



consultants

## Limited Asbestos Survey

Purpose: Pre-Renovation

Client:

**Portland Public Schools  
501 N Dixon Street  
Portland, Oregon 97227**

Project:

**Biztech High School  
3905 SE 91st Avenue  
Portland, Oregon 97266**

G2 Project #: 10367-68A

September 26, 2018

Prepared By:

G2 Consultants, Inc.  
16869 SW 65th Avenue, #15  
Lake Oswego, Oregon 97035  
[www.g2ci.com](http://www.g2ci.com)  
CCB #188682

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## **Executive Summary**

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G2 Consultants, Inc. (G2) was retained by Portland Public Schools to conduct a pre-renovation limited inspection for asbestos-containing materials (ACM). The survey was conducted at the property located at 3905 SE 91st Ave in Portland, Oregon. The scope of work was limited to the interior and exterior areas of the grandstands facility of Biztech High School. It should be noted, Biztech High School was formerly known as Marshall High School.

Ben Marks (AHERA Asbestos Inspector Certificate #IR-18-3646B), of G2 conducted the inspection on September 18, 2018.

### **Asbestos**

Results of the inspection have determined that asbestos is present in the following materials:

- Coating on Corrugated Metal Construction, White (On Surface of Grandstand Seating Area)

## **Scope of Services**

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In anticipation of upcoming renovation/repair activities of the grandstands, G2 was contracted by Portland Public Schools to perform a limited survey for accessible ACM.

### **Asbestos**

The scope of services was to perform a visual and tactile inspection, and identify the presence, quantity and location of the ACM in the structure. All accessible identified suspect materials were sampled. The building was not occupied at the time of the inspection. Destructive testing methods were not utilized to attempt to identify hidden materials, such as layers of flooring. Additional suspect materials may be present in areas that were inaccessible at the time of the site visit, such as inside wall cavities. Roofs were excluded from the scope of work.

At the time of the inspection, the electrical vault room located within the grandstands facility was inaccessible and was not included in this limited inspection for ACM.

## **Inspection Findings**

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Results of the inspection have determined that asbestos is present in the following materials:

- Coating on Corrugated Metal Construction, White (On Surface of Grandstand Seating Area)

Details of the asbestos sampling, including locations and quantities, can be found in the Asbestos Material Sample Data Table in Appendix A.

## **Conclusions and Recommended Response Actions**

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### **Asbestos**

All identified ACM expected to be impacted by the planned renovation/repair activities must be abated from the structure prior to being disturbed.

Current State and Federal standards define an ACM as any material containing asbestos in excess of one percent by weight. The National Emissions Standards for Hazardous Air Pollutants (NESHAPs) requires that all Regulated Asbestos-Containing Materials (RACMs) be removed from a building prior to demolition. These materials must also be removed by a licensed asbestos abatement contractor, or other properly trained individual, if they are to be disturbed by renovation activities.

Any ACM likely to be disturbed during renovation or demolition activities, other than by incidental contact with no generation of debris related to other construction activities, must be abated by a licensed asbestos-abatement contractor. Any activities conducted where the primary object of the activity is the removal of ACM must be conducted by a licensed asbestos abatement contractor or other properly trained individuals as described below. All ACM must be removed from a building prior to demolition.

## **Methodology**

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### **Asbestos**

The field work was conducted using industry best practices. Samples of representative accessible suspect materials within the scope of work were collected during the course of the inspection. Materials were sampled according to homogeneous groupings using AHERA sampling guidelines.

Samples were collected in such a manner as to minimize release of the material into the surroundings. Sample number, material description, sample location and material location were recorded at the time of sampling. Each sample was placed in a sample container labeled with a unique sample number and submitted to Forensic Analytical Laboratories Inc., an NVLAP-accredited laboratory, for analysis under chain of custody documentation. Samples were analyzed in accordance with EPA Method 600/R-93-116, using PLM with dispersion staining and using visual area estimation to determine percent asbestos content. This method allows for the identification of the primary types of asbestos used in building materials. The lower limit of detection for this method is one percent. Samples containing less than one percent asbestos by PLM with visual area estimation are reported as "Trace".

## **Limitations**

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G2 has performed this inspection in accordance with best industry methods and practices of the profession, and consistent with the level of care and skill ordinarily exercised by reputable environmental consultants under similar circumstances and conditions. The observations contained within this assessment are based upon site conditions readily accessible at the time of the site

Portland Public Schools  
Limited Asbestos Survey  
Biztech High School  
September 26, 2018

inspection. No other representation, guarantee or warranty, express or implied, is included or intended in this hazardous materials survey report.

If any untested suspect materials are encountered during renovation activities, they should be assumed to be ACM and not disturbed, unless sampling and analysis of the materials proves otherwise.

As with all environmental investigations, this inspection is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Respectfully Submitted and Reviewed By:



Ben Marks, CSP, CIE  
Project Manager  
G2 Consultants, Inc.



Noal Kraft, CIEC, CMC  
Principal  
G2 Consultants, Inc.

## Appendix A:

# Asbestos Material Sample Data Table

Portland Public Schools  
 Limited Asbestos Survey  
 Biztech High School  
 Asbestos Material Sample Data Table  
 September 26, 2018

Sample #	Material Description	Sample Location	Material Extent	Asbestos % and Type	Approximate Quantity	Condition/Friable
10367-68A-1	Cove Base, 4", Brown, and Adhesive, Brown	Announcer's Box	-	ND	-	-
10367-68A-2	Ceiling Tile, 12" x 12", Holes	Announcer's Box	-	ND	-	-
10367-68A-3	Glue Dots, Tan, Above Ceiling Tiles	Announcer's Box	-	ND	-	-
<b>10367-68A-4</b>	<b>Coating on Corrugated Metal Construction, White</b>	<b>Exterior</b>	<b>Exterior, Topside of Corrugated Metal Construction (On Surface of Grandstand Seating Area)</b>	<b>20 - Chrysotile</b>	<b>~14,000 sq. ft.</b>	<b>Good/Friable</b>
<b>10367-68A-5</b>	<b>Coating on Corrugated Metal Construction, White</b>	<b>Exterior</b>	<b>Exterior, Topside of Corrugated Metal Construction (On Surface of Grandstand Seating Area)</b>	<b>20 - Chrysotile</b>	<b>~14,000 sq. ft.</b>	<b>Good/Friable</b>
<b>10367-68A-6</b>	<b>Coating on Corrugated Metal Construction, White</b>	<b>Exterior</b>	<b>Exterior, Topside of Corrugated Metal Construction (On Surface of Grandstand Seating Area)</b>	<b>20 - Chrysotile</b>	<b>~14,000 sq. ft.</b>	<b>Good/Friable</b>

ND - No Asbestos Detected

Portland Public Schools  
 Limited Asbestos Survey  
 Biztech High School  
 Asbestos Material Sample Data Table  
 September 26, 2018

Sample #	Material Description	Sample Location	Material Extent	Asbestos % and Type	Approximate Quantity	Condition/Friable
10367-68A-7	Coating on Corrugated Metal Construction, White	Exterior	Exterior, Topside of Corrugated Metal Construction (On Surface of Grandstand Seating Area)	20 - Chrysotile	~14,000 sq. ft.	Good/Friable
10367-68A-8	Coating on Corrugated Metal Construction, White	Exterior	Exterior, Topside of Corrugated Metal Construction (On Surface of Grandstand Seating Area)	20 - Chrysotile	~14,000 sq. ft.	Good/Friable
10367-68A-9	Fireproofing, Grey	Underside of Roof Deck, South End	-	ND	-	-
10367-68A-10	Fireproofing, Grey	Underside of Roof Deck, South End	-	ND	-	-
10367-68A-11	Fireproofing, Grey	Underside of Roof Deck, South End	-	ND	-	-
10367-68A-12	Fireproofing, Grey	Underside of Roof Deck, South End	-	ND	-	-
10367-68A-13	Fireproofing, Grey	Underside of Roof Deck, South End	-	ND	-	-

ND - No Asbestos Detected



## Appendix B:

# Laboratory Analysis Results & Chain of Custody



# Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

G2 Consultants Inc.  
Noal Kraft  
16869 SW 65th Avenue  
#15  
Lake Oswego, OR 97035

**Client ID:** L1159  
**Report Number:** B265551  
**Date Received:** 09/19/18  
**Date Analyzed:** 09/21/18  
**Date Printed:** 09/21/18  
**First Reported:** 09/21/18

**Job ID/Site:** 10367-68A

**FALI Job ID:** L1159  
**Total Samples Submitted:** 13  
**Total Samples Analyzed:** 13

**Date(s) Collected:** 09/18/2018

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>10367-68A-1</b>	12078891						
Layer: Brown Non-Fibrous Material			ND				
Layer: Brown Mastic			ND				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (Trace)							
<b>10367-68A-2</b>	12078892						
Layer: Tan Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (95 %)							
<b>10367-68A-3</b>	12078893						
Layer: Yellow Mastic			ND				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (Trace)							
<b>10367-68A-4</b>	12078894						
Layer: Grey Semi-Fibrous Material		Chrysotile	20 %				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		<b>Asbestos (20%)</b>					
Cellulose (Trace)							
<b>10367-68A-5</b>	12078895						
Layer: Grey Semi-Fibrous Material		Chrysotile	20 %				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		<b>Asbestos (20%)</b>					
Cellulose (Trace)							
<b>10367-68A-6</b>	12078896						
Layer: Grey Semi-Fibrous Material		Chrysotile	20 %				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		<b>Asbestos (20%)</b>					
Cellulose (Trace)							
<b>10367-68A-7</b>	12078897						
Layer: Grey Semi-Fibrous Material		Chrysotile	20 %				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		<b>Asbestos (20%)</b>					
Cellulose (Trace)							

Client Name: G2 Consultants Inc.

Report Number: B265551

Date Printed: 09/21/18

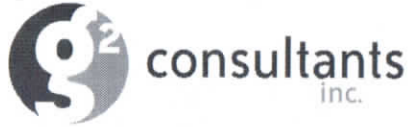
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>10367-68A-8</b>	12078898						
Layer: Grey Semi-Fibrous Material		Chrysotile	20 %				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (20%)					
Cellulose (Trace)							
<b>10367-68A-9</b>	12078899						
Layer: Grey Semi-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (75 %)	Synthetic (Trace)					
<b>10367-68A-10</b>	12078900						
Layer: Grey Semi-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (75 %)	Synthetic (Trace)					
<b>10367-68A-11</b>	12078901						
Layer: Grey Semi-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (75 %)	Synthetic (Trace)					
<b>10367-68A-12</b>	12078902						
Layer: Grey Semi-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (75 %)	Synthetic (Trace)					
<b>10367-68A-13</b>	12078903						
Layer: Grey Semi-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (75 %)	Synthetic (Trace)					



Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.



**CHAIN OF CUSTODY RECORD**

Client: G2 Consultants, Inc.  
 Address: 16869 SW 65th Ave, #15  
 Lake Oswego, OR 97035  
 G2 Contact: Ben Marks  
 Phone #: 888-998-4224

Page #: 1 of 2

G2 Job #: 10367-68A  
 Sample Date: 9-18-18  
9-18-18  
 Sampled by: Ben Marks

Analysis Type:	Mold:	Asbestos:	Lead:	<input type="checkbox"/> Other:		
	<input type="checkbox"/> Tapelift <input type="checkbox"/> Bulk	<input type="checkbox"/> PCM <input checked="" type="checkbox"/> PLM	<input type="checkbox"/> Wipe <input type="checkbox"/> Bulk			
Turn-Around Time:	<input type="checkbox"/> RUSH	<input type="checkbox"/> 24-Hour	<input checked="" type="checkbox"/> 48-Hour	hour	Notes:	
Results to:	<u>labresults@g2ci.com</u>					
Sample #	Material Description	Sample Location		Material Extent	Condition	Quantity
10367-68A-1	CB, 4", BROWN AND ADH.	ANNOUNCER'S BOX				120 LF
-2	CEILING TILE, 12"x12", HOLES	" "		CONCESSIONS		+ 60 LF
-3	FLUOR DOTS, TAN, ABOVE CT	" "				
-4	COATING ON CORRUGATED ROOF, WHITE	EXTERIOR				
-5	" "	" "				
-6	" "	" "				
-7	" "	" "				
-8	" "	" "				
-9	FIRE PROOFING, GREY	UNDERSIDE OF ROOF DECK, SOUTH END				
-10	" "	" "				

Samples Relinquished by: Ben Marks Date and Time: 9-18-18  
 Samples Relinquished by: \_\_\_\_\_ Date and Time: \_\_\_\_\_  
 Samples Received by: \_\_\_\_\_ Date and Time: \_\_\_\_\_  
 Samples Received by: \_\_\_\_\_ Date and Time: \_\_\_\_\_





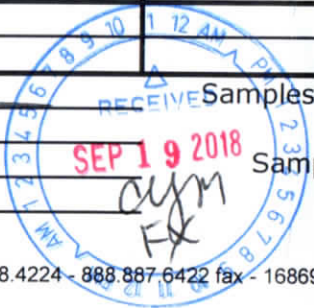
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Page #: 2 of 2  
 G2 Job #: 10367-68A  
 Sample Date: 9-18-18  
 Sampled by: Ben Marks

Analysis Type:	Mold:	Asbestos:	Lead:	<input type="checkbox"/> Other:	
	<input type="checkbox"/> Tapelift <input type="checkbox"/> Bulk	<input type="checkbox"/> PCM <input checked="" type="checkbox"/> PLM	<input type="checkbox"/> Wipe <input type="checkbox"/> Bulk		
Turn-Around Time:	<input type="checkbox"/> RUSH	<input type="checkbox"/> 24-Hour	<input checked="" type="checkbox"/> 48-Hour	<input type="checkbox"/> 72-Hour	Notes:
Results to: <u>labresults@g2ci.com</u>					
Sample #	Material Description	Sample Location	Material Extent	Condition	Quantity
<u>10367-68A-11</u>	<u>FIRE PROOFING, GREY</u>	<u>UNDERSIDE OF ROOF DECK, SOUTH END</u>			
<u>-12</u>	<u>" "</u>	<u>" "</u>			
<u>-13</u>	<u>" "</u>	<u>" "</u>			

Samples Relinquished by: Ben Marks      Samples Relinquished by: \_\_\_\_\_  
 Date and Time: 9-18-18      Date and Time: \_\_\_\_\_  
 Samples Received by: \_\_\_\_\_      Samples Received by: \_\_\_\_\_  
 Date and Time: \_\_\_\_\_      Date and Time: \_\_\_\_\_



# Appendix C:

## Inspector Accreditation

THIS IS TO CERTIFY THAT  
**BENJAMYN MARKS**  
HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE  
for  
**ASBESTOS INSPECTOR REFRESHER**

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 04/03/2018

Course Location: Portland, OR

Certificate: IR-18-3646B



4-Hour Online Training

Expiration Date: 04/03/2019

For verification of the authenticity of this  
certificate contact:  
PBS Environmental  
4412 SW Corbett Avenue  
Portland, OR 97239  
(503) 248-1939

A handwritten signature in black ink, appearing to read "Greg M. Baker", is written over a horizontal line.

Greg Baker, Instructor