

MEMORANDUM

DATE : August 21, 2023

TO : Shane LaFave / Roers Companies, LLC

FROM : Pratap Singh, Ph.D., PE / KSingh

SUBJECT : Weekly Test Results and Remedial Action Activities for the Week Ending 08/19/2023
Community Within the Corridor - East Block

COPY TO : Que El-Amin / Scott Crawford, Inc., Robert Reineke, PE, Robert Fedorchak, PE
Project #40441B

The purpose of this memorandum is to report the test results and provide a summary of the work performed as a part of the emergency response for the referenced project for the week ending 08/19/2023. The following tasks were performed throughout the week:

1. Task #1 - Indoor Air Monitoring for work areas
KSingh has been conducting daily indoor air measurements in the work area to comply with the USEPA and WDNR recommended levels of under 8.8 $\mu\text{g}/\text{m}^3$. The results of these samples are reported in Tables 1 – 5 with no exceedances. These results have been added to the Comprehensive Data Table (Table 7).
2. Taks #2 - Vacuum Measurements for sub-slab depressurization
Vacuum Measurements were taken in all locations except – Units 1051, 1048, 1050, Outside 1050, N Mechanical Room, and SW Garage (2). All locations demonstrated sufficient vacuum similar to the previous week except SW Garage (6) and SW Garage (19). Blowers 1 and 2 that were turned down to 50% to conserve the fan has continue to maintain sufficient vacuum. Blower 2A serving the Gym area is maintained at 90% capacity. The vacuum measurements for the week are reported in Table 6.
3. Task #3 - Blower Fan Exhaust Sampling
Samples were collected from the blower exhaust of all operational blowers including the recently modified blowers 1, 2, and 2A. All bowers had a cumulative blow rate of about 3600 cfm leading to about 6 lb/yr removal of TCE at this rate. The individual blower exhaust rates and their corresponding TCE concentrations can be seen in Table 8.
4. Task #4 - Construction Oversight
The concrete cutting task was executed by Cobra Precision Concrete Cutting. Concrete was cut in the Stairwell 4, SW Garage, Gym, and the N Mechanical Room. Concrete blocks stored in the SW Garage and from these areas were moved to the dumpster and taken off-site. TCE measurements

were taken at the start and in the middle of the day and reported to Roers. The pictures of the work done this week are attached.

5. Task #5 - New Blower Installations

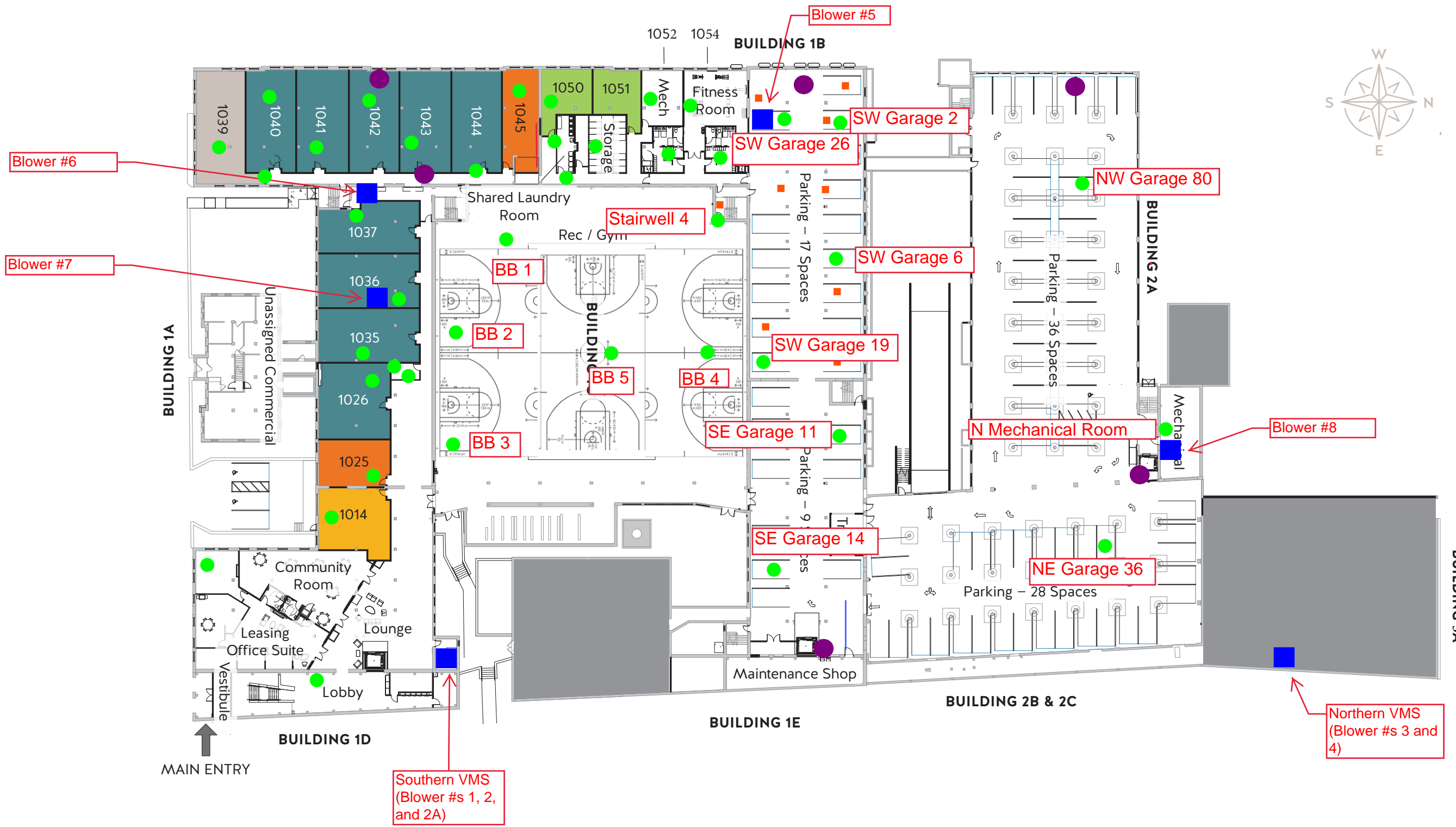
Three new GBR 89 fans were ordered to be installed on the roof. These fans are designed to improve the exhaust of the residual contamination after the remedial action is performed in Building 1B-W and the SW Garage area. The radon fan in the powerhouse next to the N Mechanical Room (Blower 8) will also be replaced by a GBR 89 leading to an improvement in the removal from the area. Pictures of the prospective blower locations are also attached.

Attachments

KSingh has included the following figures, tables, and pictures for reference:

- Figure 1: CWC EB Floor Plan
- Tables 1-5: Indoor Air Monitoring Results by Date
- Table 6: Comprehensive Vacuum Measurements (inches H₂O)
- Table 7: Comprehensive Data Table – Indoor Air
- Table 8: Blower Fan Exhaust Data Table
- Attachment A: Pictures

East Building Level 1



- Soil Boring Locations
- Vapor Mitigation Systems (Blowers)
- Vapor Pins
- Sumps

Figure 1. Locations of Access Points, Additional Sumps and Drains, Blowers for Vapor Mitigation System, and Vapor Pins

Tables 1 - 5
Monitoring Results by Date
On-site EPA Method TO-14 Data

Instrument: SRI 8610 Gas Chromatograph with ECD
Operator: Sameer Neve, Ph.D. ENV SP / KSingh

Table 1: Indoor Air Monitoring Results from 08/14/2023

No.	Location	Time	TCE Reading ($\mu\text{g}/\text{m}^3$)	>8.8 $\mu\text{g}/\text{m}^3$
1	SW Garage	8: 28 AM	<0.6	-
2	1st Floor Hallway	8: 39 AM	<0.6	-
3	Laundry Room	8: 46 AM	<0.6	-
4	Unit 1050	8: 57 AM	<0.6	-
5	SW Garage	11: 26 AM	<0.6	-
6	1st Floor Hallway	11: 34 AM	<0.6	-
7	Storage Room	11: 52 AM	<0.6	-
8	Mechanical Room	12: 08 PM	<0.6	-

**Method Detection Limit = 0.6 $\mu\text{g}/\text{m}^3$

Table 2: Indoor Air Monitoring Results from 08/15/2023

No.	Location	Time	TCE Reading ($\mu\text{g}/\text{m}^3$)	>8.8 $\mu\text{g}/\text{m}^3$
1	SW Garage	7: 55 AM	<0.6	-
2	1st Floor Hallway	8: 05 AM	<0.6	-
3	Laundry Room	8: 17 AM	<0.6	-
4	Unit 1050	8: 23 AM	<0.6	-
5	N Mechanical Room	9: 00 AM	2.28	-
6	SW Garage	9: 45 AM	<0.6	-
7	1st Floor Hallway	11: 59 AM	<0.6	-
8	Storage Room	12: 42 PM	<0.6	-

**Method Detection Limit = 0.6 $\mu\text{g}/\text{m}^3$

Table 3: Indoor Air Monitoring Results from 08/16/2023

No.	Location	Time	TCE Reading ($\mu\text{g}/\text{m}^3$)	>8.8 $\mu\text{g}/\text{m}^3$
1	SW Garage	7: 33 AM	<0.6	-
2	1st Floor Hallway	7: 39 AM	<0.6	-
3	Storage Room	7: 54 AM	<0.6	-
4	Mechanical Room	8: 00 AM	<0.6	-
5	Unit 2045	8: 08 AM	<0.6	-
6	Unit 2056	8: 16 AM	<0.6	-
7	Unit 3045	8: 24 AM	<0.6	-
8	Unit 3056	8: 35 AM	<0.6	-

**Method Detection Limit = 0.6 $\mu\text{g}/\text{m}^3$

Table 4: Sub-Slab Monitoring Results from 08/17/2023

No.	Location	Time	TCE Reading ($\mu\text{g}/\text{m}^3$)	>8.8 $\mu\text{g}/\text{m}^3$
1	Basketball Court	8: 52 AM	<0.6	-
2	Stairwell 4	8: 56 AM	<0.6	-
3	1st Floor Hallway	9: 00 AM	<0.6	-
4	Unit 1050	9: 07 AM	<0.6	-
5	Basketball Court	1: 46 PM	<0.6	-
6	Unit 1050	2: 10 PM	<0.6	-

**Method Detection Limit = 0.6 $\mu\text{g}/\text{m}^3$

Table 5: Monitoring Results from 08/18/2023

No.	Location	Time	TCE Reading ($\mu\text{g}/\text{m}^3$)	>8.8 $\mu\text{g}/\text{m}^3$
1	Basketball Court	8: 22 AM	<0.6	-
2	Stairwell 4	8: 34 AM	<0.6	-
3	1st Floor Hallway	9: 04 AM	<0.6	-
4	Unit 1050	9: 13 AM	<0.6	-
5	Basketball Court	1: 29 PM	<0.6	-
6	Unit 1050	2: 36 PM	<0.6	-

**Method Detection Limit = 0.6 $\mu\text{g}/\text{m}^3$

Table 6: Comprehensive Vacuum Measurements (inches H₂O)

Date	14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	Average
Time						
Location						
1055	-0.429	-0.426	-0.419	-0.42	-0.414	-0.422
1054	-0.946	-0.934	-0.887	-0.911	-0.916	-0.919
1053	-0.456	-0.454	-0.45	-0.461	-0.456	-0.455
Oppo. 1054	-0.233	-0.232	-0.25	-0.256	-0.251	-0.244
Stairwell 4	0	-0.111	-0.109	-0.115	0	-0.067
1052	-0.825	-0.825	-0.803	-0.809	-0.801	-0.813
1049	-0.022	-0.021	-0.023	-0.025	-0.021	-0.022
1045	0	0	-0.005	-0.008	-0.01	-0.005
Out 1044	-0.122	-0.117	-0.128	-0.129	-0.122	-0.124
1043	-0.083	-0.075	-0.066	-0.069	-0.062	-0.071
1042	-0.066	-0.055	-0.072	-0.079	-0.074	-0.069
1041	-0.104	-0.101	-0.104	-0.106	-0.102	-0.103
1040	-0.094	-0.091	-0.082	-0.094	-0.088	-0.090
Out 1040	-0.141	-0.148	-0.159	-0.155	-0.159	-0.152
1039	-0.035	-0.034	-0.044	-0.042	-0.049	-0.041
1037	-0.161	-0.177	-0.155	-0.162	-0.162	-0.163
1036	-0.313	-0.326	-0.315	-0.322	-0.318	-0.319
1035	-0.178	-0.194	-0.192	-0.196	-0.199	-0.192
Out 1035	-0.074	-0.083	-0.081	-0.084	-0.08	-0.080
1058 E	-0.13	-0.131	-0.135	-0.132	-0.134	-0.132
1058 W	-0.166	-0.169	-0.176	-0.177	-0.172	-0.172
1026	-0.211	-0.206	-0.212	-0.204	-0.208	-0.208
1025	-0.139	-0.141	-0.141	-0.148	-0.142	-0.142
1014	-0.555	-0.56	-0.567	-0.566	-0.569	-0.563
1011	-0.144	-0.147	-0.149	-0.153	-0.152	-0.149
SE Lobby	-1.405	-1.364	-1.4	-1.395	-1.403	-1.393
BB 1	-0.036	-0.033	-0.048	-0.051		-0.042
BB 2	-0.026	-0.025	-0.03	-0.029	-0.013	-0.025
BB 3	-0.111	-0.114	-0.125	-0.129	-0.122	-0.120
BB 4	-0.026	-0.017	-0.04	-0.044	-0.039	-0.033
BB 5	-0.053	-0.045	-0.063	-0.049	-0.051	-0.052
SW Garage (26)	-0.316	-0.307	-0.308	-0.311	-0.31	-0.310
SW Garage (6)	0	0	0	0	0	0.000
SW Garage (19)	0	0	0	0	0	0.000
SE Garage (11)	-0.007	-0.008	-0.013	-0.015	-0.011	-0.011

SE Garage (14)	-0.043	-0.033	-0.047	-0.044	-0.035	-0.040
NW Garage (80)	-0.03	-0.026	-0.036	-0.04	-0.035	-0.033
NE Garage (36)	-1.672	-1.742	-1.755	-1.743	-2	-1.728

Red highlighted cells indicate values below the desired level of -0.01 inH₂O

Community Within the Corridor - East Block

Table 7 - Discrete Sampling Test Results - March/April 2023

Sample Location	30-Mar	31-Mar	1-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	
1045 Entry Floor Hole			400																						
1045 North Wall			360																						
1045 Wood Column			1500								352														
1050 South Wall Hole			8000																						
1st Floor Hallway Center	15				3.5	17.7	64	25	81.1	35		42.7	63.3	106	181	147	8.5	22.4	7.4	7.8		4.7	17.7	2.7	
1st Floor Hallway North	10																								
1st Floor Hallway South	5.2																								
2081 Hallway		0																							
2nd Floor Corridor North		0																							
2nd Floor Corridor South		0																							
2nd Floor Hallway Center	0.7											3	3.6												
2nd Floor Hallway North	0.8	0																							
2nd Floor Hallway South	0.8																								
Stairwell 2	3.2	2																			4.5			2.9	
2nd Floor Stairwell 4		0																				12.4			
2nd Floor Stairwell 8		0																							
3rd Floor Corridor			0																						
3rd Floor Hallway Center			0									3.3	2												
3rd Floor Hallway South	0																								
3rd Floor Stairwell 2	3.4					2.1																			
Stairwell 3			0.6																						
3rd Floor Stairwell 4			0.7																				11.2		
Basket Ball Court	0.3																					12			
Basket Ball Court 2	0																						7.5	6.3	
Basket Ball Court 3																									
Basket Ball Court 4																									
Elevator	0																								
Fitness Center										49.6	43.7		28.1								29.3				
Front Lobby		0																				4			
NW Garage	0.6																								
N Garage	0																						0		
SE Garage	0.8																							7.7	
Hallway Outside 3021			0																						
Hallway Outside 3035			0																						
Hallway Outside 3065			0.7																						
N Mechanical Room										6.26	2.4	5.9	14.8	7	7.3	7.2	5.3	7.9		10	7	7.2	7.8	4.5	
Men's Locker Room						60.7	123		122		428	82.9				161	131		23.7	28.3					
Women's Locker Room																									
Powerhouse																						0.7	3.2		
Unit 1002 - Postboxes																									
Unit 1006	0.3	0															4.3				1.4				
SSD Vent Pipe #1 - S - 7.5 HP			13	22	24.5	22	24.8	24	26.7	26.2	28	28	30.3	31.4	34.6	28.2	36.4	33.1	35.2	32		31.4	28.6		
SSD Vent Pipe #2 - S - 10 HP			26	30	21.9	16.4	18.7	17.2	44.4	19.5	19	47.7	29.3	57.8	20.5	21.1	19.8	21.4	20.9	20.7		20.6	28.5		
SSD Vent Pipe #3 - N - 7.5 HP					17.6	2.2	3	5	3.3	3	4.3	11.9	7.17	16.7	11.3	9.4	8.1	5.3	6.1	7.2		43.5	6.1		
SSD Vent Pipe #4 - N - 10 HP					41.2	29.5	33	39	37	38.7	39.1	29.3	44	41.9	36.8	38.2	35	42.8	43.1	46.3		5.7	44.4		
SW Garage																	11.3	21						20.3	
Stairwell 4	1.6					2.2			2.7	2.6				14.4		7									
Stairwell 6																									
Stairwell 7																									
Unit 1011																									
Unit 1014										0															
Unit 1025	0							0.96									3.6						4.8		
Unit 1026	0.3									0															
Unit 1035	0.3																								
Unit 1036	0.5																								
Unit 1037	2										0.9														
Unit 1039	4.7										11.4	8										3.4			
Unit 1040	10.3			12.7								14.5					21.2	22.6							
Unit 1041	11.6							19.9			16.8	14.4													
Unit 1042	11.4										16.2	15.2											12.6	9.3	
Unit 1043	17.6						21.6	31.3				24													
Unit 1044	56					77	95				69.7	84.5													
Unit 1045	350		293	298	287	272	267	279	28.9	230	352	236	151.5	124	336	115	283	61	127	116	112	221	51.3	26.6	
Unit 1048																									
Unit 1049																									
Unit 1050	160		137	143	110	348	280	108	135	114	706	145	60	118	142	149	110	77.8	131	138	152	113	71.7	199	
Unit 1051	19					23		25.4			45.3														

Unit 1052					72.5	88.7	96.6	95.7	128	103	88.6	51.4	38.4			70.5			57.2	70.3		72		20.2
Unit 1056					24.8																	44		
Unit 1057																								
Unit 1058																								
Unit 1079																								
Unit 2014																								
Unit 2015																								
Unit 2016			0																					
Unit 2017			0																					
Unit 2022			0																					
Unit 2025			0																					
Unit 2036			0																			0		
Unit 2037			0																					
Unit 2039			0									2.5	2.5											
Unit 2040			0					0														0		
Unit 2042			0																					
Unit 2043			0.4	0																				
Unit 2044			0																					
Unit 2045	23	18				8		9	2.9			3.7	5.2											
Unit 2049																								
Unit 2056	60	52				42.2	24.7	49.2	9.6			3.4	6.6									1.5		
Unit 2057			4.7																					
Unit 2058	3.8	4.2				8.5			3.8															
Unit 2059	0.3	0																						
Unit 2061			0																					
Unit 2062			0																					
Unit 2063																								
Unit 2064	0					1																		
Unit 2065																								
Unit 2068																								
Unit 2077	0					1.6																		
Unit 2079																								
Unit 2111			0																					
Unit 2112																								
Unit 2114																								
Unit 2116																								
Unit 3014																								
Unit 3015			0						0															
Unit 3016																								
Unit 3017																								
Unit 3020																								
Unit 3021																								
Unit 3023																								
Unit 3025																							0	
Unit 3035			0																					
Unit 3036			0																					
Unit 3037			0					2	ND															
Unit 3039			0										1.8											
Unit 3040			0																				0	
Unit 3041			0																					
Unit 3042			0																					
Unit 3043			0																					
Unit 3044			0																					
Unit 3045			6.6									2.7	2.7											
Unit 3056	6	9.6				2.4		5.13	0.9			2.4	2.4									0		
Unit 3057			0																					
Unit 3058			0																					
Unit 3059			0																					
Unit 3061			0																					
Unit 3062			0																					
Unit 3063																								
Unit 3079																								
Unit 3092																								

Community Within the Corridor - East Block

Table 7 - Discrete Sampling Test Results - May 2023

Sample Location	1-May	2-May	3-May	4-May	5-May	8-May	9-May	10-May	11-May	12-May	15-May	16-May	17-May	18-May	19-May	22-May	23-May	24-May	25-May	26-May	30-May	31-May	
1045 Entry Floor Hole																							
1045 North Wall																							
1045 Wood Column																							
1050 South Wall Hole																							
1st Floor Hallway Center		14	9	3.5	2.3		3.49							21.2	3.48	5.39				2.38	3.6		
1st Floor Hallway North																							
1st Floor Hallway South									0.947	1.92	1.96		0										
2081 Hallway																							
2nd Floor Corridor North																							
2nd Floor Corridor South																							
2nd Floor Hallway Center								4.69			4.2									2.74			
2nd Floor Hallway North																							
2nd Floor Hallway South																							
Stairwell 2								4.15															
2nd Floor Stairwell 4						7.19																	
2nd Floor Stairwell 8																							
3rd Floor Corridor																							
3rd Floor Hallway Center											1.7										1.71		
3rd Floor Hallway South																							
3rd Floor Stairwell 2				2.35																			
Stairwell 3								3.9															
3rd Floor Stairwell 4																							
Basket Ball Court														1.84			8.96						
Basket Ball Court 2		2.2		3	2.3	0.624			1.02					1.53			0						
Basket Ball Court 3														1.56			0.536						
Basket Ball Court 4														0.816			0.734						
Elevator																							
Fitness Center								29				33.8	21	21	24.5	16.6		42.5	15.1		24.2		
Front Lobby																							
NW Garage													14			0.62							
N Garage										1.78			0.607		0	0.63		0.776					
SE Garage																6.6		0.6					
Hallway Outside 3021																							
Hallway Outside 3035																							
Hallway Outside 3065																							
N Mechanical Room	13.7	11.5			10.1	10.9	11.8		6.89		10.7						0.737						
Men's Locker Room	58	31.6					53.3				52.3	7.62								21.7			
Women's Locker Room					45															25.8			
Powerhouse																							
Unit 1002 - Postboxes																						0	
Unit 1006	2.97							2.4			1.7						0.737					0	
SSD Vent Pipe #1 - S - 7.5 HP	26.1	27.9			25.7		26.2		21.9				27.01		26.7			7.04					19.6
SSD Vent Pipe #2 - S - 10 HP	1.2				20		15.7		18.7				18.2		19.3			11.1					33.8
SSD Vent Pipe #3 - N - 7.5 HP	8.6				5.9		4.97		0				3.47		3.41			1.85					4.8
SSD Vent Pipe #4 - N - 10 HP	38.3				37.7		22.4		4.83				31.1		21.9			4.7					20.2
SW Garage	25.2			26.1		23.6	25.5		21.4				0.683	1.15	0	7.84							
Stairwell 4		12											9.03										
Stairwell 6										6													
Stairwell 7																							
Unit 1011								2.61	0														
Unit 1014																						0	
Unit 1025																	1.1	0		0	0		
Unit 1026								1.67	0	0												0.7	
Unit 1035																						1.1	
Unit 1036								1.37									4.59				2.37	1.2	
Unit 1037																							3.7
Unit 1039			1.4									5.18				6.06			1.19				8.1
Unit 1040								11.2	7.37			7.25							5.29				11.5
Unit 1041				13								7.07							9.13				10.9
Unit 1042		15.5					11.9	13.1			8.22	13.6	6.61	0.53	1.42	5.16		3.88	10.1		5.3		
Unit 1043												117							12.2				11.7
Unit 1044												37.6							29.3				37.8
Unit 1045	90.3	132	121		220	38.4	33.8		17.2	14.3	22.6	9.82	60.7		14.9	24.1	46.3	13.7	38.1		103	26	

Unit 1048									86.2							45.7					
Unit 1049					142			159	96.9							66.1		21.4		30.3	
Unit 1050	231	194	186	95.5	174	67.5	297		80.2	75.7	228	77.9		103	90.7	90.9	88.5	147	170	116	78.4
Unit 1051												52.7					39.8	18.2			
Unit 1052	73.6	62.6	340		76		70.7					55.7				32		16.8			21.1
Unit 1056																					
Unit 1057																				0	
Unit 1058																1.46				0	
Unit 1079										152											
Unit 2014			48.8						0												
Unit 2015								0.77													
Unit 2016																					
Unit 2017																					
Unit 2022																					
Unit 2025																					
Unit 2036																					
Unit 2037																					
Unit 2039								0.77													
Unit 2040																					
Unit 2042				2.5																	
Unit 2043																					
Unit 2044																					
Unit 2045			19.1			1.36				0.99			1.97		2.99				11.8		
Unit 2049									1.07												
Unit 2056										1.11		5.89		11.5					66.4		
Unit 2057						1.24		0.64													
Unit 2058				2.9																	
Unit 2059																					
Unit 2061																					
Unit 2062																					
Unit 2063																					
Unit 2064						1.78															
Unit 2065																					
Unit 2068																					
Unit 2077				1.7		0.838															
Unit 2079																					
Unit 2111																		0			
Unit 2112																					
Unit 2114																					
Unit 2116																					
Unit 3014																					
Unit 3015																					
Unit 3016																					
Unit 3017																					
Unit 3020																					
Unit 3021																					
Unit 3023										0											
Unit 3025																					
Unit 3035																					
Unit 3036																					
Unit 3037																					
Unit 3039																					
Unit 3040																					
Unit 3041				2.45																	
Unit 3042																					
Unit 3043																					
Unit 3044																					
Unit 3045						0									3.75				8.11		
Unit 3056															1.21				6.99		
Unit 3057																					
Unit 3058						0															
Unit 3059																					
Unit 3061																					
Unit 3062																					
Unit 3063						0															
Unit 3079																					
Unit 3092				1.67																	

Community Within the Corridor - East Block

Table 7 - Discrete Sampling Test Results - June/July 2023

Sample Location	1-Jun	5-Jun	7-Jun	8-Jun	9-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	23-Jun	26-Jun	3-Jul	10-Jul	11-Jul	12-Jul	14-Jul	19-Jul	21-Jul	26-Jul	28-Jul	
1045 Entry Floor Hole																						
1045 North Wall																						
1045 Wood Column																						
1050 South Wall Hole																						
1st Floor Hallway Center							0.24							0.1								
1st Floor Hallway North																						
1st Floor Hallway South					0.4												0.39	0	0	0	0	
2081 Hallway																						
2nd Floor Corridor North																						
2nd Floor Corridor South																						
2nd Floor Hallway Center					0.42									0.1								
2nd Floor Hallway North																						
2nd Floor Hallway South																						
Stairwell 2																						
2nd Floor Stairwell 4																						
2nd Floor Stairwell 8																						
3rd Floor Corridor																						
3rd Floor Hallway Center						0.47								0.1								
3rd Floor Hallway South																						
3rd Floor Stairwell 2																						
Stairwell 3					0.1		0.23										0.42	0	0	0	0	
3rd Floor Stairwell 4																						
Basket Ball Court					2.65							0.2										
Basket Ball Court 2																	0.48	0.34	0.19	0	0.23	
Basket Ball Court 3							0.24															
Basket Ball Court 4																						
Elevator																						
Fitness Center	16.1	4.2		0.4			0.29	0.55				0.49	0.69									
Front Lobby																	0.56	0.21	0.23	0.26	0.37	
NW Garage						0.85	0															
N Garage							0.27															
SE Garage							0.23															
Hallway Outside 3021																						
Hallway Outside 3035																						
Hallway Outside 3065																						
N Mechanical Room	1.5					7.7	3.4					2.2	2.86									
Men's Locker Room				0.5				0.2				0.56	0.47	0.6								
Women's Locker Room				0.4				0.5														
Powerhouse																						
Unit 1002 - Postboxes																						
Unit 1006							0.21															
SSD Vent Pipe #1 - S - 7.5 HP						21.7																
SSD Vent Pipe #2 - S - 10 HP						18.4																
SSD Vent Pipe #3 - N - 7.5 HP																						

SSD Vent Pipe #4 - N - 10 HP																						
SW Garage							0.3					0.33										
Stairwell 4		3					0.34					0.33	0.2									
Stairwell 6																						
Stairwell 7																						
Unit 1011																						
Unit 1014							0.21					0			0.1							
Unit 1025							0.31															
Unit 1026															0.1							
Unit 1035							0.22					0.28	0.1		0.1							
Unit 1036			6.9				0.26					0.3										
Unit 1037							0.46					0.35	0.1		0.1							
Unit 1039							0.7	0.3				0.27	0.19		0.1							
Unit 1040							0.6						0.24									
Unit 1041																0.19	1.66	0.24	0.22	0.24	0.42	
Unit 1042		4	19.2				0.8						0.24	0.1		0.1	0.82	0.21	0	0	0.26	
Unit 1043												0.47		1.19								
Unit 1044		65.2	11.7				1.7					3.2	1.67	1.79			1.76	2.1	1.4	0.92	0.83	0.92
Unit 1045	23.3		14.4	2.4	5.26	3.84	3.33	2.99	2.88	2.57												
Unit 1048	121	19.8	13.5									0.72	0.1	0.55								
Unit 1049	21.8	23.6										2.5	1.03									
Unit 1050	60.4	27.3	10.3	3.4	3.05	2.28	1.95	2.12	2.17	1.62												
Unit 1051	16.9						0.76										0.26	1.35	0.27	0.24	0.23	0.41
Unit 1052	14.5												0.35	0.1								
Unit 1056	14.6																					
Unit 1057																						
Unit 1058												0.21										
Unit 1079																						
Unit 2014																	0.1	0.54	0	0	0.6	0
Unit 2015																						
Unit 2016															0.1							
Unit 2017															0.1							
Unit 2022																						
Unit 2025															0.1							
Unit 2036																						
Unit 2037																						
Unit 2039																						
Unit 2040																						
Unit 2042																						
Unit 2043																						
Unit 2044																						
Unit 2045																						
Unit 2049																						
Unit 2056																						
Unit 2057																						
Unit 2058																						
Unit 2059																						
Unit 2061																						

Table 8: Blower Fan Exhaust Data Table

GC TCE Measurements of Blower Effluent and Estimated Removal Rates						
Date: August 17, 2023						
Blower No.	Pipe Diameter	Exhaust Velocity	Flow Rate	TCE Concentration	TCE Removal Rate	TCE Removal Rate
	inches	fpm	cfm	µg/m ³	lbs/day	lbs/yr
1	4	4075	356	3.05	0.000098	0.035588
2	4	3937	344	14.2	0.000439	0.160079
2A	4	5374	469	20.3	0.000856	0.312374
3 and 4	6	4922	966	16.7	0.001451	0.529568
5	4	5867	512	229.3	0.010554	3.852136
6	4	5512	481	65.1	0.002815	1.027476
7	4	3642	318	22.4	0.000640	0.233598
8	4	1535	134	14	0.000169	0.061534
					Total	6.15

ATTACHMENT A

PICTURES



Picture 1: Concrete cut and removed from BB1 Pin Area in the Gym



Picture 2: Concrete cut and removed from BB2 Pin Area in the Gym



Picture 3: Concrete cut and removed from SW Garage area for the addition of access point for the Blower 11



Picture 4: Concrete cut and removed from N Mechanical Room



Picture 5: Concrete cut and removed from SW Garage



Picture 6: Ongoing installation of Blower 8 on the roof above N Mechanical room



Picture 7: Ongoing installation of Blower 9 on the roof next to Blowers 6 and 7



Picture 8: Ongoing installation of Blowers 10 and 11 on the roof above SW Garage