

MEMORANDUM

DATE : November 11, 2023

TO : Shane LaFave / Roers Companies, LLC

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

SUBJECT : Weekly Test Results for the Week Ending 11/11/2023
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 interim response for the referenced project for the week ending 11/11/2023. The following tasks were performed throughout the week:

1. Task #1 - Blower Fan Exhaust Sampling

Samples were collected from blower exhaust of all 11 operational blowers. All blowers had a cumulative blow rate of about 4400 cfm leading to about 0.11 lbs removal of TCE in the second week of November. Due to the ongoing excavation work, Blowers 8, 9, and 10 are currently functioning as an exhaust for the indoor air as compared to the others that are connected to the VMS and Blower 9 had an elevated reading on account of the construction work in Units 1044 and 1045. Since March, we have successfully removed over 2.6 lbs. of TCE from the site. The individual blower exhaust rates and their corresponding actual TCE removal with Year-To-Date exhaust quantities can be seen in Tables 1 and 2. The layout of the floor plan with the placement of blowers can be found in Figure 1.

2. Task #2 – Additional Excavation Work

Excavation work commenced in the SW Garage and Gym area on 11/6/2023 and was completed on 11/07/2023. Following the Gym area, the excavation continued in Units 1044 and 1045. Approximately 25 cu. yards were excavated.

Four soil borings were conducted in the hallway outside the storage room and the laundry room to determine the hazardous characteristics of the soil. A sump crock and an extraction point were installed in the N Mechanical Room and backfilled with gravel. The SW Garage was also backfilled with gravel.

Based on the preliminary results, GP19 – 2' returned hazardous for TCE based on the TCLP test. A summary report will be compiled to determine the extent of the hazardous soil. The pictures from the excavation activity and the corresponding air quality readings can be found in Attachment A.

3. Task #3 – Hazardous Waste Management

Permitting for hazardous waste disposal is in progress. Current excavation work and disposal will be limited to the non-hazardous area.

Attachments

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

- Figure 1: CWC EB Floor Plan
- Table 1: Blower Fan Exhaust Data Table for November
- Table 2: Blower Fan Exhaust Data Table since March
- Attachment A: Indoor Air Quality and Pictures of areas of Excavation

East Building Level 1

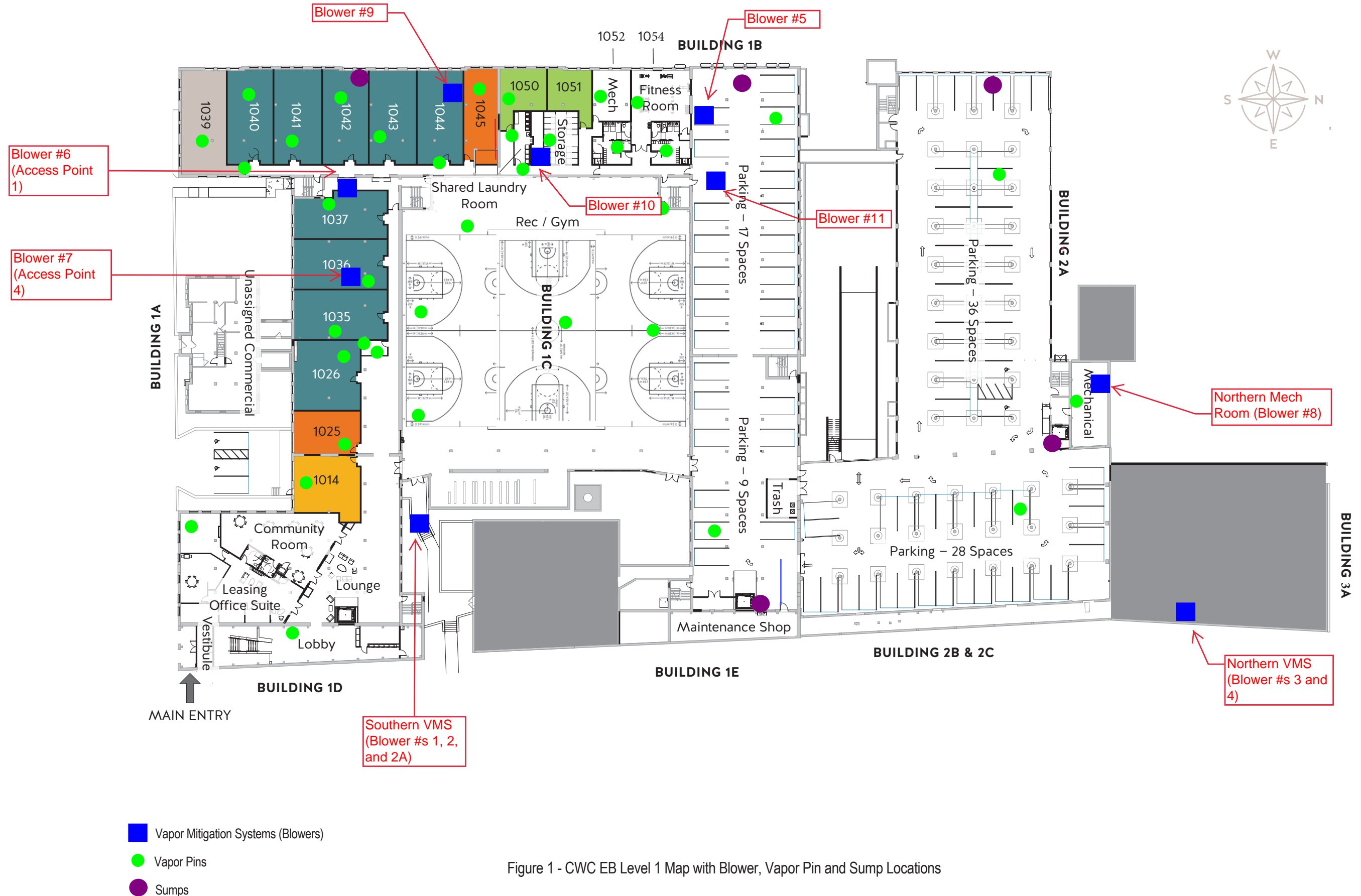


Figure 1 - CWC EB Level 1 Map with Blower, Vapor Pin and Sump Locations

Table 1: Blower Fan Exhaust Data Table for November

GC TCE Measurements of Blower Effluent and Estimated Removal Rates						
Date: November 10, 2023						
Blower No.	Pipe Diameter	Exhaust Velocity	Flow Rate	TCE Concentration	TCE Removal Rate	TCE Removal
	inches	fpm	cfm	ug/m3	lbs/day	lbs
1	4	4528	395	1.96	0.000070	0.000487
2	4	4666	407	10.3	0.000377	0.002639
2A	4	4991	436	14.2	0.000556	0.003892
3 and 4	6	5906	1160	10.1	0.001053	0.007370
5	4	5179	452	254.36	0.010334	0.072340
6	4	3907	341	70.5	0.002161	0.015126
7	4	2756	241	12.8	0.000277	0.001937
8	4	4292	375	7.35	0.000247	0.001732
9	4	2146	187	48.75	0.000821	0.005745
10	4	2736	239	4.91	0.000105	0.000738
11	4	2303	201	7.8	0.000141	0.000986
			4432		Total	0.11


Table 2: Blower Fan Exhaust Data Table since March

TCE Measurements of Blower Effluent and Removal								
TCE Removal (lbs in Month)								
Blower No.	May	June	July	August	September	October	November	Total
1	0.0172	0.0619	0.0250	0.0039	0.0049	0.0033	0.0017	0.1178
2	0.0313	0.0206	0.0190	0.0149	0.0144	0.0166	0.0062	0.1230
2A				0.0277	0.0201	0.0170	0.0093	0.0741
3+4	0.0241	0.0154	0.0387	0.0471	0.0220	0.0154	0.0167	0.1793
5		0.4196	0.2556	0.3277	0.1883	0.3067	0.1412	1.6390
6		0.0229	0.0085	0.0886	0.0445	0.0669	0.0293	0.2608
7		0.0093	0.0210	0.0179	0.0000	0.0212	0.0024	0.0718
8		0.0015		0.0052	0.0066	0.0035	0.0872	0.1039
9				0.0001	0.0004	0.0011	0.0061	0.0076
10					0.0003	0.0011	0.0012	0.0026
11					0.0252	0.0292	0.0081	0.0625
Total	0.0726	0.5511	0.3677	0.5330	0.3267	0.4821	0.3093	2.6426
Cumulative Flow Rate (cfm)	1342	2078	2766	3523	3817	4422	4385	22333

Attachment A

Indoor Air Quality Readings and Pictures

Daily TCE Detection Log
Community Within the Corridor – East Block
2748 N. 32nd Street, Milwaukee, WI

Date:	11/06/2023
Testing Performed by:	K. Singh & Associates, Inc., Ph: 262-821-1171
Engineer on Site:	Sameer Neve, Ph.D., ENV SP, Cell: 551-262-9210
Signature:	

No.	Location	Time	TCE Reading (ppb)	>25 ppm
1	N Mech Room	7:18	14.9	No
2	SW Garage	7:31	1.2	No
3	SW Garage	10:30	1	No
4	BB1 Gym	11:24	< 0.6	No
5	BB1 Gym	14:38	2.06	No
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

** Note that Workplace Safety Limit for TCE by OSHA is 100 ppm and NIOSH is 25 ppm.


** It is strongly recommended to wear a fit-tested respirator in the construction areas, and to wear appropriate Personal Protective Equipment at all times.

**For more information on TCE, please scan the QR Code or visit these links:

<https://www.dhs.wisconsin.gov/chemical/trichloroethylene.htm> and
<https://www.epa.gov/sites/default/files/2016-09/documents/trichloroethylene.pdf>



Daily TCE Detection Log
Community Within the Corridor – East Block
2748 N. 32nd Street, Milwaukee, WI

Date:	11/07/2023
Testing Performed by:	K. Singh & Associates, Inc., Ph: 262-821-1171
Engineer on Site:	Sameer Neve, Ph.D., ENV SP, Cell: 551-262-9210
Signature:	

No.	Location	Time	TCE Reading (ppb)	>25 ppm
1	N Mech Room	7:15	15.9	No
2	BB1 Gym	7:22	1.1	No
3	N Mech Room	9:45	7.5	No
4	N Mech Room	11:15	7.9	No
5	BB1 Gym	11:30	< 0.6	No
6	BB2 Gym	15:00	0.63	No
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16				
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18				

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Daily TCE Detection Log
Community Within the Corridor – East Block
2748 N. 32nd Street, Milwaukee, WI

Date:	11/08/2023
Testing Performed by:	K. Singh & Associates, Inc., Ph: 262-821-1171
Engineer on Site:	Sameer Neve, Ph.D., ENV SP, Cell: 551-262-9210
Signature:	

No.	Location	Time	TCE Reading (ppb)	>25 ppm
1	N Mech Room	7:14	4.12	No
2	SW Garage	7:21	1.29	No
3	BB1 Gym	7:30	0.65	No
4	Unit 1044	7:40	1.56	No
5	SW Garage	9:09	0.8	No
6	Unit 1044	9:31	3.39	No
7	Unit 1044	10:46	4.8	No
8	SW Garage	12:31	1.57	No
9	Unit 1044	12:49	6.44	No
10	Unit 1044	14:38	54	No
11				
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Daily TCE Detection Log
Community Within the Corridor – East Block
2748 N. 32nd Street, Milwaukee, WI

Date:	11/09/2023
Testing Performed by:	K. Singh & Associates, Inc., Ph: 262-821-1171
Engineer on Site:	Sameer Neve, Ph.D., ENV SP, Cell: 551-262-9210
Signature:	

No.	Location	Time	TCE Reading (ppb)	>25 ppm
1	Unit 1044	7:16	18.2	No
2	N Mech Room	9:12	1.16	No
3	SW Garage	9:50	2.71	No
4	Unit 1044	10:14	75.8	No
5	Unit 1044	12:24	80.6	No
6	Unit 1044	14:10	95.9	No
7	Unit 1044	15:00	37.1	No
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Daily TCE Detection Log
Community Within the Corridor – East Block
2748 N. 32nd Street, Milwaukee, WI

Date:	11/10/2023
Testing Performed by:	K. Singh & Associates, Inc., Ph: 262-821-1171
Engineer on Site:	Sameer Neve, Ph.D., ENV SP, Cell: 551-262-9210
Signature:	

No.	Location	Time	TCE Reading (ppb)	>25 ppm
1	Unit 1044	7:13	21.1	No
2	Unit 1045	7:20	6.78	No
3	Unit 1045	9:41	50.9	No
4	N Mech Room	11:04	1.02	No
5	Unit 1045	11:26	91.4	No
6	Unit 1045	13:41	69	No
7	N Mech Room	13:48	1.31	No
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Picture 1 – N Mechanical Room Excavated Area



Picture 2 – N Mechanical Room Excavated Area



Picture 3 – SW Garage Area



Picture 4 – SW Garage Area



Picture 5 – BB1 Gym Area



Picture 6 – BB2 Gym Area



Picture 7 – Unit 1044 Area



Picture 8 – Unit 1045 Living Room Area Excavation in Progress