



April 16, 2018

WAYNE FASSBENDER  
ENVIROFORENSICS, LLC  
N16W23390 STONE RIDGE DRIVE, SUITE G  
WAUKESHA, WI 53188

SUBJECT: Approval of Change Order #6 for Vapor Mitigation System  
Dutch Cleaners, 403 S. Main Street, Cedar Grove, Wisconsin  
WDNR BRRTS # 02-60-271527

Dear Mr. Fassbender:

Your change order #6 for the Dutch Cleaners site located at 403 S Main Street, Cedar Grove(Site) is approved. The Wisconsin Department of Natural Resources (Department) received your request titled *Project Progress Update and Request for Change Order for Vapor Mitigation System Installation* dated March 23, 2018 (March 2018 Report) prepared by EnviroForensics, LLC (EnviroForensics) for the above-referenced site. The March 2018 Report requested a change order for the installation of a sub-slab depressurization system (SSDS) and a sub-membrane depressurization system (SMDS) in the Site building.

The Department approves of the change order requested as outlined in the March 2018 Report.

The work proposed for this change order includes:

- Installation of a SSDS consisting of one sub-slab extraction point connected with conveyance piping to a RadonAway RP 265 fan (or similar) and vented a minimum of 2 feet above the building roofline. The proposed SSDS layout is shown on Figure 1.
  - Soil will be removed from beneath the floor slab at the extraction point to increase the connectivity to the subsurface. Soil will be containerized in drums, sampled and properly disposed of.
  - Visible cracks in the floor slab will be sealed and a U-tube manometer will be installed to indicated operating vacuum.
  - The extraction fan will be mounted to the outside of the building, hardwired to a separate circuit breaker, and installed with its own dedicated switch.
- Installation of a SMDS to mitigate potential vapors within the western and southern crawl spaces. The proposed SMDS layout is shown on Figure 1.
  - The western crawl space soils will be sealed off with plastic sheeting and polyurethane caulk. Perforated piping will be installed beneath the plastic sheeting and used as a depressurization point. That piping will be connected to conveyance piping and routed to a RadonAway RP 380 fan (or similar) mounted near the blower for the SSDS and exhausted above the roofline.
  - The entire cavity of the southern crawl space will be vented by using plastic sheeting to cover the entrance. The plastic sheeting will be bonded to create a seal using

polyurethane caulk. Conveyance piping will be used and connected to the same blower as the western crawl space.

- Pressure field extension testing of the SSDS will be performed following installation and startup. Additional pressure field extension tests will be performed four and eight months after startup. During the final pressure field extension test (i.e., 8 months after startup) an indoor air vapor intrusion (VI) assessment will be performed during the winter to evaluate VI conditions during mitigation.
- The SMDS will be inspected for suction across the sheeting surface upon startup. Prior to final sealing of the SMDS, a smoke test will be completed to test the integrity of the cavity vent system. This will include a basement and first floor inspection for smoke during the test to identify potential compromises in the cavity vent system.

Costs approved for change order #6 is \$13,880.60 for consulting and \$10,967.00 for subcontractors for a total of \$24,847.60. The approved cost for site investigation thus far is \$130,876.60 plus interim action costs of \$27,434.80. The total costs approved to date for this site is \$158,311.40.


Please be aware that you are required to comply with all applicable statutes and administrative rules including the NR 700 series, Wisconsin Administrative Code, hazardous waste management and wastewater discharges.

Please note that this change order in itself does not assure that all costs submitted for reimbursement by DERF will be approved. All incurred costs are subject to the eligibility requirements listed under s. NR 169.13(2), Eligible Costs, and will be reviewed for compliance. All other requirements for investigation and remediation of the release as well as DERF requirements also apply.

This change order approval will be filed and reviewed with any future DERF reimbursement requests.

If you have any questions regarding the content of this letter, please contact me at 920-424-7077 or [richard.joslin@wisconsin.gov](mailto:richard.joslin@wisconsin.gov).

Sincerely,

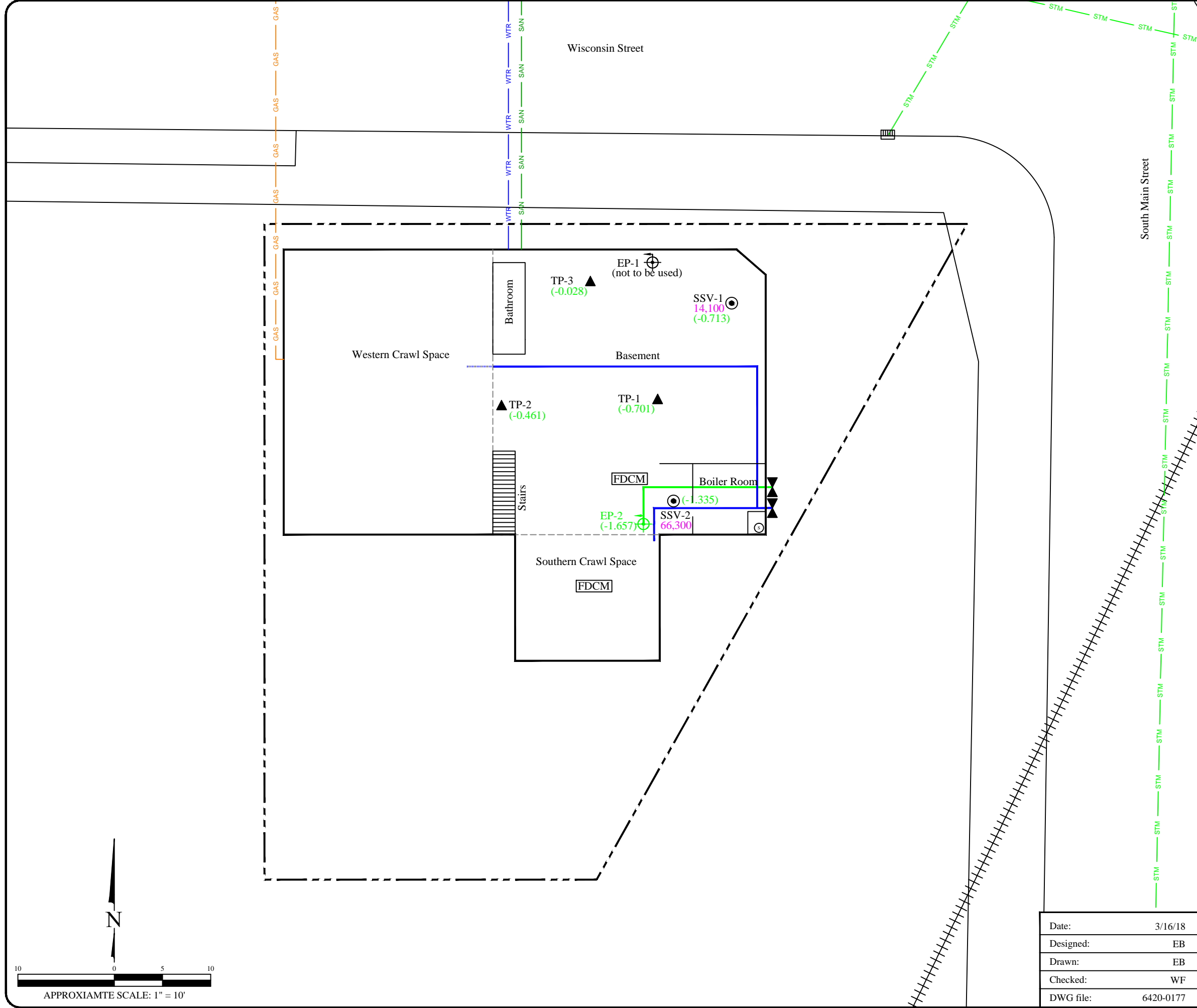


Richard R. Joslin  
Hydrogeologist  
Remediation and Redevelopment Program

Enclosures:

Figure 1 – Proposed Vapor Mitigation System Layout, March 16, 2018

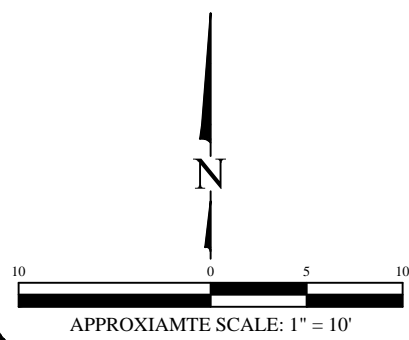
cc: Jere Ebbers (email only – [ebbyjer@yahoo.com](mailto:ebbyjer@yahoo.com))  
Tom and Marilyn Berlin (email only – [tberlin@woodenwashtub.net](mailto:tberlin@woodenwashtub.net))  
DERF Fund Manager – CF/2, GEF 2, Madison



### Legend

- Property boundary
- GAS Underground gas utility line
- WTR Underground water utility line
- SAN Underground sanitary utility line
- STM Underground storm utility line
- Catch Basin
- Manhole
- Sump
- FDCM Former dry cleaning machine location
- SSV-1 Sub-slab vapor sample
- EP-1 Extraction point
- Mitigation Fan
- TP 1 Test Point
- Sub-Slab Depressurization Piping
- Crawl Space Vent Piping
- Open vent/Slotted PVC pipe
- (-0.50) Pressure influence from SVE system, in inches of water (in H<sub>2</sub>O)
- 0.50 PCE concentrations in vapor sample (μg/m<sup>3</sup>)

- Note:
1. Units reported in micrograms per meter cubed = μg/m<sup>3</sup>
  2. PCE = Tetrachloroethene
  3. Samples analyzed using for VOCs using US EPA SW-846 Method 8260
  4. Final piping and fan placement subject to field conditions.



### PROPOSED VAPOR MITIGATION SYSTEM LAYOUT

Former Dutch Cleaners  
 403 South Main Street  
 Cedar Grove, Wisconsin

Date:	3/16/18
Designed:	EB
Drawn:	EB
Checked:	WF
DWG file:	6420-0177



825 North Capitol Avenue • Indianapolis, IN 46204  
 EnviroForensics.com

Figure	1
Project	6420