

***DRAFT* ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES
FORMER ROSS OIL FACILITY
2360 WEST PIERSON ROAD
FLINT, MICHIGAN 48504**

Prepared by AKT Peerless for
**GENESEE COUNTY LAND BANK AUTHORITY
452 SOUTH SAGINAW STREET, 2ND FLOOR
FLINT, MICHIGAN 48502**

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1.0 INTRODUCTION

This DRAFT Analysis of Brownfield Cleanup Alternatives (ABCA) was prepared by the Genesee County Land Bank Authority (GCLBA). The ABCA is a required element of the application for a Hazardous Substances Brownfield Cleanup (Cleanup Grant) submitted by the GCLBA to the United States Environmental Protection Agency (USEPA). This ABCA will be re-evaluated and revised to reflect any updated information should the grant be awarded.

If awarded, the Cleanup Grant will fund the cleanup of 2360 West Pierson Road, Flint, Genesee County, Michigan (subject property).

2.0 BACKGROUND

2.1 SITE DESCRIPTION

The subject property is located in the southwest ¼ of the southwest ¼ of Section 26 in the City of Flint (T.8N. /R.6E.), Genesee County, Michigan. The subject property is located north of West Pierson Road, east of Clio Road, and west of Cloverlawn Drive.

It consists of a rectangular parcel that contains approximately 0.76 acres. The current owner of the subject property is the GCLBA. The subject property is unoccupied. The subject property's parcel identification number is 46-26-351-044 and is zoned D-3, Community Business District.

The subject property is currently improved with a blighted, unoccupied, commercial building, most recently utilized as an automotive repair shop and car wash. The subject property is located in an area of the City of Flint that is characterized by commercial and residential properties.

General information regarding the on-site building (the subject building) is presented in the following table:

General Construction	One-story, flat roof, concrete block and wood construction, concrete slab on grade foundation, partial basement/sub-floor pits
Predominant Interior Finish	Concrete, drywall, paint, wood, metal, glass
Square Footage (total)	4,496
Construction and Other Improvement Dates	Constructed in 1985 Addition in 1986 Remodel in 1993
Interior Areas	Interior areas include five automobile oil change bays, five car wash bays, offices,

	and a bathroom
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Non-structural improvements at the subject property are limited to an asphalt parking lot and limited greenbelts.

2.2 SITE HISTORY

From at least 1937 to 1960, the subject property was utilized for agricultural purposes. In 1961, the subject property was developed with an asphalt parking lot, used in association with the eastern adjoining property for use as a furniture store. The subject building was constructed in 1985 as an oil change/car wash shop. Since 2009, the subject property has been unoccupied.

2.3 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Following is a list of environmental investigations that have been conducted at the subject property:

- September 2016 - Phase I ESA prepared by AKT Peerless on behalf of the GCLBA;
- October 2016 – Pre-Demolition Hazardous Materials Survey conducted by AKT Peerless on behalf of the GCLBA; and
- November 2016 - Phase II ESA conducted on the subject property by AKT Peerless on behalf of the GCLBA.

Copies of all reports are on file with the GCLBA, 452 South Saginaw Street, 2nd Floor, Flint, Michigan 48502, and will be made available for public review with the final ABCA.

2.4 CURRENT ENVIRONMENTAL CONCERNS

In October 2016, AKT Peerless conducted a pre-demolition hazardous materials survey of the building at the subject property to identify asbestos-containing materials (ACMs) and other hazardous materials located on the subject property. The following ACMs were identified at the subject property:

- Stucco
- Boiler Fire Brick

Approximately 2,400 square feet of non-friable stucco and 20 cubic feet of friable fire brick were identified on/within the subject property. The basement/pit area of the building contains approximately 19,000-gallons of flood water. The water is the result of groundwater intrusion from the interior floor drain system and/or foundation deterioration due to structural vacancy and failure to maintain working electricity and plumbing. Due to the presence of the water, an

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inspection of the basement/pit area could not be conducted. Therefore, additional ACM and/or hazardous materials may be present within the building basement.

In September 2016, AKT Peerless conducted a Phase I ESA of the subject property and identified former site operations as an automotive repair /car wash as a recognized environmental condition (REC).

In October 2016, AKT Peerless conducted a Phase II ESA of the subject property to evaluate former automotive repair and car wash operations. The investigation included the collection of soil and groundwater samples from locations most likely to have been impacted by this former site use. Based upon laboratory analysis, concentrations of select volatile organic compounds (VOCs) including 1,2,3-Trimethylbenzene and 1,2,4-trimethylbenzene were identified within on-site soil in excess of the MDEQ Part 201 Generic Residential Cleanup Criteria (RCC); specifically, the Residential Drinking Water Protection Criteria and/or Groundwater Surface Water Interface Protection Criteria. Concentrations of lead, cadmium, and chromium were detected within on-site groundwater in excess of the MDEQ Part 201 Generic RCC; specifically, the Residential Drinking Water Criteria and/or Groundwater Surface Water Interface Criteria. Concentrations of additional VOCs including n-butylbenzene, sec-butylbenzene, 2-methylnaphthalene, n-propylbenzene, and xylenes were detected within soil samples collected above the laboratory method detection limit; however, were below the MDEQ Part 201 Generic RCC.

Furthermore, due to the presence of water within the basement/pit area of the subject building, AKT Peerless was unable to inspect or collect subsurface samples (i.e. soil or groundwater) beneath the slab of the building. Therefore, additional petroleum contamination may be present beneath the subject building.

3.0 PROPOSED CLEANUP OBJECTIVES

The GCLBA intends to use the USEPA Cleanup Grant to fund the abatement, demolition, site assessment, soil management, determine due care obligations, and site prep for future development. The proposed cleanup will allow for demolition of the subject building and prepare the subject property for future redevelopment of a grocery store.

3.1 POTENTIAL CLEANUP ALTERNATIVES

Option No. 1 – No Action

Effectiveness: A no-action alternative will not mitigate the threat to human health and the environment that is known to exist on the subject property and will not facilitate demolition of the subject building for redevelopment of the subject property. Continued, unchecked deterioration of the building could potentially result in an increased threat to human health and the environment. As breaches in the building envelope become more severe, damaged/deteriorated asbestos could become airborne and be liberated into the air and environment.

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The no-action alternative is not recommended as it is not compatible with regulatory requirements or the goals of reducing the threat to human health and the environment, and will impede future redevelopment of the subject property.

Implementation: The no-action option is not feasible because, according to regulatory requirements, regulated asbestos-containing materials are required to be removed from a structure before demolition can be performed.

Cost: A no-action alternative would represent the lowest cost initially, but continued, unchecked deterioration of the building could result in fugitive releases to the surrounding community and a higher cost for abatement if the entire building would need to be demolished and disposed of as asbestos waste.

Option No. 2 – Asbestos Abatement and Soil Management

Asbestos Abatement

Effectiveness: An asbestos abatement alternative will mitigate the threat to human health and the environment that is known to exist on the subject property and will facilitate demolition of the subject building for redevelopment of the subject property. In addition, this option is required by regulation in advance of building demolition.

As petroleum impacted soil and groundwater is present on the subject property, appropriate soil handling methods will be implemented during demolition activities. Due to the presence of water within the basement/pit area of the subject building, AKT Peerless was unable to inspect or collect subsurface samples (i.e. soil or groundwater) beneath the slab of the building. Therefore, additional petroleum contamination may be present beneath the subject building at concentrations higher than those previously discovered. Soil management activities will include further characterizing, delineation, and assessment in order to determine disposal methods and provide guidance for future site use with respect to due care obligations.

Implementation: This option is technically feasible. Before planned demolition, an approved, state-licensed asbestos abatement contractor will remove and properly dispose the ACMs listed in AKT Peerless' Pre-Demolition Hazardous Materials Survey, dated October 2016 as well as determine appropriate disposal methods for known petroleum contamination.

Asbestos abatement work will be performed according to the Occupational Safety and Health Administration (OSHA) requirements of Code of Federal Regulation 29 CFR 1926.1101, the Asbestos Construction Standard, adopted by reference in Michigan as Rule 325.51302. Work activities will also meet the criteria of the Michigan Department of Energy, Labor, and Economic Growth Public Act 135, of 1986 (MDELEG) and the National Emission Standard for Hazardous Air Pollutants 40 CFR Part 61 (NESHAP) for regulatory notification of intent to renovate or demolish. The NESHAP requirements for asbestos identification, adequate wetting, no visible

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emissions, and proper waste packaging for disposal will also be followed. Abatement contractors will be licensed (ACT 135 of 1986) and contractor personnel will be accredited (Public Act 440 of 1988) through the MDELEG Asbestos Program.

A biddable specification package will be prepared to include all necessary design drawings, technical specifications, and general requirements. The package will be suitable for bidding purposes to secure a contractor to implement the corrective action, as applicable.

The approved contractor will submit a joint Notification of Intent to Renovate/Demolish (Notification) form to the Michigan Department of Environmental Quality (MDEQ), Air Quality Division and the MDELEG Asbestos Program in advance of asbestos abatement. The Notification will be submitted ten working days prior to on-site activities. The Notification summarizes the project description, schedule, approved contractor, facility owner, disposal location, and engineering controls, etc. Refer to Attachment B for a blank copy of this form.

After asbestos abatement activities are completed, final air clearance samples will be collected to verify adequate abatement activities. The final air clearance criterion established by specification for this project is the level referenced in 40 CFR Part 763, Subpart E, of the EPA Asbestos in Schools Rule of 0.01 fibers per cubic centimeter of air or the background level as measured before the start of abatement. Clearance samples will be analyzed by phase contrast optical microscopy. Properly trained and equipped personnel shall perform all work.

3.2 RECOMMENDED CLEANUP ALTERNATIVE

Option No. 2 is recommended for the subject property, as it is feasible to implement, will mitigate risks to human health and the environment, and will provide a long term cleanup response. In addition, this alternative is necessary to support demolition of the structure and the intended future use of the subject property. It has been determined that Option No. 1 will not mitigate, but may actually increase, the threat to human health and the environment that is known to exist on the subject property, will not facilitate/meet project goals, and will not meet regulatory requirements.

4.0 CONCLUSION

Remedial alternatives were evaluated based on effectiveness, ease of implementation, cost, and the potential future use of the property.

The no-action alternative (Option No.1) will not mitigate, but may increase, the threat to human health and the environment that is known to exist on the subject property, will not facilitate/meet project goals and will not meet regulatory requirements. The GCLBA has recommended not proceeding with Option No.1.

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The asbestos abatement alternative is technically feasible and implementable, will mitigate risks to human health and the environment, and will provide a long term cleanup response in the most cost-effective manner. In addition, this alternative is necessary to support the intended future use of the property. The GCLBA has recommended proceeding with Option No. 2 regarding asbestos-containing materials.

ATTACHMENT A

FIGURE

ATTACHMENT B

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH FORM (BLANK)