

October 23, 2017

Boulder County Risk Management
PO Box 471
Boulder, CO 80306

Attention: Mr. Jesse Newcomb

Subject: Asbestos Air Sampling and Analysis
Boulder County Justice Center
1777 6th Street, Boulder, Colorado
CTL Project No. FC08117.000-226

CTL|Thompson, Inc. (CTL) was retained to perform air sampling at the Boulder County Justice Center located at 1777 6th Street in Boulder, Colorado. We understand that prior activities within the building may have disturbed potential asbestos containing materials. Below is a summary of CTL's services.

Air Sampling and Analysis

Air sampling was conducted on October 21, 2017, by Mr. Dana Harris, Colorado-certified asbestos air monitoring specialist (AMS) No. 10152; certifications are presented in Attachment 1. A total of 25 air samples plus three field blanks were collected from the first, second, and basement levels of the building, as shown on Table 1 and Figures 1-3. Air samples were collected in general accordance with the National Institute for Occupational Safety and Health (NIOSH) Method 7400. Air samples were collected using standard (non-aggressive methods) with the HVAC systems operational. Building conditions were typical for a weekend, with few building occupants present.

Air samples were analyzed in general accordance with NIOSH Method 7400. Analyses were performed at CTL's Fort Collins, Colorado office by CTL personnel that have received NIOSH 582 training. CTL successfully participates in the American Industrial Hygiene Association's Proficiency Aptitude Testing program.

As shown on Table 1, sample analytical results ranged from less than 0.001 fibers per cubic centimeter (f/cc) to 0.010 f/cc. The Colorado Maximum Allowable Asbestos Level is 0.010 f/cc. Colorado regulations require that a spill response be initiated if one or more air samples exceed the MAAL. Because none of the samples collected during this assessment exceeded the MAAL, a spill response is not required.

CTL's services were performed in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the locality of the project. No warranty, expressed or implied, is made. This project was intended to identify the level of airborne fibers subject to regulation based on existing industry and regulatory standards. This letter has been prepared for the exclusive use of Boulder County to document airborne asbestos concentrations at the selected building at the time of this study. Our services have been designed using accepted environmental principles. The accuracy and reliability of environmental studies are a



reflection of the number and types of samples taken and the extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended.

If we can be of further service discussing the contents of this report, please call us.

CTL|THOMPSON, INC.

Reviewed By:

Levi A. Stockton, EIT
Staff Engineer

Dana L. Harris
Environmental Department Manager

Attachments
CTL Certificates

Table 1 - Air Sampling Summary

Client: Boulder County Risk Management			Project Contact:			Location:			Sample Collection By:				
Project #: FC08117.000-226			Jesse Newcomb			Boulder County Justice Center 1777 6th Street, Boulder, Colorado			Dana Harris				
Date: 10/21/2017	Means of Pump Calibration ___ Primary Standard ___ X_Calibrated Rotameter Rotameter # CTL-Dana-2		Filter ECA ___ X_385 sq mm ___ sq mm	Microscope Field Area: ___ X___0.00785 sq mm ___ sq mm		PCM Filter: ___ X___0.8um 25 mm Mft. ___EMS___ ___0.8um 37 mm Lot #20160801			TEM Filter ___ MCE ___<0.45um 25 mm Mft. ___ ___ PC ___<0.45um 37 mm Lot # ___				
Sample #	Sample Type	Sample Description	Time (24 Hour Clock)			Flow Rate (L/Min)			Air Volume (Liters)	Sample fbrs flds	Blank fbrs flds	Net fbrs flds	Fibers/cc
		Location	Start	Stop	Total Minutes	Start	Stop	Average					
FB-1	Field Blank												
FB-2	Field Blank												
A-3	MAAL	See Figure 1	0852	1015	83	15.82	15.82	15.82	1313	15/100	2/100	13/100	0.005
A-4	MAAL	See Figure 1	0900	1022	82	15.82	15.82	15.82	1297	10/100	2/100	8/100	0.003
A-5	MAAL	See Figure 1	0909	1029	80	15.82	15.82	15.82	1266	12/100	2/100	10/100	0.004
A-6	MAAL	See Figure 1	0915	1035	80	15.82	15.82	15.82	1266	14/100	2/100	12/100	0.005
A-7	MAAL	See Figure 1	0921	1039	78	15.82	15.82	15.82	1234	22/100	2/100	20/100	0.008
A-8	MAAL	See Figure 1	0928	1048	80	15.82	15.82	15.82	1266	24/100	2/100	22/100	0.009
A-9	MAAL	See Figure 1	0936	1052	76	15.82	15.82	15.82	1202	25/100	2/100	23/100	0.009
A-10	MAAL	See Figure 1	0943	1058	75	15.82	15.21	15.52	1164	22.5/100	2/100	20.5/100	0.009
A-11	MAAL	See Figure 1	0949	1106	77	15.82	15.82	15.82	1218	18.5/100	2/100	16.5/100	0.007
A-12	MAAL	See Figure 1	0956	1113	77	15.82	15.21	15.52	1195	26/100	2/100	24/100	0.010

SAMPLE TYPE: P=Personal, P-30=Personal Excursion, B=Background
 IWA=Inside Work Area, OWA=Outside Work Area, HEX=HEPA Exhaust, CL=Clearance
 Please use reverse side of form to map sampling locations if drawing is not available

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Sample #	Sample Type	Sample Description		Time (24 Hour Clock)			Flow Rate (L/Min)			Air Volume (Liters)	Sample fbrs flds	Blank fbrs flds	Net fbrs flds	Fibers/cc
		Location		Start	Stop	Total Minutes	Start	Stop	Average					
-	Field Blank	X		X	X	X	X	X	X	X	-	Average Blank fibers/fld	X	
FB-13	Field Blank	X		X	X	X	X	X	X	X	2/100	2/100	X	
A-14	MAAL	See Figure 2		1006	1146	100	15.82	15.82	15.82	1582	11/100	2/100	9/100	0.003
A-15	MAAL	See Figure 2		1011	1149	98	15.82	15.21	15.52	1521	5/100	2/100	3/100	< 0.001
A-16	MAAL	See Figure 2		1125	1310	105	15.82	15.82	15.82	1661	6/100	2/100	4/100	0.001
A-17	MAAL	See Figure 2		1131	1314	103	15.82	15.82	15.82	1629	22/100	2/100	20/100	0.006
A-18	MAAL	See Figure 2		1136	1320	104	15.82	15.82	15.82	1645	11.5/100	2/100	9.5/100	0.003
A-19	MAAL	See Figure 2		1143	1324	101	15.82	15.21	15.52	1568	18.5/100	2/100	16.5/100	0.005
A-20	MAAL	See Figure 2		1200	1330	90	15.82	15.82	15.82	1424	17/100	2/100	15/100	0.005
A-21	MAAL	See Figure 2		1205	1332	87	15.82	15.82	15.82	1376	28/100	2/100	26/100	0.009
A-22	MAAL	See Figure 2		1215	1340	85	15.82	15.21	15.52	1319	25/100	2/100	23/100	0.009
A-23	MAAL	See Figure 1		1220	1343	83	15.82	15.82	15.82	1313	25.5/100	2/100	23.5/100	0.009

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		Location		Start	Stop	Total Minutes	Start	Stop	Average					
-	Field Blank	X		X	X	X	X	X	X	X	-	Average Blank fibers/fld	X	
-	Field Blank	X		X	X	X	X	X	X	X	-	2/100	X	
A-24	MAAL	See Figure 3		1231	1351	80	15.82	15.82	15.82	1266	14/100	2/100	12/100	0.005
A-25	MAAL	See Figure 3		1240	1355	75	15.82	15.21	15.52	1164	7/100	2/100	5/100	0.002
A-26	MAAL	See Figure 3		1246	1403	77	15.82	15.82	15.82	1218	20/100	2/100	18/100	0.007
A-27	MAAL	See Figure 3		1252	1409	77	15.82	15.82	15.82	1218	23/100	2/100	21/100	0.008
A-28	MAAL	See Figure 3		1303	1413	70	14.63	14.63	14.63	1024	13.5/100	2/100	11.5/100	0.006

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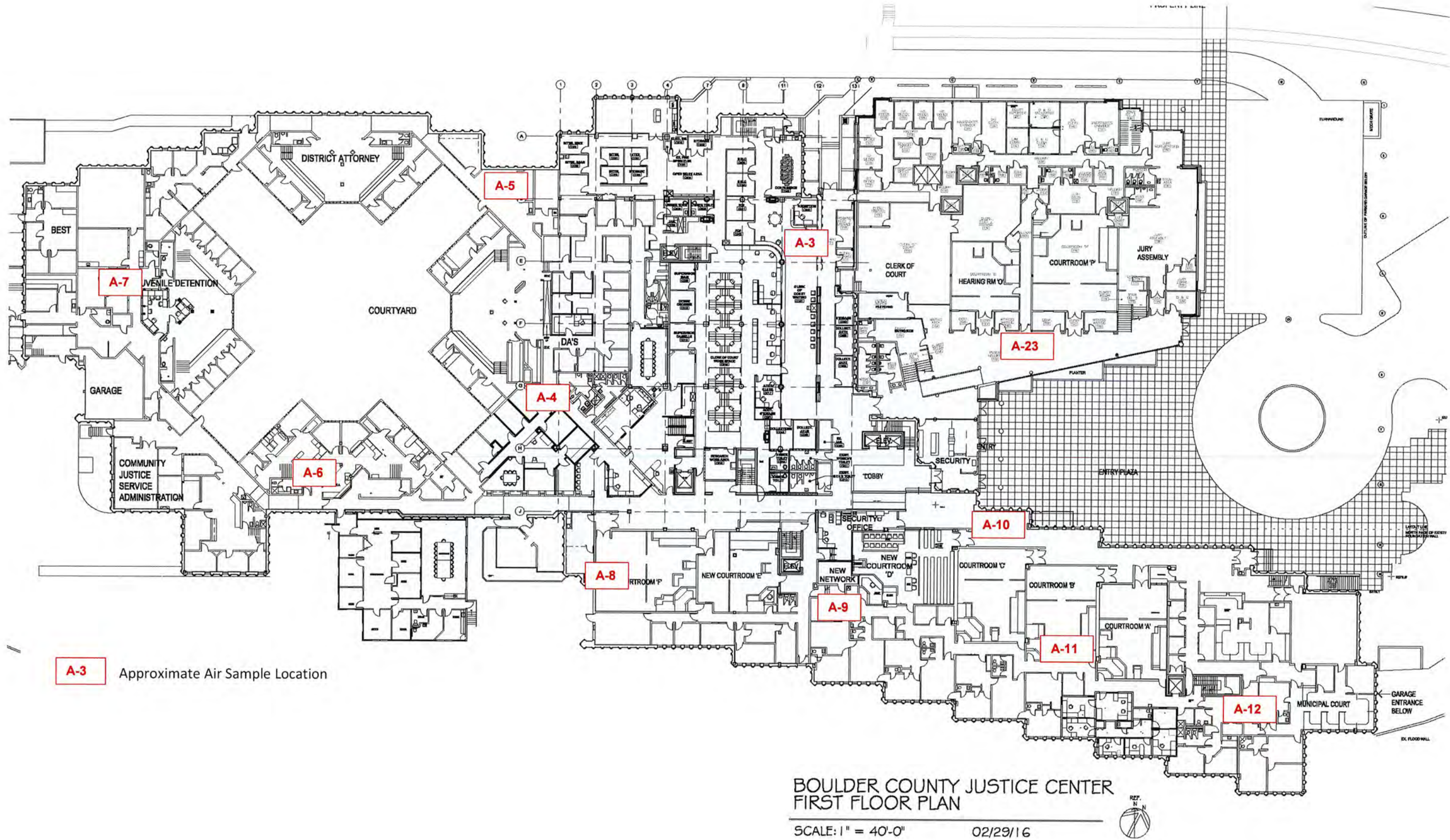


Figure 1. Air sample locations, 1st Floor, Boulder County Justice Center, 1777 6th Street, Boulder, Colorado. CTL Project No. FC08117.000-226

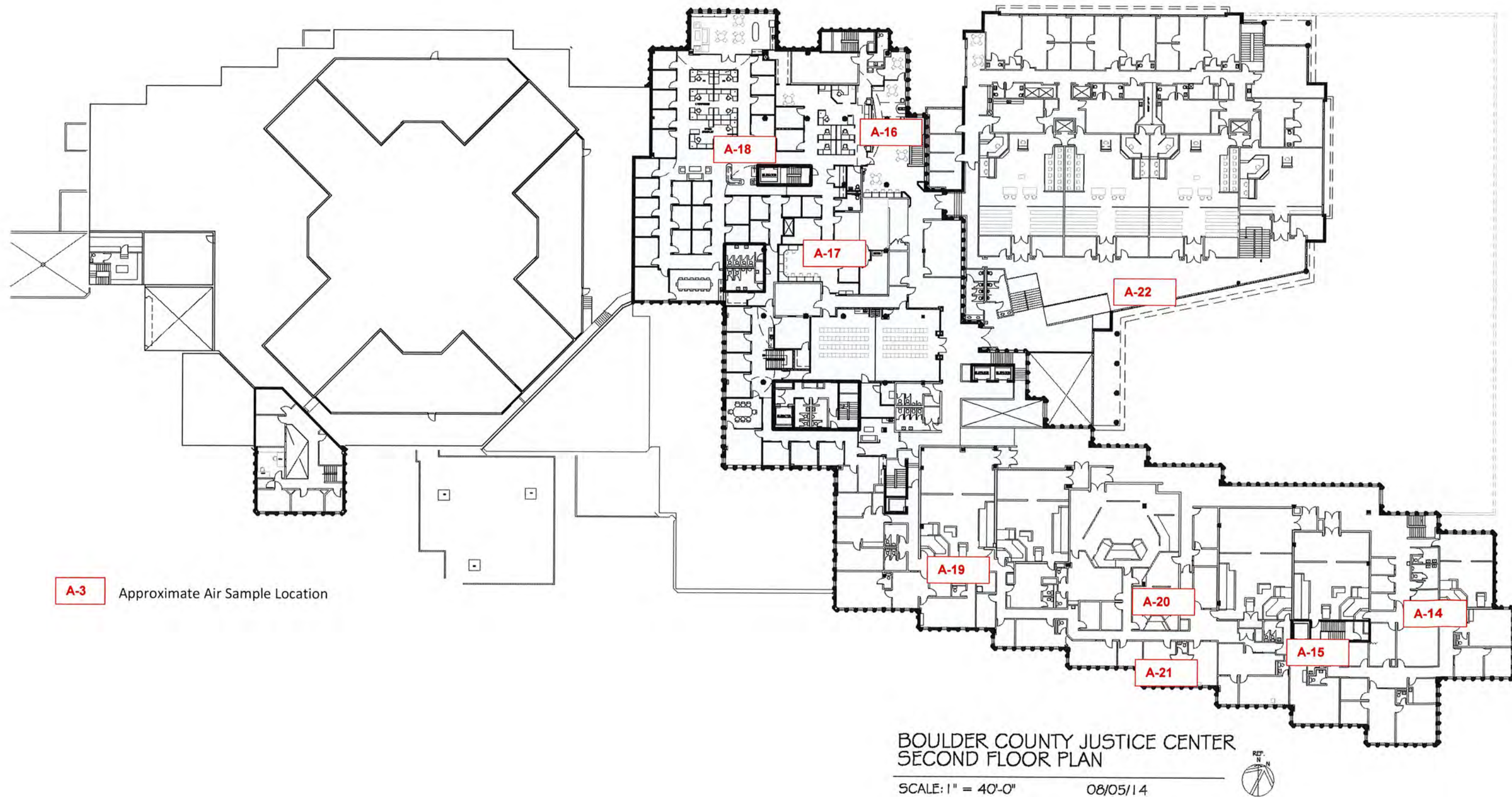


Figure 2. Air sample locations, 2nd Floor, Boulder County Justice Center, 1777 6th Street, Boulder, Colorado. CTL Project No. FC08117.000-226

ATTACHMENT 1
CTL CERTIFICATES



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Dana Harris

Certification No.: 10152

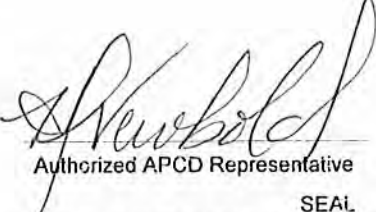
has met the requirements of 25-7-507, C.R.S. and Air Quality Control
Commission Regulation No. 8, Part B, and is hereby certified by the
state of Colorado in the following discipline:

Air Monitoring Specialist*

Issued: March 16, 2017

Expires: March 17, 2018

** This certificate is valid only with the possession of a
current Division-approved training course certification
in the discipline specified above.*


Authorized APCD Representative
SEAL

GHP[™]
ENVIRONMENTAL
+ ARCHITECTURE

GOBBELL HAYS PARTNERS, INC.

12015 E 46th Ave, Suite 450 Denver, CO 80239
Ph. (303) 574-0082 ♦ Fax (303) 574-0061

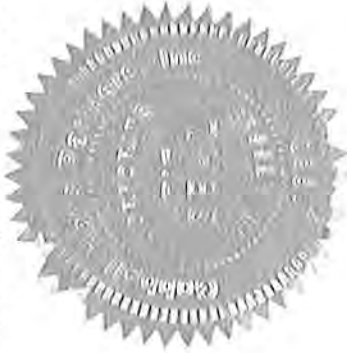
CERTIFIES THAT

DANA HARRIS

Has successfully completed

The 4-Hour **COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT-
APPROVED COURSE for AIR MONITORING SPECIALIST REFRESHER.**

This course meets the requirements of Colorado Regulation No. 8



Course Date: 03/09/2017
Certificate No.: 0317-AMSR-GHP04
Expiration Date: 03/09/2018

John Peterson
John Peterson – Instructor

Susan Borgelt
Susan Borgelt – Training Coordinator