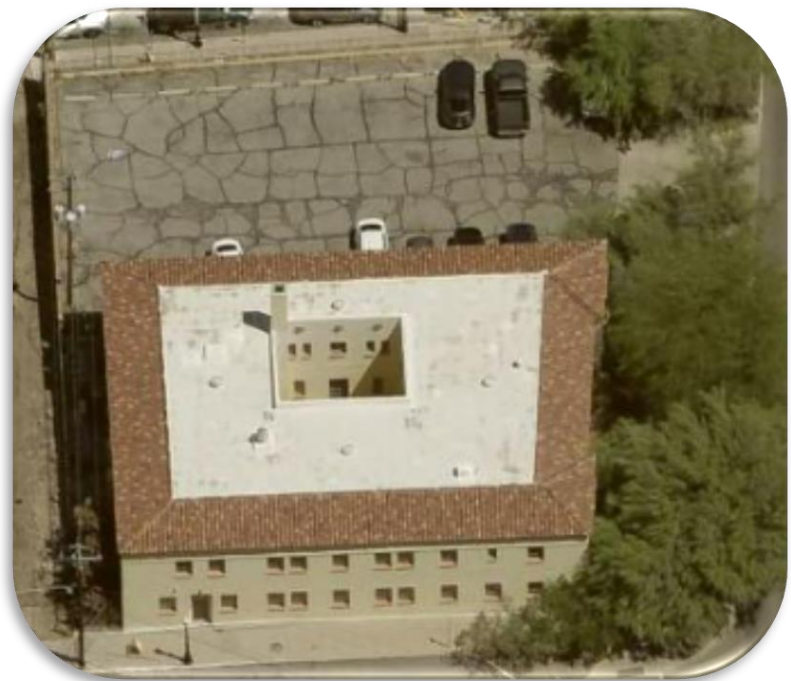


Analysis of Brownfield Cleanup Alternatives (ABCA)

Children's Museum Tucson
130 South Scott Avenue
Tucson, Pima County, Arizona 85701

June 20, 2025
Terracon Project No. 63257011



Prepared for:

Arizona Department of Environmental Quality
Phoenix, Arizona

Prepared by:

Terracon Consultants, Inc.
Tucson, Arizona



355 South Euclid Avenue, Ste 107
Tucson, AZ 85719-6654
P 520-770-1789
Terracon.com

June 20, 2025

Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

Attn: Mr. Travis Barnum
P: (602) 771-4823
E: barnum.travis@azdeq.gov

Re: Hazardous Materials Analysis of Brownfields Cleanup Alternatives
Children's Museum Tucson
130 South Scott Avenue
Tucson, Pima County, Arizona 85701
Terracon Project No. 63257011

Dear Mr. Barnum:

Terracon Consultants, Inc. (Terracon) presents to the Arizona Department of Environmental Quality (ADEQ [client]) this Analysis of Brownfield Cleanup Alternatives (ABCA) as part of cleanup design for the above-referenced Site. This cleanup design activity was performed in general accordance with Terracon Proposal No. P63257011 dated January 24th, 2025, and Task Order No. ADEQ25-CTR074824-43 dated April 16th, 2025.

In the event a Brownfields Cleanup Grant is sought to assist with cleanup of the Site, funding guidance requires the applicant to provide the community with notice of its intent to apply for an Environmental Protection Agency (EPA) brownfields cleanup grant and allow the community an opportunity to comment on the draft proposal. In addition, the EPA Brownfield Cleanup funding proposal must include, as an attachment, an ABCA that summarizes information about the Site and contamination issues, cleanup standards, applicable laws, cleanup alternatives considered, and the proposed cleanup.

Cleanup alternatives were evaluated in accordance with EPA protocols and general guidance required prior to implementation of a cleanup design using EPA Brownfields Grant funding. More specifically, this ABCA summarizes viable cleanup alternatives based on Site-specific conditions, technical feasibility, and preliminary cost/benefit analyses. Specific cleanup alternatives and associated recommendations are presented in the applicable sections of this report.

Terracon appreciates this opportunity to continue to provide environmental consulting services for ADEQ in support of Brownfields redevelopment. Should you have any questions or require additional information, please do not hesitate to contact the undersigned at (520) 798-4847 (Derek K.)

Sincerely,

Terracon Consultants, Inc.

A handwritten signature in black ink that reads 'Jared Aarvig'.

Jared Aarvig
Assistant Scientist

A handwritten signature in blue ink that reads 'Derek Koller'.

Derek Koller, CIH, CHMM
Office Manager / Senior Principal

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1.0 INTRODUCTION AND BACKGROUND

Terracon Consultants, Inc. (Terracon) has prepared this Hazardous Materials Analysis of Brownfields Cleanup Alternatives (ABCA) on behalf of the Arizona Department of Environmental Quality (ADEQ) for the project site, 130 South Scott Avenue Children’s Museum, herein referred to as the site.

Based on previous site reports, the site is comprised of one parcel (Pima County Assessor’s Parcel Number [APN] 117-13-0400) and covers approximately 0.33-acres of land addressed at 130 South Scott Avenue in Tucson, Arizona. The site is developed with a ±12,366 square-foot commercial office building reportedly constructed in 1964. It is Terracon’s understanding that the site has been owned and operated by the Tucson Children’s Museum since construction.

A topographic map depicting the general site location is included as Exhibit 1 in Appendix A. Exhibit 2 provides a recent aerial photograph of the general site conditions.

The adjoining properties consisted of residences, commercial buildings, and parking lots between 1967 and 2021, and a developed road traversed north/south to the sites east boundary and east/west to the sites north and south boundary.

The site is adjoined by the following:

Adjoining Properties	
Direction	Adjoining Properties
North	E. Jackson Street followed by two residential developments, to the west (57 E. Jackson Street) and to the east (66 E Broadway Bl).
East	E. 12 th Street followed by commercial development (88 E. Broadway Bl).
South	E. Ochoa Street followed by commercial development (160 S. Scott Ave).
West	Parking lot (20 E. Ochoa Street).

This ABCA has been prepared to support redevelopment of the site by the ADEQ by providing preliminary cleanup planning information. It is Terracon’s understanding that the anticipated redevelopment plan for the site is removal of Tuf-Tex® exterior surfacing and re-stucco repair at the time this report was issued. According to Pima County Assessor’s Office, the site is zoned for commercial use.

1.1 Summary of Investigations Conducted to Date

Southwest Hazard Control (SHC) performed a limited asbestos survey (Quote No. S24100, dated April 30th, 2024) for the site. The exterior findings of the SHC asbestos report are summarized on the next page.

Asbestos: SHC found visibly damaged friable building materials, including Tuf-Tex® exterior surfacing systems on the exterior.

Identified ACM				
Sample No. ¹	Material Description	Material Location	NESHAP Classification ²	Estimated Quantity ³
25	Exterior Plaster (Tuf-Tex®)	N/E corner	RACM	6,700 Sq. Ft. ⁴
26	Exterior Plaster (Tuf-Tex®)	S of Door	RACM	6,700 Sq Ft

¹HA No.: Homogenous Area Number

²National Emission Standards for Hazardous Air Pollutants (NESHAP) Classifications: Regulated Asbestos-Containing Material (RACM), Category I (Cat I) Non-Friable, Category II (Cat II) Non-Friable

³Estimated quantities are based on a cursory field evaluation, and actual quantities may vary significantly, especially if asbestos containing materials are present in hidden and/or inaccessible areas not evaluated as part of this inspection.

⁴Sq. Ft. = Square Feet

Exhibit 1 in Appendix A included sample location diagrams of the building.

1.2 Project Goal

The Tucson Children’s Museum (the Grantee) is a recipient of an Environmental Protection Agency (EPA) community-wide assessment grant to inventory, characterize, assess, and conduct cleanup planning along with public outreach activities for eligible Brownfield sites located within Tucson Children’s Museum boundaries. The Brownfield Assessment Grant program helps evaluate select Tucson Children’s Museum properties that have an established history of petroleum and/or hazardous substance impacts where significant uncertainty exists due to real or perceived contamination and will benefit from Brownfield grant funds to support a range of environmental assessment work and cleanup planning projects.

It is Terracon’s understanding that the Tucson Children’s Museum has interest in renovation of the building on site. This ABCA applies federal and state screening levels for ACM to determine cleanup levels. The EPA and Occupational Health and Safety Administration (OSHA) defines ACM as a material containing greater than 1 percent asbestos; therefore, >1 percent asbestos is the proposed preliminary cleanup standard.

2.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

2.1 Cleanup Oversight Responsibility

The Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) program in Arizona is enforced by federal, state, and county Asbestos NESHAP Coordinators. For projects occurring in Pima County, the county has been delegated authority to enforce the Asbestos NESHAP within its jurisdictional boundaries.

All work plans, including sampling and analysis plans, quality assurance project plans, and reports related to environmental investigations and remediation activities conducted at the site will be submitted to the selected agency for review and approval, if necessary.

2.2 Assumed Cleanup Levels

Screening levels are used as the assumed cleanup levels for this ABCA due to lack of soil, water, or mold contamination. The Tucson Children's Museum or the organization undertaking cleanup actions at the site shall work with the oversight agency to determine appropriate cleanup levels specific to the site. OSHA Title 29 CFR 1910.1101(b) defines ACM as a "material containing more than one percent asbestos"; therefore, for the purpose of this ABCA, the assumed cleanup level for ACM is >1 percent.

2.3 Laws & Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include:

- Occupational Safety and Health Act, Hazardous Waste Operations and Emergency Response Standard (40 CFR 1910.120) and applicable Safety and Health Regulations for Construction (29 CFR 1926)
- U.S. Department of Transportation, Hazardous Materials Regulations (49 CFR Subtitle B, Chapter 1, Subchapter C)
- Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763)
- Arizona Revised Statutes (A.R.S.) Title 49
- Arizona Administrative Code (A.A.C.) Title 18
- Federal Small Business Liability Relief and Brownfields Revitalization Act, if Brownfields or other Federal funding is used
- Federal Davis-Bacon Act, if Brownfields or other Federal funding is used
- Section 112 of the Clean Air Act (CAA)
- Section 61 Subpart M - Asbestos NESHAP
- OSHA 29 CFR 1926.1101 – Asbestos in Construction

In addition, federal, state, and local laws regarding the cleanup will be followed, and all appropriate permits and notifications (e.g., AZ 811 utility notification center, waste shipment record, 10-day notice of abatement procedure, etc.) will be obtained prior to the cleanup activities commencing.

2.4 Climate Change Considerations

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, establishes an integrated strategy for sustainability within the Federal

Government. Under the Executive Order, each agency is required to evaluate their climate change risks and vulnerabilities to manage the effects of climate change on the agency's mission and operations in both the short and long-term as part of the formal Strategic Sustainability Performance Planning process.

Effective with Fiscal Year 2013, EPA's Brownfields Program initiated a change to cooperative agreements for Cleanup and Revolving Loan Fund awards. It requires cooperative agreement recipients to evaluate the resilience of remedial options funded by the award in light of reasonably foreseeable changing climate conditions. As directed under EPA's Climate Change Adaptation Plan, the ABCA must include a discussion of observed and forecasted climate change conditions for the area of the project and the associated Site-specific risk factors. Specifically, this is to be presented as part of the ABCA. As the possibility exists that cleanup grant funds or Revolving Loan Fund grant funds may be utilized for cleanup actions at the Site, climate change has been considered in this ABCA.

2.4.1 General Considerations

In considering remedy resiliency Terracon consulted the following resources as authoritative sources:

- Climate Resources on Data.gov
- U.S. Global Change Research Program (USGCRP)
- EPA Climate Change on EPA.gov

2.4.2 Site-Specific Considerations

The site and Arizona are in EPA's climate designation of Southwest (EPA, 2021). The Southwest is the hottest and driest region in the nation (Garfin et al., 2014a). Extending from the Pacific Ocean east to the Rocky Mountains and south to the Mexican border, this region is home to about 56 million people, about 90% of whom live in cities, including Albuquerque, Phoenix, Las Vegas, Salt Lake City, Denver, San Diego, Los Angeles, Sacramento, and San Francisco. The population of the Southwest is expected to increase by nearly 70% by mid-century (Garfin et al., 2014a). The Southwest encompasses a wide range in elevations, spanning valleys that are below sea level to mountain ranges that contain some of the highest peaks in the contiguous United States. The region's southern portion includes deserts, like the Mojave. In contrast, northern California, the Rocky Mountains, and the Sierra Nevada Mountain range tend to get more precipitation and snow. The Central Valley in California is one of the most productive agricultural regions in the country.

Climate change is affecting the Southwest. Temperatures have increased by almost 2°F in the last century, with the 2001-2010 decade being the warmest since records began 110 years ago (Garfin et al., 2014a). The length of the frost-free season has increased by 19 days in recent decades (Walsh et al., 2014b). Average annual temperatures are projected to rise an additional 3.5°F to 9.5°F by the end of this century, with the greatest temperature increases

expected in the summer and fall (Garfin et al., 2014a). Drought conditions are already common in the Southwest and drought periods are expected to become more frequent, intense, and longer. Drought will affect important water sources, including the Colorado River Basin (Garfin et al., 2014a). Combined with expected population growth, climate change will exacerbate existing stresses.

Higher temperatures lead to greater evaporation and surface water losses, more heat stress, and increased energy demand for cooling. Over the last 50 years, there has been less precipitation falling as snow late in the winter and snow melt has occurred earlier (Garfin et al., 2014a). Maximum streamflow has also occurred earlier in the year and total yearly streamflow has decreased in the last decade. Increasing temperatures will also increase evaporation, causing river-flow reductions and dwindling reservoirs.

These considerations do not identify property-specific risks in considering resiliency of remedy at the site as part of feasibility and implementation ease.

3.0 ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

The future use of the site is the same as now and renovation is planned for the existing building. The evaluation of cleanup alternatives in the ABCA is based on the planned renovation. The organization undertaking cleanup actions at the site will work with the oversight agency to establish appropriate cleanup levels specific to the site. This ABCA will consider a value greater than 1 percent asbestos to be the assumed cleanup level. A discussion of the cleanup objectives and an evaluation of remedial alternatives for the site is provided below.

3.1 Cleanup Objectives

The cleanup objective for the site is to reduce exposure of receptors to contamination at the site during cleaning activities for future redevelopment and mitigate potential human exposure to identified asbestos in building materials at the site at levels exceeding assumed cleanup levels. The cleanup alternatives and costs provided in this ABCA are subject to change if different exposure scenarios are identified.

3.2 Cleanup Alternatives Considered

Terracon has discussed proposed redevelopment scenarios with the Tucson Children's Museum and has incorporated information from those conversations into this ABCA. To address contamination at the site, three different alternatives were considered and are as follows:

- *Alternative #1: No Action*
- *Alternative #2: Enclosure or encapsulation of ACM*

■ *Alternative #3: ACM Abatement*

To satisfy EPA requirements, the effectiveness, ease of implementation, and approximate cost of each alternative must be considered prior to selecting a recommended cleanup alternative. Each of the following cleanup alternatives is compared with respect to effectiveness, ease of implementation, and general cost implications, within **Table 1 (Appendix B)**. More detailed comparison of potential costs to implement is provided in **Table 2 (Appendix B)**. A summary of ACM to be removed and disposal type is included in **Table 3 (Appendix B)** if Alternative #3 is chosen. The tables can be found attached to this report in the appendices.

3.2.1 Alternative #1: No Action

The “No Action” alternative is utilized as a baseline for comparison to the other proposed alternatives. This alternative would involve no containment, encapsulation, removal, or monitoring of asbestos particulate material or other contaminants. All ACM would be left in place and no restrictions on future use would be imposed.

Effectiveness

No Action is not effective in controlling or preventing the exposure of receptors to contamination at the site. No Action would pose a long-term health risk to the public and workers during future site redevelopment. No Action would pose restrictions on future site redevelopment.

Implementation

As no containment, encapsulation, removal, or monitoring of contaminants would occur at the site, minimal effort would be required.

Cost

No cost is associated with the “No Action” alternative.

3.2.2 Alternative #2: Enclosure or Encapsulation of ACM

Alternative #2 would involve the enclosure or encapsulation of identified ACM at the site and implementation of Institutional Controls (ICs). This would permit ACM identified in the prior asbestos inspection to remain with appropriate action taken to ensure stabilization of contamination.

An air-tight barrier would be created over or around the identified ACM (enclosure), or the ACM would be coated with an encapsulant that embeds asbestos fibers within the adhesive matrix, preventing the release of fibers into the surrounding area. All significantly damaged ACM that cannot be encapsulated or enclosed would be properly bagged for disposal and taken to an EPA-approved landfill that accepts friable or non-friable asbestos waste.

An operation and maintenance (O&M) plan would be written following the enclosure or encapsulation, and would be updated and implemented as long as the ACM is present within

the building. The O&M plan would include (1) the duties of the program manager; (2) periodic surveillance of areas with ACM by any designated personnel at 6-month intervals, and reinspection by an AHERA-accredited asbestos inspector at 3-year intervals; and (3) worker protection for those performing asbestos work. The O&M plan would be maintained as long as ACM is present in the building. ICs would be necessary to ensure ACM enclosure or encapsulation remain intact and undisturbed.

Effectiveness

Alternative #2 would require periodic maintenance to ensure the encapsulation or enclosure remains intact. Based on future use, encapsulation is not an option as the owning entity wants to remove Tuf-Tex® exterior surfacing to restore the historical architectural features of the buildings.

Implementation

Alternative #2 rates as a moderate option for implementation, as ACM enclosure or encapsulation do not alter structural components of buildings. Additionally, equipment and contracts are readily available. ACM enclosure or encapsulation must be performed by a licensed asbestos contractor and must comply with applicable state and federal regulations. ICs would be implemented, which would include a restrictive covenant filed with the Register of Deeds to ensure prevention of disturbance of ACM left in place. The planning of these processes would require careful considerations of worker's health and safety. Terracon will perform oversight to ensure that ACM is not being disturbed during the course of work.

Encapsulation of ACM will be performed on the exterior Tuf-Tex® surfacing. Enclosure of ACM will include construction of air-tight drywall or wood sheeting surrounding friable and non-friable ACM, including exterior Tuf-Tex® surfacing. The enclosure and encapsulation will take approximately five working days.

3.2.3 Alternative #3: ACM Abatement

This alternative would include the contracting of an abatement firm to properly remove and dispose of the identified ACM on the site. Abatement would be completed by a certified abatement contractor who would comply with local, state, and federal regulations. EPA and OSHA requirements must be met throughout the abatement of the ACM. The removed waste material would be transported to an EPA-approved landfill that accepts friable and/or non-friable ACM.

Effectiveness

Alternative #3 rates as a highly effective method, as ACM would be permanently removed from the site. This would allow for the planned demolition of the residence to proceed as planned.

Implementation

Due to the commonality of asbestos abatement, i.e., the materials, services, and equipment are readily available, Alternative #3 rates as an easy to moderate level of implementation.

Alternative #3 would include the abatement of all ACM on site, ensuring NESHAP-compliant disposal of asbestos debris. Abatement would take approximately four to five working days.

Cost

The total cost of Alternative #3 is estimated to be \$272,400 as noted in the table below. Consultant oversight would include daily air monitoring, final clearance samples, and general oversight costs.

Alternative #3 Cost			
Type of Cost	Description	Cost	Total Cost
Capital Cost	ACM Abatement	~\$222,000	~\$277,000
Consultant Oversight	OSHA & NESHAP regulatory oversight	~\$55,000	

3.3 Recommended Cleanup Alternative

The recommended cleanup option for the site is Alternative #3: ACM Abatement. This remedial option effectively removes the identified ACM, therefore, eliminating exposure to future land users and would allow unrestricted future use of the property, as outlined below.

- *Alternative #1:* No Action cannot be recommended since it does not address site risks and it does not meet the redevelopment objectives. While cost effective and simple to implement, the proposed demolition negates Alternative #1 as a viable cleanup measure.
- *Alternative #2:* Enclosure or Encapsulation of ACM cannot be recommended as it is not practical to encapsulate or enclose the entire building and the owning entity wants to remove Tuf-Tex® exterior surfacing to restore the historical architectural features of the buildings.
- *Alternative #3:* Contract an abatement firm to properly remove and properly dispose of the identified ACM prior to site residence demolition, while costly, is a viable cleanup measure, as demolition is planned for the existing site residence.

Alternative #3 is the recommended cleanup alternative due to the Tucson Children’s Museums request to remove Tuf-Tex® exterior surfacing to restore the historical architectural features of the buildings.

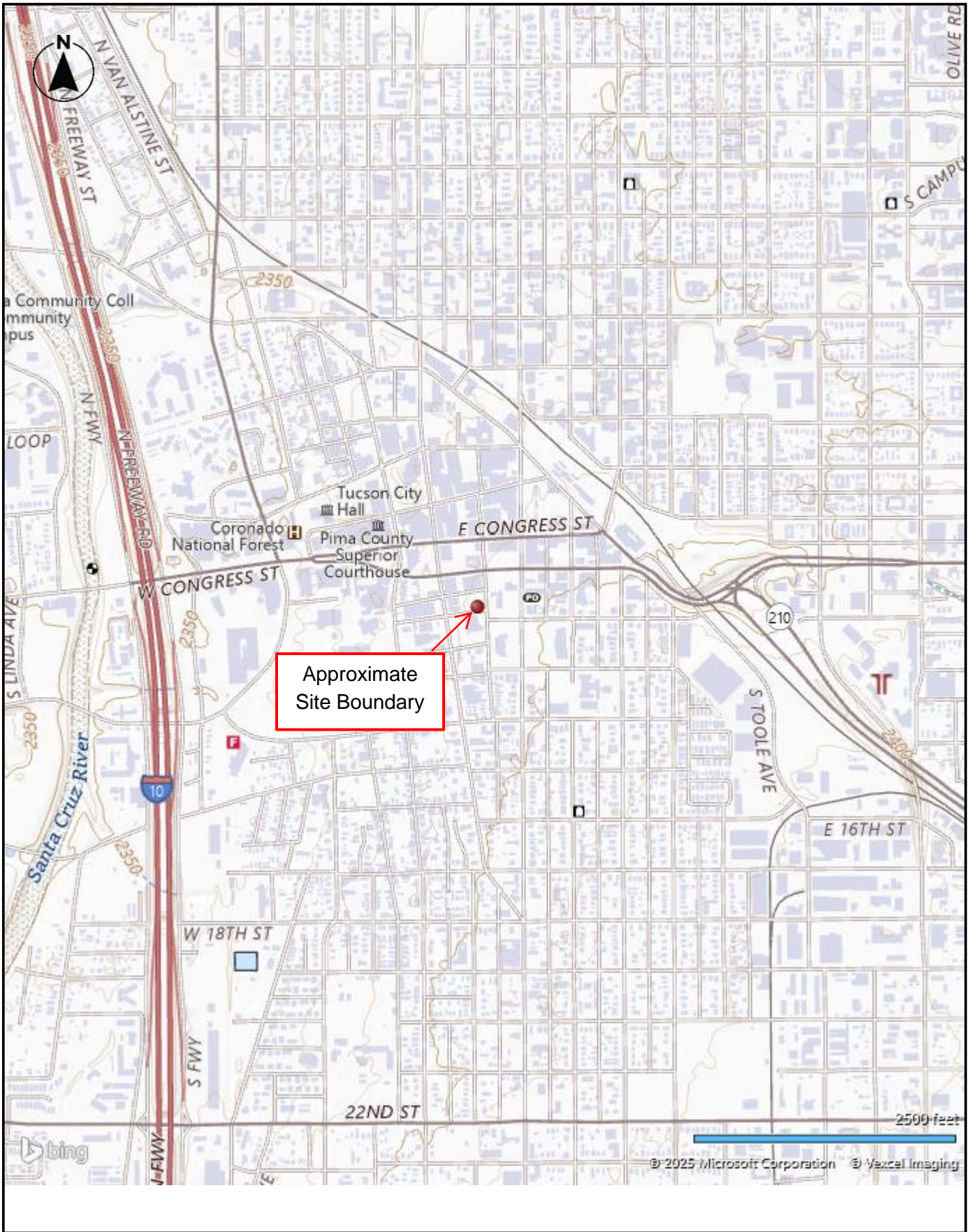
Following the implementation of a remedial strategy, a cleanup completion report would be generated to document that the cleanup activities were conducted, along with the final condition of the site based on confirmation sampling.

4.0 REFERENCES

- 2014a Garfin, G., G. Franco, H. Blanco, A. Comrie, P. Gonzalez, T. Piechota, R. Smyth, and R. Waskom, 2014: Ch. 20: *Southwest. Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 462-486. doi:10.7930/J08G8HMN.
- 2014b Walsh, J., D. Wuebbles, K. Hayhoe, J. Kossin, K. Kunkel, G. Stephens, P. Thorne, R. Vose, M. Wehner, J. Willis, D. Anderson, S. Doney, R. Feely, P. Hennon, V. Kharin, T. Knutson, F. Landerer, T. Lenton, J. Kennedy, and R. Somerville, 2014: Ch. 2: *Our Changing Climate. Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 19-67. doi:10.7930/J0KW5CXT.
- 2021 EPA, *Climate Change Indicators, A Closer Look: Temperature and Drought in the Southwest* (Web update: April 2021). <https://www.epa.gov/climate-indicators/southwest>
- 2023 Terracon Consultants, Inc., 2023. *Phase I Environmental Site Assessment (ESA): 442 West 30th Street (Former Figueroa Residence)*. Terracon Project No. 63237091. Dated July 11, 2023.
- 2024 Terracon Consultants, Inc., 2024. *Asbestos Inspection and Lead-Based Paint Screening: 442 West 30th Street (Former Figueroa Residence)*. Terracon Project No. 63237091B.

Appendix A

Exhibits



Project Manager:	AM
Drawn by:	JA
Checked by:	DDK
Approved by:	DDK
Project No.:	63257011
Scale:	1"=2,500'
File Name:	APDX A
Date:	JUNE 2024

Terracon

355 S Euclid Ave, Ste 107
Tucson, AZ 85719-6654

TOPOGRAPHIC MAP

Children's Museum Tucson - ABCA
130 S Scott Avenue
Tucson, AZ

Exhibit	1
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Project Manager: AM
 Drawn by: EDR
 Checked by: DDK
 Approved by: DDK

Project No. 63257011
 Scale: 1"=2,000'
 File Name: APDX A
 Date: JUNE 2025



355 S Euclid Ave, Ste 107
 Tucson, AZ 85719-6654

SITE DIAGRAM
 Children's Museum Tucson - ABCA
 130 S Scott Avenue
 Tucson, AZ

Exhibit
 2

Appendix B

Tables

Table 1 – Brownfield Cleanup Alternatives Balancing Factor Evaluation

	Remedial Alternative	Effectiveness	Implementation	Cost Implications	Considerations
1	No Action	Does not address potential risks. Not effective.	N/A	\$0	This alternative does not address health risks due to fiber release and would not meet the project goal for the site.
2	Enclosure or Encapsulation of ACM	Effective to mitigate fiber release. Not effective due to demolition plans.	Enclosure or Encapsulation of ACM cannot be recommended as it is not practical to encapsulate or enclose the entire building and the owning entity wants to remove Tuf-Tex® exterior surfacing to restore the historical architectural features of the buildings.	Not Applicable	This alternative does not address the occupants' request to restore the historical architectural features of the building.
3	Abatement	Effective way to remove and dispose of ACM. Effective method of risk reduction.	Readily available materials, labor, and services.	\$272,400	This alternative would allow for unrestricted use at the site and restore the historical architectural features of the buildings.

Notes:

ABCA Analysis of Brownfields Cleanup Alternatives

ACM Asbestos-Containing Material

Sq. Ft. Square Feet

Table 2 – Summary of Cost Estimates

Alternative		Action Cost			Total Cost
		Type of Cost	Description	Cost	
1	No Action	Capital Cost	N/A	\$0	\$0
2	Enclosure or Encapsulation of ACM	Capital Cost	ACM Enclosure	Not Applicable	Not Applicable
		Consultant Oversight	OSHA & NESHAP regulatory oversight		
		O&M	Operation and Maintenance		
3	ACM Abatement	Capital Cost	ACM Abatement	~\$222,000	\$277,000
		Consultant Oversight	OSHA & NESHAP regulatory oversight	~\$55,000	

Notes:

ABCA Analysis of Brownfields Cleanup Alternatives

ACM Asbestos-Containing Material

Sq. Ft. Square Feet

Table 3 – Summary of ACM to be Removed and Type of Disposal

Material	Location	Quantity	NESHAP Category	Abatement Type
Plaster (Tuf-Tex®) exterior surfacing)	Exterior	6,700 Sq. Ft.	RACM	ACM removed following OSHA protocols and disposed of in ACM accepting landfill

Notes:

ABCA Analysis of Brownfields Cleanup Alternatives

ACM Asbestos-Containing Material

Sq. Ft. Square Feet

National Emission Standards for Hazardous Air Pollutants (NESHAP) Category: Regulated Asbestos-Containing Material (RACM), Category I (Cat I) Non-Friable, Category II (Cat II) Non-Friable

Appendix C

Previous Reports



Solving Environmental Concerns Since 1982
Southwest Hazard Control, Inc.

Date: April 30,2024

Quote # S24100

Children’s Museum
200 S 6th Ave
Tucson Az, 85701

Children’s Museum
130 S Scott Ave
Tucson, Arizona 85701

RE: 130 S Scott Ave
Subject: limited Asbestos Survey

Southwest Hazard Control, Inc. (SHC) was contacted by the Lauren Kaye requesting SHC visit the subject site and collect bulk samples of readily available suspect building materials that will be disturbed during demolition/ renovation activities on the site. Suspect ACM building material will be sampled with analysis performed by an independent 3rd party laboratory.

Mr. Christopher Wallace conducted the site reconnaissance and subsequent sampling on April 29, 2024. Christopher Wallace is an employee of SHC and EPA AHERA Accredited and Licensed Asbestos Building Inspectors, experienced in performing asbestos surveys.

Asbestos survey was done at 130 S Scott Ave. The survey was addressing possible ACM contaminated material. ACM was found.

27 ACM samples were submitted to Desert Analytical Services. Analysis performed in accordance of OSHA Methods ID-191 and EPA method 600/R-93/116 See attached survey for sample results for the 130 S Scott Ave

If suspect materials are encountered that were not sampled during the initial inspection, they should be assumed to be asbestos unless further test proves otherwise.

Should you have any questions please feel free to contact me at your convenience.

Sincerely yours,

Mitchell D. Kring

Mitch Kring
Division Manager/Estimator
Office: 520.622.3607
Mobile 520.305.6461

E-mail:Arizona@swhaz.com

Register of Contractor (877)-692-9762 email roc.az.gov

Corporate Headquarter 1953 W Grant Rd. Tucson, AZ 85745 Phone:1-(800)-279-5266 Office: 1(520)-622-3607 Fax: 1 (520)-622-3643	Phoenix Branch 2617 S. 21 st St. Phoenix, Arizona 85034 1-(866)-794-9040 1-(480)-517-9140 1-(480)-517-9140	New Mexico Branch 610 San Jose SE Bldg. B. Albuquerque, NM. 87102 1-(800)-279-5266 1-(505)-296-6930 1-(505)-298-5268	Texas Branch 105 E. Borderland Rd Suite A El Paso Texas 79932 1-(800)-279-5266 1-(915)-234-2170 1-(915)-234-2950	ROC 079036 ROC 104551 ROC 116401 ROC 215888 ROC 092741
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DESERT ANALYTICAL SERVICES

April 25, 2024

Mitchell Kring
Southwest Hazard Control
1953 W. Grant Rd
Tucson, AZ 85745

RE: Asbestos bulk samples, lab code 2404251

Results of analysis for the bulk samples submitted are included in the attached report.

All samples were analyzed using polarized light microscopy. Samples were analyzed using a modified OSHA Method ID-191. Analysis of the samples complies with the requirements contained in 29 CFR 1910.1001(j)(8)(ii)(B) and 29 CFR 1926.1101(k)(5)(ii)(B). The techniques used for analysis are similar to the requirements of EPA method 600/R-93/116. The limit of detection for this method is a function of matrix material interferences, fiber size and distribution. Unless otherwise indicated, the limit of detection is one percent asbestos.

Samples were first observed using a stereo microscope at 20-40 power magnification. Representative portions of the sample were then mounted in Cargille high dispersion media and observed at 100-500 power magnification using polarized light. Samples were further observed using dispersion staining. A minimum of three slide mounts were made for each sample unless otherwise noted.

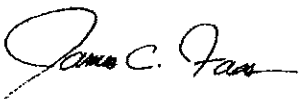
Asbestos materials are identified based on the following optical properties: morphology, extinction characteristics, pleochroism, sign of elongation and refractive index. If asbestos was detected, the percent content reported was determined using a calibrated visual estimate unless point counting is noted in the report.

Unless otherwise noted, all samples were received in good condition. Samples will be disposed of within five days unless directed otherwise.

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If you have any questions concerning the attached report, please feel free to call.

Sincerely,



James C. Faas, MPH
Laboratory Director

Southwest Hazard Control
1953 W. Grant Rd
Tucson, AZ 85745

Lab Sequence Code: 2404251

Client Reference: S-24100

SAMPLE RESULTS

SAMPLE ID	ASBESTOS DETECTED	OTHER FIBERS PRESENT	
C-01			
	Drywall	None Detected	Cellulose
	Surfacing	None Detected	
C-02	None Detected		
C-03	None Detected		
C-04	None Detected		
C-05	None Detected		
C-06			
	Drywall	None Detected	Cellulose
	Surfacing	None Detected	
C-07	None Detected		
C-08	None Detected	Cellulose, Fiberglass	
C-09	None Detected		
C-10	None Detected	Cellulose, Fiberglass	
C-11			
	Adhesive-Yellow	None Detected	
	Adhesive-Black	5% Chrysotile	
C-12			
	Drywall	None Detected	Cellulose
	Surfacing	None Detected	
C-13	None Detected	Cellulose, Fiberglass	

Analyst James C. Faas 

Date 4/25/2024

Southwest Hazard Control
1953 W. Grant Rd
Tucson, AZ 85745

Lab Sequence Code: 2404251

Client Reference: S-24100

SAMPLE RESULTS

SAMPLE ID	ASBESTOS DETECTED	OTHER FIBERS PRESENT
C-14	None Detected	
C-15	Drywall Surfacing	None Detected None Detected Cellulose
C-16	None Detected	
C-17	Adhesive-Yellow Adhesive-Black	None Detected 5% Chrysotile
C-18	Adhesive-Yellow Adhesive-Black	None Detected 5% Chrysotile
C-19	None Detected	
C-20	Tile Adhesive-Yellow Adhesive-Black	None Detected None Detected 2-3% Chrysotile

Analyst James C. Faas 

Date 4/25/2024



Solving Environmental Concerns Since 1982
Southwest Hazard Control, Inc.

Bulk Samples Chain of Custody

Contact Information	Lab Destination
Southwest Hazard Control	Desert Analytical Services
1953 W. Grant Rd.	732 N. La Cholla Blvd.
Tucson, AZ. 85745	Tucson, AZ. 85741
<input type="checkbox"/> Invoice SHC <input type="checkbox"/> Invoice other	<input checked="" type="checkbox"/> Asbestos <input type="checkbox"/> Lead <input type="checkbox"/> Mold
Contact info: (520) 622-3607	Date samples shipped: 4/25/24
Sampling Team Members	Turnaround Time:
<input type="checkbox"/> Mitchell Kring <input type="checkbox"/> Rico Blancas <input checked="" type="checkbox"/> Chris Wallace	<input type="checkbox"/> RUSH <input type="checkbox"/> 3Hr. <input type="checkbox"/> 6Hr. <input type="checkbox"/> 12Hr. <input checked="" type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day
<input type="checkbox"/> Frank Chavira <input type="checkbox"/> Eugene Moss <input type="checkbox"/> Other	
Job Number: 324130	<input checked="" type="checkbox"/> EPA method 600/R-93/116 <input type="checkbox"/> Positive Stop

Customer Name:

Building Name & Site Address: TCM Udall Building 130 S Scott Ave.

Sample ID:	Sample Location & Description	Date & Time: collected	Container:	Condition of Material
C-01	Drywall & texture North of west door	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-02	Interior window glazing west window	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-03	Interior window caulking south of door	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-04	Door caulking west window	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-05	Interior door glazing west door	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-06	Dry wall & texture behind outlet case	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-07	Yellow cave base north wall	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-08	White ceiling tile	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-09	Yellow cave base glue west wall	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-10	White ceiling tile	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-11	Yellow & black mastic under carpet s/w	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-12	Dry wall & texture east wall outlet	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-13	White ceiling tile North wall	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-14	Door caulking bathroom North west side	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-15	Dry wall & texture bathroom East wall	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-16	Brown cave base glue	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-17	Yellow & black mastic under carpet	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-18	Yellow & black mastic under carpet	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-19	Door caulking south wall	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-20	Blue UCT w/ black mastic	4/25/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor

Relinquished by: Chris Wall	Received by:	Email: cmkkring@swhaz.com
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Date & Time:

4/25/24

Date & Time:

DESERT ANALYTICAL SERVICES

April 29, 2024

Mitchell Kring
Southwest Hazard Control
1953 W. Grant Rd
Tucson, AZ 85745

RE: Asbestos bulk samples, lab code 2404292

Results of analysis for the bulk samples submitted are included in the attached report.

All samples were analyzed using polarized light microscopy. Samples were analyzed using a modified OSHA Method ID-191. Analysis of the samples complies with the requirements contained in 29 CFR 1910.1001(j)(8)(ii)(B) and 29 CFR 1926.1101(k)(5)(ii)(B). The techniques used for analysis are similar to the requirements of EPA method 600/R-93/116. The limit of detection for this method is a function of matrix material interferences, fiber size and distribution. Unless otherwise indicated, the limit of detection is one percent asbestos.

Samples were first observed using a stereo microscope at 20-40 power magnification. Representative portions of the sample were then mounted in Cargille high dispersion media and observed at 100-500 power magnification using polarized light. Samples were further observed using dispersion staining. A minimum of three slide mounts were made for each sample unless otherwise noted.

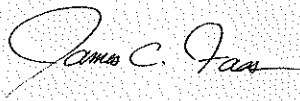
Asbestos materials are identified based on the following optical properties: morphology, extinction characteristics, pleochroism, sign of elongation and refractive index. If asbestos was detected, the percent content reported was determined using a calibrated visual estimate unless point counting is noted in the report.

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If you have any questions concerning the attached report, please feel free to call.

Sincerely,



James C. Faas, MPH
Laboratory Director


Southwest Hazard Control
1953 W. Grant Rd
Tucson, AZ 85745

Lab Sequence Code: 2404292

Client Reference: S-24100

SAMPLE RESULTS

SAMPLE ID	ASBESTOS DETECTED	OTHER FIBERS PRESENT
C-21		
Tile	None Detected	
Adhesive	None Detected	
C-22	None Detected	
C-23	None Detected	
C-24	None Detected	
C-25		
Plaster	None Detected	
Textured Paint	2-3% Chrysotile	
C-26		
Plaster	None Detected	
Textured Paint	2-3% Chrysotile	
C-27	None Detected	

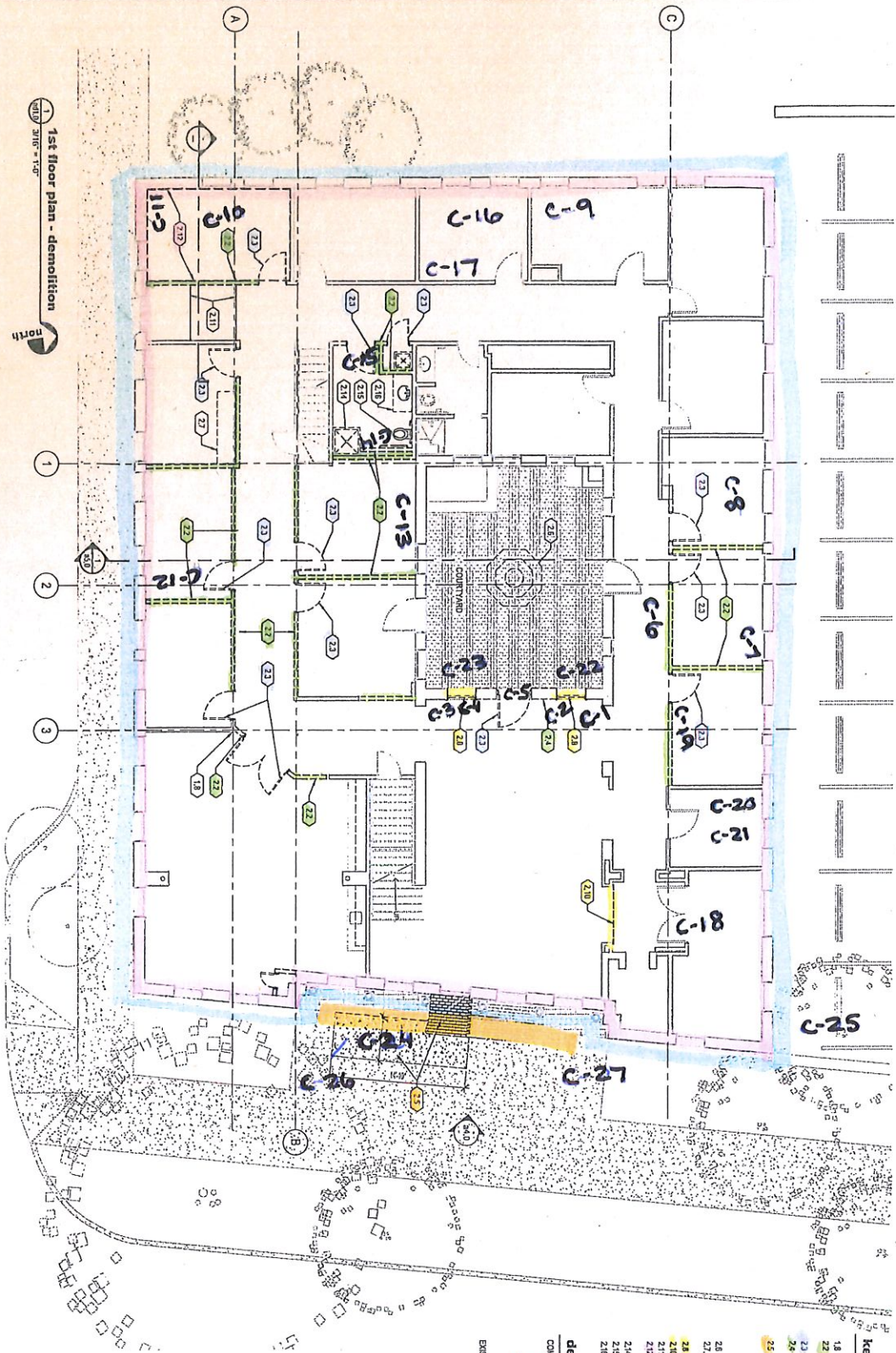
Analyst James C. Faas  Date 4/29/2024

Customer Name: **Sundt** 524100
 Building Name & Site Address: **TCM Udell Bldg 130 S Scott Ave**

Sample ID:	Sample Location & Description	Date & Time: Collected	Container:	Condition of Material
C-21	Blue VCT w/mastic	4/29/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-22	Exterior window glazing N/W window	4/29/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-23	Exterior window glazing S/W window	4/29/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-24	Exterior concrete walkway east	4/29/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-25	Exterior plaster N/E corner	4/29/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-26	Exterior plaster East South of door	4/29/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
C-27	Exterior concrete step East side	4/29/24	ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-28			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-29			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-30			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-31			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-32			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-33			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-34			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-35			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-36			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-37			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-38			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-39			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-40			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-41			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-42			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-43			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-44			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-45			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-46			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-47			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-48			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-49			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-50			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-51			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-52			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-53			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor
-54			ZLP	<input type="checkbox"/> Good <input type="checkbox"/> Poor

Relinquished by: **Ch Wille** Received by: Email: **cmkring@swhaz.com**

Date & Time: **4/29/24 2:43 pm** Date & Time:



1st floor plan - demolition
north

- general notes**
- DO NOT SCALE DRAWINGS. COORDINATE ALL WORK MECHANICAL, PLUMBING, COMMUNICATIONS AND ELECTRICAL DRAWINGS. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE INITIATION OF WORK.
 - REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL COORDINATION AS REQUIRED.

keynotes

- 19 EXISTING COLUMNS TO REMAIN.
- 22 REMOVE WALL, PATCH AND FILL AS REQUIRED TO PROVIDE NEWLY FINISHED TRANSITION.
- 23 REMOVE DOOR AND FRAME FOR NEW DOOR, PATCH AND FILL AS REQUIRED TO PROVIDE NEWLY FINISHED TRANSITION.
- 24 REMOVE PORTION OF EXISTING CONCRETE WALK TO ACCOMMODATE EXPANSION OF LEVEL STAIR AT BUILDING FRONT TO OPEN EXTERIOR TERRACE. REFER TO STRUCTURAL FOR LAYOUT AND FINISHES.
- 25 REMOVE EXISTING FOUNTAIN, SALVAGE TO OWNER. REMOVE EXISTING COUNTERS AND ASSOCIATED PARTITION. SALVAGE TO OWNER.
- 26 REMOVE EXISTING BAY.
- 27 REMOVE EXISTING FLOOR & JOISTS, REMOVE NEW HEADER TO SUPPORT REMAINING JOISTS.
- 28 REMOVE EXISTING TOILET & ASSOCIATED GRAB BARS, REMOVE EXISTING COUNTER & SINK.

demolition notes

- COMPLETELY REMOVE:
- CARPET
 - WALL BASE
 - WALL
 - LIGHT FIXTURES AND
 - WINDOW BLINDS
- EXISTING TO REMAIN:
- WALL CABINETS
 - SHELVING
 - COUNTER TOPS
 - RESTROOM FINISHES
 - RESTROOM FIXTURES
 - SHUTTER TILE

THE ASBESTOS INSTITUTE

Certifies that

Christopher Wallace

has attended and received instruction in the EPA approved course

AHERA Building Inspector Refresher

on

January 23, 2024

and successfully completed and passed the competency exam.

Certificate:

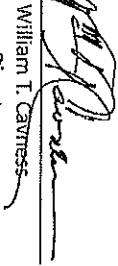
ON-4644-15327-012324

Date of Examination:

23-Jan-2024

Date of Expiration:

23-Jan-2025


William T. Carness
Director


Approved Instructor

THE ASBESTOS INSTITUTE

20033 N. 19th Ave, Building 5, Phoenix, AZ 85027

602-864-6564 – www.theasbestosinstitute.com

The person receiving this certificate has completed the requisite training for asbestos accreditation under TSCA Title II.