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Analysis of Brownfields Cleanup Alternatives
Petroleum County Courthouse
302 East Main Street, Winnett, MT 59087

Prepared for Snowy Mountain Development Corporation

1.0 INTRODUCTION AND BACKGROUND

This Analysis of Brownfields Cleanup Alternatives (ABCA) is prepared for Snowy Mountain Development Corporation (SMDC), in support of remediation and redevelopment of the Petroleum County Courthouse (Site) located at 302 East Main Street, Winnett, Montana. The Site is reported to have been constructed in 1917 as a commercial structure that housed a bank, offices, a printing company, and hardware store until 1928 when it was leased to Petroleum County (the County) and converted to a courthouse. The building is currently used as the county courthouse. The basement is used by the County Sheriff's office (previously located on the second story) while the second story is currently vacant.

The County has requested assistance from SMDC for the remediation of asbestos-containing materials (ACM) and lead-based paint (LBP) in order to renovate the second story of the structure to provide low-income housing for the community. This ABCA was completed in general accordance with the United States Environmental Protection Agency (USEPA) Brownfield ABCA requirements.

1.1 Site Location

The Site is located at 302 East Main Street, Winnett, Montana (Figure 1) on a 0.241-acre parcel with Geocode Identification 55-2374-06-2-18-10-0000. The Site is at the northeast corner of the intersections of East Main Street and North Ashley Avenue. The Site is owned by the County and is developed with the courthouse structure and a storage shed. The courthouse is two stories with a full basement totaling approximately 15,270 interior square feet (sq ft). The site layout and neighboring properties are shown on Figure 2.

Figure 1. Site Location Map

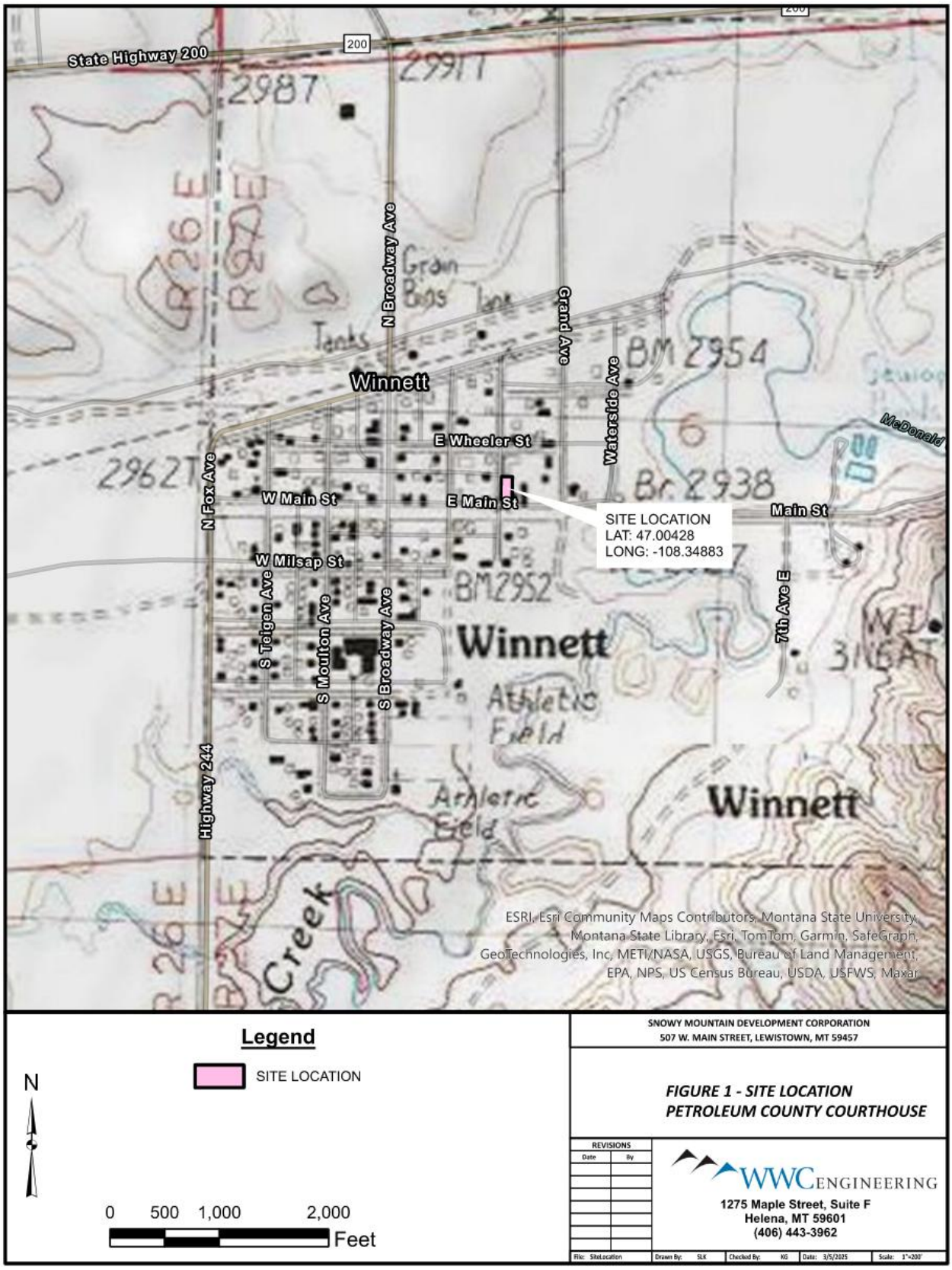
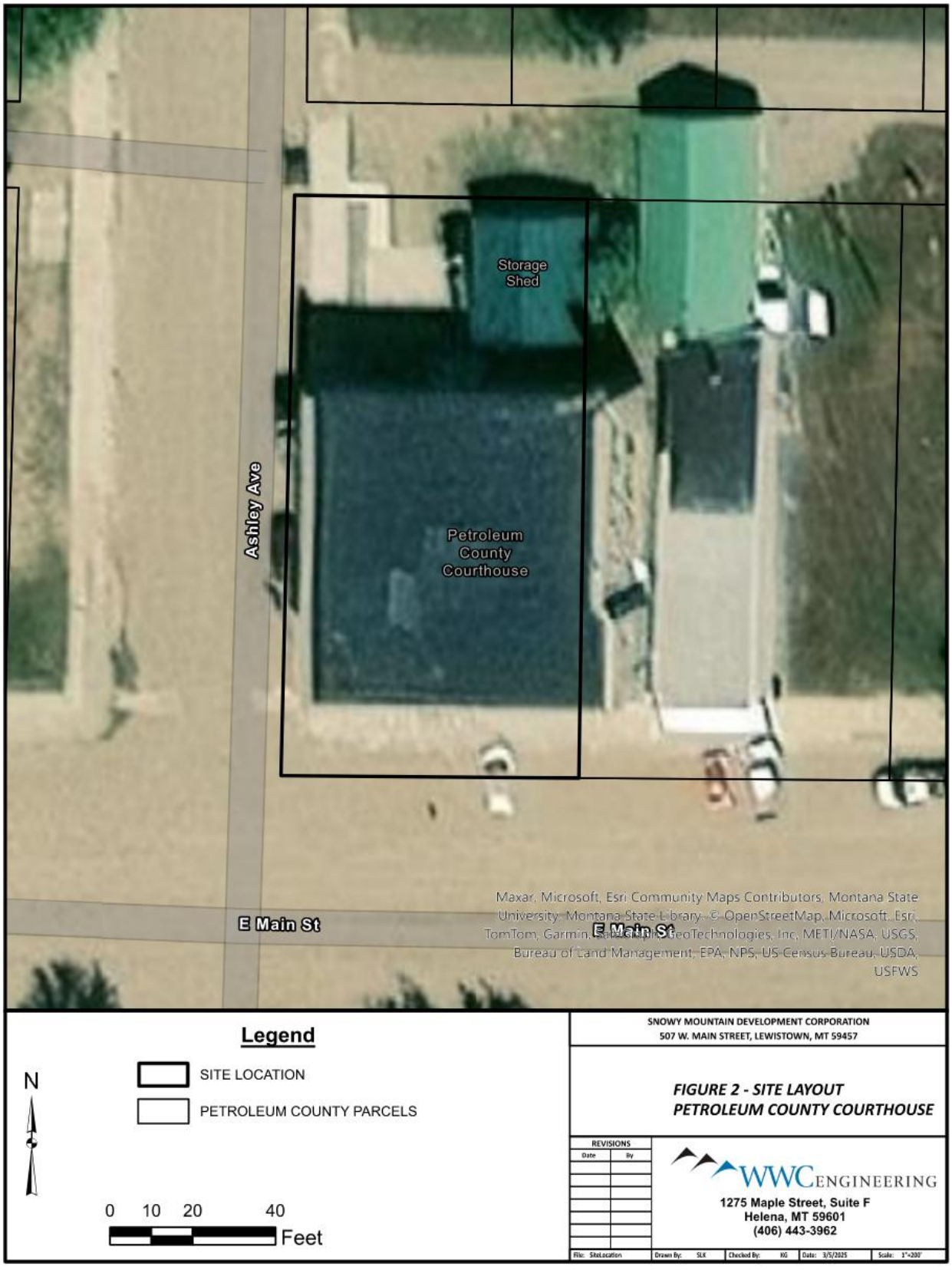


Figure 2. Site Layout Map



1.1.1 Forecasted Climate Conditions

In accordance with the USEPA's 2024-2027 Climate Adaptation Plan, this ABCA discusses observed and forecasted climate change conditions for the Site.

According to the US Global Change Research Program (USGCRP) through NOAA National Centers for Environmental Information, Montana's average annual temperature has increased approximately 2.5°F since the early 20th century, higher than the warming for the contiguous United States as a whole. This increase is most evident in winter warming, which has been characterized by fewer very cold days since 1990. Under a higher emissions pathway, historically unprecedented warming is projected by the end of the 21st century.

Montana's mountains and river systems provide critical water resources not only for Montana but also for other downstream states. Projected increases in spring precipitation may have both beneficial (increased water supplies) and negative (increased flooding) impacts.

Higher temperatures will increase the rate of soil moisture loss during dry spells, leading to an increase in the intensity of naturally occurring future droughts and an increased demand for irrigation water. The frequency of wildfire occurrence and severity is projected to increase in Montana.

FEMA has not completed a study to determine flood hazard for the Town of Winnett; therefore, a flood map has not been published at this time. The Town is located along the north bank of McDonald Creek, which has an upstream drainage area of approximately 428 square miles. While FEMA has not completed a flood study for Winnett, it is likely susceptible to flooding risks during larger runoff events.

1.2 Previous Site Use(s) and Any Previous Cleanup/Remediation

The Site is reported to have been developed in 1917 as a commercial structure that housed a bank, offices, a printing company, and hardware store until 1928 when it was leased to the County and converted to a courthouse. There are no known previous cleanups or remediations for the Site.

The County has requested assistance from SMDC with the abatement of ACM and LBP within areas of the courthouse building that will be renovated as part of the project to construct rental housing units on the second floor of the building.

1.3 Previous Inspection Findings

A Phase II ESA investigation was conducted by Tetra Tech in August 2022, which was performed under the EPA START (Superfund Technical Assessment and Response Team) Program. The Phase II ESA included an inspection for ACM and LBP screening. Tetra Tech prepared a Phase II ESA addendum in 2024 after conducting additional sampling for the roof of the Subject Property. Results of the limited Phase II ESA and addendum

identified suspected contaminants of concern (COCs) in the building including ACM and LBP.

Asbestos-Containing Material (ACM): Four ACMs were found during the asbestos inspection that will be addressed by this project. ACM floor tiles on the first floor will not be disturbed by the renovation and therefore will not be addressed in this scope of work. Asbestos-containing materials (ACM) are defined as any material containing more than 1% asbestos.

1) Roofing materials, including roofing tar and paint, throughout the main roof (2% to 10% asbestos)
2) Roofing mastic (3.25% to 4% Chrysotile) on the exterior roof of the stairway to the basement north exit
3) Blue floor tiles (2.25% Chrysotile) on the second floor
4) Green floor tiles (2% to 2.75% Chrysotile) on the second floor
5) Vermiculite insulation in the attic space above the second floor contains trace asbestos (<1% Actinolite) but is not ACM

Lead/Lead-based Paint (LBP): Two materials with LBP were found during the LBP inspection that will be addressed by this project. LBP located on wall on the first floor will not be disturbed by the renovation and therefore will not be addressed with this project.

1) Wood skylight frame (2.3 to 3.6 mg/cm^2) on the second story ceiling.
2) Exterior window frames, sashes, sills, trim (1.4 to 7.0 mg/cm^2).

1.4 Project Goal

The planned reuse and redevelopment of the Site includes renovation to construct low-income residential housing on the second story and rental office spaces. The renovation will require the removal of hazardous ACM flooring and roofing materials. The vermiculite insulation which contains asbestos, but is not ACM, will also be removed and disposed of in accordance with requirements for Montana landfills. The skylight framing that has LBP will be component removed and disposed of. Loose and flaking LBP located on the exterior of windows will be scraped off and disposed of per nonhazardous or hazardous waste requirements so the County's general contractor can paint the exterior of the windows. The abatement contractor will analyze the skylight framing debris by TCLP to determine if the waste is nonhazardous or hazardous and then dispose of the debris with LBP accordingly. The roof is currently leaking around the skylight and damaging the interior of the historic structure. Following each day's removal of ACM roofing, the roofing contractor will replace that section of the roof.

2.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

2.1 Cleanup Oversight Responsibility

Based on the inspection results and in accordance with state and federal regulations, the ACMs identified as >1% are required to be abated prior to disturbance. The ACMs are required to be removed by a licensed asbestos abatement contractor. Applicable Montana regulations include the Administrative Rules of Montana (ARM) 17.74 Subchapter 3 and Montana Code Annotated (MCA), Title 75, Part 5. Federal regulations include the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 61, Subparts A&M and OSHA regulations regarding worker exposure to asbestos fibers (OSHA 1910 Subpart Z). Following completion of abatement activities, a visual inspection and asbestos air clearance sampling will be required per Montana ARM 17.74.357. Lead wipe samples will be collected from the floor of the interior room with the skylight framing that has LBP. The selected abatement contractor will follow all applicable State and Federal cleanup standards for the proper abatement and disposal of ACM and LBP.

2.2 Cleanup Standards for Major Contaminants

The abatement contractor will follow all Federal or State cleanup standards for proper remediation of the ACM and disposal of applicable LBP-coated building materials as hazardous material, as needed. Any other hazardous materials discovered on the Site may require proper handling, if encountered.

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, Build America, Buy America (BABA), and state environmental laws. Federal, state, and local laws regarding procurement of contractors to conduct the abatement will be followed.

In addition, all appropriate permits (e.g., Asbestos Project Permit from the MT DEQ Asbestos Control Program, ACM transport/disposal manifests, construction and demolition debris disposal manifests, and hazardous materials disposal manifests) will be obtained. ACM will be disposed of at an appropriately permitted landfill for the acceptance of asbestos. Hazardous concentrations of lead (if detected) will be disposed of at a permitted hazardous waste landfill.

3.0 EVALUATION OF CLEANUP ALTERNATIVES

3.1 Cleanup Alternatives Considered

To address ACM, LBP, and soils contamination at the Site, three different alternatives have been considered:

Alternative #1: *No Action*;

Alternative #2: *Removal/Abatement of ACM on Second Floor and Roof with Removal and Disposal of Windows Painted with LBP*; and

Alternative #3: *Removal/Abatement of ACM on Second Floor and Roof with Disposal of LBP from Windows*.

3.2 Evaluation of Cleanup Alternatives

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

To address contamination at the Site, three (3) different cleanup alternatives are considered. The different methods are listed in each alternative below.

- **Alternative #1**: *No Action* - No cleanup action will be implemented at the Site.
- **Alternative #2:** *Removal/Abatement of ACM on Second Floor and Roof with Removal and Disposal of Windows Painted with LBP* - This alternative proposes that ACM present within the second story of the building and on the roofs would be abated and properly disposed at a permitted facility. A replacement membrane roof will be installed on the structure. Window components with hazardous concentrations of lead on the exterior would be removed, containerized, and disposed at a hazardous waste landfill, if TCLP determines the waste is hazardous.
- **Alternative #3**: *Removal/Abatement of ACM on Second Floor and Roof with Disposal of LBP from Windows* - This alternative proposes that ACM present within the second story of the building and on the roofs would be abated and properly disposed at a permitted facility (same as Alternative #2). A replacement membrane roof will be installed on the structure. Window components with LBP on the exterior would be scraped to remove the loose and flaking LBP for disposal at a hazardous waste landfill, if TCLP determines the waste is hazardous. The historic windows would remain in place to ensure the project is eligible for historic tax credits.

3.2.1 Effectiveness – Including Climate Change Considerations

The following discussion evaluates the effectiveness of each alternative. A factor of the effectiveness of an alternative includes possible climate change considerations and the impact climate change may have on a Site. Regional trends show increased extreme weather such as increased frequency of heavy precipitation events and increased frequency of flooding. The Site will maintain similar amounts of impervious surfacing with all three alternatives which will not increase the volume or peak flowrate of runoff from the Site during a precipitation event. All three alternatives have the similar and minimal climate change considerations.

- **Alternative #1:** *No Action* - No action is not effective in preventing the health risks from the identified COCs at the contaminated Site. It also does now allow

the County to renovate the structure and does not prevent on-going damage to the interior of the structure from water intrusion through the roof around the leaking skylight framing.

- **Alternative #2:** *Removal/Abatement of ACM on Second Floor and Roof with Removal and Disposal of Windows Painted with LBP* - Removal/Abatement of ACM from the second story and roof combined with the removal and disposal of window components containing LBP will be the most effective at removing all known health risks and environmental hazards associated with hazardous building materials impacted by the planned renovation. However, the removal and disposal of the original windows makes the Site ineligible for historic tax credits.
- **Alternative #3:** *Removal/Abatement of ACM on Second Floor and Roof with Disposal of LBP from Windows* - Removal/Abatement of ACM from the second story and roof combined with the removal and disposal of loose and flaking LBP from the exterior of window components is effective at removing all known health risks and environmental hazards associated with hazardous building materials impacted by the planned renovation. The removal and disposal of loose and flaking LBP from the exterior of the original windows allows the County's general contractor to renovate the existing windows and ensures the project is eligible for historic tax credits.

3.2.2 Implementability

- **Alternative #1:** *No Action* – There are no barriers or requirements for implementation as no action will be taken.
- **Alternative #2:** *Removal/Abatement of ACM on Second Floor and Roof with Removal and Disposal of Windows Painted with LBP* -
    - All ACM located on the second story and roofs would be abated and removed from the structure. Based on the results of the asbestos inspection, standard protocols for removal of ACM would be implemented. Standard abatement procedures for ACM are straightforward for properly trained contractors.
    - Contracting an accredited asbestos remediation company to address the ACM at the Site during the cleanup phase of redevelopment (e.g., abatement is a requirement for Alternative #2). ACM remediation is recommended prior to any repurpose of the Site.
    - ACM clearance sampling would be completed in accordance with an approved SAP.
    - The interior skylight framing containing LBP would be removed and disposed of as nonhazardous or hazardous waste, as needed based on TCLP sampling.
    - The window components containing LBP would be removed and disposed of as nonhazardous or hazardous waste, as needed based on TCLP sampling.
    - The Site could be accessed by standard contractors or members of the public following ACM clearance and lead wipe samples showing compliance for HUD

lead standards from the floor of the room with the skylight.

- **Alternative #3:** *Removal/Abatement of ACM on Second Floor and Roof with Disposal of LBP from Windows* -
  - All ACM located on the second story and roofs would be abated and removed from the structure. Based on the results of the asbestos inspection, standard protocols for removal of ACM would be implemented. Standard abatement procedures for ACM are straightforward for properly trained contractors.
  - Contracting an accredited asbestos remediation company to address the ACM at the Site during the cleanup phase of redevelopment (e.g., abatement is a requirement for Alternative #2). ACM remediation is recommended prior to any repurpose of the Site.
  - ACM clearance sampling would be completed in accordance with an approved SAP.
  - The interior skylight framing containing LBP would be removed and disposed of as nonhazardous or hazardous waste, as needed based on TCLP sampling.
  - The window components containing LBP would be scraped to remove loose and flaking LBP for disposal as nonhazardous or hazardous waste, as needed based on TCLP sampling.
  - The Site could be accessed by standard contractors or members of the public following ACM clearance and lead wipe samples showing compliance for HUD lead standards from the floor of the room with the skylight.

3.2.3 Cost

- **Alternative #1:** *No Action* - No action necessitates no direct cost for abatement. Long-term costs could include administration and management of contamination onsite and ongoing repair costs associated with the leaking roof that is damaging the interior of the building.
- **Alternative #2:** *Removal/Abatement of ACM on Second Floor and Roof with Removal and Disposal of Windows Painted with LBP* - The total abatement cost estimate for this alternative is **$172,884**.
- **Alternative #3:** *Removal/Abatement of ACM on Second Floor and Roof with Disposal of LBP from Windows* - The total abatement cost estimate for this alternative is **$194,389**.

3.3 Recommended Cleanup Alternative

The recommended cleanup alternative is **Alternative #3 Removal/Abatement of ACM on Second Floor and Roof with Hazardous Materials Disposal of LBP from Windows.** The alternative would target ACM and LBP on the Site that will be impacted by the planned renovation.

Alternative #3 would most effectively use Brownfields cleanup funding in conjunction with other funding available to the County to cost-share the renovations. Keeping the original windows facilitates the use of historic tax credits to fund future renovations.

4.0 GREEN AND SUSTAINABLE REMEDIATION MEASURES FOR SELECTED ALTERNATIVE

To make the selected alternative greener, or more sustainable, several techniques are planned. The most recent Best Management Practices (BMPs) issued under ASTM Standard E-2893: Standard Guide for Greener Cleanups will be used as a reference in this effort. The Owner will require the cleanup contractor to follow an idle-reduction policy and use heavy equipment with advanced emissions controls operated on ultra-low sulfur diesel. The number of mobilizations to the Site will be minimized.

5.0 REFERENCES

U.S. Environmental Protection Agency (USEPA), 2024. Brownfields ABCA Example for Cleanup Grant Proposals. https://www.epa.gov/sites/default/files/2020-09/documents/abca-example-for-cleanup-proposals.pdf, February 18.

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