

Board of Supervisors Memorandum

April 17, 2018

Canoa Hills Golf Course Donation Acceptance Final Two Reports for Addendum Items Number 8 and Number 12

Background

I have transmitted to the Board a series of reports regarding the proposed donation of the Canoa Hills Golf Course to Pima County. The final two reports recently received are related to 1) inspection of the restrooms to determine if the restrooms contain any asbestos related materials and 2) structural integrity of the golf cart underpasses.

Attachment 1 is the April 12, 2018 letter and report from Environmental Services Officer James C. Faas regarding the restroom inspection and testing. In summary, there are no asbestos materials in the restrooms, which confirms the low cost of the demolition.

In addition, I asked our bridge and structural engineer to review the structural integrity of the golf cart underpasses. The April 12, 2018 report from Bridge Engineer David Zaleski is also attached for your information (Attachment 2). In summary, the bridge underpass structures are in good condition requiring very little, if any, maintenance.

Recommendation

These are the final two reports that will be produced regarding this matter. As you can see from the positive results of these reports, I continue to strongly recommend the Board of Supervisors accept the donation of the Canoa Hills Golf Course for Green Valley's first natural resource park.

Sincerely,

C. Dulie Hour

C.H. Huckelberry County Administrator

CHH/lab - April 13, 2018

ATTACHMENT 1



April 12, 2018

Chris Cawein Director, Natural Resources, Parks and Recreation 3500 W. River Road Tucson, AZ 85741

RE: Asbestos inspection - Canoa Hills Golf Course

Mr. Cawein:

Pima County Risk Management conducted an inspection for asbestos-containing materials in three buildings at the Canoa Hills Golf Course. These buildings include two free standing restroom buildings located on the golf course and a storage building located at the driving range. The storage building located at the driving range was incorrectly listed as a restroom on one of the reference maps provided to Risk Management. Inspection of the buildings was completed on April 11, 2018. The buildings inspected are shown on the map in Appendix A. Asbestos-containing materials are not present in any of the three buildings. Specific findings of the inspections are as follows.

Building 1 – Restroom

Suspect asbestos-containing materials present in this building include drywall walls and ceilings, window frame caulk and roof felt under mission tiles. Samples of these suspect materials were collected and submitted for laboratory analysis. Laboratory analysis indicates all of the materials were asbestos free. Sample collection locations and analytical results are summarized in Table 1. A copy of the report is included in Appendix B.

Building 2 - Restroom

Suspect asbestos-containing materials present in this building include drywall walls and ceilings, window frame caulk and roof felt under mission tiles. Samples of these suspect materials were collected and submitted for laboratory analysis. Laboratory analysis indicates all of the materials were asbestos free. Sample collection locations and analytical results are summarized in Table 1. A copy of the report is included in Appendix B.

Building 3 – Storage

Suspect asbestos-containing materials present in this building include drywall ceilings, exterior stucco and roof felt under mission tiles. Samples of these suspect materials were collected and submitted for laboratory analysis. Laboratory analysis indicates all of the materials were asbestos free. Sample collection locations and analytical results are summarized in Table 1. A copy of the report is included in Appendix B.

Canoa Hills Golf Course Inspection Report April 12, 2018 Page 2

Table 1 Asbestos Sampling Location Summary

<u>Sample#</u>	Sample Material and Location	Asbestos Content
1	Window frame caulk, men's restroom, Bldg 1	No asbestos detected
2	Window frame caulk, women's restroom Bldg 1	No asbestos detected
3	Drywall, men's restroom, Bldg 1	No asbestos detected
4	Drywall, women's restroom, Bldg i	No asbestos detected
5	Drywall, exterior soffit above entry, Bldg 1	No asbestos detected
6	Roof felt, under mission tiles, Bldg 1	No asbestos detected
7	Window frame caulk, men's restroom, Bldg 2	No asbestos detected
8	Window frame caulk, women's restroom Bldg 2	No asbestos detected
9	Drywall, men's restroom, Bldg 2	No asbestos detected
10	Drywall, women's restroom, Bldg 2	No asbestos detected
11	Drywall, exterior soffit above entry, Bldg 2	No asbestos detected
12	Roof felt, under mission tiles, Bldg 2	No asbestos detected
13	Exterior stucco, Bldg 3	No asbestos detected
14	Exterior stucco, Bldg 3	No asbestos detected
15	Drywall, interior room, Bldg 3	No asbestos detected
16	Drywall, interior room, Bldg 3	No asbestos detected
17	Roof felt, under mission tiles, Bldg 3	No asbestos detected

PCDEQ Notification/Permit Information

The Pima County Department of Environmental Quality (PCDEQ) requires a thorough inspection for asbestos-containing materials prior to demolition of a building. This inspection meets the thorough inspection requirement for the three buildings inspected.

PCDEQ requires a permit and at least 10 days advance notice to PCDEQ prior to demolition of a building. The permit application requires listing of the inspector and laboratory utilized for the asbestos inspection. Appendix B contains the laboratory report. Appendix C contains a copy of the inspector certification.

If you have any questions concerning this report, please feel free to call me at 724-3078.

Sincerely,

James C, Faas, MPH, CIH

Appendix A



Site Map

Appendix **B**

Laboratory Report



Pola	rized Light M	icroscope (PLM) Analys	is for Asbestos in Bulk Sample
JobNumber:	201803589		
Client:	PIMA COUNTY RI 130 W CONGRESS	SK MGMT OTH FLR	
	TUCSON, AZ	85701-0000	
	Office Phone: FAX:	(520) 724-3078 (520) 798-1407	
# Samples: 17	PLM Rec: 4/12	2/2018 Mathod: EPA 600/R-93/116	The "New" Method; see below
Client Job: Canoa I	Buildings- Verification		PO Number: M A 13*573
Report Date: 4	/12/2018 Da	te Analyzed: 4/12/2018	Routing Number: -
Method and Analysi	s Information:	Fiberquant Internal SOP: PLN	Mn

Each bulk sample is first dissected under a 7-30x magnification stereo-microscope. This examination is used to determine the general type of sample, how many and what type of layers it has, and initial estimates of fiber types and quantities. Second, liquid media mounts are made of each layer - such mounts may be of selected fibers (used solely for identification purposes) or may be representative of the layer as a whole (used for quantitation purposes). The mounts may be made in a synthetic Canadian balsam, one of several solvents, or in refractive index oils (media of known refractive index). Generally, a variety of different mounts are made: some optimized for fiber visibility, some optimized for fiber identification, and some optimized for fiber quantitation. The mounted slides are then examined at 50-400x magnification on a Nikon Labphot-pol microscope. Optical data are contained for each sample on its detail analysis sheet, attached.

Current EPA and NESHAP regulations designate a result of <= 1 % asbestos as "negative" and >1 % asbestos as "positive". Samples containing layers that have been determined to be "positive" may have to be handled differently during a renovation or demolition than samples whose layers have been determined to be "negative."

The method of fiber identification and quantitation is the "Standard Operating Procedures for the Analysis of Asbestos in Bulk Samples using Polarized Light Microscopy", Chapter 7 of the Quality Assurance and Management Manual. This SOP and its associated reporting have been designed to satisfy all requirements in both EPA Method 600/M4-82-020 (The Interim Method) and EPA Method 600/R-93/116 (The New Method). The Interim Method is the required method for AHERA (US EPA 40 CFR Pt. 763), but this method calls for the reporting of composited results of multi-layered samples that is no longer an acceptable reporting practice in most circumstances. Current EPA rules, such as NESHAP (US EPA 40CFT Pt. 61), as well as NVLAP accreditation policies, call for separate reporting for each layer of multi-layered samples. The New Method contains the same procedures for Identification and quantification of asbestos as does the Interim Method, except that multi-layered samples are reported to comply with the latest US EPA rule. Fiberquant not only reports the asbestos content of each layer of multi-layered samples separately (satisfying current EPA and NVLAP reporting requirements), but Fiberquant also reports what percentage of the sample each layer comprises. Therefore, the results may be arithmetically composited to satisfy the reporting requirements of the Interim Method. The method of fiber quantitation is an estimation technique in which the analysts quantitation is routinely calibrated by reference quantitation standards, and which has been shown to be equivalent in precision and accuracy to point counting. Friability is estimated for the purposes of deciding when to point count. Friabilities determined in the field take precedence over those determined in the laboratory. Those sample layers which are friable and estimated by the analyst to contain <= 1% asbestos are point counted using 400 points. Such point counting is required by NESHAP (National Emission Standards for Hazardous Air Polutants, Nov. 1990) in order to rely on analytical results that are <=.1%. The coefficient of variation for the estimation quantitation technique is 100% in the range O-5%. This means that PLM analysis is not capable of conclusively determining whether a layer containing dose to 1% asbestos is actually "positive" or "negative". For this reason, Fiberquant refers to results where asbestos was detected but <=1% as "borderline negative", and results where asbestos was >1 % but <=2% as "borderline positive" to indicate the uncertainty in assigning a "positive" or "negative" label. In the sample summary, "ND" means that no asbestos was detected during the analysis. A "Tr" or "Trace" of asbestos reported is defined for our purposes as the detection of several asbestos fibers during the analysis; this level would be right at the limit of detection for the method. Trace is only reported on the analysis detail - in the summary a trace would be reported as <=1%. The limit of detection (the smallest % of asbestos that can be detected) varies greatly depending on the matrix in which the asbestos is found. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 1% stated in the method. During the analysis, the analysis, for Fiberquant identification purposes only, determines the "apparent sample type" and "apparent layer types." It must be emphasized that these types are only what is apparent. Often, different materials appear similar or identical after sampling, so the analyst may assign a type other than what was sampled.

Floor tiles present a special problem for PLM asbestos analysis. Floor tile can contain chrysotile fibers so thin that they cannot be resolved by optical methods. In such a case, we may observe a percentage of asbestos which is lower than the actual percentage, or not observe asbestos at all when some is present. For this reason, floor tiles reported as negative should be confirmed to be negative using transmission electron microscope (TEM) analysis. Likewise, vermiculite insulation materials containing traces of asbestos present a problem for routine PLM analysis - the amphiboles are sometimes present in trace amounts inhomogeneously distributed. For this reason, loose vermiculite samples reported as negative should be confirmed to contain no amphibole using hydroseparation techniques.

The samples were analyzed under the following ongoing quality assurance program: Blank samples are routinely analyzed to maintain contamination-free materials. Each analyst has at least a bachelor's degree in physical science, and has also completed extensive training specific to asbestos analysis for 1-3 months before being allowed to analyze dient samples. Qualitative reference samples are routinely analyzed to assure that analysts can identify asbestos and asbestos-look-alike fibers. Quantitative reference samples are routinely analyzed to calibrate and characterize the

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estimation procedure. Microscope alignment is checked each day. Refractive index oils are calibrated at least quarterly. At least 10% of client samples are re-analyzed from scratch by a different analyst than the original, and any discrepancies are resolved for the sample and similar sample types before the results are reported. All quality checks performed for these samples were in control except as detailed in the "Analytical Notes" below. All analysts participate in interlab round robins and proficiency testing to assure competence. Fiberquant is accredited by NVLAP (Lab code #101031) for the analysis of bulk samples for asbestos using PLM. Accreditation does not imply endorsement by the EPA, any other United States governmental agency or any private agency or association. Each lab analysis refers only to the sample tested, and may not, due to the sampling process, be representative of the material sampled. This report may not be reproduced except in full, without the approval of Fiberquant Analytical Services.

Some results may have been calculated using client supplied data, such as volume or area sampled, for which Fiberquant assumes no liability for accuracy.

Job Analysis Notes:

PLM Analysis Su	mmary:		Job	Number:	201803589	Canoa Buildings- Verification
Samp	ie Number		Lab Number	Appare	nt Sample Type *	Positive Layer Yes or No
Layer	Color	Apparent Layer T ₎	/pe *	Asbestos Result	s	
Sample # 1			2018-03589	-1 Adhesi	ve/caulk	Positive Layer? No
Layer # 1	gray	caulk		no asbestos dete	cted	
Sample # 🗕			2018-03589	- 2 Adhesi	ve/caulk	Positive Layer? No
Layer # 1	gray	caulk		no asbestos dete	cted	
Sample # <u>3</u>			2018-03589	-3 Wall Sy	stem	Positive Layer? No
Layer # 1	tan	paper/cardboard		no asbestos dete	cted	
Layer # 2	white	drywal core		no asbestos dete	cted	
Sample # 🔒			2018-03589	- 4 Wall Sy	ystem	Positive Layer? No
Layer # 1	tan	paper/cardboard		no asbestos dete	cted	
Layer # 2	white	drywali core		no asbestos dete	cted	
Sample # 🧕			2018-03589	-5 WailS	ystem	Positive Layer? No
Layer # 1	white	drywall core		no asbestos dete	cted	
Sample # 🗕 🧕			2018-03589	- 6 Miscell	aneous	Positive Layer? No
Layer # 1	tan	wacd		no asbestos dete	cted	
Layer # 2	brown	coating		no asbestos dete	cted	
Sample # Z			2018-03589	- 7 Adhesi	ve/caulk	Positive Layer? No
Layer #1	ġrāy	caulk		no asbestos dete	cted	
Sample # 🔒			2018-03589	- 8 Adhesi	ve/caulk	Positive Layer? No
Layer # 1	gray	caulk		no asbastos dete	cted	
Sample # 9			2018-03589	-9 Wall Sy	ystem	Positive Layer? No
Layer # 1	tan	paper/cardboard		no asbestos dete	cted	
Layer # 2	white	drywall core		no aspestos dete	cted	
5ample # 10			2018-03569	- 10 Wall Sy	ystem	Positive Layer? No
Laver # 1	white	drywali core		no asbestos dete	cted	
Sample # 11			2018-03589	- 11 Wall Sv	ystem	Positive Layer? No
Laver #1	white	drywall core		no asbestos dete	cted	,
Sample # 12			2018-03589	- 12 Roofing	3	Positive Layer? No
Laver #1	black	roof ply/bitumen		no asbestos dete	cted	,,
Sample # 13			2018-03589	- 13 Cemen	titious	Positive Laver? No
iaver #1	off-white	paint		no asbestos dete	cted	·····
Laver # 2	oray	stucco		no asbestos dete	cted	
Samola # 14	9.2)		2018-03589	- 14 Wall S	vstem	Positive Laver? No
Javer #1	OFAY	sturm	2010 00000	no asbestos dete	cted	
Sampla # 15	9.01	Jacob	2018-03589	- 15 Wall S	vstem	Positive Laver? No
Javer#1	white	drywall core	2010 00000	no zsbestos dete	cted	
Samola # 14	,	a, yman cora	2018-03589	- 16 Wall S	vstem	Positive Laver? No
Javer#1	white	drywali core	2010-00000	no asbestos dete	cted	I DASTE LUYER NO
	17 NCC	4.7 Mail Cole	2018-03580	- 17 Roofin	7	Positive Laver? No
	black	roof oly/bitumen	2010-00000	no asbestos dete	a cted	reading Edger: No
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Apparent Sample Types and Apparent Layer Types are as they appeared to the analyst. Since many types of materials appear similar after sampling damage, the
apparent type of material may not be the actual type of material.

Phone: 602-276-6139 1-800-743-2687

PLM Analysis Details			3	ob Ni	mber	:	20180	3589) (Canc	oa B	uildings-	Verificat	ion	
Sample 1 Analyzed By JCJ 4	/12/2018	Lat An?	OK A	2018 Appara	03589- Int Sm	1 p Type	Sampl Adhesi	ed: 4, ve/cau	/11/201 ilk	8		Non-fi	Condit brous Soli	tion: acco d	eptable
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Layers									Barrash						
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Procedure: tweased apart		s. Procedur	e: dissolut	ion or	maurix	using so	ivent.			_					
Sample 2		Lat	Number	2018-	03589-	2	Sampl	ed: 4,	/11/201	8			Conditi	ion: acce	ptable
Analyzed By JCJ 4/	12/2018	An?	OK A	pare	nt Smj	э Туре	Adhesi	ve/cau	lk			Non-fib	rous Solid	I	
Homogeneous Yes	#	Layers 1			Pos La	yer? No)								
Non-Fibrous Compone	nts (in app	rox. decre	asıng ora	er): n	lier, Di	ider,									
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Sample Analytical Note															
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Homogeneous No	#	Layers 2			Pos La	yer? No)								
Non-Fibrous Compone	nts (in app	rox. decrea	asing orde	ег): р	owder,	binder,									
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PLM Analysis Details	Jol	b Numbe	er:	20180	3589	C	anoa B	uildings-	Verificati	ion	
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Phoenix, Arizona 85040-2816

Phone: 602-276-6139

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Sample 16 Lab Number 2018-03589-16 Sampled: 4/11/2018 Condition: a Analyzed By JCJ 4/12/2018 An? OK Apparent Smp Type Wall System Fibrous Solid Homogeneous Yes # Layers 1 Pos Layer? No Fibrous Solid Fibrous Solid Non-Fibrous Components (in approx. decreasing order): powder, , Percents of Each Fiber Fib 4 Fib 5 # Layer Type % Color Friability Fib 1 Fib 2 Fib 3 Fib 4 Fib 5 1 drywall core 100 white 3 <=1% - <th>Fib 6 - - lons r RI Pe</th>	Fib 6 - - lons r RI Pe
Non-Herbitols components (mappiox decretaring order): ponder): Percents of Each Fiber # Layer Type % Color Friability Fib 1 Fib 2 Fib 3 Fib 4 Fib 5 # Layer Type % Color Friability Fib 1 Fib 2 Fib 3 Fib 4 Fib 5	Fib 6
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1 drywall core 100 white 3 <=1%	ions ar RI Pe
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Color Hiph Iso Pieb Bit Fig Exc Oil Col Par Col Par Col Par 1 cellulose W F N N H + U 2	
2	
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amole Analytical Note	
Procedure: tweased apart using forceps.	
Homogeneous Yes # Layers 1 Pos Layer? No Non-Fibrous Components (in approx. decreasing order): filler, bitumen,	
Percents of Each Fiber	
# Layer Type % Color Friability Fib 1 Fib 2 Fib 3 Fib 4 Fib 5	Fib 6
1 roof ply/bitumen 100 black 1 20-30%	
Total % 100 Overall % 20-30%	
Fiber Identification: cellulose fiber	
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1 cellulose fiber W F N H + U 2	

Fr=Friability: 1=very non-friable; 2= non-friable; 3=frlable; 4=highly friable Colors: B-black;BL=blue;BR=brown;CL=clear;G=Green:GY=gray;OR=orange;OW=off-white;PY=pink;PU=purple;R=red;TN=tan;W=white;Y=yellow;V=various Fiber Morphology: A=fine fibers/bundles, white, sinewy, flex.ble; B=fine fibers/bundles, w-br, straight, broomed ends; C=fine fibers/bundles, blue, straight, broomed ends; O=fine to coarse fibers, CL-8, brittle; E=coarse fibers,CL or dyed, strlated; F=coarse fibers or spfinters, W-8R, ribbon-like; G=lath-like or shards, low aspect ratio, may be per isoerisotropism - may be yes or no; Pleo=pleochroism - may be yes or no; BI=briefringence - may be None, Low, Medium or High Elg=sign of elongation - may be +, - or B (bott); Ext=extinction - may be Parallel, Oblique, None or Uncluting; Oil=medium used to for dispersion staining Col Par-dispersion staining colors parallel to the fiber (fiber/halo); b/w=black/white; dg/py=dark gray/pale yellow; vg/y=violet gray/yellow; db/y=dark blue/lemo yellow; vb/g= vivic blue/gold; sb/o=sky biue/orange; pb/r=pale blue/red; gb/dr=gray blue/dark red; w/b=white/black. Col Perp=same only perpendicular to fiber. RC Par=refractive index parallel to fiber; RI Perp=refractive index perpendicular to fiber



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ANALYTICAL SERVICES	1. S.		14 C.		Rush	Nerra	EL
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Note: Data completed by client (including number and identity of samples) is assumed to be correct until it is verified at time of sample preparetion.

Appendix C

Asbestos Building Inspector Certification

Certifies that

James Faas

has attended the EPA approved course

Building Inspector Refresher October 6, 2017

and successfully passed the competency exam.

Date of Examination: October 6, 2017

Date of Expiration:

October 6, 2018

Approved Instructor

Director



2122 W. Lone Cactus Dr. Suite 6, Phoenix, AZ 85027 - (760) 930-9966

A division of MC Consultants Inc.

This training meets all requirements for asbestos accreditation under TSCA Title II

ATTACHMENT 2



DATE:

April 12, 2018

TO: Jim Cunningham, P.E., S.E., R.L.S. Deputy Director

FROM:

David M. Zaleski, P.E., S.E. Bridge Engineer

SUBJECT: Golf Cart Underpasses at Canoa Hills Golf Course

As requested, I conducted field inspections of two, concrete golf cart underpasses along Camino del Sol for the Canoa Hills Golf Course in the Green Valley area. These two golf cart underpasses convey traffic using cast-inplace concrete box culverts which conform to older ADOT standard drawings. They convey both cart and pedestrian traffic, but also serve to convey drainage flows through the structures. Based on review of plans obtained, it appears they were built sometime in the 1980's.

The structure to the northern area of the golf course is a 10x10 reinforced concrete box culvert. There are some cracks with small sections of exposed steel reinforcing at the interface between the headwall and wingwalls. This defect occurs at one location on the west side and one on the east side of the structure. There are also some minor horizontal cracks in a wingwall at the east end of the structure. There are very few, minor vertical shrinkage cracks in the walls of the culvert, and many scattered shrinkage cracks in the floor of the structure. The construction joints are in good condition with no signs of water seepage, efflorescence or corrosion passing through the joints. There is a metal conduit at the top of the interior wall and passes through the entire structure. The structure overall is in good condition and requires little or no repairs or maintenance at this time, except for patching the cracks and exposed reinforcing by the wingwall/headwall interface.

The structure located to the south along Camino del Sol is a two barrel, 10x10 reinforced concrete box culvert. This structure has a couple vertical cracks in the wingwalls on the west entrance, and has very few vertical shrinkage cracks in the walls or cracks in the floor. There is some efflorescence and corrosion present at the construction joints throughout the structure, but there is not active water seepage at this time. The structure overall is in good condition and requires little or no repairs or maintenance at this time. However, the entrance at the west side of this structure has wood planking embedded into earthen areas (fills) with a maximum height of about five feet, and the wooden planks are splitting and many sections have broken and have failed allowing earthen fills to drop out. Additionally, the concrete cart path has many large, scattered cracks, and there is some sediment buildup in the barrels from local drainage activity. These wooden earth retention planks will need to be replaced with some type of soil retention system, and the cart path may require replacement to remove these cracks which could create tripping hazards.

One other general observation is that the asphaltic concrete cart paths at both locations have many scattered, large cracks and potholes. An assessment of the total path system in the golf course would be required to ascertain corrective work. Inspection of the asphalt paving for Camino del Sol above both of these structures show no signs of settlement and that paving is in good condition.

Overall, these two structures are in good condition and will require very little repairs initially, and should not require any longterm maintenance. Please see the attached photos and let me know if you require further action on my part at this time.





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