

184 CATHERINE STREET

NEW CASSEL, NY 11590

SECTION 11, BLOCK 127, LOTS 113 AND 114

Analysis of Brownfield Cleanup Alternatives

USEPA Community-Wide Assessment Grant

Cooperative Agreement No. BF-96242300

AKRF Project Number: 240014

Prepared for:

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On Behalf Of:

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FIGURE

Figure 1 – Site Location

1.0 INTRODUCTION AND BACKGROUND

AKRF, Inc. (AKRF) was retained by The Town of North Hempstead (TONH) Community Development Agency (CDA) to prepare this Analysis of Brownfield Cleanup Alternatives (ABCA) for the property located at 184 Catherine Street in New Cassel, NY 11590 (the “Site”). The approximately 10,000-square foot Site, which is defined on the Nassau County Tax Map Section 11, Block 127, Lots 113 and 114, is developed with a vacant fire damaged, 2-story residential home with basement and attached garage on Lot 114; Lot 113 is undeveloped. Historically, the Site was undeveloped until construction of the current residence circa 1960. A map showing the location of the Site is provided as Figure 1.

This ABCA was prepared to provide a summary of alternatives that were considered for the remediation of contamination identified at the Site. Previous environmental investigations conducted at the Site under the United States Environmental Protection Agency (USEPA) Community-Wide Assessment Grant Cooperative Agreement No. BF-9649919 (Petroleum) included a Phase I Environmental Site Assessment (ESA), a Structural Existing Conditions Report, Asbestos Survey Report, a Pre-Demolition Survey, Bulk Sampling & Analysis of Suspect Asbestos Containing Building Material, and Asbestos Abatement Specifications. The purpose of completing the alternatives analysis was to identify, evaluate, and select an appropriate remedial approach to address the contamination that was identified.

1.1 Site Location

The Site is located at 184 Catherine Street in New Cassel, NY 11590. The approximately 10,000-square foot Site, which is defined on the Nassau County Tax Map as Section 11, Block 127, Lots 113 and 114, is developed with a vacant fire damaged, 2-story residential home with basement and attached garage on Lot 114. The Site is bounded by wooded land to the north, followed by Prospect Avenue; residential single-family structures to the south; wooded land, followed by the Wantagh State Parkway to the east; and by Catherine Street, followed by single-family residential structures to the west. The area surrounding the Site was primarily residential with some parkland, commercial/retail, religious, and educational uses.

Based on the United States Geological Survey (USGS) 7.5-Minute Quadrangle Map for Hicksville, NY (2019) and Freeport, NY (2019), the Site is approximately 130 feet above the North American Vertical Datum of 1988 (NAVD 88), an approximation of mean sea level. Topography at the Site is generally flat, with surface topography in the surrounding area sloping gently down to the south.

Based on regional topography and the USGS Long Island Depth to Water Viewer, depth to groundwater in the vicinity of the Site is estimated to be approximately 50 to 75 feet below surface grade and is expected to flow in a southerly direction. Based on topography, anticipated depth to groundwater, and distance from tidally influenced water bodies, the Site currently has no concerns associated with flooding due to climate change and/or sea level rising. Future redevelopment/rehabilitation of the Site will include appropriate engineering to address the management of stormwater and other concerns related to potential localized flooding of low-lying areas.

1.2 Previous Site Use(s)

Historical documentation indicated that Lot 114 was undeveloped until construction of the current residence circa 1960, and Lot 113 has never been developed.

As documented in AKRF’s August 2022 Phase I ESAs, Lot 114 at the Site was approximately 10,000-square feet and developed with a vacant fire damaged, 2-story residential home with basement and attached garage on Lot 114.

1.3 Previous Cleanups/Remediations

No information/records indicating previous environmental cleanups or remediation activities conducted at the Site were identified.

1.4 Site Assessment Findings

AKRF prepared Phase I ESAs for the Site in conformance with American Society for Testing and Materials (ASTM) Practice E1527-13 in August 2022. At the time of the Phase I ESAs, Lot 113 was an approximately 2,500-square foot undeveloped vacant lot; and Lot 114 was an approximately 7,500-square foot lot developed with a fire damaged, vacant 2-story residential home with basement and attached garage.

The Phase I ESA for Lot 113 identified the presence of miscellaneous refuse on the western portion on the parcel along Catherine Street as a *De Minimis* Condition. The Phase I ESA for Lot 114 identified the potential presence of asbestos-containing material (ACM), lead-based paint (LBP), lead-containing paint (LCP), polychlorinated biphenyls (PCBs) as Business Environmental Risks (BERs) and the presence of miscellaneous automotive refuse on the northwestern portion of the parcel as a *De Minimis* Condition.

Based on the findings of the Phase I ESA for Lot 114, AKRF prepared an Asbestos Survey Report that summarized an ACM survey of the Site structure completed. The September 16, 2022 survey included an inspection of the Site to identify suspect ACM; collection of representative samples of suspect ACM; documentation of sampling locations on a chain of custody; and analysis of samples at Alpha Analytical, a New York State Department of Health (NYSDOH) laboratory. Each sample was analyzed using Polarized Light Microscopy (PLM) methods. Materials that were found to contain greater than one percent (>1%) asbestos were identified as positive and classified as asbestos-containing. Other materials, in which either no asbestos was identified, or trace amounts were detected (i.e., less than or equal to 1%), were classified as non-asbestos-containing. Samples were analyzed on a “positive-stop” basis, i.e., once one sample of a material was determined to be ACM, other samples of the same material were not analyzed.

Based on laboratory analysis, approximately 2 square feet of roof penetration tar on the lower roof and approximately 175 square feet of vinyl floor tile in the first and second floors hallways (2nd layer under the faux wood peel and stick tiles and on top of faux wood roll on flooring) were identified as ACM.

AKRF recommended that ACM to be disturbed must be removed by a licensed asbestos abatement contractor prior to any disturbance, including removing all three layers of flooring in the hallways as ACM. AKRF also recommended keeping a copy of the Asbestos Survey Report at the Site through completion of demolition activities and sampling any additional suspect ACM not previously sampled and/or handling the material in accordance with applicable regulations. Based on the sampling results and recommendations, AKRF prepared an Asbestos Abatement Specification in October 2022, which documented procedures to be followed during ACM removal at the Site.

1.5 Project Goals/Site Reuse Plan

To support the revitalization of community assets, the TONH CDA intends to demolish the existing structure and redevelop the Site for single-family residential. The overall project goal is to redevelop an underutilized property for the benefit of the community in an effort to improve its future and the quality of life of residents.

2.0 APPLICABILITY AND CLEANUP STANDARDS

2.1 Cleanup Oversight Responsibility

If evidence of tanks, petroleum contamination, or other unknown contamination is identified during redevelopment/rehabilitation activities, the appropriate state regulatory agency would be notified, and the CDA will retain a qualified environmental professional (QEP) to oversee the work to ensure that all activities are conducted in accordance with applicable federal, state, and local regulations (including applicable sampling and reporting). ACM, LBP, and other pre-demolition surveys and/or abatement will be conducted by qualified licensed professionals for the respective disciplines.

2.2 Cleanup Standards for Major Contaminants

The applicable cleanup standards for the Site include the New York State Department of Environmental Conservation (NYSDEC) Soil Cleanup Objectives (SCOs) presented in Section 6.8 of 6 New York Code of Rules and Regulations (NYCRR) Part 375. Specifically, based on the anticipated future use of the Site (single-family residential), the Residential SCOs (RSCOs) (applicable to single-family residential), developed for the protection of public health, would be applicable to the project.

2.3 Laws & Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the Federal Davis-Bacon Act, NYSDEC environmental laws, Occupation and Health Administration (OSHA) regulations, and local TONH by-laws and ordinances. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed. The TONH CDA will competitively bid and retain qualified environmental professionals, in accordance with the competitive procurement provisions of 40 Code of Federal Regulations (CFR) Part 31.36. In addition, all appropriate permits and approvals (e.g., notify before you dig, state notifications/permits, soil transport/disposal approvals, etc.) will be obtained prior to the work commencing.

3.0 EVALUATION OF CLEANUP ALTERNATIVES

3.1 Cleanup Alternatives Considered

To address contamination identified at the Site, three different cleanup alternatives were considered as outlined below.

- Alternative 1: No Action
- Alternative 2: ACM Abatement and Demolition of the Existing Building With Retention of Foundation
- Alternative 3: ACM Abatement and Demolition of the Existing Building and Foundation

3.2 Criteria for Evaluation of Cleanup Alternatives

3.2.1 Effectiveness

- Alternative 1: No action would not be effective in that it would not allow for the renovation or redevelopment of an underutilized property for the benefit of the community.
- Alternative 2: ACM abatement and demolition of the existing building would be effective as it would remove all building contaminants and allow for future redevelopment of the Site in accordance with the CDA's goals.
- Alternative 3: ACM abatement and demolition of the existing building would be effective as it would remove all building contaminants and allow for future redevelopment of the Site in accordance with the CDA's goals.

3.2.2 Implementation

- Alternative 1: No action could be readily implemented by leaving the Site in its current blighted state and maintaining security (e.g., site fencing, security cameras, etc.) to prevent future vandalism and/or dumping of debris/refuse in perpetuity.
- Alternative 2: ACM abatement and demolition of the existing building could be implemented as abatement and demolition contractors are readily available to do the work. Under this alternative, the aboveground portions of the existing building would be demolished following abatement and off-site disposal of the known ACM (and any suspect ACM identified in the future) would take place in accordance with applicable federal, state, and local regulations. This alternative would also include reinforcement of the existing building foundation to support construction of a new building using the existing building's foundation.
- Alternative 3: ACM abatement and demolition of the existing building could be readily implemented as abatement and demolition contractors are readily available to do the work; however, it would be more complicated than Alternatives 1 and 2 as the existing foundation would also be demolished. Under this alternative, the existing building would be demolished following the abatement and off-site disposal of the known ACM (and any suspect ACM identified in the future) would take place in accordance with applicable federal, state, and local regulations. This alternative would also include characterization of soil requiring excavation and off-site disposal in accordance with the requirements of the intended destination facility(ies) to support redevelopment activities; excavation of soil to support construction of the proposed new building; demolition/removal of debris, former foundations; and fencing; and off-site disposal of soil and demolition debris in accordance with applicable federal, state, and local

regulations. This alternative may also include the development of more than one structure to accommodate multiple families.

3.2.3 Cost

- Alternative 1: No action would require installation and maintenance of safety features at the Site (e.g., fences, security cameras, etc.) to prevent future vandalism and/or dumping of debris/refuse in perpetuity, with costs estimated to be on the order of \$50,000; there are no cleanup costs associated with this alternative.
- Alternative 2: ACM abatement would require abatement of all known/suspected ACM, demolition of the structure, and transportation and off-site disposal of ACM and non-ACM building debris. The new building construction costs (on the existing building's foundation) are estimated to be approximately \$2,000,000, with the associated ACM cleanup (abatement) and demolition work anticipated to be approximately \$500,000. Therefore, the cleanup costs for this alternative are estimated to be approximately \$500,000 (excluding new building construction costs).
- Alternative 3: ACM abatement would require abatement of all known/suspected ACM, demolition of the structure, and transportation and off-site disposal of ACM and non-ACM building debris; demolition of the current building; characterization of any soil requiring off-site disposal; and excavation/removal of building foundation and any soil. The new building construction costs are estimated to be approximately \$2,000,000, with the associated ACM cleanup (abatement) and demolition work anticipated to be approximately \$750,000. Presuming soil meets the unrestricted use criteria (and could be reused on-site during redevelopment), the costs associated with the disposal of soil generated during the redevelopment work are expected to be negligible (little excess soil for disposal is expected in this scenario). Therefore, the cleanup costs for this alternative are estimated to be approximately \$750,000 (excluding new building construction costs). This cost may increase depending on the number of structures built, which is being contemplated.

3.3 Recommended Cleanup Alternatives

Based on an evaluation of the effectiveness, implementability, and costs associated with the three cleanup alternatives, the recommended approach is Alternative 3.

Alternative 2 remediates the Site and enables the Site to be redeveloped; however, use of the existing building foundation would limit the size and design for the future new residential building. Alternative 3 would be the most appropriate approach as it would satisfy the CDA's goal to redevelop an underutilized property with the maximum benefit for the community. As costs for Alternatives 2 and 3 are pretty comparable, Alternative 3 would be most in line with the CDA's goal and would allow flexibility if more than one residence is constructed.

FIGURE

© 2024 AKRF Q:\Projects\9240014 - NEW CASSEL EPA MULTI-PURPOSE + DOS-BOA\Technical\GIS and Graphics\9240014 Fig 1 Site Location.mxd 7/2/2024 12:33:15 PM mvelieux



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184 Catherine Street
 New Cassel, New York

SITE LOCATION

DATE	7/2/2024
PROJECT NO.	240014
FIGURE	1