

Gray, Jane K - DNR

From: Pratap Singh <psingh@ksinghengineering.com>
Sent: Friday, November 22, 2024 6:02 PM
To: Gray, Jane K - DNR
Cc: Robert Reineke; Kathryn Balachandran; Shane LaFave; que@scott-crawford.com; Robert Fedorchak; Walden, James E -DNR; Mylotta, Pamela A - DNR
Subject: RE: CWC East Block (02-41-263675) - Request for Information
Attachments: CWC East Block - YTD Indoor Air TCE Data.xlsx; ATLSTDEDD_2411045.xls; ATLSTDEDD_2409186A.xls; ATLSTDEDD_2409186A.xlsx; ATLSTDEDD_2409186B.xls; ATLSTDEDD_2409186B.xlsx; ATLSTDEDD_2409186C.xls; ATLSTDEDD_2409186C.xlsx; Table 5 - CWC-EB_Round 3_Blower Data.pdf; CWC-EB - VMS Constructed Layout + SSV Pins.pdf; CWC EB 3rd Round Signature Page.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

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Hi Jane,

Thank you for your email. Please see below and attached for the requested documentation and responses. We have also included a signature page for the submittal. We look forward to your feedback on the 4th Round Commissioning Plan. If WDNR can advance this review by 1-2 weeks, it would be greatly appreciated as there are logistical issues with the holidays and lab hours. Now that the weather has shifted, and snow is on the ground, we would like to conduct commissioning in mid-December 2024.

Thank you, and have a nice weekend,

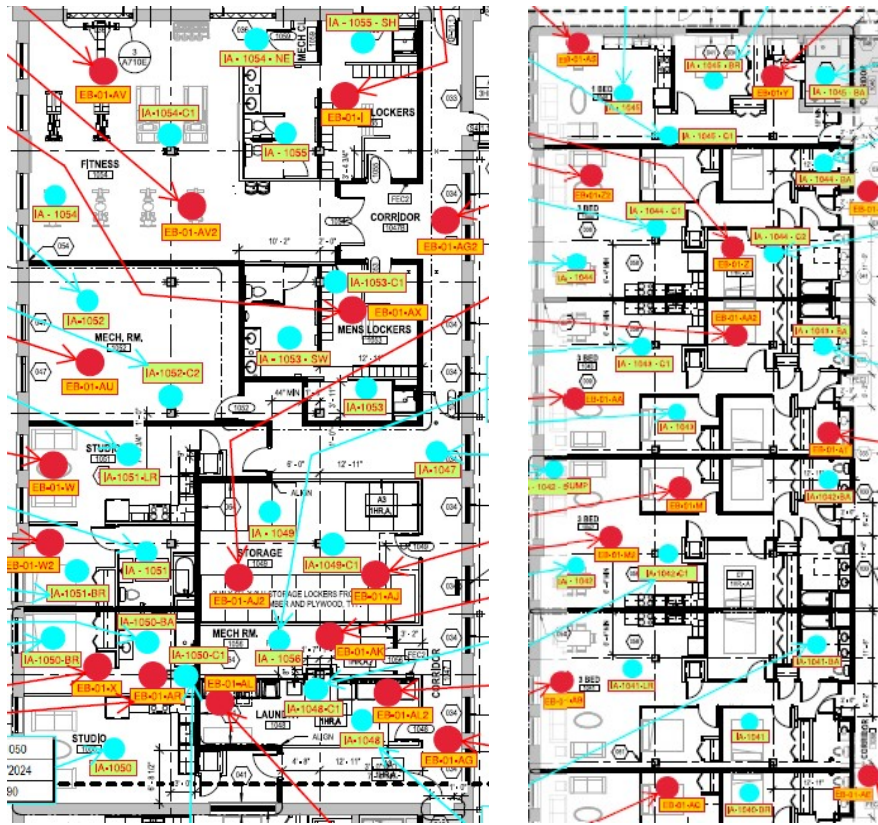
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From: Gray, Jane K - DNR <jane.gray@wisconsin.gov>
Sent: Wednesday, November 20, 2024 4:04 PM
To: Pratap Singh <psingh@ksinghengineering.com>
Cc: Angy Singh <angy.singh@ksinghengineering.com>; Robert Fedorchak <rfedorchak@patrioteng.com>; Kathryn Balachandran <kbalachandran@ksinghengineering.com>; Shane LaFave <Shane@roerscompanies.com>; Que El-Amin <que@scott-crawford.com>; Walden, James E -DNR <jamese.walden@wisconsin.gov>; Mylotta, Pamela A - DNR <Pamela.Mylotta@wisconsin.gov>
Subject: CWC East Block (02-41-263675) - Request for Information

Good afternoon Dr. Singh – On 11/11/24 the DNR received the proposed plan for the next commissioning event (winter) for the subject site and on 11/14/24 the DNR received the commissioning report with a fee documenting the fall commissioning event at the subject site. As outlined in the DNR’s 05/30/24 letter (attached), we request the following information as we continue our technical review of the reports:

- Provide the raw excel files for the comprehensive indoor air data collected to date (both GC and passive sampler data points). This can be emailed to me directly.
 - o The raw Excel file for GC testing was provided to WDNR along with the Report on 11/11/2024 via the Remediation and Redevelopment Program’s online document submission portal. For your convenience, we are resubmitting this information via email. In addition, we have attached the raw Excel files provided by Eurofins Air Toxics as a supplement to the lab report provided in the 3rd Round Commissioning Report.
- Discuss why the fan vacuum measurements were not collected, as was requested in the 05/30/24 letter. If these were collected, provide these in an updated Table 5 or other table.
 - o An updated version of Report Table 5, showing blower vacuum measurements, is included as an attachment to this email.
- Discuss whether any building conditions were manipulated during the passive indoor air sampling events. If so, provide an updated Table 4 highlighting these, as requested in the 05/30/24 letter. If not, indicate why building conditions were not manipulated during the passive sampling events.
 - o Manipulations to building conditions—including turning on fans in kitchens and bedrooms, flushing toilets, opening and closing doors, and running elevators—were performed during discrete indoor air sampling for both Round 3A and Round 3B and are documented in Table 3 of the Report.
 - o During the passive sampling periods for Round 3A and Round 3B, KSingh personnel were onsite periodically to ensure the samplers were intact. As such, the doors to the units and rooms were opened and closed periodically during each 14-day period. Please note that the HVAC was fully operational during the commissioning events which indicates significant air exchange throughout this period.
- Discuss whether the GC samples were collected to assess any specific preferential pathways. If so, provide an updated Table 2 providing this information, as requested in the 05/30/24 letter. If not, discuss why specific preferential pathways were not targeted.
 - o At the request of WDNR in the May 30th letter, KSingh modified the commissioning plan to move passive sampler and GC test locations from the 2nd and 3rd floor to the 1st floor areas of highest concern. For instance, in Unit 1050 which is a studio apartment, there were 4 GC tests and 2 passive samplers. The GC tests included the bathroom, a column, and a test near the wall. There is a high concentration of testing that took place in critical units (example shown below from the 3rd Commissioning Report):



- Further, as documented in Table 3 of the Report, GC samples were collected in bathrooms and showers and at columns, sumps, and elevators, all of which present potential preferential pathways for vapor intrusion. GC samples taken from locations presenting preferential pathways have the following sample ID suffixes:
 - -BA bathroom
 - -SH shower
 - -C1, C2 column
 - -SUMP sump
 - -EL elevator
- Please note that significant sealing efforts and building screening took place prior to Round 3 of Commissioning. As a result, especially in the critical units, there are not nearly as many preferential pathways as there once were. This will be further detailed in the Remedial Action Documentation Report to be submitted soon. We have attached photos of 1054 Fitness Room to give WDNR an idea of the sealing that has taken place. For example, below are before and after pictures of 1054 Fitness Room. It was determined that the brick walls were still a concern, and CWC took extensive measures to have vapor barrier placed throughout the corridor and to have the walls sealed. Please note that the pictures below are progress photos only:



- In our opinion, the level of indoor air quality testing performed during Round 3 is unprecedented, and certainly indicative of the environmental restoration achieved by CWC.
- Provide a figure displaying both the PFE information and the VMS layout with relevant piping, valves, vacuum measurements and discharge points, as requested in the 05/30/24 letter.
 - The requested figure is included as an attachment to this memorandum.

This information can be provided as a standalone submittal to the DNR's RR electronic submittal portal or can be emailed directly to me. Please do not hesitate to reach out if you have any questions concerning this request. To help support the DNR's expedited review of these reports, please provide this requested information as soon as feasible, but by 12/02/24 at the latest. Thank you for your continued work at this site.

Best, Jane

Jane Gray

she/her/hers

Hydrogeologist Program Coordinator - Remediation and Redevelopment Program

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Wisconsin Department of Natural Resources

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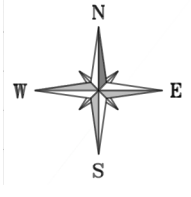
**Table 5. Blower Exhaust Measurements
Commissioning Round 3
Community Within the Corridor - East Block**

Blower No.	Blower Type	Pipe Diameter (in)	Commissioning Round 2 - March 2024				Commissioning Round 3A - August 2024				Commissioning Round 3B - October 2024				
			Velocity (ft/min)	Flow Rate (cfm)	TCE Reading ($\mu\text{g}/\text{m}^3$)	TCE Removal (lbs/week)	Velocity (ft/min)	Flow Rate (cfm)	TCE Reading ($\mu\text{g}/\text{m}^3$)	TCE Removal (lbs/week)	Velocity (ft/min)	Flow Rate (cfm)	Ave. Vacuum on 10/18/2024 [†] (in. H ₂ O)	TCE Reading ($\mu\text{g}/\text{m}^3$)	TCE Removal (lbs/week)
Blower 1	GBR 123	4	1,988	173	0.900	0.00098	4,174	364	5.12	0.0012	3,071	268	-8.084	1.81	0.00031
Blower 2	GBR 123	4	2,540	222	10.1	0.0014	4,469	390	14.7	0.0036	2,756	241	-9.043	14.6	0.0022
Blower 2A	GBR 123	4	1,969	172	12.3	0.0013	4,451	388	14.4	0.0035	3,563	311	-9.089	22.7	0.0044
Blower 3	Fliteway	6	4,003	786	2.60	0.0013	4,154	816	7.56	0.0039	3,859	758	-12.635	2.52	0.0012
Blower 4													-5.558		
Blower 5	GBR 123	4	5,158	450	320	0.091	4,193	366	462	0.11	4,292	375	-14.118	661	0.16
Blower 6	GBR 89	4	2,944	257	1.70	0.00027	3,354	293	1.62	0.00030	3,004	262	-4.553	0.630	0.00010
Blower 7	GBR 89	4	2,164	189	9.90	0.0012	3,237	282	12.5	0.0022	2,808	245	-5.185	11.2	0.0017
Blower 8*	GBR 89 (3A)	4	1,700	148	13.7	0.0013	2,824	246	22.6	0.0035	---	---	---	---	---
	GBR 123 (3B)	4	---	---	---	---	---	---	---	---	3,913	341	-11.327	35.5	0.0076
Blower 9	GBR 89	4	2,197	192	64.2	0.0077	2,848	249	67.7	0.011	2,504	219	-4.823	142	0.019
Blower 10	GBR 123	4	5,197	454	565	0.16	3,893	340	1175	0.25	4,114	359	-15.486	2,810	0.63
Blower 11	GBR 89	4	2,697	235	55.6	0.0082	4,174	364	27.9	0.0064	3,799	332	-4.212	54.2	0.011
Totals			---	3,278	---	0.27	---	4,098	---	0.39	---	3,709	---	---	0.84

NOTE:

*Blower 8 was a GBR 89 during Round 3A and replaced with a GBR 123 prior to Round 3B.

[†]The remote telemetry for the VMS came online between Round 3A and Round 3B. Blower vacuum data are available for Round 3B onward.



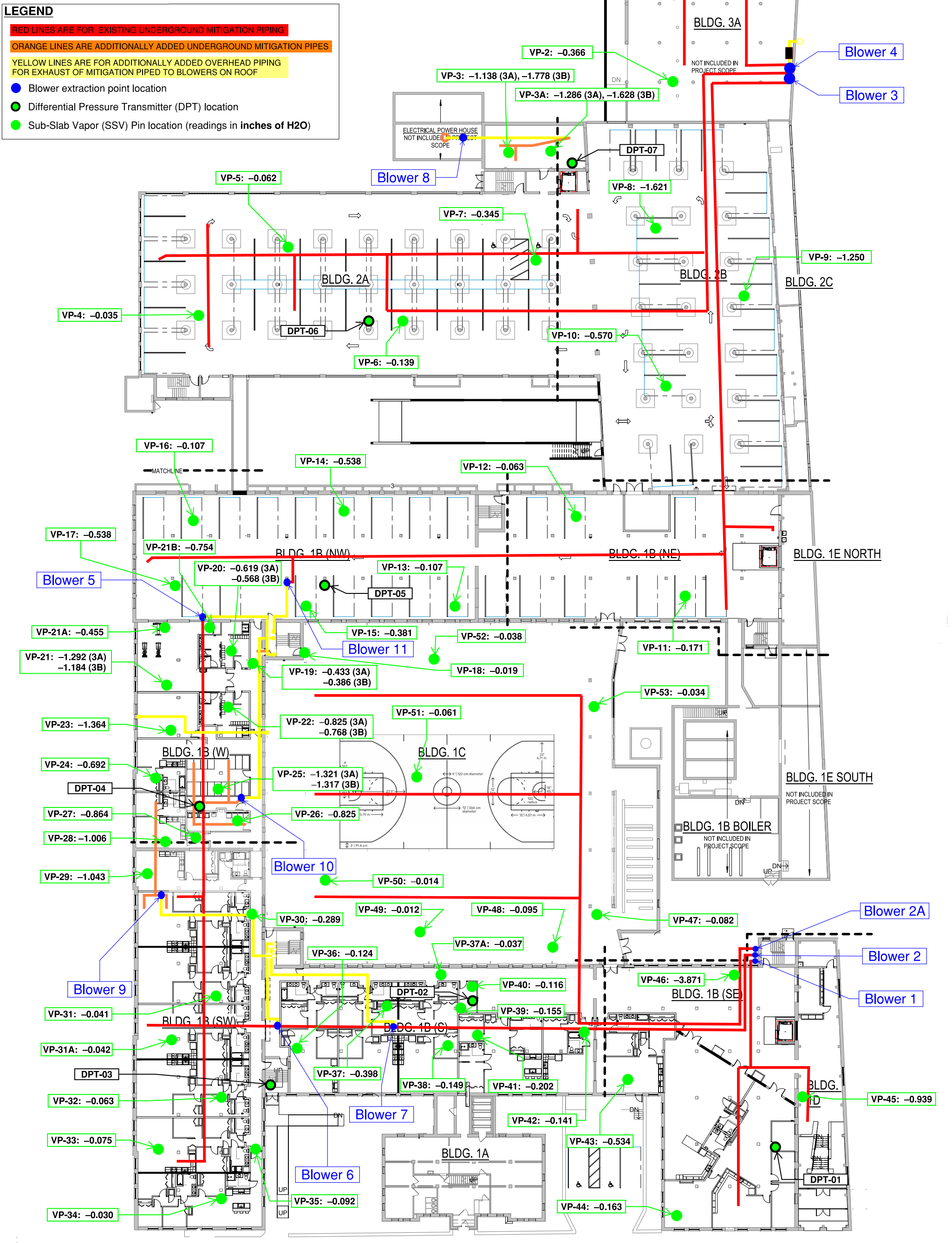
Community Within the Corridor - East Block

Ground Level Map showing VMS Layout and SSV Pins

3rd Round of Commissioning

LEGEND

- RED LINES ARE FOR EXISTING UNDERGROUND MITIGATION PIPING
- ORANGE LINES ARE ADDITIONALLY ADDED UNDERGROUND MITIGATION PIPES
- YELLOW LINES ARE FOR ADDITIONALLY ADDED OVERHEAD PIPING FOR EXHAUST OF MITIGATION PIPED TO BLOWERS ON ROOF
- Blue circle: Blower extraction point location
- Green circle: Differential Pressure Transmitter (DPT) location
- Red circle: Sub-Slab Vapor (SSV) Pin location (readings in inches of H₂O)



VAPOR MITIGATION SYSTEM COMMISSIONING – NR 712.09 CERTIFICATIONS
THIRD ROUND OF COMMISSIONING

COMMUNITY WITHIN THE CORRIDOR – EAST BLOCK
2748 N. 32ND STREET
CITY OF MILWAUKEE
MILWAUKEE COUNTY, WISCONSIN

NOVEMBER 22, 2024

This report was prepared by: Kathryn Balachandran, Ph.D. Date: November 22, 2024
Project Engineer
K. Singh & Associates, Inc.

This report was reviewed by: Robert T. Reineke, P.E. Date: November 22, 2024
Senior Engineer, P.E. #32737 – 006
K. Singh & Associates, Inc.

“I, Robert T. Reineke, hereby certify that I am a registered Professional Engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.”

I certify that the interim action meets or exceeds all design criteria and the plans and specifications developed in accordance with all of the requirements of chapter NR 724, Wis. Adm. Code.

Robert T. Reineke
