NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5353 I F: (585) 226-8139
www.dec.ny.gov

November 8, 2018

Dennis P. Maguire
95 Mt. Read Blvd, LLC
770 Rock Beach Road
Rochester, NY 14617

Dear Mr. Maguire:

Re: Supplemental Design Plan – SVI Corrective Measures; November 6, 2018
General Circuits, Inc. Site #828085
City of Rochester, Monroe County

The New York State Departments of Environmental Conservation (NYSDEC) and Health (the Departments) have completed their review of the document entitled *"Supplemental Design Plan – SVI Corrective Measures"* (the Work Plan), dated November 6, 2018 and prepared by Day Engineering, P.C. for the General Circuits, Inc. site in the City of Rochester, Monroe County. In accordance with 6 NYCRR Part 375-1.6, the Departments have determined that the Work Plan, with modifications and clarifications, substantially addresses the requirements of the Order on Consent. The modifications are outlined as follows:

1. Post-construction outdoor air samples will be collected from two locations; one location in the parking lot, just south of the fresh air intake, and a second location on the roof nearest the fresh air intake.
2. The positive pressure system will be labeled to identify it as part of a soil vapor intrusion mitigation system.
3. The Work Plan will be completed in accordance with the revised schedule dated May 22, 2018 and all associated revisions and conditions included in NYSDEC's June 5, 2018 email approval (enclosed).

With the understanding that the above noted modifications are agreed to, the Work Plan is hereby approved. If you choose not to accept these modifications, you are required to notify this office within 20 days after receipt of this letter and prior to the start of field activities. In this event, I suggest a meeting be scheduled to discuss your concerns prior to the end of this 20-day period.

Please notify me at least 7 days in advance of the start of field activities.

Thank you for your cooperation in this matter and please contact me at (585) 226-5357 if you have any questions regarding these comments.

Sincerely,

Frank Sowers

Frank Sowers, P.E.
Professional Engineer 1

Enclosure

ec: w/encl.

B. Schilling	D. Loew	S. Berninger
J. Deming	P. Sylvestri	B. Kline
W. Silkworth	S. Karpinski	M. Cruden

From:	Sowers, Frank (DEC)
To:	Barton Kline
Cc:	Berninger, Steven G (HEALTH); Dennis Maguire; Schilling, Bernette (DEC); Loew, Dudley D (DEC)
Subject:	RE: 95 Mt Read SVI Work Schedule
Date:	Tuesday, June 05, 2018 5:19:00 PM
Attachments:	Figure 6 Schedule 5-22-18.pdf

Bart,

The revised schedule dated May 22, 2018 (attached) is approved with the following conditions/clarifications:

AOC#2 (BASEMENT) ACTIVITIES

- The AOC #2 Supplemental Design Report (AOC #2 work plan) will be submitted to NYSDEC and NYSDOH by August 21, 2018;
- NYSDEC does not commit to approving the AOC #2 work plan within 30 days of submittal.
- Once the AOC #2 Supplemental Design Report is approved:
  - Equipment Procurement will be completed within 6 weeks of AOC #2 work plan approval;
  - Ventilation Equipment Installation will be completed within 10 weeks of AOC #2 work plan approval; and
  - Start-up testing and pressure monitoring will be completed within 14 weeks of AOC #2 work plan approval.

INDOOR AIR TESTING

- The Indoor Air Sample Collection Task also includes soil vapor intrusion samples in AOC #1, as needed.
- A building inventory and preliminary indoor air and soil vapor intrusion sampling for AOC #1 will be completed by February 15, 2019 regardless of the status of AOC #2 mitigation system. If construction of the AOC #2 mitigation system is delayed beyond the dates in the attached schedule, then additional indoor air and soil vapor intrusion sampling will be completed, as needed, in accordance with the schedule in the approved Corrective Measures Design Plan.

OTHER

- NYSDEC will be notified in advance of the work schedule for all field work.
- Day Engineering will be on-site to supervise all field activities associated with the approved work plans.

Please let me know if you have any questions.

Frank Sowers, P.E.
Professional Engineer 1, Division of Environmental Remediation

New York State Department of Environmental Conservation

6274 East Avon-Lima Rd, Avon, NY 14414
P: (585) 226-5357 | F: (585) 226-8139 | frank.sowers@dec.ny.gov

www.dec.ny.gov | |

From: Barton Kline [mailto:BKline@daymail.net]
Sent: Tuesday, May 22, 2018 2:44 PM
To: Sowers, Frank (DEC) <frank.sowers@dec.ny.gov>
Subject: 95 Mt Read SVI Work Schedule

Frank –

As per our discussion last week, I reviewed the work schedule and was able to adjust the basement work schedule as per your request (see attached).

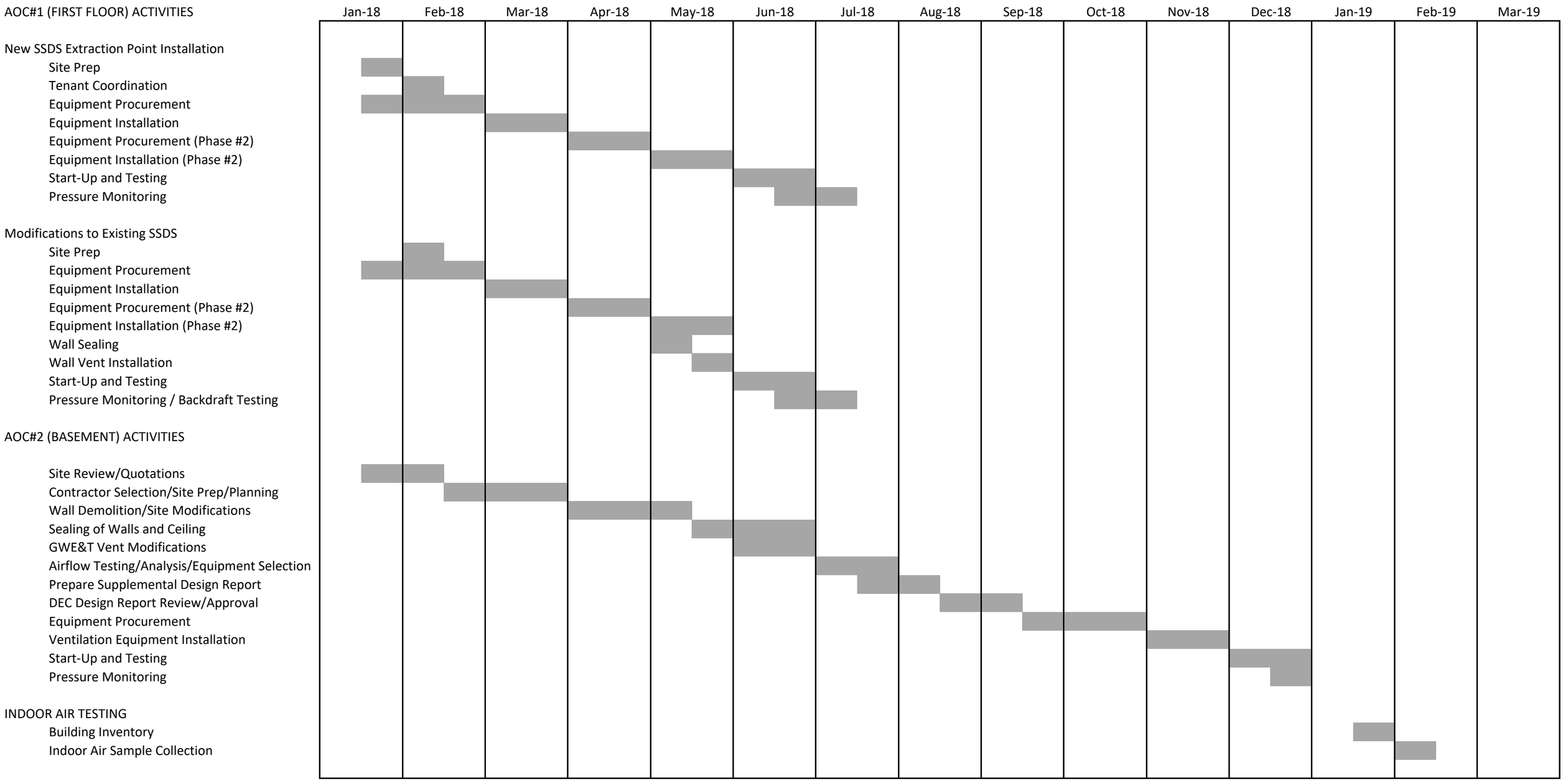
Also, SVI ductwork installation is tentatively scheduled for this Friday to connect the new SSDS suction pit risers to the rooftop fans. I will email you later this week to confirm the date and provide the time that work will be starting.

Thanks,
Bart

Barton F. Kline, P.E.
Day Environmental, Inc.
1563 Lyell Avenue
Rochester, New York 14606
Phone: (585) 454-0210 ext:106
Fax: (585) 454-0825

FIGURE 6 (revised 5/22/18)

SVI MITIGATION WORK SCHEDULE



day
DAY ENGINEERING, P.C.

ENVIRONMENTAL ENGINEERING CONSULTANTS
AN AFFILIATE OF DAY ENVIRONMENTAL, INC.

November 6, 2018

Mr. Frank Sowers, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
Avon, New York 14414-8519

RE: Supplemental Design Plan - SVI Corrective Measures
General Circuits, Inc. Site #828085
Site Index #B8-0701-05-08
95 Mount Read Boulevard, Rochester, New York

Dear Mr. Sowers:

Day Engineering, P.C. (DAY) is submitting this Supplemental Design Plan (SDP) on behalf of 95 Mt. Read Blvd., LLC (Client). This SDP describes the proposed activities to complete the soil vapor intrusion (SVI) mitigation work described in the SVI Corrective Measures Design Plan (November 2017) for the former General Circuits, Inc. site located at 95 Mt. Read Blvd., Rochester, New York (Site).

The SVI Corrective Measures Design Plan (November 2017) provides a summary of the pre-mitigation site characterization and the mitigation measures completed to date, and proposes additional SVI work activities intended to increase the effectiveness of the Site SVI mitigation measures.

AOC #1 (first floor) proposed modifications included expanding the existing sub-slab depressurization system (SSDS) radius of influence and coverage area by increasing suction pressures on the existing SSDS extraction points, and by installing seven additional SSDS extraction points. This work has been completed.

AOC #2 (basement) mitigation was proposed to be accomplished through positive pressure ventilation. It was proposed that the existing basement rooms would be sealed to facilitate this positive pressure system, following which HVAC testing would be performed to identify the airflow requirements necessary to provide positive pressure to this area. The results of this testing were then to be used to develop a supplemental design plan for NYSDEC review and approval prior to installing the positive pressure ventilation system.

The above-referenced HVAC testing has been completed, and the following observations and data were noted as a result of the positive pressure ventilation system testing:

- Basement differential pressures of 0.056 in. w.g. (400 CFM air supply) and 0.033 in. w.g. (300 CFM air supply) relative to ambient air pressure outside of the sealed basement area were induced using a test fan. The groundwater treatment equipment exhaust fan was running during the testing process.

- Monitoring of differential pressure across the floor slab was not possible due to high groundwater conditions (a test port was drilled in the floor, but water was encountered that rose above the bottom of the slab).

- Since monitoring of indoor air pressure relative to sub-slab pressure was not possible, test ports were installed through the concrete block walls on the north and west sides of the basement (i.e. beneath active tenant space areas) for monitoring of differential pressure. Test ports were installed approximately half-way up each wall (4.5 to 5 feet off floor) at the locations shown in Figure 1.

- Monitoring pressure differential across the walls indicate that the walls appear to be relatively air tight, with differential pressure readings across the north wall (12 to 15% loss) and west wall (4 to 9% loss) being only slightly reduced from the differential pressure readings relative to ambient air pressure outside of the sealed basement area.

- The groundwater treatment equipment exhaust fan, when running alone (i.e. without test air supply fan on, and running at an estimated 100 to 150 CFM), induced a minimum differential pressure of 0.012 in. w.g. across the vented groundwater treatment equipment.

Based on the results of the positive pressure test activities described above, it is proposed as a part of this SDP to install a supply make-up air source at the west end of the sealed and enclosed basement area, as shown in Figure 1. Outdoor air will be used for the air supply, and a Fantech FR150 vent fan (see attached cut sheet) will be installed with a variable speed control to provide up to 240 CFM @ 0.015 in. w.g. A variable speed control will also be installed on the existing groundwater treatment equipment exhaust fan, to enable the exhaust rate to be varied in conjunction with the fresh air supply rate.

It is intended to set the variable speed controls at systems start-up to induce differential pressures of up to 0.010 in. w.g across the concrete block walls and groundwater treatment equipment, and above the SSDS minimum design standard of 0.002 in. w.g. This design is anticipated to: (i) provide adequate positive air pressure to mitigate potential soil vapor intrusion within the basement area; (ii) maintain adequate exhaust ventilation of the groundwater treatment equipment; (iii) avoid potential for significantly pressurizing sub-slab areas beneath the adjacent first floor tenant spaces; and (iv) minimize the impact of the make-up air system upon building energy use for basement heating purposes.

The make-up air supply will not be conditioned (heated or cooled). As the basement is an unoccupied space, currently utilized solely for the automated operation of the groundwater treatment system, tenant comfort is not a concern, and the basement merely needs to be maintained at a minimum temperature of 40 degrees F to prevent freezing of the water pipes and treatment system (temperature will typically be maintained above 40 degrees F, but this is the primary heating design constraint). The anticipated make-up air supply rate of 200 CFM, at an assumed worst-case winter temperature of -10 degrees F, would introduce a maximum heating load of approximately 11,000 BTUh to maintain a minimum basement air temperature of 40 degrees F. Due to the heated space above and the belowground location, the basement currently has minimal to no heating demand to maintain 40 degrees F. As such, incorporating a conservative safety factor, a heating system with a total design

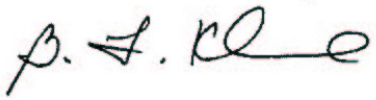
capacity of 15,000 to 20,000 BTUh is recommended for this space to meet the minimum design temperature criteria following installation of the make-up air supply. The basement's existing Modine HS47 steam/hot water unit heater, with a rated hot water heating capacity of 31,000 BTUh, has more than sufficient capacity to satisfy the above-mentioned total basement heating requirement.

Following completion and start-up of the positive pressure ventilation system, the positive pressure induced by this system will be monitored by measuring the differential pressure across the walls at the existing test point locations (see Figure 1). The effectiveness of the system will be further evaluated by indoor air monitoring as specified in the SVI Corrective Measures Design Plan (November 2017). Indoor air monitoring will be completed following installation and start-up of the positive pressure ventilation system, and will include monitoring of representative air samples collected from the basement indoor air and the background/make-up air supply.

Due to the low indoor air pressure generated by the positive pressure system, mechanical pressure gauges similar to those installed on the first floor SSDS fans cannot be used as local indicators in the basement. In lieu of a local indicating gauge, a current-sensing relay will be used to monitor the positive pressure fan operation, and an alarm light will be triggered if the fan ceases operation. Although the basement is unoccupied, this alarm will notify anyone entering the basement of the failed positive pressure system condition. To supplement the alarm system, handheld instrumentation will be used to obtain fan/basement area pressure readings as a part of periodic monitoring of the positive pressure ventilation system, consistent with the current SSDS monitoring program. The Interim Site Management Plan will be updated accordingly upon completion of systems installation, start-up and testing.

If there are any questions, please contact this office.

Very truly,
Day Engineering, P.C.



Barton F. Kline, P.E.
Associate

Attachments:

Engineering Certification
Figure 1: Basement Ventilation Plan
Cut Sheet: Fantech FR Series Inline Fan

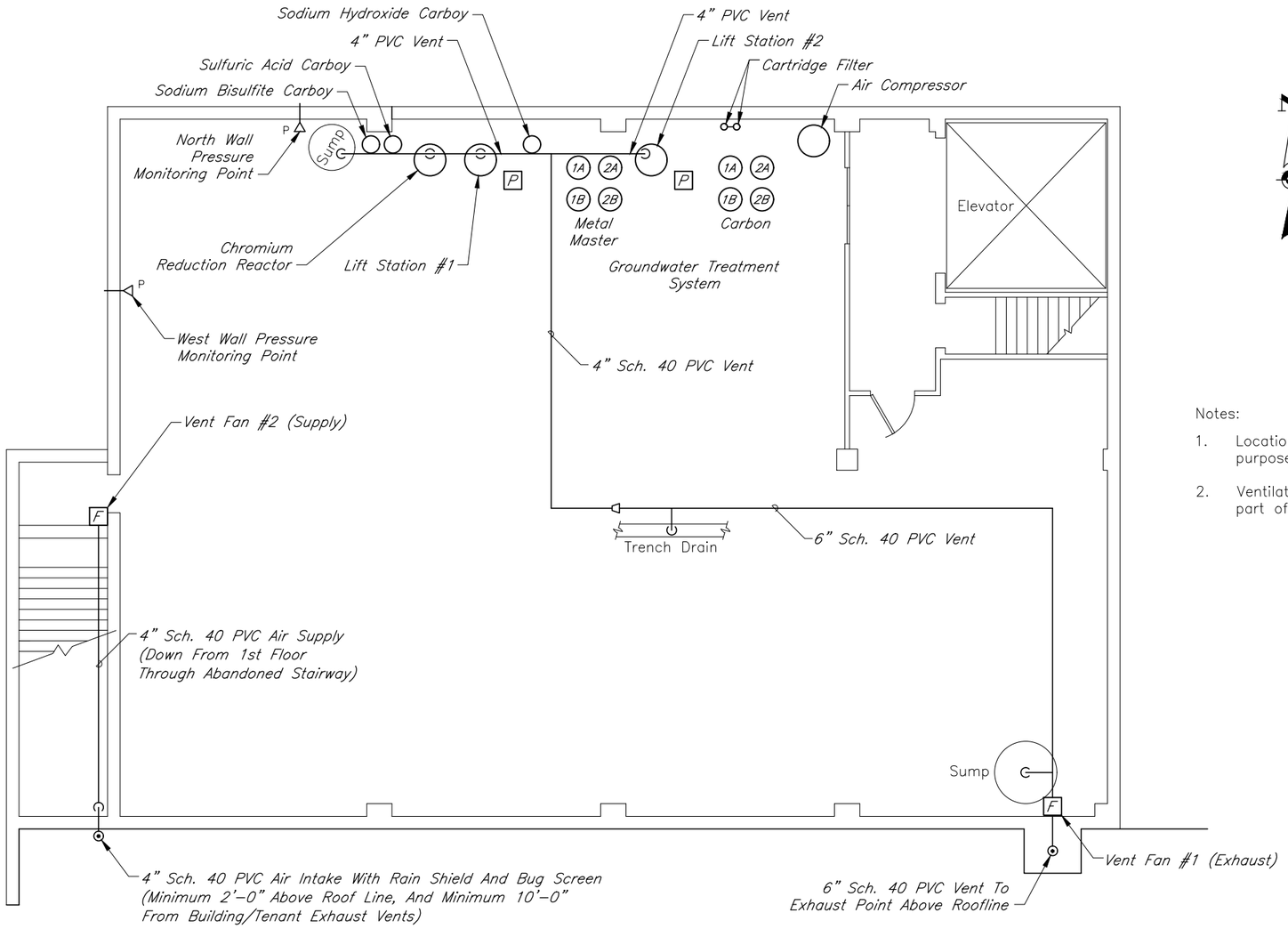
BFK4515.2 / 3681R

CERTIFICATION STATEMENT

I, Barton F Kline, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this *Supplemental Design Plan - SVI Corrective Measures* was prepared in accordance with applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10), and that all activities were performed in accordance with the DER-approved work plan and any DER-approved modifications.

B. F. Kline P.E.

November 6, 2018 DATE



BASEMENT
PLAN VIEW
3/32" = 1'-0"

N

Notes:

1. Locations shown are approximate and are shown for informational purposes only.
2. Ventilation piping and equipment shall be labeled to identify it as part of a soil vapor intrusion mitigation system.

FIELD VERIFIED BY: BFK	DATE: 7-2018	DRAWN BY: RJM/Tw	DATE DRAWN: 7-27-2018
SCALE: As Noted	DATE ISSUED: 9-21-2018		

DAY ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERING CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
95 MT. READ BOULEVARD
ROCHESTER, NEW YORK

SITE MANAGEMENT PLAN

DRAWING TITLE
Basement Ventilation Plan

PROJECT NO.
3681R-05

FIGURE 1

Fantech

AUGUST 2007

FR SERIES
INLINE EXHAUST FANS

Fantech's versatile FR Series Inline Fans provide the ideal answer for a variety of air movement problems in residential and commercial applications. The fans feature a plastic housing constructed of UL-recognized, UV protected thermoplastic resin. This tough protective shell allows the fan to be mounted in outdoor and wet locations*. FR fans feature external rotor motors that have proven dependable year after year. Fan is fully caulked to prevent moisture from entering the housing.

Applications

FR fans can be used for multiple point exhaust applications, crawl space venting or make-up air supply. They are also widely used as booster fans to move air from one room or area to another.

ENERGY STAR

Look for the Energy Star Rated Models in Performance Data Chart on back page

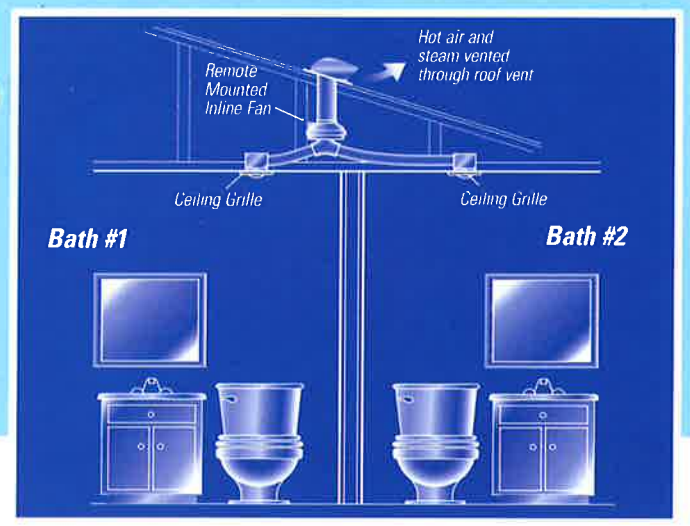
c UL us

C SP US

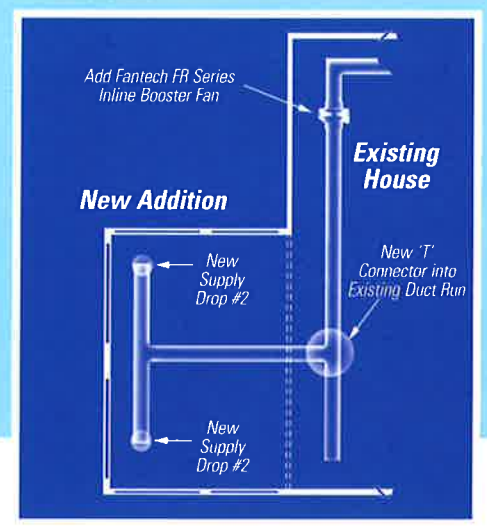
2100 HVI CERTIFIED

FIVE YEAR WARRANTY

DUAL BATH APPLICATIONS - COMMERCIAL OR RESIDENTIAL



NEW ADDITION



EASY TO INSTALL.
LOADED WITH FEATURES:

- Prewired and supplied with a mounting bracket for easy installation
- UL Listed; CSA Certified
- Approved for residential and commercial applications and for wet locations
- Suitable for airstream temperatures up to 140° F
- Easy connection using external wiring box with waterproof gasket
- 122-649 CFM
- 4" to 10" duct diameters
- 100% speed controllable
- Five-year factory warranty

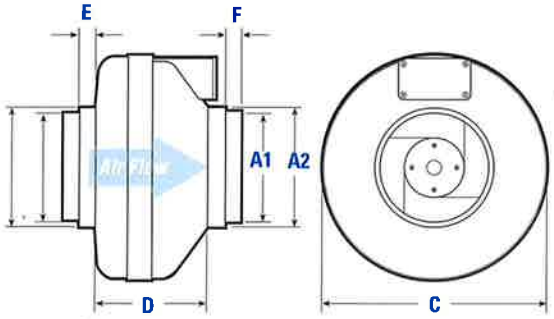
Fantech external rotor motor

** The FR Series is not manufactured to operate with water running through the motor compartment, or to be used in applications where the fan would be buried underground. A UL-recognized waterproof conduit should be used for all outdoor applications to prevent moisture entry via knockout in wiring box.*

FR SERIES

INLINE EXHAUST FANS

DIMENSIONAL DATA



Model	†A1	A2	C	D	E	F
FR 100	4	5	9½	6⅛	⅞	⅞
FR 110	4	5	9½	6⅛	⅞	⅞
FR 125	–	5	9½	6⅛	⅞	–
FR 140	6	6¼	11¾	5⅞	1	⅞
FR 150	6	6¼	11¾	5⅞	1	⅞
FR 160	6	6¼	11¾	5⅞	1	⅞
FR 200	8	10	13¼	6¼	1½	1½
FR 225	8	10	13¼	6¼	1½	1½
FR 250	–	10	13¼	6¼	1½	–

All dimensions in inches.
† Duct connections are ⅛" smaller than duct size.

FIVE YEAR WARRANTY

2100 HVI CERTIFIED

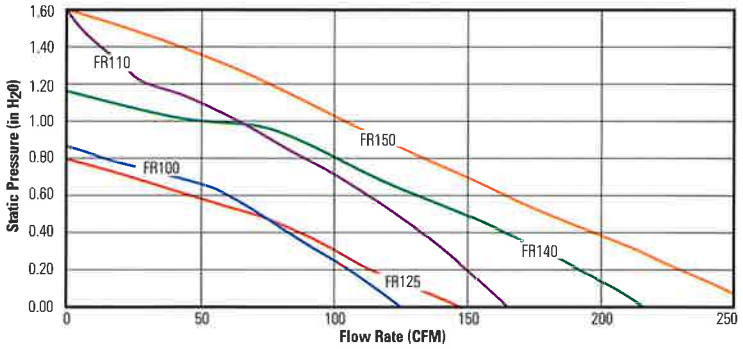
c UL us

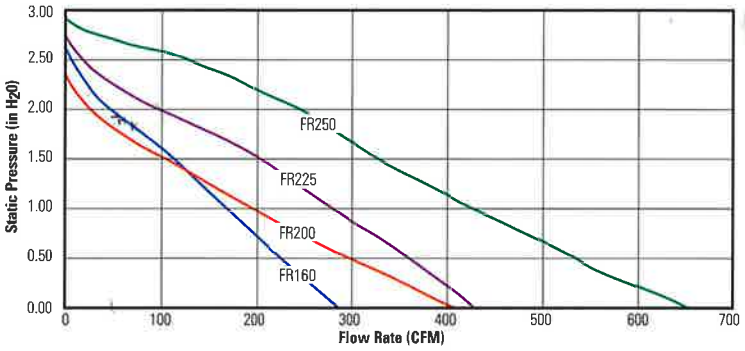
c SA us

ENERGY STAR

Look for the Energy Star Rated Models in Performance Data Chart.

AIR PERFORMANCE GRAPHS





PERFORMANCE DATA

Fan Model	Energy Star	RPM	Voltage	Rated Watts	Wattage Range	Max. Amps	Static Pressure in Inches W.G. 0"	.2"	.4"	.6"	.8"	1.0"	1.5"	Max. Ps	Duct Dia.
FR 100	✔	2900	115	19	13 – 19	0.18	122	100	78	55	15	—	—	0.87"	4"
FR 110	—	2900	115	80	62 – 80	0.72	167	150	133	113	88	63	4	1.60"	4"
FR 125	✔	2950	115	18	15 – 18	0.18	148	120	88	47	—	—	—	0.79"	5"
FR 140	✔	2850	115	61	47 – 62	0.53	214	190	162	132	99	46	—	1.15"	6"
FR 150	✔	2750	120	71	54 – 72	0.67	263	230	198	167	136	106	17	1.58"	6"
FR 160	✔	2750	115	129	103 – 130	1.14	289	260	233	206	179	154	89	2.32"	6"
FR 200	✔	2750	115	122	106 – 128	1.11	408	360	308	259	213	173	72	2.14"	8"
FR 225	✔	3100	115	137	111 – 152	1.35	429	400	366	332	297	260	168	2.48"	8"
FR 250	✔	2850	115	241	146 – 248	2.40	649	600	553	506	454	403	294	2.58"	10"

Performance shown is for installation type D - Ducted inlet, Ducted outlet. Speed (RPM) shown is nominal. Performance is based on actual speed of test.
Performance ratings do not include the effects of appurtenances in the airstream.

Fantech
United States 1712 Northgate Blvd. • Sarasota, FL. 34234 • 1.800.747.1762 • www.fantech.net
Canada 50 Kanalflakt Way • Bouctouche, NB E4S 3M5 • 1.800.565.3548 • www.fantech.ca

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