

### **MEMORANDUM**

DATE : May 13, 2023

TO : Shane LaFave / Roers Companies, LLC

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

SUBJECT: Weekly Progress Report for Week Ending 05/13/2023

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 summarize the work performed as a part of the emergency response for the referenced project for the week ending 05/13/2023. This document is intended to serve two purposes:

1. Summarizing the tasks performed during the past week, and

2. The action items for the following week.

The following tasks were performed this week which are summarized below:

#### 1. Task #1 – GC Testing by KSingh & Hartman

KSingh continues to work on conducting gas chromatograph (GC) testing for measurement of TCE in various units of the East Block focused on the first floor. The focus of testing for TCE is concentrated in units that have detected elevated levels of TCE. The test results of TCE are shown in Tables 1 to 5 in Attachment A. Comprehensive data tables of Indoor Air Monitoring Data for TCE is provided in Attachment C. The findings of portable discrete testing for TCE are as follows:

- TCE detections ranged from 14 ug/m³ to 38 ug/m³ in unit 1045. This was about a 60% decrease in the concentration of TCE from previous weeks owing to improved ventilation.
- TCE detections ranged from 68 ug/m³ to 297 ug/m³ in Unit 1050. A higher level (297 ug/m³) was observed in the bathroom of the unit where the wooden column was observed to have big cracks that were sealed recently.
- TCE was detected at 71 ug/m³ in Unit 1052 where the concrete needs to be filled in under water pipe going out the wall onto the 32<sup>nd</sup> Street. This number was improved after an open pipe coming out of the floor was sealed.
- TCE detections ranged from 1 ug/m³ to 3.5 ug/m³ in the First Floor Hallway. This was about a 90% reduction from the previous values due to continued space ventilation.
- TCE detections ranged from 10 ug/m<sup>3</sup> to 14 ug/m<sup>3</sup> in the North Mechanical Room.
- The two north blowers detections of TCE ranged from 0 ug/m<sup>3</sup> to 22 ug/m<sup>3</sup>.
- The two south blowers detections of TCE ranged from 16 ug/m³ to 26 ug/m³.

### 2. Task #2 – Site Visit with WNDR, DNS and DHS

A site visit of the East Block and West Block was conducted by WDNR along with other agencies on May 10, 2023. CWC representatives and KSingh were present as well.

### 3. Task #3 – Water Disposal

KSingh coordinated with MMSD and disposed of 825 gallons water recovered through the blowers into the Combined Sewer system under MMSD NOI 21-019. KSingh provided oversight.

#### 4. Task #4 – VMS Operations and Troubleshooting

The following tasks were performed:

- Discrete sampling using portable GC was performed this week to monitor TCE concentrations in strategic units in the complex.
- All four blowers are functioning. Fliteway Technologies and KSingh are monitoring the operations of the VMS.
- Water extraction from the blowers has reduced significantly and no water was extracted throughout the week as compared to previous weeks.
- The vacuum measurements in the 1st floor hallway in Buildings 1B-SW and 1B-W continue to be 0, while those in the Gym have consistent negative values between – 0.023 to – 0.118 in H<sub>2</sub>O. The vacuum measurement near the exit of 3100 W. Center Street was between -0.723 to -0.831 in H<sub>2</sub>O.
- A new vapor pin was installed in the North Mechanical room in the previous week, but no vacuum was detected. Vacuum measurements from all the blowers were also noted to be between – 9 and – 16 inches of water. Sealing of the vapor extraction point in the neighboring powerhouse building is necessary to induce vacuum.
- New vapor pins were installed in Units 1026, 1036, and 1058. The readings at these
  locations indicated vacuum in these units due to the South blowers. These units are
  apparently unaffected by the presence of water in the system. The results of vacuum
  measurements are shown in Table 6 in Attachment B.
- CWC coordinated with sealing contractors to continue efforts for sealing gaps between masonry walls and flooring, cracks and holes in the flooring and walls, open pipes and cracked wood columns.

### Action Items for Week of May 14, 2023 - May 20, 2023

KSingh plans to perform the following tasks in the upcoming week:

- Continue to develop scope of work and specifications for Horner Plumbing to extract water from SSDS system.
- 2. Continue to develop scope of work for Fliteway Technologies to install additional blowers.
- 3. Start sump construction.
- 4. Hire a contractor to start CCTV inspection.
- 5. Continue discrete sampling in the various impacted units and add results to comprehensive table.
- 6. Continue working with CWC to address sealing issues and unfinished conditions.
- 7. Conduct vacuum measurements at strategic locations within the buildings.
- 8. Continue to prepare comprehensive figure showing indoor air data.



### Attachment A Summary of Monitoring Results by Date



### Attachment A

# Monitoring Results by Date On-site EPA Method TO-14 Data from Indoor Air Samples

Instrument: SRI 8610 Gas Chromatograph with ECD

Operator: KSingh

Table 1: Monitoring Results from 5/8/2023

Sample	Sample	Sample	TCE	PCE	Comments
ID	Location	Time	$(\mu g/m^3)$	$(\mu g/m^3)$	
IA - 444	Unit 1042	11:00	11.9	ND	Living Room
IA - 445	Unit 1050	11:15	67.5	ND	Living Room
IA - 446	N Mech room	11:25	10.9	ND	
IA - 447	Unit 2057	11:37	1.24	ND	Living Room
IA - 448	Basketball Court 2	11:58	0.624	ND	
IA - 449	Unit 2077	12:08	0.838	ND	Bathroom
IA - 450	Unit 1045	12:28	38.4	ND	Living Room
IA - 451	Unit 2045	12:36	1.36	ND	
IA - 452	SSD 5	12:57	23.6	ND	
IA - 453	Unit 2064	13:06	1.78	ND	Bathroom
IA - 454	Unit 3057	13:21	ND	ND	Kitchen
IA - 455	Unit 3045	13:29	ND	ND	
IA - 456	Stairwell 4 2nd floor	13:39	7.19	ND	
IA - 457	Unit 3063	13:49	ND	ND	Living Room
Reporting Limit	t (μg/m3)		0.6	0.6	
	ND Ind	icates Not Detected a	at listed reporting	level	



Table 2: Monitoring Results from 5/9/2023

Sample	Sample	Sample	TCE	PCE	Comments
ID	Location	Time	$(\mu g/m^3)$	$(\mu g/m^3)$	
IA - 458	Unit 1042	10:44	13.1	ND	Living Room
IA - 459	Unit 1050	11:40	297	ND	Bathroom
IA - 460	Unit 1045	11:56	33.8	ND	Living Room
IA - 461	Unit 1052	12:04	70.7	ND	Mechanical Room
IA - 462	Unit 1053	12:15	53.3	ND	Men's Locker Room
IA - 463	N Mech room	12:23	11.8	ND	
IA - 464	SSD 1 – South 7.5 HP	13:08	26.2	1.69	
IA - 465	SSD 2 – South 10 HP	13:23	15.7	1.47	
IA - 466	SSD 3 – North 7.5 HP	13:39	4.97	ND	
IA - 467	SSD 4 – North 10 HP	13:47	22.4	ND	
IA - 468	1st Hallway	14:25	3.49	ND	
IA - 469	SSD 5	14:50	25.5	ND	
Reportin	ng Limit (µg/m3)		0.6	0.6	
	ND Ind	icates Not Detected a	at listed reporting	level	

Table 3: Monitoring Results from 5/10/2023

Sample	Sample	Sample	TCE	PCE	Comments
ID	Location	Time	$(\mu g/m^3)$	$(\mu g/m^3)$	
IA - 470	Unit 1050	9:49	240	ND	
IA - 471	Fitness Center	9:57	29	ND	
IA - 472	Unit 1011	10:06	2.61	ND	Conference Room
IA - 473	Unit 1006	10:15	2.4	ND	Office Lobby
IA - 474	Unit 1026	10:28	1.67	ND	
IA - 475	Unit 1036	10:37	1.37	ND	
IA - 476	Unit 1040	10:46	11.2	ND	
IA - 477	Laundry Room	10:55	156	ND	
IA - 478	Stairwell 2	11:03	4.15	ND	
IA - 479	2nd Floor Hallway	11:12	4.69	ND	
IA - 480	Unit 2015	11:21	0.77	ND	
IA - 481	Unit 2039	11:31	0.77	ND	
IA - 482	Stairwell 3	11:45	3.9	ND	
IA - 483	Unit 1049	12:36	159	ND	Storage Room
Reporting Limit	t (μg/m3)		0.6	0.6	
	ND Ind	icates Not Detected a	nt listed reporting	level	



Table 4: Monitoring Results from 5/11/2023

Sample	Sample	Sample	TCE	PCE	Comments
ID	Location	Time	$(\mu g/m^3)$	$(\mu g/m^3)$	
IA - 484	Unit 1050	15:36	80.2	ND	
IA - 485	Unit 1045	15:49	17.2	ND	
IA - 486	SSD 4 – North 10 HP	15:57	4.83	ND	
IA - 487	SSD 3 – North 7.5 HP	16:06	ND	ND	
IA - 488	SSD 1 – South 7.5 HP	16:15	21.9	ND	
IA - 489	SSD 2 – South 10 HP	16:24	18.7	ND	
IA - 490	Unit 1026	16:32	ND	ND	
IA - 491	Unit 1040	16:42	7.37	ND	
IA - 492	Unit 2057	16:51	0.64	ND	
IA - 493	Basketball Court 2	17:00	1.02	ND	
IA - 494	SSD 5	17:09	21.4	ND	
IA - 495	N Mech room	17:18	6.89	ND	
IA - 496	SE Hallway	17:27	0.947	ND	
IA - 497	Unit 1011	17:36	ND	ND	Storage Room
Reporting Limit	t (μg/m3)		0.6	0.6	
	ND Ind	icates Not Detected	at listed reporting	level	



Table 5: Monitoring Results from 5/12/2023

Sample	Sample	Sample	TCE	PCE	Comments
ID	Location	Time	$(\mu g/m^3)$	$(\mu g/m^3)$	
IA - 498	Unit 1050	13:36	75.7	ND	Bathroom
IA - 499	Unit 1048	13:45	86.2	ND	Column
IA - 500	Unit 2049	13:54	1.07	ND	
IA - 501	Unit 2014	14:02	ND	ND	
IA - 502	NW Garage	14:10	1.78	ND	
IA - 503	N Lobby	14:18	0.912	ND	
IA - 504	Unit 1045	14:27	14.3	ND	
IA - 505	Unit 1042	14:35	8.22	ND	
IA - 506	N Blowers	14:55	ND	ND	3A Basement
IA - 507	SW Hallway	15:03	1.92	ND	
IA - 508	Unit 1049	15:12	96.9	ND	
IA - 509	Stairwell 4	15:21	6	ND	
IA - 510	N Mech Room	15:30	7.15	ND	
IA - 511	Unit 1026	15:38	ND	ND	Living Room
Reporting Lim	nit (µg/m3)		0.6	0.6	
	ND Indicates	Not Detected at lis	sted reporting lev	vel	



## Attachment B Table 6: Comprehensive Vacuum Measurements (inches H<sub>2</sub>O)

Location	8-May	9-May	10-May	11-May	12-May
Unit 1040	0	0	-0.002	0	0
Unit 1044	0	0	0	0	0
Unit 1050	0	0	0	0	0
Stairwell 4	0	0	0	0	0
Baseball Court - 1	-0.057	-0.046	-0.060	-0.060	-0.060
Baseball Court - 2	-0.023	-0.027	-0.028	-0.035	-0.024
Baseball Court - 3	-0.106	-0.103	-0.104	-0.118	-0.112
Exit 3100 W Center St	-0.73	-0.723	-0.811	-0.802	-0.831
SSD 1 – South 7.5 HP	-16	-16	-16	-15	-16
SSD 2 – South 10 HP	-11	-11	-15	-15	-15
SSD 3 – North 7.5 HP	-9	-9	-9	-9	-9
SSD 4 – North 10 HP	-13	-13	-13	-13	-13
N Mech Room	0	0	0	0	0
Unit 1026	-0.024	-0.034	-0.036	-0.041	-0.043
Unit 1036	0	0	0	0	0
Unit 1058	-0.01	-0.007	-0.013	-0.017	-0.025



# Attachment C Comprehensive Data Tables



														т	able 7 - Disc	crete Sampl	ling Test Res	ults																$\neg \neg$
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						21-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	1-May	2-May	3-May	4-May	5-May	8-May	9-May	10-May	11-May	12-May
1045 Entry Floor Hole			400															-												-				
1045 North Wall			360																														i I	
1045 Wood Column			1500								352																							
1050 South Wall Hole			8000																														لــــــا	
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		14	9	3.5	2.3		3.49		$\vdash$	
1st Floor Hallway North	10																															1	H	
1st Floor Hallway South 2081 Hallway	5.2	0																														$\vdash$	0.947	1.92
2nd Floor Corridor North		0																														<del>                                     </del>		
2nd Floor Corridor South		0																														$\vdash$	$\vdash$	
2nd Floor Hallway Center	0.7	_										3	3.6																			4.69		
2nd Floor Hallway North	0.8	0																																
2nd Floor Hallway South	0.8																																	
Stairwell 2	3.2	2																		4.5				2.9								4.15		
2nd Floor Stairwell 4		0																			12.4									7.19				
2nd Floor Stairwell 8		0																																
3rd Floor Corridor			0																														لــــــا	
3rd Floor Hallway Center			0									3.3	2																				$\vdash$	
3rd Floor Hallway South	0				-	<b>.</b>																										₩-		
3rd Floor Stairwell 2	3.4					2.1		-																				2.35	$\vdash$				$\vdash$	
Stairwell 3 3rd Floor Stairwell 4			0.6		-	<del>                                     </del>			-						-	-	-				11.2							-	<del>                                     </del>			3.9	$\vdash$	
3rd Floor Stairwell 4  Basket Ball Court	0.3		U./																		11.2											$\vdash$		
Basket Ball Court 2	0.3																				14	7.5	6.3			2.2		3	2.3	0.624		$\vdash$	1.02	
Elevator	0																						0.3			2.2		,	2.3	0.024		$\vdash$	2.02	
Laundry Room	_																																	-
Fitness Center										49.6	43.7		28.1							29.3												29		
Front Lobby		0																			4													
Garage	0.6																																	
N Garage	0																					0											i I	1.78
Garage Tunnel	0.8																							7.7										
Hallway Outside 3021			0																															
Hallway Outside 3035			0																														$\vdash$	
Hallway Outside 3065			0.7																														$\vdash \vdash$	
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	13.7	11.5			10.1	10.9	11.8		6.89	
Men's Locker Room						60.7	123		122		428	82.9				161	131		23.7	28.3					58	31.6			45		53.3	$\vdash$	$\vdash \vdash \vdash$	
Women's Locker Room Powerhouse																						0.7	3.2						45			<del>                                     </del>		
Unit 1006	0.3	0															4.3			1.4		0.7	3.2		2.97							2.4	$\vdash$	
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		26.1	27.9			25.7		26.2		21.9	
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		1.2				20		15.7		18.7	
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		8.6				5.9		4.97		0	
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		38.3				37.7		22.4		4.83	
SSD Vent Pipe #5 - Prospective																	11.3	21					20.3		25.2			26.1		23.6	25.5		21.4	
Stairwell 4	1.6					2.2			2.7	2.6				14.4			7									12								6
Stairwell 6																																	لــــــا	
Unit 1011																																2.61	0	
Unit 1014	_				-	-		0		0																						₩-		
Unit 1025 Unit 1026	0.3					l		0.96									3.6						4.8									1.67		0
Unit 1026 Unit 1035	0.3									0																						1.67	0	U
Unit 1036	0.5																															1.37		
Unit 1037	2									0.9																							<del>-  </del>	
Unit 1039	4.7									11.4	8										3.4						1.4							
Unit 1040	10.3			12.7							14.5					21.2	22.6															11.2	7.37	
Unit 1041	11.6							19.9		16.8	14.4																	13						
Unit 1042	11.4									16.2	15.2							•				12.6	-	9.3	15.5					11.9	13.1			8.22
Unit 1043	17.6					21.6	31.3				24																							
Unit 1044	56					77	95			69.7	84.5					85.8		45.6		53.3												$\vdash \vdash$	-	
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	90.3	132	121		220	38.4	33.8	<b></b>	17.2	14.3
Unit 1048					-	-																												86.2
Unit 1049	100		107	442	440	240	200	100	125	4	701	107	· · ·	440	140	110	140	77.0	424	120	152	112	71.7	400	224	101	100	05.5	142	67.5	207	159	90.2	96.9
Unit 1050 Unit 1051	160 19		137	143	110	348 23	280	108 25.4	135	114	706 45.3	145	60	118	142	149	110	77.8	131	138	152	113	71.7	199	231	194	186	95.5	174	67.5	297	$\vdash$	80.2	75.7
Unit 1051 Unit 1052	19				72.5	88.7	06.6	25.4 95.7	120	102	45.3 88.6	E1 /	38.4		-	70 F			57.2	70.2		72		20.2	72.6	62.6	340		76		70.7	$\vdash$		
Unit 1052 Unit 1056					72.5	08./	96.6	95./	128	103	66.b	51.4	36.4			70.5			57.2	70.3		72 44		20.2	73.6	0Z.b	340		76		/U./	$\vdash$	$\vdash$	
Unit 1056					24.0																	1914					48.8					$\vdash$	$\vdash$	0
Unit 2015																											-0.0					0.77		
5R 2015		Ц			1	1		1			1						1							L	1		1	1	L			· · · · ·		



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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								0.77	
Unit 2040		0			0							0					
Unit 2042		0												2.5			
Unit 2043	0.4	0															
Unit 2044		0															
Unit 2045	23	18		8	9	2.9	3.7	5.2					19.1		1.36		
Unit 2049																	1.07
Unit 2056	60	52		42.2	24.7 49.2	9.6	3.4	6.6				1.5					
Unit 2057		4.7													1.24	0.64	
Unit 2058	3.8	4.2		8.5		3.8								2.9			
Unit 2059	0.3	0															
Unit 2061		0															
Unit 2062		0															
Unit 2064	0			1											1.78		
Unit 2077	0			1.6										1.7	0.838		
Unit 2111		0															
Unit 3015			0		0												
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											2.45			
Unit 3042			0							1							
Unit 3043			0							1							1
Unit 3044		0								1							
Unit 3045		6.6					2.7	2.7		1					0		
Unit 3056	6	9.6		2.4	5.13	0.9	2.4	2.4				0					+
Unit 3057		0													0		+
Unit 3058		-	0							1							+
Unit 3059			0							1							+
Unit 3061			0							1							1
Unit 3062			0							1							1
Unit 3063			-							1					0		+
Unit 3092														1.67			+-+

