DRAFT
Analysis of Brownfields Cleanup Alternatives
Former Cameron's Restaurant
206 Main Street
Gloucester, Massachusetts

I. Introduction & Background

This Draft Analysis of Brownfields Cleanup Alternatives (ABCA) has been prepared to evaluate cleanup alternatives for 206 Main Street in Gloucester, Massachusetts. The ABCA is a condition of cleanup funds provided by the United States Environmental Protection Agency (EPA) through the City of Gloucester's Brownfields Revolving Loan Fund (RLF). The cleanup will be performed by the owner, 206 Main Street LP in conjunction with North Shore Community Development Corporations (NSCDC).

1. Site Location

The Site is currently a vacant, former commercial property, which consists of a 0.15 acre single parcel of land identified in the City of Gloucester Assessor's Database as MAP ID: 13/23. The Site is improved with an approximately 11,000 square foot brick/masonry/concrete/cinder block building, which is heated with natural gas.

The Site address is 206 Main Street. The Site sits at the northeast corner of the intersection of Main and Elm Streets. The Site building is primarily a single story building with several facades, including brick, stucco and wood. The northwestern part of the building is two stories. The building abuts the sidewalk on Main Street and shares a wall with its abutter to the east. The rear of the Site is a parking lot.

2. Forecasted Climate Conditions

EPA requires that the ABCA consider potential impacts due to climate concerns. Specifically this discussion addresses observed and forecasted climate change conditions for the area of the project and associated site specific risk factors. Gloucester, Massachusetts is located approximately 40 miles northeast of Boston. Gloucester is located along the Atlantic coast and additional portions of the City are located along tidal estuaries, including the Annisquam River. The Site is located approximately 0.15 miles from Gloucester Harbor and elevated relative to the harbor.

The northeastern United States, including Gloucester, includes warm and often humid summers and cold winters. Rainfall can be severe with summer thunderstorms common and severe weather resulting from regional nor'easter anticyclone storms and/or hurricanes. Winter conditions can also be severe with ice storms and heavy snow common. Snowfalls of 2-3 feet in one event are not uncommon. The portions of the City of Gloucester are prone to flooding during storm surge events; however, due to its location and elevation, the Site is located outside the Gloucester Harbor flood plain.

According to the US Global Change Research Program website (http://www.globalchange.gov/explore/northeast), as a result of climate change, the northeast region can expect increased temperatures and temperature variability and extreme precipitation

events. The website states that “Heat waves, coastal flooding, and river flooding will pose a growing challenge to the region’s environmental, social, and economic systems. This will increase the vulnerability of the region’s residents, especially its most disadvantaged populations. Infrastructure will be increasingly compromised by climate-related hazards, including sea level rise, coastal flooding, and intense precipitation events.” The regional summary is attached as Attachment A.

According to FEMA Flood Insurance Rate Map # 25009C0456G, the Site is not located in any flood hazard zones; therefore, currently the biggest threat to this Site is from localized stormwater impacts from extreme precipitation events. Other forecasted climate change factors such as sea level rise, storm surge effects and saltwater intrusion have the potential to affect the Site in the future given its geographic location, which is currently situated approximately 100 feet from the special flood plain hazard area subject to inundation by the 1% annual chance flood (i.e., 100 year flood). However, due to its topographic location, approximately 26 feet above sea level, and forecasted coastal climate change assessments that have been conducted by the City of Gloucester, included as Attachment B, the Site is not anticipated to be located in the 100 year flood zone by 2070. Ground thaw and freezing and wildfires are also not anticipated to affect the Site.

3. Previous Site Use(s) and Any Previous Cleanup / Remediation

According to the City's Assessor's Department the building was constructed in 1930; however, according to a Phase I Environmental Site Assessment (ESA) report that was completed for the property in June 2015, the western portion of the facility was originally constructed in 1888, with demolition, renovations and/or additions to the structure occurring in 1973, 1986 and 1990.

The property had been utilized as a residence and retail store, but primarily as a restaurant. In 2011, Cameron’s Restaurant was closed. 206 Main Street LP took ownership of the property in August 2015. A pre-acquisition due diligence Phase I Environmental Site Assessment (ESA) was conducted by Irwin Engineers, dated June 23, 2015, on behalf of 206 Main Street LP. No Recognized Environmental Conditions (RECs) were identified; however the presence of hazardous building material (HBM) was not addressed as part of the assessment.

II. Site Assessment Findings

Weston & Sampson performed a HBM survey at the Site on behalf of the City of Gloucester’s Community Development Department (the City) on November 10, 2015. The HBM assessment and limited sampling of building materials was conducted to identify asbestos-containing materials (ACMs), lead paint/coatings, poly-chlorinated biphenyls (PCBs) and other hazardous materials (OHMs) at the Site, as well as to support the property redevelopment and reuse and contribute to the economic revitalization of the surrounding area.

Based on the results of the inspection, sampling, field-screening and laboratory analyses, the majority of contamination at the Site is associated with ACM hazardous building materials associated with the above-ground structure. The following is a summary of the HBM survey results:

- ACM has been identified in the building, including floor tiles, sheet flooring mastic/adhesives, transite paneling, shingles, pipe fitting insulation, and roofing materials. Additional inaccessible materials were observed and assumed to be ACM including the mastic on structural steel.

- ACM thermal insulation has been identified in above-ground pipes in the buildings. This material appears to have impacted soil in the crawlspace of the basement. The survey did not include an evaluation of underground asbestos cement water/sewer piping, below-grade damp-proofing or underground steam lines that may be present at the Site.

- Various types and colors of suspect PCB materials (i.e., window caulk and textured paint) were identified within the property and a total of four samples were collected for PCB analysis. None of the materials sampled by Weston & Sampson at the Site were found to contain concentrations above method detection limits and/or PCB bulk product waste criteria (i.e., 50 parts per million – ppm) and therefore will not be required to be disposed of at a TSCA permitted facility.

- The paint screening revealed that none of the paint chip samples collected from the building contained levels of lead paint that are greater than the EPA residential standard of 0.50% lead by weight. The results of the samples ranged from <0.010% (below the laboratory limit of detection) lead by weight to 0.075% lead by weight. However, the Occupational Health and Safety Administration (OSHA) Lead in Construction Standard 29 CFR 1926.62 considers any detectable level of lead to be a potential for exposure if dust is generated from disturbances of surfaces coated with paint containing lead.

- As part of the survey, Weston & Sampson performed an inventory of potentially hazardous chemicals and mechanical equipment located within the structure that will require special handling and disposal prior to building renovation / demolition activities. The following hazardous materials were observed within the building: refrigerator, air conditioner (A/C) unit, ice machine, fire exit signs and extinguishers, and fluorescent light ballasts and bulbs.

- The cost to abate ACM at the building is estimated to be $64,500 to $80,000. Additionally, the cost for OHM removal is estimated to be approximately $2,500.

III. Project Goal

As part of the NSCDC's ongoing redevelopment efforts, 206 Main Street LP, will redevelop this brownfields site into a mixed use building. The building will have commercial use on the first floor and with approximately 30 units of affordable housing on the second through fourth floors. The cleanup of the Site will revive the neighborhood, invigorate the local economy, provide near-term and long-term employment and housing opportunities, utilize sustainability in its cleanup and redevelopment, and remove human health and environmental impacts due to contamination of hazardous building materials at the Site.

IV. Applicable Regulations and Cleanup Standards

1. Cleanup Oversight Responsibility

206 Main Street LP, as the current property owner, will undertake responsibility to remediate contaminated building materials prior to building renovation and/or demolition. Abatement and monitoring of hazardous building materials will be conducted under state certified and licensed personnel.

2. Cleanup Standards

The Massachusetts Department of Environmental Protection (MassDEP) is the state authority that regulates releases of OHM and asbestos containing materials through the Bureaus of Waste Site Cleanup and Waste Prevention, respectively. Reportable releases of OHM require response actions under the Massachusetts Contingency Plan (MCP); 310 CMR 40.0000. MCP response actions are managed by a Licensed Site Professional (LSP), licensed by the Commonwealth of Massachusetts.

The Site is currently not regulated under the MCP; however, asbestos abatement actions would require notification to and coordination with MassDEP Bureau of Waste Prevention at their Northeast Regional Office in Wilmington. ACM abatement will be in accordance with MassDEP rules and regulations and the subsequent demolition of the buildings will follow MassDEP's standards.

3. Laws and Regulations

Abatement of contaminated building materials prior to building renovation and/or demolition will be conducted pursuant to Massachusetts Hazardous Waste regulations [310 CMR 30.000]. Off-Site disposal of contaminated media will be conducted pursuant to the aforementioned regulations and the Massachusetts Solid Waste regulations [310 CMR 16.000]. Additional applicable local, state and federal regulatory requirements will also be adhered to.

V. Evaluation of Cleanup Alternatives

1. Cleanup Up Alternatives Considered

EPA requires that this ABCA includes the evaluation of three (3) remedial alternatives. To address the abatement of hazardous building materials at the Site, the following three (3) alternatives were considered, including:

- Alternative #1: No Action
- Alternative #2: Encapsulation
- Alternative #3: Abatement/Disposal

2. Cost Estimate of Cleanup Up Alternatives

To satisfy EPA requirements, the effectiveness, implementability, and cost of each alternative must be considered prior to selecting a recommended cleanup alternative.

Effectiveness

- Alternative #1: (Hazardous Building Materials): "No Action" is not effective in controlling or preventing the exposure of potential receptors to contamination at the Site.
- Alternative #2: (Hazardous Building Materials): Although encapsulation is a feasible option for limited impact of hazardous building materials, this option is not feasible,

since the buildings will be demolished.

- Alternative #3: (Hazardous Building Materials): Abatement and disposal of hazardous building materials is an effective option, since the contaminant source is removed and redevelopment may be accomplished.

Implementability

- Alternative #1: "No Action" is easy to implement, since no actions will be conducted.
- Alternative #2: Encapsulation is not feasible, due to demolition of the buildings
- Alternative #3: Abatement/Disposal of hazardous building materials is a feasible remedial option, since removal of contaminated building materials must be accomplished prior to demolition.

Cost

- Alternative #1: (Hazardous Building Materials) ***No Action***: There are no costs associated with this alternative.
- Alternative #2: (Hazardous Building Materials) ***Encapsulation***: Encapsulation is performed to minimize risk presented by damaged or friable materials. The only material that is damaged at the Site is the pipe insulation in the crawlspace of the building. The other materials don't currently present a hazard or are in an inaccessible condition. The approximate cost of implementing this alternative ranges from $4,000 - $5,000.
- Alternative #3 (Hazardous Building Materials) ***Abatement***: The approximate cost to perform asbestos abatement at the building due to the redevelopment and construction plans which require disturbance and removal of all of these materials ranges from approximately $64,500 to $80,500.

3. Recommended Cleanup Up Alternatives

The recommended cleanup alternative for hazardous building materials is Alternative #3: Abatement. Alternative #1: No Action, cannot be recommended because it does not address Site risk. Alternative #2: Encapsulation, while effective for limited impacts of hazardous building materials, this option is not feasible, since the buildings will be demolished.

Additionally, Alternative #3 will utilize opportunities for achieving green remediation goals by using cleaner fuels, diesel emission controls, and/or other emission reduction practices for construction vehicles and other equipment in line with EPA's Clean and Green Cleanup guidelines.

Therefore, Alternative #3: Abatement is the most cost effective alternative capable of completely removing risk and most feasible option as the building will need to be demolished to support redevelopment. In addition, Alternative #3 will utilize opportunities to implement and achieve green remediation goal in accordance with EPA's Clean and Green Cleanup Guidelines. For these reasons, the recommended cleanup alternative is Alternative #3: Abatement.