include the contractor's employees, employees of subcontractors, City employees and representatives, state and local inspectors, and any other designated individuals.

Entry into the work area by unauthorized individuals shall be reported immediately to the City by the contractor. A logbook shall be maintained. Anyone who enters the work area must record their name, affiliation, time in and time out for each entry.

The Tank Remover shall have control of Site security during operations whenever possible, in order to protect work efforts and equipment.

1.4. EMERGENCY PLANNING

Emergency planning shall be developed prior to field activities initiation and agreed to by the contractor and the City. Blackstone will prepare a HASP for the Project for use by on Site personnel. Everyone prior to entering the work area must read and sign the HASP.

1.5. EQUIPMENT

Fieldwork should be performed in a USEPA Level D work uniform consisting of hard hats, safety glasses, protective gloves, and steel-toed boots.

Additional safety equipment (e.g., hard hats, eye protection, safety shoes meeting the applicable ANSI Standard, disposable PVC gloves) as necessary, shall be provided to all workers and authorized visitors.

The UST Removal Contractor will utilize heavy equipment that may include an excavator, front-end loader, and dump trucks. A Geoprobe drill rig will be used to advance a boring to collect the IDNR required groundwater sample.

1.6. SITE PREPARATION

1.6.1. General Preparation

Prior to the beginning of field activities, the following general preparation measures should be taken.

- The work area shall be separated from uncontaminated areas by fencing with proper demarcation.
- Provide the City with a copy of written notification to Federal and State agencies.

1.7. ISOLATION OF THE WORKPLACE

The work area shall be separated from uncontaminated areas by fencing with proper demarcation.

1.8. WORKPLACE ENTRY AND EXIT PROCEDURES

1.8.1. Personnel Entry and Exit

- All workers and authorized personnel shall enter the regulated area through the entrance. Workers shall not eat, chew, or smoke once they have entered the work area. Eating may take place outside the fence. Smoking, at any time during the project, is not recommended, but if need be, smoking may take place outside the fence.
- All personnel who enter the work area must sign the entry log upon entry and exit.
- All personnel, before entering the work area, shall read and be familiar with all posted regulations, personal protection requirements and emergency procedures. A sign-off sheet shall be used to acknowledge that these procedures have been reviewed and understood by all personnel prior to entry.

1.9. PERSONNEL PROTECTION REQUIREMENTS

1.9.1. Training

- Prior to commencement of activities, anyone entering the Site shall have 40-hour HAZWOPER training in accordance with 29 CFR 1910.120.
- An Iowa licensed UST Removal Contractor as defined in IAC Chapter 567.134 shall be on Site during the UST removal.
- The UST removal and sampling associated with the removal will be provided by or directly supervised by an Iowa licensed Certified Groundwater Professional as defined in IAC Chapter 567.134.

1.9.2. Protective Clothing

Hard hats, protective eyewear, gloves, rubber boots, and/or other footwear is required for workers and authorized visitors. Steel-toed boots are required.

1.10. UST REMOVAL

The procedures for the UST Removal are as follows:

- Blackstone will visit the Site to collect a sample of liquid from the UST to assess the contents. If a port or hole is identified in the UST, a bailer or other equipment will be lowered into the UST. Liquid, sludge, or other media, if found in the UST, will be collected and placed into a laboratory supplied container. The container will be submitted to an analytical laboratory for analyses of Iowa Method OA-2.
- A determination of whether or not the UST is a regulated tank will be based on the results. If the contents are waste oil, permitting of the UST will not be required by the IDNR. If other petroleum constituents are identified, the UST will need to be permitted through IDNR as indicated in Section 1.2.1.
- Once permitting is complete, if required, and the 30-day notification of UST removal has been submitted to IDNR, field activities can begin.
- The UST Removal Contractor shall contact Iowa One Call and request location and markings for all utilities that Iowa One Call is responsible for before commencing excavation at the Site.
- The UST Removal Contractor will clean and remove the UST. Fluids and sludge will be removed from the UST, it will be inerted, then removed from the ground and placed on polyethylene sheeting.
- The UST Removal Contractor and Certified Groundwater Professional (or Certified Groundwater Professional supervised personnel) will note the condition of the UST including the presence of perforations, cracks, loose fittings or connections, or damage that may have caused a fuel release. If evidence of a release is observed, Blackstone will notify the City of Clinton. The City of Clinton will be required to notify the IDNR within 24 hours of discovery of a release under normal circumstances or within six hours if a hazardous condition exists.
- The tank will be cut open and cleaned, and cleaning fluids will be contained. A Clean Tank Certificate will be prepared by the UST Removal Contractor for the tank to allow for disposal at a landfill. Fluids removed from the tank and fluids generated during tank cleaning will be disposed at a permitted disposal facility.
- Excavated soils will be field screened using a photoionization detector (PID) and placed on plastic on the Site. Blackstone will place a sample of excavated soil in a sealable bag and will screen the headspace above the soil using the PID. If the PID readings are below 10 parts per million (ppm), the soil can be placed back into the excavation as backfill. Soils that exceed PID readings of 10 ppm will be stockpiled onsite for disposal characterization.
- Blackstone representative, under the supervision of a Certified Groundwater Professional, will collect soil samples for laboratory analysis in general accordance with IAC 567, Chapter 135.15(3), as described below:
 - The excavation will be inspected for evidence of contamination. If evidence of contamination is observed, a sample will be collected from that area.

- It is estimated that one soil sample will need to be collected from beneath UST from between one and two feet into native soils. The number of samples will be dependent on the size of the UST.
- If water is present in the UST pit, a bottom soil sample will not be collected. One soil sample will be collected from each sidewall above the soil-water interface and one to two feet into the sidewall.
- If there is a concrete pad beneath the UST that is not being removed, four soil samples will be collected from around the concrete pad. If possible, the samples will be collected from between one and two feet into native soils.
- If stained soils are visible along the sidewalls, additional samples may be collected in those areas.
- If field observations indicate that piping is present, additional soil samples would be collected per IDNR guidance.
- The soil samples will be analyzed for benzene, toluene, ethylbenzene and xylenes by Iowa Method OA-1 and extractable petroleum hydrocarbons as diesel and waste oil by Iowa Method OA-2. The laboratory analysis will be requested on a standard analytical turnaround (14 business days following receipt of the samples at the laboratory).
- After the tank has been removed, a soil boring will be advanced within 20 feet of the tank basin. The boring will be advanced to 20 feet below ground surface (bgs) or five feet below encountered groundwater, whichever occurs first. Soils from the boring will be field screened for the presence of organic vapor using a PID. Field screening instrument measurements will be collected along the entire length of the boring and drilling will continue until vapor readings are less than 10 ppm but no deeper than 10 feet below the first saturated zone. Observations of odor, staining, and vapor screening results must be documented on the boring log. Soil sampling is not required for the down gradient boring in the closure guidance.
- One groundwater sample will be collected from the boring utilizing a new, disposable, polypropylene bailer, or pump.
- The groundwater sample will be analyzed for benzene, toluene, ethylbenzene and xylenes by Iowa Method OA-1 and extractable petroleum hydrocarbons as diesel and waste oil by Iowa Method OA-2. The laboratory analysis will be requested on a standard analytical turnaround (14 business days following receipt of the samples at the laboratory). The laboratory analysis for stockpiled soil samples, if needed, will be requested on a rush analytical turnaround (three business days following receipt of the samples at the laboratory).

1.11. DISPOSAL PROCEDURES

The UST and impacted soils will need to be disposed of at a licensed landfill. Disposal must occur at an authorized site in accordance with applicable state and local guidelines and regulations.

A Clean Tank Certificate will be prepared by the Licensed Tank Remover for the tank to allow for disposal at a landfill.

Fluids removed from the tank and fluids generated during tank cleaning will be disposed at a permitted disposal facility.