ASSESSMENT OF SUSPECT ASBESTOS-CONTAINING MATERIALS RENOVATION INSPECTION MUSIC BUILDING ROOMS 263, 269, 270 & 282 DENTON, TEXAS

September 28, 2022

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Prepared for:

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Prepared by:

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RMS Project Number – 7274

UNT Risk Management was retained by facilities project manager, Mrs. Thanh Kim Nguyen, at University of North Texas to collect samples of materials within the Music Building. The building is scheduled for renovation. The survey was performed on August 16, 2022, by Mr. Tyler Godby, a State of Texas AHERA accredited asbestos building inspector (Lic. #604046). **At the time of this inspection, samples were collected on the second floor in rooms 263, 269, 270 and 282 collecting samples in various locations for asbestos-containing materials (ACM). Previous samples were collected in room 282 indicating that there is positive ACM in that room that were set to Mrs. Thanh Kim Nguyen. No exterior or roof samples were collected during this survey. If other parts of the Music Building need to be sampled, UNT Risk Management request that further samples be collected before any renovation activities.**

UNT Risk Management understands that the objective of this assessment was to identify ACM and/or presumed ACM (PACM) that must be removed prior to planned renovation/demolition of the Site.

The samples were forwarded to Moody Labs, LLC. in Farmers Branch, Texas for analysis using polarized light microscopy (PLM) in accordance with United States Environmental Protection Agency's (USEPA) method in 40CFR, Ch. 1, Pt. 763, Subpart F, App. A. for determining asbestos in bulk building materials. This laboratory is accredited for asbestos analysis using Polarized Light Microscopy (PLM) by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NVLAP).

The survey activities began with a preliminary visual observation of readily accessible portions of the survey area by UNT personnel to identify homogeneous areas of suspect ACM. A homogeneous area consists of building materials, which appear similar throughout in terms of color, texture and date of application. An interior assessment was conducted throughout the areas surveyed. The identification of homogeneous materials was made by visual observations.

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with the Asbestos Hazard Emergency Response Act (AHERA) sampling protocols. Each homogeneous area of suspect ACM was physically touched to assess the friability and condition of the materials. A friable material is defined by the EPA as a material which can be crumbled, pulverized or reduced to powder by hand pressure when dry.

UNT Risk Management inspector completed a walkthrough assessment of the building and recorded the areas of the building inspected, as well as areas where materials suspected of containing asbestos were located.

UNT Risk Management inspector also evaluated the condition, accessibility, and friability of suspect ACM according to the following ratings:

- Condition, as good (G), fair (F), or poor (P)
- Friability, as friable (F), Category I non-friable (CAT I), or Category II non-friable (CAT II), according to the USEPA National Emissions Standard for Hazardous Air Pollutants (NESHAP) definitions in Section 4.0.

When materials suspected of containing asbestos were identified, BTG's inspector collected representative bulk samples from each homogeneous area using the protocol presented in the following table:

SUSPECT ACM SAMPLING PROTOCOL		
Homogeneous Area (HA) Category	**HA Size**	**Minimum Number of Samples**
Surfacing Materials	1,000 SF or Less	3
	1,001-5,000 SF	5
	>5,000 SF	7 or more
Thermal System Insulation (TSI)	No Stipulation	3 of each type of TSI. (Must also sample all repair patches)
Miscellaneous Materials	No Stipulation	3 samples of each miscellaneous material.

Note: A Homogeneous Area is defined to include surfacing material, thermal systems insulation, and miscellaneous material areas which are uniform in color, texture, construction and application date, and general appearance.

The suspect ACM samples collected were obtained by physically removing a small portion of the suspect material using a sharp instrument. Disturbance of adjacent material was kept to a minimum during the sampling program. Appropriately attired inspectors collected bulk samples using wet methods as applicable to reduce the potential for fiber release. Each sample was placed into a separate labeled container with a specific identifiable number, which was then sealed. The sampling instrument was cleaned after each sample was collected to avoid cross-contamination.

Fifty-seven (57) samples of suspect asbestos-containing material (ACM) were collected. Homogeneous areas of suspect ACM identified and sampled during the survey are presented in the attached homogeneous materials table. The materials identified to contain asbestos are presented in the tables below.

Homogeneous Materials Table
University of North Texas
Music Building
Denton, Texas

Friable ACM

Samples of the materials listed below collected by UNT Asbestos Project Manager Tyler Godby **contained friable asbestos at concentrations greater than 1% asbestos** under PLM analysis and shall be treated as ACM. Asbestos was identified during the survey. If any renovation or demolition activities will impact the identified ACMs, the ACMs must be abated prior to the renovation or demolition. The asbestos abatement must be performed by a State of Texas licensed asbestos abatement contractor in accordance with a project design prepared by a State of Texas licensed asbestos consultant. In addition, third party air monitoring must be performed during the abatement. ***The GAC shall verify all quantities of asbestos-containing materials.***

HA Number	Material Description, Location(s)	Classification	Condition	Approximate Quantity
HA #3	***Texture on Concrete Pillars & Wall*** – Samples were taken in room 263 on the Concrete Pillars in the room and on the lower half of the wall.	Friable	Good	+/- 582 SF

Non-Friable ACM

Samples of the materials listed below collected by UNT Asbestos Project Manager Tyler Godby **contained non-friable asbestos at concentrations greater than 1% asbestos** under PLM analysis and shall be treated as ACM. Asbestos was identified during the survey. If any renovation or demolition activities will impact the identified ACMs, the ACMs must be abated prior to the renovation or demolition. The asbestos abatement must be performed by a State of Texas licensed asbestos abatement contractor in accordance with a project design prepared by a State of Texas licensed asbestos consultant. In addition, third party air monitoring must be performed during the abatement. ***The GAC shall verify all quantities of asbestos-containing materials.***

HA Number	Material Description, Location(s)	Classification	Condition	Approximate Quantity
HA #1	***12x12 VCT Floor Tile*** – Samples were collected in room 263 that are under the carpet in the room. Tile was positive for ACM, not the Yellow Mastic.	Non-Friable	Good	+/- 1,163 SF

Asbestos-containing materials listed above were identified within the areas surveyed. It is UNT Risk Management's understanding that the building is scheduled for renovation. Therefore, the identified ACM must be abated prior to the renovation. The asbestos abatement must be preformed by a State of Texas licensed asbestos consultant. In addition, a third-party air monitoring technician (AMT) must complete a through visual inspection and pass an air clearance after the abatement process is completed.

Please note that state and federal regulations require a ten working day notification prior to any demolition or renovation activities that may impact the condition of ACM in a building that affords public access or occupancy.

The General Abatement Contractor (GAC) shall verify all quantities in the report based upon observations during the survey. While it is believed that the estimated quantities are reasonable, unanticipated conditions could be present in inaccessible or unsurveyed areas. UNT Risk Management does not warrant or guarantee the quantity estimates, and the use of such estimates shall be at the user's own risk and shall constitute a release and agreement to defend and indemnify UNT Risk Management from and against any liability.

Destructive access and sampling techniques ***were-not*** used during this assessment. However, it is possible that additional materials are present that were not visible or accessible during UNT's assessment. If suspect materials are encountered during future renovation or demolition activities, they should be assumed to contain asbestos until evaluated by a qualified asbestos inspector. "Suspect" materials include, but is not limited to, any material serving as a sprayed on or troweled on acoustic or fireproofing surface; floor and ceiling tiles; drywall, joint compound, and related materials; transite panels, siding and shingles;

thermal insulation and any material associated with mechanical systems; and binding agents such as tar sealant, mastic, adhesive, roofing tar, caulking, etc.

All conclusions and recommendations in this report represent the professional options of the UNT Risk Management personnel involved with the project. The results, findings, conclusions and recommendations expressed in this report are based on access provided and conditions observed and samples taken during UNT Risk Managements survey of the building. The information contained in this report are relevant as of the date on which the field work was performed and should not be relied upon to represent site conditions as a later date. This study and report were prepared on behalf of and for the exclusive use of UNT solely for their use and reliance in determining the presence of asbestos in identified areas of the site. The results of this report are not intended or to be construed as legal interpretation of existing federal, state or local environmental, health and safety laws or regulations. UNT Risk Management assumes no responsibility or liability for errors in information or data provided to UNT Risk Management by the client or any third party or developments resulting from activities or situations outside the scope of this project.

The U.S. Environmental Protection Agency (EPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations for asbestos (40 CFR 61, Subparts A and M) apply to certain demolition and renovation projects in facilities containing ACM and/or presumed ACM (PACM). The NESHAP rule usually requires that all friable ACM and some categories of non-friable ACM be removed before a building is demolished and may require localized removal before or as part of a renovation. For renovation projects where friable ACM will be disturbed, the NESHAP rule may require appropriate work practices or procedures for the control of emissions. The following EPA NESHAP definitions of ACM are very important in interpreting which NESHAP requirements may apply to your building:

- *Friable asbestos-containing material:* any material containing more than 1 percent asbestos, determined using PLM analysis, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- *Category I non-friable asbestos-containing material:* asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using PLM.
- *Category II non-friable asbestos-containing material:* any material excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined using PLM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- *Regulated asbestos-containing material (RACM):* (1) friable ACM, (2) Category I non-friable ACM that has become friable (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (4) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the materials in the course of demolition or renovation operations regulated by NESHAP.

According to NESHAPs, RACM need not be removed before demolition if:

- It is Category I non-friable ACM that is not in poor condition and is not friable.
- It is on a facility component that is enclosed in concrete or other similarly hard material and is adequately wet whenever exposed during demolition.
- It was discovered after demolition began, and as a result, cannot be safely removed. If not removed, the material must be kept wet until disposal.
- It is Category II non-friable ACM, and the probability is low that the material will become crumbled, pulverized, or reduced to powder during demolition.

NESHAP also requires that the EPA or the state (if the state has been delegated authority under NESHAP) be notified before a building containing RACM is demolished, or before certain renovations impacting RACM begin.

The U.S. Occupational Safety and Health Administration (OSHA) regulates employee exposure to asbestos in general industry (29 CFR 1910.1001) and construction (29 CFR 1926.1101). The OSHA asbestos standards provide a permissible exposure limit (PEL) of 0.1 fibers (equal to or longer than 5 micrometers) per cubic centimeter of air (fibers/cc) determined as an 8-hour, time-weighted average (TWA) and an excursion limit of 1 fiber/cc as a 30-minute TWA.

The asbestos construction standard applies to exposure of employees to asbestos during abatement and renovation/demolition activities. The construction asbestos standard also applies to employees who may contact or disturb ACM during their work activities (e.g., maintenance and custodial workers). It is important to note that the OSHA regulations apply to materials that contain any detectable concentration of asbestos, whereas the NESHAP regulations only apply when the concentration is greater than 1%. The following are selected OSHA definitions regarding asbestos work:

- *Class I asbestos work:* means activities involving the removal of TSI and surfacing ACM and PACM.
- *Class II asbestos work:* means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.
- *Class III asbestos work:* means repair and maintenance operations, where "ACM", including TSI and surfacing ACM and PACM, is likely to be disturbed.
- *Class IV asbestos work:* means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste and debris resulting from Class I, II, and III activities.
- *Intact:* means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that asbestos is no longer likely to be bound with its matrix.

OSHA requires that specific work practices and procedures be followed to control asbestos exposure of employees involved in abatement or renovation activities as well as the building occupants. In addition, the OSHA standard provides requirements for exposure monitoring, employee training, medical surveillance, respiratory protection, signage, and other protective measures.

Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. UNT Risk Management does not warrant the work of regulatory agencies, laboratories or other third parties supplying information, which may have been used in the preparation of this report.

UNT Risk Management appreciates this opportunity to provide asbestos consulting services to Mrs. Thanh Kim Nguyen. We have enjoyed working with you on this project and look forward to meeting your needs in the future. Should any questions arise concerning this report, please contact us at (940) 369-8790 or (720) 231-5680.

Sincerely,

Tyler Godby
Asbestos Project Manager
University of North Texas
TDSHS #604046

RMS Project Number – 7274
Project Name – Music Building

Sample Date – 8/16/2022
Inspector – Tyler Godby

HA ID	Sample ID	Material Description	Sample Location	Material Classification	Material Condition	Estimated Quantity	Material Friability	Asbestos Content
1	***220283***	***12x12 VCT W/ Yellow Mastic***	***Room – 263***	***MM***	***G***	***~ 582 SF***	***Non-Friable***	***3% CHRY (Floor Tile)***
	220284	***12x12 VCT W/ Yellow Mastic***	***Room – 263***	***MM***	***G***	***~ 582 SF***	***Non-Friable***	***3% CHRY (Floor Tile)***
	220285	***12x12 VCT W/ Yellow Mastic***	***Room – 263***	***MM***	***G***	***~ 582 SF***	***Non-Friable***	***3% CHRY (Floor Tile)***
2	220286	Gray Baseboard W/ Glue	Room – 263	MM	G	N/A	Non-Friable	ND
	220287	Gray Baseboard W/ Glue	Room – 263	MM	G	N/A	Non-Friable	ND
	220288	Gray Baseboard W/ Glue	Room – 263	MM	G	N/A	Non-Friable	ND
3	***220289***	***Texture on Concrete Pillar***	***Room – 263***	***SM***	***G***	***~ 1,163 SF***	***Friable***	***ND***
	220290	***Texture on Concrete Pillar***	***Room – 263***	***SM***	***G***	***~ 1,163 SF***	***Friable***	***ND***
	220291	***Texture on Concrete Pillar***	***Room – 263***	***SM***	***G***	***~ 1,163 SF***	***Friable***	***2% CHRY (Texture)***
4	220292	Brick & Mortar	Room – 263	MM	G	N/A	Friable	ND
	220293	Brick & Mortar	Room – 263	MM	G	N/A	Friable	ND
	220294	Brick & Mortar	Room – 263	MM	G	N/A	Friable	ND
5	220295	CMU W/ Filler	Room – 263	SM	G	N/A	Friable	ND
	220296	CMU W/ Filler	Room – 263	SM	G	N/A	Friable	ND
	220297	CMU W/ Filler	Room – 263	SM	G	N/A	Friable	ND
6	220298	Tan Baseboard W/ Glue	Room – 282	MM	G	N/A	Non-Friable	ND
	220299	Tan Baseboard W/ Glue	Room – 282	MM	G	N/A	Non-Friable	ND
	220300	Tan Baseboard W/ Glue	Room – 282	MM	G	N/A	Non-Friable	ND
7	220301	Plaster Materials W/ Rough Texture	Room – 269 Wall	SM	G	N/A	Friable	ND
	220302	Plaster Materials W/ Rough Texture	Room – 269 Ceiling	SM	G	N/A	Friable	ND
	220303	Plaster Materials W/ Rough Texture	Room – 270 Wall	SM	G	N/A	Friable	ND
8	220304	12x12 Ceiling Tiles W/ Brown Glue Dots	Room – 270	MM	G	N/A	Non-Friable	ND
	220305	12x12 Ceiling Tiles W/ Brown Glue Dots	Room – 270	MM	G	N/A	Non-Friable	ND
	220306	12x12 Ceiling Tiles W/ Brown Glue Dots	Room – 270	MM	G	N/A	Non-Friable	ND

HA ID	Sample ID	Material Description	Sample Location	Material Classification	Material Condition	Estimated Quantity	Material Friability	Asbestos Content

= Greater than 1% ACM
HA = Homogenous Area
ND = Non-Detect
N/A = Non-Applicable
SF = Square Feet
G = Good, D = Damaged (Fair), SD = Significantly Damaged (Poor)
MM = Miscellaneous Material, SM= Surfacing Material, TSI = Thermal System Insulation
CHRY = Chrysotile, TREM/ACT = Tremolite/Actinolite, AMO = Amosite
TR = Trace, <1% Visual Estimate
LF = Linear Feet