

STUDY OF THE FORMER ADELPHIA BUILDING

for

THE CITY OF PORTSMOUTH, OHIO

PROPOSED POLICE DEPARTMENT



**TANNER
STONE
& COMPANY
ARCHITECTS**

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GENERAL BUILDING DESCRIPTION

The building is comprised of approximately 16,000 sf and is a one story structure.

This building, as a police station, would qualify as a Use Group B Type of structure as defined by the Ohio Building Code. The materials that the existing building is constructed from qualify it as a Type 3B construction.

The combination of a Use Group B building, which is of Type 3B construction, allow it to be 4 stores in height and 19,000 sf. Since this structure is only 1 story in height, and only 16,000 sf, it easily complies with the Code Regulations. The building would not require by current codes to have a water sprinkler system installed.

It appears that different sections of the building were constructed at different times. We do not have exact documentation of the different times of construction, or how many phases there were, but it appears there were at least two different phases of building.

The older portion of the structure comprises just over 10,000 sf, while the newer portion is about 5,000 sf.

It is not known exactly what all the building has been used for, but it is known that the older section of the building was once used as an automotive dealership, with the front section used as the showroom/office area, and the rear section used for the service area.

The building has also been home to the local cable television provider, and it is thought that new newer section of the building was added when they took over the structure.

BUILDING STRUCTURE

The older portions of the building have a steel frame (columns and beams) similar to a pre-engineered metal building type structure. The steel in this portion of the building appears modified, as if it were used elsewhere previously then moved to this site. It appears to be fundamentally in good condition, with some minor areas of rust. This steel should be painted with a rust prohibitive paint to slow down the deterioration from oxidation. Any secondary members (portions) that are found with significant deterioration should be replaced with similar sized members, and painted similar to the existing steel.

The newer portion of the building has masonry (concrete block) bearing walls, with steel bar joist clear spanning from exterior bearing walls to steel beams supported by steel columns. This steel is in good condition and does not appear in the locations we surveyed, to have any deterioration. There are a lot of roof leaks in this section, however, so a thorough inventory should be done of all of the decking and bar joist to assure that the leaking has not caused deterioration in a certain area.

BUILDING ENCLOSURE

The exterior envelope of the building consists primarily of masonry walls. This is particularly true in the older portion of the building. These walls appear to be in good condition, with some minor cracking. The cracks in the masonry that were visible did not appear to be of concern. Possibly some minor differential settlement, or expansion/contraction cracks, but none were excessive for a structure of this age. In places, the existing masonry is covered with metal siding to match the addition; in other areas (the back and the south side) the block is exposed and painted.

The exterior walls of the addition are metal siding over top of masonry (concrete block). These walls have rigid insulation board behind the metal siding and some insulation behind the drywall on the inside.

The roof/ceiling assembly in the building varies from the old to the new section.

The old section has steel purlins which span between the metal building beams. On top of these purlins is a ribbed decking material which is a composite material determined to contain asbestos. The roofing material is above this deck. The newer section has ribbed metal decking spanning between bar joists.

The actual roofing material varies from one part of the building to the other also. Much of the old portion has a rubber membrane as the final roofing material. In other areas of the old section, and over the newer section, the roofing material is a built-up asphalt type system.

Both the rubber and the built-up asphalt roofing material are in moderate condition and should be replaced as a part of this project. The material should be removed down to the deck material to determine how many layers there are and if there has been any deterioration due to leaking. Many leaks were observed in the newer structure.

It is also advised that when a new roofing membrane is installed, additional flashing and/or sloping should be incorporated to reduce future leaking problems. There are some areas where water is getting trapped in the present configuration.

The ceiling throughout the building is a suspended acoustic tile type, with 6" of fiberglass batt insulation directly above it. Many of the ceiling tiles are bowing, probably from the excessive humidity of the building. These ceiling tiles should be replaced throughout the building. The existing grid system should be sufficient to maintain. It is possible that additional hanger wire, and repainting of the grid, may be necessary in some areas. Much of the fiberglass insulation will have to be replaced also, where it has become wet, or has been exposed to mold growth.

The ceiling space between the suspended acoustic tile and the bottom side of the roof deck should be vented toward access moisture from building up in this area. Without the ventilation, condensation and/or mold and mildew could be a problem in this area.

INTERIOR WALLS

The interior walls throughout the building are wood stud construction with drywall on each side. These walls appear to be fundamentally in good condition. The studs seem solid and, but for minor exceptions, the drywall does not have a lot of holes in it. There is a problem with these walls, however, due to the large amount of water that has leaked into the building through roof problems, there are many places where mold is present on these walls. It can be reasonably assumed that there is more mold present than can be seen presently, and that is continuing to grow under current conditions.

When the renovation of the building is undertaken, the drywall containing mold will have to be removed, along with effected insulation. The wood studs involved will have to be either replaced or cleaned thoroughly prior to the replacement of the drywall.

FLOORS

The floor construction throughout the entire building is concrete slab on grade. The majority of this concrete is presently covered with carpet. This makes it difficult to determine if there is any excessive cracking of the concrete floors. Seeing no visible signs of transmission through the carpet, it will be assumed for the purpose of this report, that any cracking is minor in nature.

It is further recommended that all of the floor coverings, carpet and/or tile, shall be replaced to avoid any mold issues, and to give the project a new look upon opening.

Some of the concrete floors in the back portion of the structure may need to be cut out as these were in the old garage areas, and may be too rough for new floor finishes. This old garage area is where the new locker rooms are proposed to be located, which will necessitate removal of the concrete to install the new sanitary sewer piping. It is suggested that the new locker room concrete floor be poured back at a slightly lower elevation in order to accept new ceramic or quarry tile in this area. This will be somewhat more expensive than floor finishes in the other areas but will hold up better in a wet area like this.

DOORS AND WINDOWS

It is recommended that all of the doors, both interior and exterior, be replaced. While some of them are in acceptable condition now, there are some signs of wear, particularly in the hardware. This is one area where some money could be saved in the budgeting of renovation, if cost reduction becomes necessary. It is also possible to replace all of the hardware on the doors to gain better control and operation while saving some money on actual doors. However, if budget allows replacement of all doors and hardware it would be a desirable thing to do.

There are not a lot of windows in the building presently. It is assumed that during the redesign of the exterior façade, these windows would most likely be changed in configuration; therefore, requiring new units to be installed. New windows will also perform better in an energy conservation manner.

Portsmouth City Future Police Station
Building Assessment

Field Observation Date: January 5th, 2006

Dynamix Engineering performed an assessment review of the facility proposed for the future location of the Portsmouth City Police Department. The assessment was performed on January 5th, 2006 with Mr. Dave Stone from Tanner Stone & Company Architects. The building was walked inside and out during the assessment with the fire department providing access to the roof area for inspection. The following is a summary of our findings and an estimate for renovating the facility based upon the recommendations.

PLUMBING

1. Plumbing System

Description – The plumbing system consists of the main water line and meter, plumbing fixtures located in the men’s and women’s restrooms, domestic water heater and mop sink.

Comments – The plumbing system is in fair condition and is functioning. The plumbing fixtures are showing signs of aging and should be upgraded.

FIRE SUPPRESSION

2. Fire Suppression System

Description – The fire protection system is a limited area system consisting of only one head.

Comments – Code research needs to be completed based on the new use of the building. This will determined if the sprinkler system needs to be added.

HVAC

3. Mechanical Systems

Description - The HVAC system consists of two package rooftop units and five split direct expansion cooling and gas heating units. Each system has its own thermostat for the area that it serves. The supply and return air systems are ducted low velocity systems. The storage area has two gas-fired unit heaters. The restrooms are served by an exhaust fan.

Comments – The rooftop units are in poor condition. One of the split systems is new and in good condition. The remaining systems are in poor condition. The unit heaters are also in poor condition. The entire HVAC system should be replaced.

ELECTRICAL

4. Main Distribution System

Description - The main electrical service initiates at a set of three 25KVA pole mounted transformers located in an alley behind the building. An aerial set of cables extend from the pole to weatherheads above the main electrical room. The service conduits penetrate the roof and terminate into a main fusible switchboard. The switchboard is manufactured by ITE and is rated at 100A, 208V, 3-phase, 4-wire. The switchboard does not contain a single main, but six multiple main switches which is acceptable per code. The only thing this prohibits is future expandability within this main switchboard, as it already contains the maximum allowed number of switches.

Comments - The main switchboard is in good condition. The main switchboard switches need labeled per code that they are main switches. The main switchboard ampacity is adequate to serve the building; this is based upon the assumption of continuing gas heat. The number of main switches is fine assuming that the panels may accommodate the new HVAC systems. Once a design selection is made on the type of system to be installed, it may be as simple as serving the units from a local branch panel or installing a new panel to be served from an existing. Worse case would require the installation of a new main service disconnect so that added switches could be installed from the main distribution system. The power company pole mounted transformers will have to be increased in size; this will have to be coordinated with the power company. The service laterals from the pole may also need to be increased depending on their size. A TVSS device (Transient Voltage Surge Suppressor) is recommended for the service to provide some basic protection from lightning strikes and/or surges.

5. Branch Panelboards

Description - There are four 200A, 208V, 3-phase, 4-wire panels labeled B, D, E and F and two 100A labeled C and G. The panels are located throughout the building and provide power to all devices in the facility. The panels are manufactured by ITE. Panel C and F are completely filled, but the other panels typically have at least 11 spaces available. Bussing was verified as full height in these panels. There are a couple small pushmatic type load centers serving minimal equipment.

Comments - The panels are in good condition and the breakers appear operational. Added breakers could be provided within most panels to accommodate additional load. Locks on panels appear in good condition. Labeling of panels is provided via a stick-on Merlin style label and needs to be replaced with something more permanent (engraved nameplate). The small load centers need to be removed and the circuits relocated to the other panels.

6. Wiring Devices and Power Wiring

Description - Outlets and switches exist throughout the building to provide power and switching for lighting in the existing spaces. The faceplates are mixed in color and type; though they are primarily ivory in color with devices mounted flush in wall.

Comments - Wiring devices are in fair condition and it is recommended they be replaced due to their age and deterioration due to moisture penetration into the building which has been unoccupied for years. It was noted in the parking/garage area that no outlets contained ground fault circuit interrupters as required by Code and many of the devices and suspended devices were not secured properly. It was noted that the garage door

opener appears to be in good operating condition. There were no service outlets noted at the outdoor roof and grade level mechanical unit locations as required by Code; these will have to be added with new equipment.

7. Normal Lighting

Description – Interior lighting fixtures are primarily 2' x 4' fluorescent recessed troffers with T12 type lamps controlled by local switching. Exterior lights are typically a surface mount incandescent fixture at the exit door. Lighting is typically circuited with a flexible cable above the ceiling.

Comments – Lighting is in fair to poor condition. Most lenses are in poor condition. Many lamps or ballasts are inoperable. It is recommended that lighting be replaced with new fluorescent troffers with energy savings electronic ballasts coupled with T8 style lamps. This will not only update the poor condition lighting, but also provide an energy savings that will be realized in the building operation annually. Normal lighting needs to be provided in the attic space as well, as there were no operational lights noted for that space.

8. Emergency/Egress Lighting

Description – The emergency and egress lighting is made up of exit signs marking the paths of egress and wall mounted, battery-operated emergency lighting units to provide illumination upon power loss. It was noted that the wall mounted emergency lighting units were marked with the last test in the year 2000. There were no noted outdoor emergency lighting fixtures.

Comments – The emergency lighting system and exit lights are in poor condition and should be replaced with new. This will also ensure compliance with current Code regarding the illumination required for 90 minutes upon loss of power. If a generator is provided for the building, non-battery fixtures may be provided and be connected to the generator. Outdoor emergency lighting fixtures shall be provided and are required by Code at the exit doors to allow emergency egress and illumination up to 10' clear of the building.

9. Fire Alarm

Description – There are intermittent ceiling mounted smoke detectors located in the corridors and a few rooms. The detectors appear to be single-station, stand-alone devices.

Comments – The detectors are in poor condition and should be removed. Depending on the Use Group of the building, a new fire alarm system may or may not be required.

10. Security

Description – There is an existing building intrusion system that is comprised of door contacts, main controller and entry station keypads. There is also an electric latch on the door from the lobby into the main corridor with a remote release switch at the reception desk; however, it was not functional.

Comments – The system is in poor condition and needs removed. The owner will need to determine if they desire a building intrusion system as well as a CCTV surveillance system. These are typically provided for such facilities.

11. Communications

Description – Cable TV enters the building in the main electrical room in a wood cabinet. Telephone service enters the building in the main electrical room on a wood backboard and contains fused blocks; there appear to be 50 pairs entering the building. Branch telephone cabling is Cat 2, 3 pair, 22 AWG, MPR cable. Data cabling in the building is an old Belden multi-conductor cable. There is an old Bogen paging amp located in the main electrical room and miscellaneous ceiling speakers located in the corridors and various rooms.

Comments – The CATV and Telephone service entrances are in good condition and just need reworked. The branch voice and data cable meets no current standard, is in poor condition and should be replaced. Additionally, the data and voice cabling within the building is not supported appropriately above the ceilings and is lying on the ceiling tile in many areas. The paging system is in poor condition and needs to be removed.

Budget Expected for Renovation

We have provided a summary of estimated budget costs below for updating each system based upon the recommendations above. The building is approximately 14,400 square feet and this is used herein for square foot cost.

System	Budget Cost for Renovation	Notes
Plumbing	\$50,000	Upgrade Fixtures
Fire Protection	-	-
HVAC	\$216,000(15/sq.ft.)	The price is for a total replacement of the HVAC system.
Electrical	\$120,000 (\$8.33/sq.ft.)	This assumes that the main electrical distribution system may remain as is and includes lighting and general power work required. If the system must be upsized due to HVAC system load, an additional \$30,000 will be required.
Emergency Generator	\$32,000 (\$2.22/sq.ft.)	This is an alternate price for an emergency generation system. Though this is typically provided for a Police Facility.
Communications Cabling	\$21,600 (\$1.50/sq.ft.)	This price includes a basic Cat6 data/voice cabling system for the building.
Fire Alarm	\$14,000 (\$0.97/sq.ft.)	A fire alarm system may not be required , but may still be desired by owner; thus, the cost is

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		submitted herein.
Security - Building Intrusion System	\$7,000 (0.49/sq.ft.)	This is an alternate price for a basic system including keypads, door contacts and some motion sensors.
Security - CCTV Surveillance	\$16,000 (\$1.11)	This is an alternate price for a digital CCTV system with digital recorder and 10 cameras.

Quadrant Safety
222A Hammerstein Rd.
Wheelersburg, OH. 45694

January 31, 2006

Mr. Dave Stone
Tanner Stone & Co Architects
1010 Coles Blvd.
Portsmouth, OH. 45662
740-354-6621

Re: Asbestos Inspection at the former Adelpia Building.

On January 31, 2006, I sampled materials suspected to contain asbestos at **the former Adelpia building** which is proposed for renovation to house the new City of Portsmouth Police Department. Please note that random sampling was performed at the location per the verbal scope of work. Suspected materials were tested for asbestos content using Polarized Light Microscopy.

The structure is a one story building with approximately 16,000 sq.ft. It has a block and metal exterior, with a rubber membrane and build-up roof. Portions of the roof are in poor condition and leak. Additions to the building have been made throughout the years. The HVAC systems are forced air units and no suspect legacy pipe wrap was identified or visually accessible.

NOTE: Sample # P-02 (Transite siding material) contained 25% chrysotile asbestos. This material is present throughout the roof decking of the original building and possibly on exterior walls. The material appears to be in good condition and is not to be disturbed per the renovation scope of work. If this material needs to be disturbed during renovation, contact the local EPA prior to work.

All other samples (that may be disturbed during renovation) **were non-detect for asbestos.** (please refer to sampling sheet and lab results)

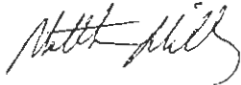
The samples were analyzed by an approved Lab (Carolina Environmental, Inc.- NVLAP accredited -Lab Code 1017680) and in accordance with the approved EPA test method.

This report does not include non-visible or inaccessible asbestos materials, which may be revealed during the course of renovation or demolition activities. If, during the course of renovation or demolition, additional hidden materials are uncovered, renovation or demolition should be discontinued (stopped), secure the area, and contact your local EPA office.

I have attached a copy of the laboratory sample results and sampling sheet. If you have any questions concerning the inspection or sampling, please feel free to call me at 740-776-6518.

Please contact me to ensure the work scope has not changed prior to renovation and I will then produce and sign the notification form for the EPA.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Miller". The signature is fluid and cursive, with the first name "Matt" and last name "Miller" clearly distinguishable.

Matthew J. Miller

Certified Asbestos Hazard Evaluation Specialist - #33267

CAROLINA ENVIRONMENTAL, INC.
 107 New Edition Court, Cary, NC 27511
 Phone: 919-481-1413 Fax: 919-481-1442

Project: Former Adelpia Bldg.

Lab Code: A06-0430

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
P-01	A434905A	<u>FLOOR TILE</u> Homogeneous, Green, Non-fibrous, Bound VINYL 100 % MICA <1 %	ND
	A434905B	<u>MASTIC</u> Homogeneous, Tan, Non-fibrous, Bound MAST 100 %	ND
	A434905C	<u>LEVELING COMPOUND</u> Homogeneous, White, Non-fibrous, Bound BIND 100 % CELL <1 %	ND
	A434905D	<u>MASTIC FROM LEVELING COMPOUND</u> Homogeneous, Tan, Non-fibrous, Bound MAST 100 %	ND
P-02	A434906	<u>TRANSITE</u> Homogeneous, Grey, Fibrous, Bound CHRY 25% BIND 75 % CELL <1 %	CHRY 25%
P-03	A434907	<u>SHEETROCK</u> Heterogeneous, Yellow, White, Fibrous, Loosely Bound PAINT <1 % CELL 5 % GYPSUM 92 % FBGL 3 %	ND
P-04	A434908	<u>SHEETROCK</u> Heterogeneous, Yellow, White, Fibrous, Loosely Bound BIND 5 % CELL 5 % GYPSUM 80 % FBGL 5 % MAST 5 %	ND

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 107 New Edition Court, Cary, NC 27511
 Phone: 919-481-1413 Fax: 919-481-1442

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Lab Code: A06-0430

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS			
P-05	A434909	<u>CEILING TILE</u> Heterogeneous, White, Fibrous, Bound	ND			
		BIND 15 %	CELL 15 %			
		PERL 25 %	FBGL 40 %			
		PAINT 5 %				
P-06	A434910A	<u>FLOOR TILE</u> Homogeneous, Blue, Non-fibrous, Bound	ND			
		VINYL 100 %				
	A434910B	<u>MASTIC</u> Homogeneous, Tan, Non-fibrous, Bound	ND			
		MAST 100 %	CELL <1 %			
P-07	A434911	<u>SHEETROCK</u> Heterogeneous, White, Fibrous, Bound	ND			
		GYPSUM 80 %	FBGL 10 %			
		PAINT 5 %	CELL 5 %			
P-08	A434912	<u>SHEETROCK</u> Heterogeneous, White, Fibrous, Loosely Bound	ND			
		GYPSUM 80 %	FBGL 10 %			
		MAST 5 %	CELL 5 %			
P-09	A434913	<u>CEILING TILE</u> Heterogeneous, White, Tan, Fibrous, Loosely Bound	ND			
		PAINT 3 %	FBGL 35 %			
		BIND 12 %	CELL 35 %			
		PERL 15 %				
P-10	A434914	<u>SHEETROCK</u> Heterogeneous, White, Fibrous, Loosely Bound	ND			
		PAINT 2 %	FBGL 10 %			
		GYPSUM 83 %	CELL 5 %			

CAROLINA ENVIRONMENTAL, INC.
107 New Edition Court, Cary, NC 27511
Phone: 919-481-1413 Fax: 919-481-1442

Project: Former Adelpia Bldg.

Lab Code: A06-0430

CLIENT ID	CEI LAB ID	HOMOGENEITY DESCRIPTION	% ASBESTOS
P-11	A434915	<u>SHEETROCK/JOINT COMPOUND</u> Heterogeneous, White, Fibrous, Loosely Bound	ND
		MAST 2% FBGL 10%	
		GYPSUM 78% CELL 5%	
		BIND 5%	



CAROLINA ENVIRONMENTAL, INC.

ASBESTOS BULK INSPECTION

Client: *Matthew Miller - Quadrant* Date: *1-20-06*

Project: *Former Adelpia Building* Collector: *Paul Miller*

Address: *222A Hammestein Rd.* Project #:

City, State: *Wheelerburg, OH. 45694*

FIELD ID	SAMPLE LOCATION	SAMPLE DESCRIPTION	COND	AMOUNT	NOTES
P-01	Janitor's Room	Floor TILE	NF		12x12 Fiberglas
P-02	Attic Above Janitor's Room	Fiberglass Siding Material	NF		
P-03	Janitor's Rm Ceiling	Ceiling SKEET ROCK	NF		
P-04	Janitor's Rm wall	SKEET ROCK	NF		
P-05	North Hallway	Ceiling TILE	NF		
P-06	Electrical Rm - Northwest	Floor TILE	NF		
P-07	Emergency Mgt office - South wall	SKEET ROCK	NF		
P-08	Impound Property Rm - East wall	SKEET ROCK	NF		
P-09	SE Corner Bldg - Hallway	Ceiling TILE	NF		
P-10	SE Corner Rm - South wall	SKEET ROCK	NF		Investigations Unit.
P-11	East Rm - Records Storage - East wall	SKEET ROCK	NF		

FT= Floor Tile CT= Ceiling Tile WLB RD = Wallboard JC= Joint Compound CLSPRY = Ceiling Spray On

LABORATORY REPORT ASBESTOS BULK ANALYSIS

Client: **Quadrant Safety, LTD.**
222- A Hammerstein Road
Wheelersburg, OH 45694

CEI Lab Code: A06-0430
Received: 01-23-06
Analyzed: 01-24-06
Reported: 01-24-06
Analyst: Gigi Thomas

Project: Former Adelphia Bldg.

The following definitions apply to the abbreviations used in the ASBESTOS BULK ANALYSIS REPORT:

CHRY = Chrysotile	CELL = Cellulose	DEBR = Debris
AMOS = Amosite	FBGL = Fibrous Glass	BIND = Binder
CROC = Crocidolite	ORGN = Organics	SILI = Silicates
TREM = Tremolite	SYNT = Synthetics	GRAV = Gravel
ANTH = Anthophyllite	WOLL = Wollastonite	MAST = Mastic
ACTN = Actinolite	CERWL = Ceramic Wool	PLAS = Plaster
ND = None Detected	NTREM = Non-Asbestiform Tremolite	PERL = Perlite
NANTH = Non-Asbestiform Anthophyllite		RUBR = Rubber

Stereoscopic microscopy and polarized light microscopy coupled with dispersion staining is the analytical technique used for sample identification. The percentage of each component is visually estimated by volume. These results pertain only to the samples analyzed. The samples were analyzed as submitted by the client and may not be representative of the larger material in question. Unless notified in writing to return samples, Carolina Environmental, Inc. will discard all bulk samples after 30 days.

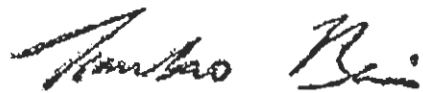
Many vinyl floor tiles have been manufactured using greater than 1% asbestos. Often the asbestos was milled to a fiber size below the detection limit of polarized light microscopy. Therefore, a "None Detected" (ND) reading on vinyl floor tile does not necessarily exclude the presence of asbestos. Transmission electron microscopy provides a more conclusive form of analysis for vinyl floor tiles.

It is certified by the signature below that Carolina Environmental, Inc. is accredited by the National Voluntary Accreditation Program (NVLAP) for the analysis of asbestos in bulk materials. The accredited test method is EPA / 600 / M4-82 / 020 for the analysis of asbestos in building materials. Procedures described in EPA / 600 / R-93 / 116 have been incorporated where applicable. The detection limit for the method is 0.1% (trace amount). Carolina Environmental, Inc.'s NVLAP accreditation number is #101768-0. This report is not to be used to claim product endorsement by NVLAP or any agency of the U. S. Government. This report and its contents are only valid when reproduced in full. Dust and soil analyses for asbestos using PLM are not covered under NVLAP accreditation.

ANALYST

Gigi Thomas

REVIEWED BY



Tianbao Bai, Ph.D.
Laboratory Director

Quadrant Safety
222A Hammerstein Rd.
Wheelersburg, OH. 45694

January 31, 2006

Mr. Dave Stone
Tanner Stone & Co Architects
1010 Coles Blvd.
Portsmouth, OH. 45662
740-354-6621

Re: Observations and recommendations on Indoor Air Quality/ Mold issues at the former Adelphia Building.

Dear Dave:

The following report is based on my 18 January 2006 inspection of the former Adelphia building which is proposed for renovation to house the new City of Portsmouth Police Department. The report presents a brief summary of my observations and suggested recommendations for mitigation of mold/ fungal hazards.

Observations

The mold issues throughout the building appear to be directly related to water damage from roof leaks and poorly maintained or clogged downspouts (south-east section of building). However there are problems that can be traced to issues with the design or operation of the buildings individual heating, ventilating, and air-conditioning (HVAC) units (Janitor closet north middle hallway). The sources in these areas are the result of the conversion to office space, additions to the building and the performance of the existing dysfunctional HVAC system. The visual observation of mold in these rooms, indicate that humidity levels in the building have exceeded both the ASHRAE and EPA guidelines, particularly during the cooling seasons.

I believe that the roof leaks and the HVAC related problems are both the source of the mold issues in the building. In addition to causing indoor air quality problems, the present system, more than likely, is inefficient and costs more to operate, than an HVAC system designed for the present building arrangement.

Recommendations

The roof and downspout problems must be corrected before any permanent solution to the mold will be found. If the existing HVAC units are to be used, some type of dehumidification should be installed or fixed to provide some temporary or partial relief. And the system should be checked to make certain proper outside (ambient) air is introduced. To ensure proper indoor air quality, the HVAC system should be properly designed and sized for the facility. This would provide a better working climate/ environment and be more cost efficient, in the long run.

I hope the above information is helpful. If you have any questions or would like to discuss, please call.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Miller", written in a cursive style.

Matthew Miller – Industrial Hygienist

RECOMMENDED WORK AND ASSOCIATED COSTS

* Site Work	
Blacktop overlayment (fill sunken areas) 17,000 (100 x 170) + 2,322 (54 x 43) + 1,600 (50 x 32) = 20,922 s.f. x \$1/s	\$20,922
Removal of chainlink fence 140 + 45 x 2 = 370 lin. ft. x \$2/l.f.	\$740
Landscaping	\$24,000
* Exterior of Building	
Removal of metal siding 68 + 69 + 6 + 140 = 283 lin. ft. x 16' high = 4,528 s.f. x \$1.25/s.f.	\$5,660
New cladding materials (2 sides) 4,258 + 800 s.f. +/- of brick = 5,328 s.f. @ \$14/s.f.	\$74,598
Paint masonry (2 sides) 79 + 113 x 16 = 3,027 s.f. x \$1.50/s.f	\$4,608
New windows 16 @ \$1,000 ea	\$16,000
New roof (leave existing transite deck) 16,000 s.f. @ \$4.50/s.f.	\$72,000
New exterior doors 10 @ \$1,200 ea	\$12,000
New canopy at front entry	\$35,000
* Interior Work	
Removal of 50% of the existing drywall 3,500 lin. ft. x 12 = 42,000 s.f./2 = 21,000 s.f. @ \$4/s.f.	\$8,400
Replacement of 50% of the drywall 21,000 s.f. @ \$1.50/s.f.	\$31,500
Removal of all of the S.A.T. ceiling tile 8,000 s.f. @ .50/s.f.	\$4,000
Painting of all interior walls 42,000 s.f. @ .75/s.f.	\$31,500
Replacement of all of the S.A.T. ceiling tile 16,000 s.f. @ \$2/s.f.	<u>\$32,000</u>
	\$372,928 Total this page

* Interior Work (continued)

Removal of 50% of the insulation above the S.A.T. ceiling 8,000 s.f. @ .60/s.f.	\$4,800
Replacement of 50% of the insulation above the S.A.T. ceiling 8,000 s.f. @ \$1.20/s.f.	\$12,000
Removal of all of the carpet and vinyl tile 16,000 s.f. @ .75/s.f.	\$12,000
Replacement of all of the carpet and vinyl tile 16,000 s.f./9 = 1,777 s.y. @ \$10/s.y.	\$17,770
Cleaning of wall studs and floor to remove mold residue 1,750 lin. ft. x 2 = 3,500 s.f. @ \$2/s.f.	\$7,000
Removal of all interior doors and hardware 55 doors @ \$40/ea	\$2,200
Replacement of all interior doors and hardware 55 doors @ \$450/ea	\$24,750
Paint steel in older portion of building 8,000 s.f. @ \$1.50/s.f.	\$12,000
Cut out existing concrete floor for new shower/locker room 700 s.f. @ \$8/s.f.	\$5,600
Pour new concrete floor in shower/locker room 700 s.f. @ \$9/s.f.	\$6,300
New concrete block walls in shower/locker room 195 l.f. x 12 = 2,340 s.f. @ \$10/s.f.	\$23,400
New tile floor in shower/locker room 700 s.f. @ \$10/s.f.	\$7,000
New ceiling in shower/locker room 700 s.f @ \$6/s.f.	\$4,200
Plumbing work	\$50,000
HVAC work	\$216,000
Electrical work	\$120,000
Emergency generator	\$32,000

\$557,020 Total this page
\$929,948 Total pages 1 & 2

* Interior Work (continued)	
Communications/data cabling	\$21,600
Fire alarm system	\$14,000
Security system	\$7,000
Camera system	<u>\$16,000</u>
	<u>\$58,600</u> Total this page
Total Renovation Cost	\$988,548
Architect/Engineering Cost @ 7%	\$69,198
Furniture/Equipment (by Owner)	\$0
Miscellaneous Cost (survey, testing, approval fees, advertising reproduction of drawings)	\$11,000
Contingency @ 10%	<u>\$98,000</u>
TOTAL CONSTRUCTION COST	\$1,166,746

It is important to remember that this is a very preliminary estimate, and the costs could vary as additional details and/or information is determined. The City would also have the ability to add or subtract work from the scope of this project, which would influence the final cost.

