



November 15, 2021

Ms. Karen Menetrey, Program Manager  
Remediation Oversight Section  
New Mexico Environment Department  
Ground Water Quality Bureau  
1190 St. Francis Drive  
Santa Fe, New Mexico 87502

Re: Phase III Analysis of Brownfield Cleanup Alternatives for the  
McCurdy Schools of Northern New Mexico, Española, New Mexico  
NMED Organization Code ENV00158  
Project Site Code 51573145  
Contract #20-667-2030-0006

Dear Ms. Menetrey:

Daniel B. Stephens & Associates, Inc. (DBS&A) is pleased to submit the above-referenced draft report for the McCurdy Schools of Northern New Mexico, using the trade name McCurdy Ministries Community Center, in Española, New Mexico.

If you have any questions or need additional information, please contact me at (505) 822-9400.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

John R. Bunch  
Senior Scientist

JRB/rpf  
Attachment  
cc: Rebecca Cook, NMED

*Daniel B. Stephens & Associates, Inc.*

6020 Academy NE, Suite 100 505-822-9400

Albuquerque, NM 87109 FAX 505-822-8877

Phase III Analysis of  
Brownfield Cleanup Alternatives  
McCurdy Ministries Community Center  
(Nine Buildings)  
Española, Rio Arriba County, New Mexico

---

Prepared for  
Remediation Oversight Section  
New Mexico Environment Department  
Ground Water Quality Bureau  
Santa Fe, New Mexico

Prepared by



**DBS&A**  
*Daniel B. Stephens & Associates, Inc.*

**a Geo-Logic Company**

6020 Academy NE, Suite 100  
Albuquerque, New Mexico 87109  
[www.dbstephens.com](http://www.dbstephens.com)  
DB21.1327

November 15, 2021

## Table of Contents

List of Acronyms and Abbreviations .....	iii
1. Introduction .....	1
1.1 Site Description .....	1
1.2 Previous Site Uses .....	1
1.3 Project Goal .....	2
2. Previous Environmental Investigations and Findings .....	2
2.1 Environmental Investigations.....	2
2.2 Findings.....	2
2.2.1 ACBM.....	3
2.2.2 LBP.....	4
2.2.3 Mold.....	4
3. Applicable Regulations and Cleanup Standards.....	5
3.1 Cleanup Oversight Responsibility and Standards.....	5
3.2 Laws and Regulations .....	6
4. Cleanup Alternatives Analysis .....	7
4.1 No Action.....	8
4.1.1 Short-Term Effectiveness .....	8
4.1.2 Long-Term Effectiveness and Permanence .....	8
4.1.3 Implementability.....	8
4.1.4 Costs.....	8
4.2 ACBM, LBP, and Mold O&M Program.....	8
4.2.1 Short-Term Effectiveness .....	9
4.2.2 Long-Term Effectiveness and Permanence .....	9
4.2.3 Implementability.....	9
4.2.4 Costs.....	10
4.3 ACBM, LBP, and Mold Abatement .....	10
4.3.1 Short-Term Effectiveness .....	11
4.3.2 Long-Term Effectiveness and Permanence .....	11
4.3.3 Implementability.....	12
4.3.4 Costs.....	13
5. Recommended Alternative .....	13
References.....	14

## List of Figures

- 1 Area Map
- 2 Site Map with Building Locations

## List of Tables

- 1 Alternatives Analysis

## List of Acronyms and Abbreviations

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
ABCA	analysis of brownfields cleanup alternatives
ACBM	asbestos-containing building materials
CFR	Code of Federal Regulations
DBS&A	Daniel B. Stephens & Associates, Inc.
EPA	U.S. Environmental Protection Agency
ESA	environmental site assessment
HUD	U.S. Department of Housing and Urban Development
LBP	lead-based paint
mg/L	milligrams per liter
NCP	National Contingency Plan
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NESHAP	National Emission Standard for Hazardous Air Pollutants
OSHA	Occupational Safety and Health Administration
O&M	operation and maintenance
PLM	polarized light microscopy
PEL	permissible exposure limit
QAPP	quality assurance project plan
RACM	regulated asbestos-containing materials
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RI/FS	remedial investigation/feasibility study
site	McCurdy Ministries Community Center
TBA	Targeted Brownfields Assessment Program

## 1. Introduction

This report presents an analysis of brownfields cleanup alternatives (ABCA) conducted by Daniel B. Stephens & Associates, Inc. (DBS&A) for the McCurdy Schools of Northern New Mexico, using the tradename McCurdy Ministries Community Center (hereafter referred to as McCurdy Ministries), located at 362A South McCurdy Road, Española, New Mexico (the site) (Figure 1). McCurdy Ministries has owned the site since 1917.

McCurdy Ministries has requested grant funding from the New Mexico Environment Department (NMED) Targeted Brownfields Assessment (TBA) Program to assist in developing planning documents necessary for completion of Phase III environmental remediation efforts at the site. This ABCA report has been prepared as required by the U.S. Environmental Protection Agency (EPA), and outlines site cleanup alternatives evaluated by McCurdy Ministries during the planning process for the site.

### 1.1 Site Description

The site is located at 362A McCurdy Road in Española, New Mexico (Figure 1). The approximately 21-acre site is an active school that contains nine campus buildings, which are past their useful life and will eventually be demolished as part of the site redevelopment. The site is bound to the north by La Joya Street, to the east by S. McCurdy Road, to the south by Calle Lovato Road, and to the west by multiple roads. Surrounding property use is primarily a school, residential, and agricultural.

### 1.2 Previous Site Uses

The McCurdy Ministries facility has been in operation for 109 years. The existing buildings at the site were constructed from 1917 through the 1980s. McCurdy Ministries operates community services at the site, including but not limited to, mental health and counseling, adult education, childcare and other nonprofit support services. The nine buildings slated for demolition or renovation are currently vacant. Past activities that may have had an environmental impact on the site include the presence of asbestos-containing building material (ACBM), lead-based paint (LBP), and mold on the interior of the buildings. No previous cleanup or remediation has been conducted at the property.

### 1.3 Project Goal

McCurdy Ministries plans to redevelop the site for continued community and nonprofit support services. ACBM, LBP, and mold abatement of the buildings is necessary prior to demolition, renovation, and redevelopment of the site.

## 2. Previous Environmental Investigations and Findings

### 2.1 Environmental Investigations

Previous activities implemented and completed to date at the site include the following environmental investigations:

- National Testing and Consulting, LLC. 2012. *Phase I Environmental Site Assessment (ESA) for McCurdy Schools, 362A South McCurdy Road, Española, Rio Arriba County, New Mexico*. May 2010.
- LeAAF and JESCO. 2021. *Phase II Environmental Site Assessment, McCurdy Charter School Nine Buildings, 362A South McCurdy Road, Espanola, Rio Arriba County, New Mexico*. Prepared for the Army Corps of Engineers and the Environmental Protection Agency Region 6. October 29, 2021.

### 2.2 Findings

The Phase I environmental site assessment (ESA) performed in May 2012 by National Testing and Consulting, LLC did not identify any recognized environmental conditions (RECs) at the site. A subsequent inspection performed by Keers Environmental in November and December 2012 found evidence of asbestos in multiple buildings, but the report was incomplete and has not been referenced.

The Phase II ESA was conducted in September 2021 for the U.S. Army Corps of Engineers (ISACE) and the EPA (LeAAF and JESCO, 2021). As part of the Phase II ESA, LeAAF and JESCO conducted a pre-demolition ACBM survey and LBP and mold investigation for nine buildings at the site (building numbers 1, 2, 3, 4, 5, 6, 7, 8, and 22) (Figure 2).

## 2.2.1 ACBM

The survey was conducted in accordance with EPA National Emission Standard for Hazardous Air Pollutants - Asbestos (NESHAP) and in substantial compliance with the jointly published EPA/HUD protocols for lead-based paint inspections for target housing or child occupied facilities. Asbestos bulk sampling was performed in substantial compliance with the established 40 CFR 763 sampling protocol and requirements set forth in Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1926.1101).

Significant ACBM was identified in eight of the nine buildings as a result of the survey. The buildings with confirmed ACBM are as follows:

- Building 1
  - ◇ 266 square feet of 9-inch by 9-inch floor tile
  - ◇ 215 square feet of vinyl sheeting
  - ◇ 490 linear feet of thermal system insulation (TSI) piping, elbows, and joints
  - ◇ 1,960 square feet of TSI debris on ground
  - ◇ 30 linear feet of transite vent piping
- Building 3
  - ◇ 301 square feet of vinyl sheeting
- Building 4
  - ◇ 309 square feet of 12-inch by 12-inch floor tile
  - ◇ 1,364 square feet of vinyl sheeting
  - ◇ 3 square feet of roofing tar
  - ◇ 160 square feet of exterior siding
- Building 5
  - ◇ 5,277 square feet of 9-inch by 9-inch floor tiles and mastic
  - ◇ 120 linear feet transite vent piping
- Building 6
  - ◇ 870 square feet of vinyl sheeting
  - ◇ 394 linear feet of TSI piping, elbows, and joints
  - ◇ 3 square feet of roofing tar



- ◇ 50 linear feet transite vent piping
- Building 7
  - ◇ 54 square feet of vinyl sheeting
  - ◇ 494 square feet of roofing tar
- Building 8
  - ◇ 395 square feet of 9-inch by 9-inch floor tile and mastic
  - ◇ 40 square feet of 9-inch by 9-inch floor tile
  - ◇ 407 square feet of vinyl sheeting
  - ◇ 1,200 square feet of TSI piping, elbows and joints
  - ◇ 1,800 square feet of TSI debris on ground
- Building 22
  - ◇ 852 square feet of sheetrock ceiling
  - ◇ 3 square feet of roofing tar

### **2.2.2 LBP**

Leaaf and JESCO tested building materials in the nine site buildings for LBP content using X-ray fluorescence (XRF). Lead was detected above the regulatory limit equal to or in excess of 1.0 milligrams per square centimeter (mg/cm<sup>2</sup>) in all nine buildings. For renovation or demolition activities, proper LBP disposal requires that a determination of whether the waste is hazardous must be made prior to disposal of lead-painted building materials. The renovation contractor will be required to collect a representative sample of the material and send it to a laboratory for Toxicity Characteristic Leaching Procedure (TCLP) metals analysis to determine proper disposal. Lead-containing paints with very low lead content that would not pose a hazard when standard dust control measures are used may be present in the buildings. In addition, because LBP is present on exterior painted surfaces, it was recommended that soil samples be collected to ensure that deteriorating lead paint has not impacted soils around the buildings.

### **2.2.3 Mold**

Leaaf and JESCO conducted a mold inspection for the site. Mold was found to be present on building material surfaces and in the air inside building 8. Mold is present in localized water-

damaged materials, and respiratory protection is recommended for anyone entering the building.

## **3. Applicable Regulations and Cleanup Standards**

### **3.1 Cleanup Oversight Responsibility and Standards**

Cleanup oversight responsibility will be overseen by the following agencies:

- Remediation oversight: NMED
- Project management: McCurdy Ministries
- Quality assurance (contractor): McCurdy Ministries
- Environmental consultant (contractor): McCurdy Ministries
- Abatement company (contractor): McCurdy Ministries

NMED will provide guidance to McCurdy Ministries regarding the environmental cleanup process.

McCurdy Ministries will contract with a general contractor, who will serve as project manager in the general oversight of the remediation process.

McCurdy Ministries will contract with an EPA-trained professional for quality assurance to oversee the remediation. In that capacity, the professional will have the following responsibilities:

- Review and approve any changes to project design or methods.
- Review reports to ensure that project plans are implemented according to the schedule.
- Make project decisions regarding the acquisition and use of resources and supplies for the project.
- Be available on a daily basis to address any questions or concerns of the abatement contractor.
- Conduct performance and systems audits when deemed necessary throughout the environmental cleanup.
- Ensure proper documentation of paperwork and dissemination of said paperwork to the proper personnel.

- Review, verify, and validate field data as provided by the abatement contractor.
- Review and approve the quality assurance project plan (QAPP) and subsequent revisions of the QAPP in terms of program-specific requirements.

McCurdy Ministries will contract with a licensed professional environmental consulting firm to conduct testing at the site. The environmental consultant will:

- Review and approve any changes to project design or methods.
- Review reports and ensure that project plans are implemented according to the schedule.
- Make final project decisions regarding the acquisition and use of resources and supplies for the project.
- Conduct on-site and weekly progress meetings.
- Collect environmental samples to determine abatement project compliance by the abatement contractor.

McCurdy Ministries will contract with a licensed professional site abatement company to monitor abatement personnel using low-flow air monitoring pumps in order to determine exposure to airborne fibers during lead paint removal in accordance with 29 CFR 1926.62. The environmental contractor will provide oversight and conduct on-site visual inspections to ensure compliance with the scope of work for the removal of environmental contaminants. All visual inspections, for both ACBM and LBP, will be conducted using the ASTM International (ASTM) standard for visual inspection of ACBM containment, as there is no specific standard for visual inspection of LBP containment.

## **3.2 Laws and Regulations**

Federal 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, Resource Conservation and Recovery Act (RCRA) waste analysis requirements in 40 CFR 261.20 and 261.30, RCRA manifesting requirements found in 40 CFR 262.20, and RCRA packaging and labeling requirements found in 40 CFR 262.30.

State environmental laws include the solid waste management regulations pertaining to special wastes found in New Mexico Administrative Code (NMAC) Sections 20.9.8.10 (General Requirements), 20.9.8.12 (Asbestos Waste), 20.9.8.19 (Manifest Requirements), and 19.15.35.8 (Disposal of Certain Non-Domestic Waste at Solid Waste Facilities).

Applicable local laws include compliance with the North Central Solid Waste Authority in Española, New Mexico

Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed. In addition, all appropriate permits (e.g., notify before you dig, disposal manifests) will be obtained prior to the initiation of work.

## 4. Cleanup Alternatives Analysis

The major environmental concerns identified at the site are ACBM, LBP and mold, which are present in nine buildings throughout the site. McCurdy Ministries has examined three potential alternatives to clean up ACBM, LBP, and mold contamination at the site:

- No action
- Implementation of an ACBM, LBP, and mold operation and maintenance (O&M) program
- ACBM, LBP, and mold abatement

To evaluate these alternatives, the nine evaluation criteria required by 40 CFR §300.430(e) of the National Contingency Plan (NCP) and remedial investigation/feasibility study (RI/FS) guidance (U.S. EPA, 1988) were modified to four, as follows:

- *Short-term effectiveness.* This criterion addresses the effects of the alternative during the construction and implementation phase until the remedial action objectives (RAOs) are met. Under this criterion, alternatives are evaluated for their effects on human health and the environment during implementation of the remedial action.
- *Long-term effectiveness and permanence.* This criterion addresses the risk that remains at the site after the RAOs have been met. The primary focus of this evaluation is the extent and effectiveness of controls used to manage the risk posed by treatment residuals or untreated wastes.
- *Implementability.* This criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of various services and materials that may be required during its implementation. The following factors were considered:
  - ◇ Ability to construct the technology
  - ◇ Monitoring requirements

- ◇ Availability of equipment and specialists
- ◇ Ability to obtain approvals from regulatory agencies
- **Costs.** Preliminary cost estimates were developed in order to evaluate the alternatives. These preliminary estimates are solely for planning purposes and should be considered for relative comparisons only.

## **4.1 No Action**

Under this alternative, no action would be undertaken to reduce exposure to ACBM, LBP, and mold. The buildings at the site would remain in their current state of disrepair.

### **4.1.1 Short-Term Effectiveness**

There is no short-term effectiveness associated with this alternative. Future workers for all construction tasks would be exposed to unacceptable risks.

### **4.1.2 Long-Term Effectiveness and Permanence**

There is no long-term effectiveness associated with this alternative. Potential exposure risks would not be mitigated, and the site buildings, which are currently vacant, would continue to be unused. The longer the buildings would remain vacant, the more likely the condition of the buildings would deteriorate.

### **4.1.3 Implementability**

No required actions or technology would be necessary to implement this option. This alternative would result in no administrative burden, and no permits or approvals would be required. Because site risks are not mitigated under the no action alternative, regulatory buy-in would not be achieved, and an occupancy permits would not be approved.

### **4.1.4 Costs**

There are no costs associated with this alternative.

## **4.2 ACBM, LBP, and Mold O&M Program**

Under this alternative, all ACBM, LBP, and mold would be left in place, and the site would be monitored to ensure that additional degradation associated with ACBM, LBP, and mold is not occurring.

An O&M program is a formulated plan of training, cleaning, work practices, and surveillance to maintain ACBM within buildings in good condition. The goal is to minimize exposure of all building occupants to asbestos fibers, LBP, or mold. To accomplish this objective, the EPA recommends that an O&M program includes work practices to (U.S. EPA, 2011):

- Maintain ACBM in good condition
- Ensure proper cleanup of previously released asbestos fibers
- Prevent further releases of asbestos fibers
- Monitor the condition of ACBM

Elements as outlined in the HUD guidelines for routine building maintenance and LBP would be included in the ACBM O&M plan as necessary (HUD, 2012).

Respiratory protection is recommended for anyone entering building 8 to protect from possible airborne mold spores.

Impacts during implementation of an O&M program would include possible ACBM, LBP, and mold exposure to workers and residents within the buildings.

#### **4.2.1 Short-Term Effectiveness**

An ACBM, LBP, and mold O&M program would not be an effective treatment for the site due to the significant presence of ACBM, LBP, and mold. This alternative assumes that only minimal inspection and maintenance are required (e.g., painting, sealing, or caulking). Due to the significant presence of ACBM, LBP, and mold, use and occupation of the site buildings would risk exposure to workers and occupants, even with an O&M program.

#### **4.2.2 Long-Term Effectiveness and Permanence**

Even if this alternative were effective in the short term, it would be neither effective over the long term nor a permanent solution, given the significant presence of ACBM, LBP, and mold. Land use controls may be required to protect the safety of building occupants, therefore limiting the usefulness of the buildings.

#### **4.2.3 Implementability**

The administrative burden for implementing this alternative would be high. Although an O&M program could be implemented, this alternative would require significant amounts of staff time

to oversee ongoing O&M activities at the site buildings, which are currently vacant. McCurdy Ministries wants the buildings demolished in order for the site to be redeveloped.

#### 4.2.4 Costs

The cost of implementing an O&M program has not been detailed. Assuming that O&M activities could be performed by trained staff at the facility and that material costs to maintain the integrity of the ACBM (sealants, mastic, etc.) and LBP (plaster and ceiling tile) are low, annual O&M costs are likely to be less than \$2,000 per year when taking into account both materials and labor. However, given the condition of the ACBM and LBP, first-year costs would be substantially higher, with costs gradually decreasing for several years after the initial assessment.

### 4.3 ACBM, LBP, and Mold Abatement

Under this alternative, ACBM, LBP and mold contamination would be removed from the buildings using the methods described below. Abatement is an effective way to eliminate risk at the site, as contamination will be removed and the exposure pathways will no longer exist.

- *ACBM*. The EPA requires that identified ACBM that is friable or may become friable during the course of renovation or demolition be removed from the building prior to the initiation of renovation or demolition activities. Steps should be taken to follow the guidelines set forth in 29 CFR 1926.1101 for removal of regulated asbestos-containing materials (RACM) and worker protection. Friable asbestos material is any material containing more than 1 percent asbestos—as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763 Section 1, polarized light microscopy (PLM)—that when dry can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is determined to be less than 10 percent using a method other than point counting by PLM, the asbestos content must be verified by point counting using PLM. Non-friable ACBM that will be disturbed during demolition may be removed by a general contractor, but all NESHAP and state regulations must be followed. Friable ACBM that will be disturbed during demolition must be removed by a licensed abatement contractor. ACBM (friable and non-friable) that is removed must be disposed of at a special wastes landfill.
- *LBP*: OSHA regulates occupational exposure to lead-containing materials during construction activities to ensure that worker exposure to airborne lead during residential lead-related work does not exceed the permissible exposure limit (PEL), set at 50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) averaged over an 8-hour period. Because lead in construction materials could be potentially hazardous during activities that may impact a

lead-containing material, contractors should be informed of the risk of potential lead exposure and be trained in accordance with OSHA's Lead in Construction regulations. Contractors should follow "Lead Safe" techniques that limit the generation of dust and debris. Additionally, the EPA may regulate lead-containing waste generated by removal operations. Federal, state, and local guidelines should be consulted prior to disposal.

- *Mold:* Mold/water damaged materials will be removed using appropriate controls and wet methods as required under OSHA and EPA. Removal methods ultimately selected by the contractor shall be submitted and approved by the owner's representative before being initiated. It is recommended that an independent consultant be used to develop a technical specification and to provide contractor oversight for interior water damaged/mold affected building materials removal and replacement.

Comprehensive abatement efforts should be performed prior to any renovation or demolition activities, under the direct oversight of a third-party independent asbestos consultant.

#### **4.3.1 Short-Term Effectiveness**

Adverse impacts to human health and the environment during implementation should be negligible provided that the ACBM abatement contractor complies with all health and safety requirements for asbestos demolition/renovation projects, which are governed by NESHAP, OSHA, and the State of New Mexico. Likewise, if OSHA guidelines for worker safety and EPA guidelines for lead-containing waste are followed during construction, impacts from LBP should also be negligible. Measures for ACBM, LBP, and mold mitigation include, but are not limited to, monitoring of air quality, implementation of a temporary pressure differential and air circulation system, installation of temporary enclosures, use of respiratory protection, use of decontamination units, and site cleaning and decontamination.

All ACBM and LBP will be transported to and disposed of at a licensed ACBM and special waste disposal facility.

#### **4.3.2 Long-Term Effectiveness and Permanence**

Abatement of ACBM, LBP, and mold will provide long-term effectiveness and permanence. All identified ACBM, LBP, and mold will be removed from the site buildings, eliminating the potential health hazards to building occupants and visitors.



### 4.3.3 Implementability

ACBM, LBP, and mold abatement is easily implemented using currently available construction technology and equipment. A qualified ACBM contractor will be hired to perform the ACBM removal and disposal. Contractors will be trained in accordance with OSHA's Lead in Construction regulations.

The NMED Solid Waste Bureau regulations require that all waste ACBM (more than 1 percent asbestos) and lead (5 milligrams per liter [mg/L] and greater) should be disposed of at a special wastes landfill, which requires removal of these materials and separation from non-asbestos and non-lead materials. The ACBM and LBP must be removed prior to building renovation or demolition.

As required by 19.15.35.8 NMAC, materials suspected of containing lead should be tested using EPA method 1311 or an alternative hazardous constituent analysis approved by the NMED to determine the suitability of the wastes for disposal in a solid waste landfill; all waste determined to be lead-containing must be separated for disposal at a special waste landfill.

NESHAP for ACBM must be followed. When ACBM is to be removed, McCurdy Ministries or its representatives should:

- Comply with requirements for asbestos demolition/renovation projects, which are governed by NESHAP, OSHA, and the State of New Mexico.
- Retain the services of an independent analytical testing laboratory or consulting firm to (1) monitor the performance of the abatement contractor, the completeness of the removal work, and the quality of the air before, during, and after the removal work to ensure that the contractor meets project specifications, and (2) document whether the work was performed in compliance with applicable EPA and OSHA standards.
- Perform a final visual inspection and air clearance sampling prior to reoccupying the asbestos removal work area.
- Document all correspondence from the abatement contractor and the testing laboratory and retain this information in a permanent record.
- Notify local, state, and federal air pollution officials by letter prior to ACBM removal.

The administrative burden for implementing this alternative is moderate to high. A large amount of staff time is required for preparation of required project documentation for securing

potential grant funds. In addition, the potential grant funds will need to be managed, including working with the selected ACBM abatement contractor to ensure that the work is being performed to required specifications, securing all necessary approvals, and keeping McCurdy Ministries apprised of site activities.

#### **4.3.4 Costs**

The cost of the ACBM, LBP, and mold abatement is estimated at approximately \$185,000. This cost includes construction costs implemented by the ACBM abatement contractor, independent laboratory costs, and third-party oversight/construction management.

## **5. Recommended Alternative**

The alternatives are summarized in Table 1. The no action alternative is not an option because ACBM, LBP, and mold have been identified in the site buildings, which therefore need immediate rehabilitation. The administrative burden for implementing Alternative 2 would be high, requiring significant amounts of staff time to oversee ongoing O&M activities at the site.

Alternative 3 is feasible, has a manageable administrative burden, and will result in significant environmental benefit through elimination of ACBM, LBP, and mold from the site. McCurdy Ministries is planning to demolish and/or renovate buildings, which would require that the site buildings be free of ACBM, LBP, and mold hazards. Thus, the recommended alternative is Alternative 3, ACBM, LBP, and mold abatement.

## References

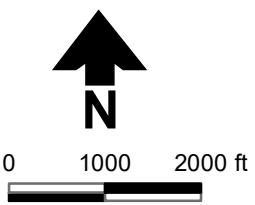
- Leaaf and JESCO. 2021. *Phase II environmental site assessment, McCurdy Charter School nine buildings, 362A South McCurdy Road, Espanola, Rio Arriba County, New Mexico*. Prepared for the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency Region 6. October 29, 2021.
- U.S. Department of Housing and Urban Development (HUD). 2012. *Guidelines for the evaluation and control of lead-based paint hazards in housing*. Second edition. Office of Healthy Homes and Lead Hazard Control. July 2012.
- U.S. Environmental Protection Agency (U.S. EPA). 1988. *Guidance for conducting remedial investigations and feasibility studies under CERCLA, Interim final*. EPA/540/G-89/004. October 1988.
- U.S. EPA. 2011. *Setting up an operations and maintenance (O&M) program*. <<http://www.epa.gov/asbestos/pubs/section2.html>>. Last updated March 30, 2011.

# Figures

---



Source: Google Earth, 3/2/2021




**Explanation**  
 McCurdy School Property Boundary

Figure 1



**DBS&A**  
 Daniel B. Stephens & Associates, Inc.  
 11/3/2021 DB21.1327.01

McCURDY ABCA PLANNING DOCUMENT  
**Area Map**





Source: Google Earth, 3/2/2021

McCURDY ABCA PLANNING DOCUMENT  
Site Map with Building Locations

Figure 2



**DBS&A**  
Daniel B. Stephens & Associates, Inc.  
11/3/2021 DB21.1327.01

# Table

---

**Table 1. Alternatives Analysis**

Alternative	Short-Term Effectiveness	Long-Term Effectiveness and Permanence	Implementability	Cost
No action	None; future site workers would be exposed to unacceptable risks.	None; future building occupants and visitors would be exposed to unacceptable risks associated with ACBM, LBP, and mold.	Easily implemented because no action is taken. Because site risks are not mitigated under this alternative, regulatory buy-in would not be achieved, and an occupancy permit would not be approved.	None
Long-term operation and maintenance (O&M)	Ongoing impacts during implementation of an O&M program would include possible ACBM and mold exposure to workers and occupants within the buildings.	Moderate; it would be neither effective over the long term or a permanent solution, given the significant presence of ACBM, LBP, and mold. Land use controls may be required to protect the safety of building occupants.	The administrative burden for implementing this alternative would be high, with significant amounts of staff time required to oversee ongoing O&M activities at the site.	\$60,000 <sup>a</sup>
ACBM, LBP, and mold abatement	Alternative poses the greatest short-term risks unless all work is performed by a certified contractor implementing an appropriate abatement plan.	This alternative would provide the greatest long-term effectiveness and permanence, as all asbestos, LBP, and mold would be removed.	Routinely implemented at sites throughout the U.S. by certified asbestos contractors.	\$185,000 <sup>b</sup>

<sup>a</sup> Assumes costs of \$2,000 per year for 30 years.

<sup>b</sup> Based on estimates in Leaaf and JESCO Phase II ESA.

ACBM = Asbestos containing building material

LBP = Lead-based paint