

## **Analysis of Brownfields Cleanup Alternatives – Preliminary Evaluation of Presence of Asbestos and Abatement**

**1262 & 1282 Bookcliff Ave, Grand Junction, CO  
81501**

**Prepared by Grand Junction Housing Authority (GJHA)**

### **I. INTRODUCTION & BACKGROUND**

#### **a) Site Location**

The site consists of two parcels located at 1262 & 1282 Bookcliff Avenue in Grand Junction, Colorado 81501 (herein referred to as “the Site”).

#### **b) Previous Site Use**

The parcels are contiguous and have been owned by Grand Junction Housing Authority since 2007. The surrounding neighborhood consists of a mixture of single and multi-family housing with nearby commercial structures located about one block to the west.

1282 Bookcliff Avenue is a single family residence of wood frame construction permitted in 1949. The site contains 0.28 acres of land, and has been maintained as a single family dwelling since original date of construction. The structure was vacant at the date of purchase by GJHA and has remained vacant since that time.

1262 Bookcliff Avenue is a 5-plex multifamily facility with 1, 2, and 3 bedroom units constructed on 0.59 acres of land. Since purchasing the property in 2007, GJHA has managed the property as a rental with a preference for low income tenants. Previous to GJHA’s ownership, the property was utilized as a market rate rental investment. Currently, residents are being relocated per 49 CFR Part 24 of the Uniform Relocation Act.

### **II. SITE ASSESSMENT FINDINGS**

#### **a) Asbestos Containing Materials (ACMs)**

1282 Bookcliff Avenue – In December of 2013, an asbestos inspection was performed by Walsh Environmental Scientists and Engineers LLC (Walsh) to determine the feasibility of demolition of the structure due to ongoing vagrancy occurring at the site. Test results produced on December 20, 2013 showed detection of asbestos laden materials in building components including plaster, drywall, drywall texture, roofing materials, and sink coatings.

Asbestos containing plaster with texture and drywall systems were identified to be regulated, friable ACMs. Friable ACMs must be removed by a certified asbestos abatement contractor within a full containment and disposed of as asbestos waste prior to conducting demolition activities that may disturb them. Select non-friable materials may remain in the structure during demolition so long as the materials remain non-friable and the demolition is conducted in a manner to ensure that underlying site soils do not become contaminated with asbestos fibers or debris. In the event that the non-friable materials will become damaged by demolition activities, the materials must be removed by a certified asbestos removal contractor utilizing the appropriate engineering controls.

1262 Bookcliff Avenue – Grande River Environmental LLC (GRE) was tasked by the GJHA to conduct a limited asbestos inspection of the structure to identify building materials that are likely asbestos containing for planning and budgetary purposes in anticipation of demolition of the existing structure and redevelopment as an affordable housing infill development. The testing was limited to the exterior of the building and Units 3 and 5 since they were vacant at the time. The inspection identified and/or assumed drywall with joint compound and texture, linoleum, popcorn ceiling texture, and roofing tar to be asbestos containing.

Friable ACMs must be removed by a certified asbestos abatement contractor within a full containment and disposed of as asbestos waste prior to conducting demolition activities that may disturb them. Select non-friable materials may remain in the structure during demolition so long as the materials remain non-friable and the demolition is conducted in a manner to ensure that underlying site soils do not become contaminated with asbestos fibers or debris. In the event that the non-friable materials will become damaged by demolition activities, the materials must be removed by a certified asbestos removal contractor utilizing the appropriate engineering controls.

#### **b) Phase I Environmental Site Assessment**

GRE was further tasked by the GJHA to conduct a Phase I Environmental Site Assessment (ESA) of the combined parcels which will be completed in November 2017. A Phase I ESA consists of a desktop review of available public records and databases, interviews, and a site visit and is designed to identify potential contaminants and their likely sources that may be affecting the site, including but not limited to, nearby petroleum distribution facilities, dry cleaners, automotive repair/ salvage businesses, and uranium mill tailings.

### **III. PROJECT GOAL**

The goal of the project is to redevelop the combined 0.87 acres into an affordable housing development serving the most at risk populations of the community with on-site permanent supportive services. Currently the site is zoned residential Multifamily with 24 maximum units per acre. The preference for housing will be for those that have

experienced Domestic Violence (DV), and typically this population will include individuals who have experienced homelessness, trauma, and mental illness. It is anticipated that case management, mental health counselling, employment training and other community services will be made available to the tenants on-site and at other locations in the community.

GJHA has developed a preliminary conceptual Schematic Design for the new development which includes (20) 1 bedroom units. The design process engaged many community stakeholders including City and County governmental officials, Authorities Having Jurisdiction over City planning and permitting, Colorado Division of Housing, and other community partners interested in providing supportive services.

Other Highlights of the Development Include:

- 2 service spaces/offices for small meetings between a tenant/family and service providers, which can also serve as touchdown spaces for the GJHA Property Manager and Case Manager
- A multi-purpose room, with bathrooms, that can accommodate larger gatherings of people for group therapy work, other group activities, family gatherings and more (space that can accommodate 30-40 people)
- A central play area for children
- Central laundry facilities on the ground floor
- Sprinklers for fire suppression
- Built for a lot of wear and tear
- Thoughtfulness of design for safety and security of tenants and adjoining neighbors

#### **IV. APPLICABLE REGULATIONS AND CLEANUP STANDARDS**

##### **a) Cleanup Oversight Responsibility**

ACM removal operations are overseen by the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD) on behalf of the Environmental Protection Agency (EPA). Work procedures must be completed in accordance with Colorado Regulation No. 8, Part B, Asbestos (Regulation 8).

Projects involving the removal of more than 160 square or 260 linear feet of ACMs must be conducted under permit from the APCD. Projects requiring removal of more than 3,000 square feet of materials must be designed by an EPA and CDPHE certified Asbestos Project Designer. In accordance with Regulation 8, the design must detail engineering controls, removal procedures/ operations, handling, packaging, and disposal requirements along with several other details describing the site specific work operations.

In accordance with Regulation 8, removal of asbestos containing building materials (ACBMs) must be completed by an EPA and CDPHE certified General Abatement Contractor (GAC). The proper engineering controls must be implemented and utilized

throughout the duration of the removal project. Removed materials must be properly packaged, labeled, and disposed as asbestos containing waste at an approved facility.

Upon completion of the removal and before dismantling the containment, the work area must undergo a thorough final visual inspection and clearance air monitoring to determine if abatement operations are adequate. The inspection and air monitoring must be completed by a CDPHE certified Air Monitoring Specialist.

**b) Laws and Regulations**

Asbestos removal operations must be completed in accordance with the EPA and CDPHE Regulation 8. Workers must be protected in accordance with the OSHA *Asbestos in Construction Standard*.

**c) Cleanup Standards**

Contaminants identified at the Site will be remediated to the applicable Federal and/or State residential standards for soil, groundwater, and building components. Where appropriate and acceptable, risk-based cleanup standards will be determined in conjunction with the regulatory body and utilized for remediation goals.

**V. Evaluation of Cleanup Alternatives**

**a) Cleanup Alternatives Considered**

Three alternatives were considered for the Site which include:

Alternative #1: No Action

Alternative #2: Remediation of Asbestos Containing Materials (ACM's) and renovation of site structures for reuse.

Alternative #3: Remediation of Asbestos Containing Materials (ACM's), demolition of site structures, and redevelopment of the site to accommodate multifamily housing for those that have experienced DV.

**b) Cost Estimate of Cleanup Alternatives**

Effectiveness

Alternative #1: No action is not an effective alternative since the single family building is in disrepair, poses health risks associated with asbestos contamination, and therefore is not suitable for occupancy. The 5-plex poses health risks associated with asbestos contamination and only provides rooms for a limited number of tenants which does not efficiently use the site to its full potential.

Alternative #2: Both buildings will require extensive abatement of ACMs prior to conducting renovation activities to improve the habitability of the structures. Remediation and renovation of the structures will still only be available to a very limited number of tenants and therefore will not serve the community purpose of providing housing for those that have experienced DV.

Alternative #3: Alternatives #2 and #3 both will require remediation of ACMs from the buildings. With demolition of the buildings following abatement, Alternative #3 provides the opportunity to redevelop the site to increase occupancy of the facility and maximize the potential for housing those hardest to house that have experienced DV.

### Implementation

Alternative #1: Implementation of the No Action alternative is the easiest since no actions will be conducted; however, the condition of the site is likely to continue degrading and will eventually become uninhabitable.

Alternative #2: Remediation and renovation of the existing structures would be the fastest alternative to implement which results in continued habitation of the 5-plex and future use of the single family structure.

Alternative #3: Remediation and demolition of the existing Site structures followed by redevelopment of the site to facilitate the construction of a 20-unit multiplex would be the most difficult alternative to implement; however, the end product would be most advantageous to those who have experienced DV and to the community at large.

### Costs

Alternative #1: There are no costs beyond current maintenance and operating costs to this alternative since No Actions will be completed.

Alternative #2: The costs to remove ACMs. Abatement costs estimated to be \$100,000.00

Alternative #3: The costs to remove ACMs, demolish buildings, and clear the site for future development. Abatement costs likely around \$100,000 plus demolition costs estimated at \$60,000.00. Total estimated cost of \$160,000.00 for this measure.

## **c) Recommended Cleanup Alternative**

The recommended cleanup alternative is Alternative #3 for the following reasons:

Alternative #1: Implementation would not solve the degrading of the Site structures due to age and current condition and therefore provides no opportunity for additional housing and meeting the immediate need in the community to shelter victims of DV.

Alternative #2: While the implementation of this alternative would improve and extend the life of the existing site structures, the alternative does not provide opportunity for additional housing and the resources to assist those who have experienced DV.

Alternative #3: Implementation of this alternative would allow the best opportunity to provide assistance to those who have experienced DV and maximize the utilization of the Site.