ANNUAL SITE MANAGEMENT REPORT
(PERIODIC REVIEW REPORT)

Parkview Commons Site

436 East 161st Street

Borough of Bronx, New York

NYSDEC BCP Site: C203014

June 2016

ESI File: LB03027.72

Prepared By:

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24 Davis Avenue
Poughkeepsie, New York 12603

Prepared For:

BX Parkview Associates, LLC
1865 Palmer Avenue, Suite 203
Larchmont, New York 10538

The undersigned has reviewed this Annual Site Management Report and certifies to BX Parkview Associates, LLC and to the New York State Department of Environmental Conservation (NYSDEC) that the information provided in this document is accurate as of the date of issuance by this office.

The undersigned is a Qualified Environmental Professional as defined by 6NYCRR Part 375-1.2 (aj) and supporting documents. The undersigned possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding the presence of releases or threatened releases to the surface or subsurface of the site or off-site areas, sufficient to meet the objectives and performance factors for the areas of practice identified by this guidance.

Paul H. Ciminello	June 27, 2016	
Qualified Environmental Professional	Date	Signature

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APPENDICES

1.0 INTRODUCTION

1.1 Purpose

This Annual Site Management Report (Report) details on-going site management activities at the Parkview Commons Site, which entered the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) in May 2004 (BCP ID: C203014). The Site is located at 436 East 161st Street, Borough of Bronx, New York. The Site location is shown on Figure 1, Appendix A. This report constitutes as a Periodic Review Report.

1.2 Site Description

The Site is an irregularly-shaped, 0.67-acre parcel, which has 150 feet of frontage on the southern side of East 161st Street, 164 feet of frontage on the western side of Elton Avenue, and 200 feet of frontage on the northern side of East 160st. The Site has been developed as a mixed-use residential/commercial complex. The Site layout is shown on Figure 2, Appendix A.

2.0 BACKGROUND

2.1 Site History

The Site formerly consisted, in part, of a gasoline station/automobile repair shop. The gasoline station/automobile repair shop operated on the northeastern portion of the property from 1951 until at least 1979 and was demolished in 2004. In addition, several single-family residences, mixed residential and commercial structures, and multi-family residences were present on-site from the late 1800s until the late 1990s. The Site has been re-developed and now contains a nine-story, mixed-use residential/commercial structure.

2.2 Prior Investigations and Remediation Activities

2.2.1 Prior Investigations

Potential contamination associated with historical Site usage was identified in the Ecosystems Strategies Inc. (ESI) Phase I Environmental Site Assessment, dated May 2003. A subsequent Phase II Environmental Site Assessment and Draft Remedial Action Workplan, dated October 2004, documented the extension of soil borings and test pits, and the results of a geophysical survey. Low-level petroleum contamination was identified in the vicinity of multiple underground storage tanks (USTs) and spill number 0407340 was reported to NYSDEC. A Tank Closure Site Assessment and Spill Closure Report (TCSA), issued by ESI in January 2005, documented the removal of ten, 550-gallon USTs from the Site. Based on an absence of significant residual petroleum contamination, and the likely future development scenario (which included the building footprint as a proposed cap), the spill event was closed on January 26, 2005.

A Remedial Investigation Report and Remedial Action Workplan (RIR/RAWP), issued by ESI in May 2005, identified elevated levels of polycyclic aromatic hydrocarbons (PAHs) in test pits extended in the southwestern portion of the Site (consistent with previous characterizations of on-site fill material). Soil gas samples collected throughout the Site indicated the presence of elevated levels of volatile organic compounds (VOCs), including both gasoline related compounds and chlorinated solvents.

Remedial activities and response actions specified in the RIR/RAWP are documented in the Final Engineering Report of Remedial Services (FER), issued by ESI in October 2006. Remediation activities are summarized in Section 2.2.2, below.

2.2.2 Remediation Activities

The following activities were conducted as part of the implementation of the NYSDEC approved RIR/RAWP:

- Excavation and off-site disposal of contaminated soils from the central portion of the Site, including soils containing chlorinated pesticides. Post-excavation sampling documented levels of pesticides below Part 375 Soil Cleanup Objectives (SCOs), with the exception of one sample located along 160th Street, which represented soils that are at or under the roadway.
- Excavation and off-site disposal of fill material from the footprint of the building and soils from outside the footprint of the building. Material in the footprint of the building was removed as regulated waste based on elevated concentrations of PAHs and metals. Post excavation sampling documented soils with elevated PAHs and metals remaining under the building as well as under the parking area.
- Installation of a barrier layer consisting of certified clean soil and pavement. A demarcation layer, consisting of black, porous filter fabric, was installed under the imported soil. An asphalt barrier was installed on the southwestern portion of the Site (see Figure 2, Appendix A).
- Installation and integrity testing of a vapor extraction system (VES) for the building, consisting of an active sub-slab depressurization system beneath the building connected to rooftop fans. Air quality testing from the rooftop discharge points confirmed that low levels of VOCs were accumulating under the slab and being vented above the roofline.
- Installation of monitoring wells to document on-going groundwater quality.

2.3 Engineering Controls

Engineering controls (ECs) have been put into place in order to manage contamination remaining at the Site after remedial activities. These ECs consist of groundwater monitoring wells, a sub-slab VES, and a barrier layer.

2.3.1 Groundwater Monitoring

No groundwater monitoring has been conducted at the Site since November 2008. NYSDEC approved the closure of on-site wells on December 17, 2008 due to the absence of field evidence of contamination and the absence of significant dissolved contamination in groundwater. ESI closed the on-site monitoring wells on February 16, 2009 per the NYSDEC's Groundwater Monitoring Well Decommissioning Procedure. Historical data documenting groundwater quality (November 2006 to November 2008) are provided as Appendix B.

2.3.2 Sub-slab Vapor Extraction System and Barrier Layer

The SMP refers to a "supplemental preventative measure" installed in the building at the time of construction, consisting of three roof-top fans and 4" PVC piping underlying the building. The purpose of this preventative measure was to eliminate the potential migration of vapors containing petroleum hydrocarbons into the building. The system is described in the SMP as a

"sub-slab vapor extraction system" (VES). However, the VES does not include treatment of the effluent from the system making it more consistent with sub-slab depressurization systems (SSDS). For the purpose of this Report, the system will continue to be described as a "vapor extraction system" consistent with the SMP terminology.

A barrier layer consisting of an asphalt parking area, impervious sidewalks/walkways, the building slab, and an imported soil cover were installed to prevent contact with remaining subsurface soils. The VES and the barrier layer are inspected annually in accordance with the SMP.

Quarterly Inspection of the Vapor Extraction System and Barrier Layer

Quarterly inspection of the VES and barrier layer has been instituted at the Site per the request of the NYSDEC. Quarterly inspections have been performed since August 31, 2009. Quarterly inspections in this reporting period have been conducted by the manager of the on-site building (Graciela Florimon) and ESI personnel (Felipe Sipowicz). Regular VES and barrier layer inspections in this reporting period were performed in September and December 2015, and March, May, and June 2016 (see Appendix C for completed Inspection/Monitoring Checklists).

Annual Inspection of the Vapor Extraction System and Barrier Layer

The annual inspection of the VES and barrier layer was completed on June 16, 2016 by Felipe Sipowicz of ESI. The inspection of the VES and barrier layer included the visual observation of the fans and associated piping, and barrier layer (building slab, sidewalks, parking and landscaped areas), collection of vacuum measurements and U-manometer readings.

The VES equipment, piping, and fans were visually inspected. Two of the four vapor extraction monitoring points (VEMPs; VEMP-1 and VEMP-3) were noted to be damaged and VEMP-2 was unable to be located. VEMP-4 was noted to be in good condition and maintained a vacuum reading of -0.163 in w.c.. The SSDS fan servicing vertical pipe number 1 (VP-1) was noted to be weak and the vacuum reading of the corresponding U-manometers was recorded as 0.0 in w.c.. Fans servicing VP-2 and VP-3 were noted to be working and the vacuum readings of the corresponding U-manometers were recorded as 1.4 in w.c. and 1.8 w.c., respectively. The barrier layer was observed to be free from significant damage at the time of the inspection.

During a follow up inspection, completed on June 24, 2016, VEMP-2 was identified in the water meter room of the on-site building basement and had been painted over. No vacuum reading was collected from VEMP-2 during this inspection.

In response to the above referenced conditions, a Corrective Measures Work Plan (CMWP) has been prepared by Jansen Engineering and ESI (Appendix D). ESI will conduct the work outlined in the CMWP within 30 days of receiving approval from NYSDEC and a report documenting the implementation of the activities outlined in the CMWP will be prepared within two weeks of the completion of the work.

2.3.3 Institutional Controls

Institutional controls at the Site include: prohibition of vegetable gardens, groundwater treatment (if the groundwater is planned for use), performance of groundwater monitoring in accordance with the approved SMP, and notification to the NYSDEC if changes in Site use are proposed.

The Site was observed to be a mixed-use (commercial and residential property) during the annual VES/barrier layer inspection. Groundwater is not in use at the Site at this time and no gardens are present. The institutional controls continue to be implemented, with the exception of groundwater monitoring (see Section 2.3.1, above) and are effective for protecting human health and the environment.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The integrity of the VES could not be determined because of damage done to the monitoring points. Available data obtained during the 2016 annual inspection does not provide adequate information to indicate that the VES is functioning properly.

ESI recommends that the VEMP-1, VEMP-2, and VEMP-3, and the fan servicing VP-1, are repaired and/or replaced, and an inspection of the repaired VES system be conducted to confirm that the VES is functioning properly. Quarterly reporting of the VES and barrier layer, and periodic reporting of the U-manometer readings, should be reviewed regularly by the Site owner to assess any changes in the ECs. Any response actions to observed Site conditions should be in accordance with the SMP. Any major changes in the VES and barrier layer will be reported to NYSDEC within a one-week period.

The services summarized in this Report were conducted in accordance with the approved NYSDEC Brownfields Program SMP, and are considered by ESI to satisfy the requirements set forth in the SMP. The next report will be submitted in June 2017.

APPENDIX A

Figures

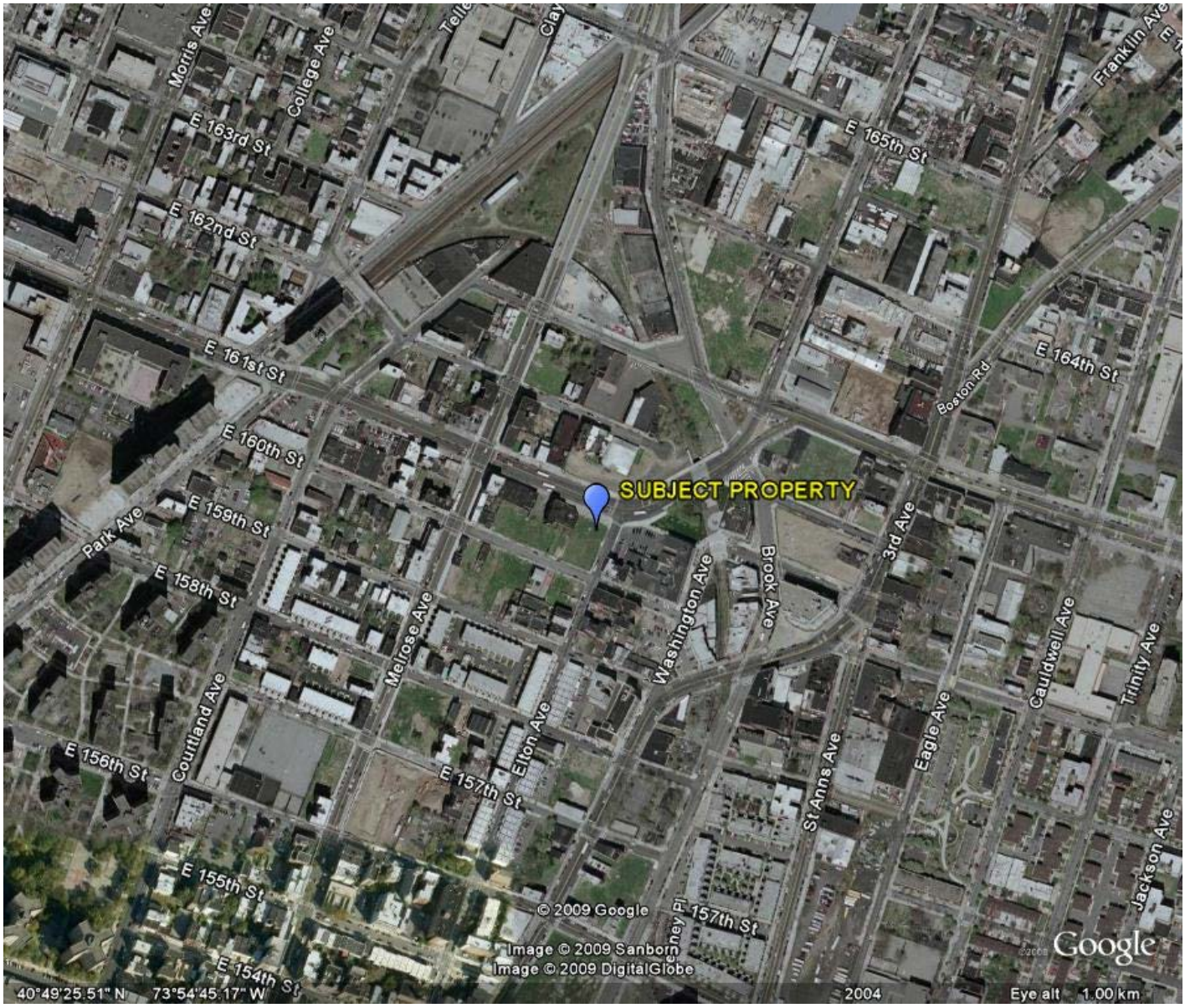

Figure 1: Site Location Map
Parkview Commons Site
436 East 161st Street
Borough of Bronx
Bronx County, New York

N

ESI File: LB03027.72

June 2016

Appendix A

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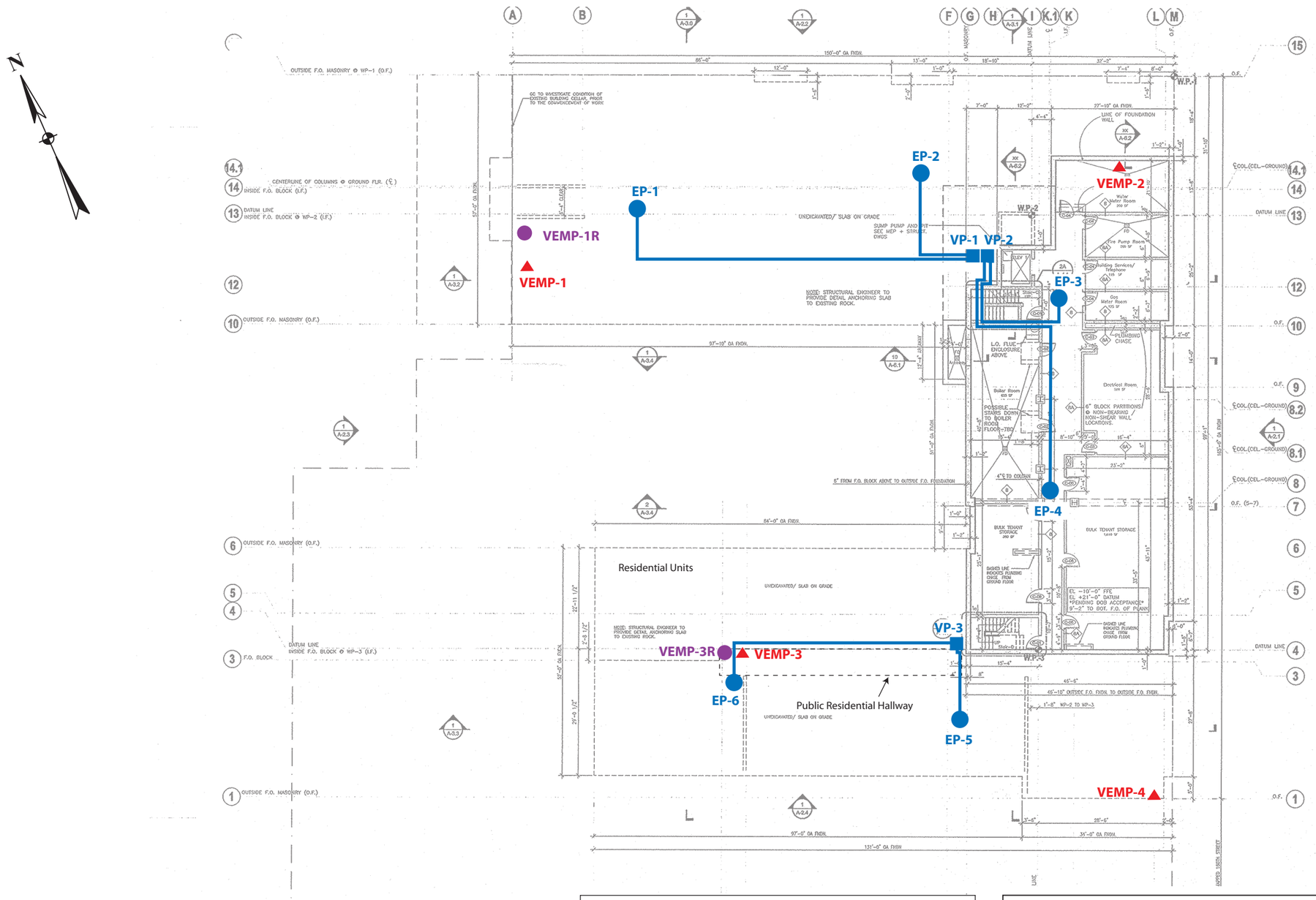
Figure 2:
Selected Site Features Map

Parkview Commons Site
located at
436 East 161st Street
Borough of Bronx
Bronx County, New York

File: LB03027.72

June 2016

Appendix A



Legend:

- Extraction point (EP)
- Vertical pipes (VP)
- Vapor extraction monitoring point (VEMP)
- Connecting pipes
- Proposed new locations of vapor extraction monitoring points (VEMPs)

Note: To be used to install vapor extraction monitoring points only. For all other details, use other applicable drawings.
Source: Map based on Magnusson Architecture & Planning PC - Cellar Construction Plan Drawing #A-1.1

Figure 3: VES Monitoring Point Locations

Parkview Commons Site 436 East 161st Street Borough of Bronx Bronx County, New York	ESI File: LB03027.70
	Not to scale
	June 2016 | Attachment A

APPENDIX B

Data Summary Tables

Table 1: VOCs in Water

All results provided in μg/L. Results in **bold** exceed designated guidance levels.

Compound (USEPA Method 8260)	Guidance Level	Sample Identification																							
		MW-2R								MW-4								MW-5							
		11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08
1,1,1,2-Tetrachloroethane	**5**	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA
1,1,1-Trichloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	**1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trifluoroethane	**5**	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
1,2-Dibromo-3-Chloropropane	**0.04**	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1-Dichloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropylene	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
1,2,3-Trichlorobenzene	**5**	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	ND
1,2,3-Trichloropropane	**0.04**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2,3-Trimethylbenzene	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
1,2,4-Trichlorobenzene	**5**	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trimethylbenzene	**5**	ND	ND	NA	ND	ND	0.27 J	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	**0.04**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2-Dibromoethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	**3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,2-Dichloroethylene (total)	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
1,2-Dichloropropane	**1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	**3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	**3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1-Chlorohexane	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
2,2-Dichloropropane	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
2-Butanone (MEK)	**NA**	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND
2-Chlorotoluene	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
2-Hexanone	**50**	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
4-Chlorotoluene	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	**NA**	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Acetone	**50**	NA	NA	3 J	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Benzene	**1**	ND	ND	ND	ND	ND	0.24 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
Bromochloromethane	**5**	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA	ND	NA	NA
Bromodichloromethane	**50**	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND
Bromoform	**50**	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND
Bromomethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	**NA**	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	0.65 J	ND	ND	NA	NA	ND	ND	ND	0.25 J	ND	ND
Carbon tetrachloride	**5**	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND
Chlorobenzene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	**7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	ND	ND	ND	ND	ND	0.94J	ND	ND	ND	ND	ND	ND	ND	1.4J
Chloromethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1J
Cis-1,2-Dichloroethane	**5**	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND
Cis-1,3-Dichloropropylene	**0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	**NA**	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Dibromochloromethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
Dichlorodifluoromethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	**5**	ND	ND	ND	ND	ND	0.41 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	**0.5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
Isopropylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Acetate	**NA**	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Methylcyclohexane	**NA**	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
Methyl tert-butyl ether (MTBE)	**10**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	**10**	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	NA
n-Butylbenzene	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
n-Propylbenzene	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
o-Xylene	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
p-&m-Xylenes	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Xylenes, Total	**NA**	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
p-Isopropyltoluene	**5**	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA
sec-Butylbenzene	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Styrene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Tetrachloroethylene	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.72	1.47J	ND	1.1J	0.74J	0.69 J	ND	ND
Toluene	**5**	ND	ND	ND	ND	0.20J	ND	ND	ND	ND	ND	ND	ND	0.18J	ND	ND	ND	ND	ND	ND	ND	0.23J	ND	ND	ND
trans-1,2-Dichloroethane	**5**	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
trans-1,3-Dichloropropylene	**0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	**5**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	1.30J	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND
Trichlorofluoromethane	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	**2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
Guidance levels based on NYSDEC Division of Water TOGS 1.1.1
J = estimated concentration
NA = Not Available ND = Not Detected

Table 2: SVOCs in Water

All results provided in μg/L. Results in **bold** exceed designated guidance levels.

Compound		Sample Identification																									
		MW-2R								MW-4								MW-5									
(USEPA Method 8270)	Guidance level	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08
1,1'-Biphenyl	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2,4,5-Trichlorophenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2,4,6-Trichlorophenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2,4-Dichlorophenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2,4-Dimethylphenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2,4-Dinitrophenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2,4-Dinitrotoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2-Methylnaphthalene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
2-Nitroaniline	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NA	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND
3 3-Dichlorobenzidine	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
4-Bromophenyl phenyl ether	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chlor-3-methylphenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
4-Chloroaniline	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
4-Nitroaniline	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
1 2 4-Trichlorobenzene	NA	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA
1 2-Dichlorobenzene	3	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA
1 3-Dichlorobenzene	3	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA
1 4-Dichlorobenzene	3	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND	NA	NA
2 2-oxybis (1-chloropropane)	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Anthracene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Benzaldehyde	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Benzo(a)anthracene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzyl alcohol	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA	NA	NA
Bis(2-chloroethoxy)methane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Carbazole	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitroso-di-n-propylamine	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodiphenylamine	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Phenanthrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA	ND	ND	ND
Pyrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
Guidance levels based on NYSDEC Division of Water TOGS 1.1.1
NA= Not Available ND = Not Detected

Table 3: Target Analyte List (TAL) Metals in Water

All results provided in µg/L. Results in **bold** exceed designated guidance levels.

		Sample Identification																							
	Guidance	MW-2R								MW-4								MW-5							
TAL METAL	Level	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08	11/06	2/07	5/07	10/07	1/08	4/08	7/08	10/08
Aluminum	**100**	ND	ND	29	ND	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	ND
Antimony	**3**	ND	ND	2.7	ND	ND	ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	ND
Arsenic	**25**	ND	4.2 J	2.8	ND	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	ND
Barium	**1,000**	54	54	410	60	62	58	43	55	52.7	56	46	44	36	38	55	39	48.9	55	61	50	55	51	5.5	46
Beryllium	**3**	ND	ND	0.30	ND	ND	ND	ND	ND	ND	ND	0.30	ND	ND	ND	ND	ND	ND	ND	0.30	ND	ND	ND	ND	ND
Cadmium	**5**	ND	ND	0.50	ND	ND	ND	ND	ND	ND	ND	0.50	ND	ND	ND	ND	ND	ND	ND	0.50	ND	ND	ND	ND	ND
Calcium	**NE**	**115,000**	**115,001**	**778,000**	**144,000**	**146,000**	**137,000**	**118,000**	**123,000**	**208,000**	**133,000**	**214,000**	**147,000**	**149,000**	**173,000**	**126,000**	**133,000**	**101,000**	**131,000**	**143,000**	**120,000**	**120,000**	**117,000**	**24,800**	**90,000**
Chromium	**50**	ND	ND	0.80	ND	ND	ND	ND	ND	2.7	ND	2.1	ND	ND	ND	ND	ND	5.3	ND	0.80	ND	ND	ND	ND	ND
Cobalt	**5**	2.2	2.4 J	3.3	3.0J	ND	ND	ND	ND	1.1	2.0 J	1.7	ND	ND	ND	1.5	ND	ND	ND	3.2	ND	ND	ND	ND	ND
Copper	**200**	ND	ND	1.8	ND	ND	ND	ND	3.0 J	5.7	ND	2.8	ND	ND	ND	ND	3.9 J	ND	ND	1.8	ND	ND	ND	7.1	7.0 J
Iron	**300***	65.9	ND	29	92	ND	53 J	ND	ND	64	ND	29	ND	ND	ND	ND	ND	44.3	44.3	29	ND	ND	ND	120	ND
Lead	**25**	ND	ND	2.6	ND	ND	ND	ND	ND	ND	ND	2.6	ND	ND	ND	ND	ND	ND	ND	2.6	ND	ND	ND	ND	ND
Magnesium	**35,000**	**64,000**	**62,600**	**487,000**	**73,600**	**74,800**	**70,800**	**43,400**	**64,200**	**39,600**	**52,800**	**44,500**	**37,200**	34,800	**36,300**	**61,600**	32,800	**38,800**	**52,000**	**77,600**	**46,300**	**46,200**	**44,400**	17,800	30,600
Manganese	**300***	**1,820**	**1,700**	250	**2,200**	**1,700**	**1,700**	ND	**1,800**	2.6	1.7 J	2.2	7.2J	ND	ND	**1,800**	ND	3.0	ND	**2,100**	ND	ND	ND	38	ND
Mercury	**0.7**	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	**100**	6.8	5.9 J	15	5.5J	4.8J	5.5 J	ND	5.1 J	2.4	3.6 J	2.7	ND	ND	ND	3.9	2.2 J	1.7	3.3 J	6.7	ND	2.1 J	2.2 J	5.0	1.6 J
Potassium	**NE**	39,200	37,301	44,300	38,700	38,700	37400	9,600	36,500	14,000	9,500	12,900	14,100	11,000	11,900	38,400	15,200	8,110	9,300	39,300	9,300	9,400	9600	19,200	11,400
Selenium	**10**	ND	8.5 J	6.9	ND	ND	ND	4.7	ND	ND	**13 J**	**11**	**11J**	ND	ND	ND	3.3 J	ND	**16 J**	4.0	ND	ND	ND	ND	ND
Silver	**50**	ND	ND	0.40	ND	ND	ND	ND	ND	ND	ND	0.40	ND	ND	ND	ND	ND	ND	ND	0.40	ND	ND	ND	ND	ND
Sodium	**20,000**	**119,000**	**105,001**	**312,000**	**111,000**	**111,000**	**105,000**	**46,500**	**95,900**	**54,300**	**64,900**	**52,500**	**79,500**	**45,100**	**50,300**	**95,900**	**76,100**	**91,600**	**91,600**	**112,000**	**73,300**	**74,700**	**84,300**	**114,000**	**60,600**
Thallium	**0.5**	ND	**21 J**	**6.6**	ND	ND	ND	ND	ND	ND	**17 J**	**5.0**	ND	ND	ND	ND	ND	ND	**11 J**	**5.7**	ND	ND	ND	ND	ND
Vanadium	**14**	ND	ND	0.80	ND	ND	ND	ND	ND	ND	ND	0.80	ND	ND	ND	ND	ND	ND	ND	0.80	ND	ND	ND	ND	ND
Zinc	**2,000**	ND	ND	9.5	ND	ND	ND	ND	ND	ND	ND	9.5	ND	ND	ND	ND	ND	ND	ND	9.5	ND	ND	ND	31	ND

Notes:

Guidance levels based on NYSDEC Division of Water TOGS 1.1.1

J = estimated concentration

ND = Not Detected NE = Not Established * = Guidance level for total of iron and manganese is 500

APPENDIX C

VES Systems & Barrier Layer Inspection Checklists

Vapor Extraction System and Barrier Layer Inspection/Monitoring Checklist
BCP Site C203014
Parkview Commons Site

Vapor Extraction System Component	Condition	No	Yes	N/A	Describe Deficiency	Describe Corrective Action
HVAC System	Operational and maintained?			✓		See Note 1 Below
Building Floor Slab	Holes, cracks or other physical deficiencies?	✠				
Riser Pipes (above roofline)	Holes, cracks, or other physical deficiencies?	✠				
Fan #1 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#2 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#3 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Barrier Layer - asphalt parking areas	Is asphalt intact?		✠			
	Substantial cracks?	✠				
Barrier Layer - sidewalk/walkways (on-site only)	Are sidewalks intact?		✠			
	Substantial cracks?	✠				
Barrier layer - landscaped area	Any subsidence?	✠				
	Substantial cracks?	✠				

Note 1: Each residential unit has its own HVAC system. These units have no effect on the Site's VES.

Name of Inspector

9/30/2015
Date of Inspection

Vapor Extraction System and Barrier Layer Inspection/Monitoring Checklist
BCP Site C203014
Parkview Commons Site

Vapor Extraction System Component	Condition	No	Yes	N/A	Describe Deficiency	Describe Corrective Action
HVAC System	Operational and maintained?			✓		See Note 1 Below
Building Floor Slab	Holes, cracks or other physical deficiencies?	✠				
Riser Pipes (above roofline)	Holes, cracks, or other physical deficiencies?	✠				
Fan #1 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#2 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#3 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Barrier Layer - asphalt parking areas	Is asphalt intact?		✠			
	Substantial cracks?	✠				
Barrier Layer - sidewalk/walkways (on-site only)	Are sidewalks intact?		✠			
	Substantial cracks?	✠				
Barrier layer - landscaped area	Any subsidence?	✠				
	Substantial cracks?	✠				

Note 1: Each residential unit has its own HVAC system. These units have no effect on the Site's VES.

Name of Inspector

12/17/2015
Date of Inspection

Vapor Extraction System and Barrier Layer Inspection/Monitoring Checklist
BCP Site C203014
Parkview Commons Site

Vapor Extraction System Component	Condition	No	Yes	N/A	Describe Deficiency	Describe Corrective Action
HVAC System	Operational and maintained?			✓		See Note 1 Below
Building Floor Slab	Holes, cracks or other physical deficiencies?	✠				
Riser Pipes (above roofline)	Holes, cracks, or other physical deficiencies?	✠				
Fan #1 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#2 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#3 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Barrier Layer - asphalt parking areas	Is asphalt intact?		✠			
	Substantial cracks?	✠				
Barrier Layer - sidewalk/walkways (on-site only)	Are sidewalks intact?		✠			
	Substantial cracks?	✠				
Barrier layer - landscaped area	Any subsidence?	✠				
	Substantial cracks?	✠				

Note 1: Each residential unit has its own HVAC system. These units have no effect on the Site's VES.

Name of Inspector

3/17/2015
Date of Inspection

Vapor Extraction System and Barrier Layer Inspection/Monitoring Checklist
BCP Site C203014
Parkview Commons Site

Vapor Extraction System Component	Condition	No	Yes	N/A	Describe Deficiency	Describe Corrective Action
HVAC System	Operational and maintained?			✓		See Note 1 Below
Building Floor Slab	Holes, cracks or other physical deficiencies?	✠				
Riser Pipes (above roofline)	Holes, cracks, or other physical deficiencies?	✠				
Fan #1 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#2 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Fan#3 (See attached map for fan location)	Operational?		✠			
	Physical Damage?	✠				
	Excessive Noise?	✠				
Barrier Layer - asphalt parking areas	Is asphalt intact?		✠			
	Substantial cracks?	✠				
Barrier Layer - sidewalk/walkways (on-site only)	Are sidewalks intact?		✠			
	Substantial cracks?	✠				
Barrier layer - landscaped area	Any subsidence?	✠				
	Substantial cracks?	✠				

Note 1: Each residential unit has its own HVAC system. These units have no effect on the Site's VES.

Name of Inspector

5/24/2016
Date of Inspection

Vapor Extraction System and Barrier Layer Inspection/Monitoring Checklist
BCP Site C203014
Parkview Commons Site

Vapor Extraction System Component	Condition	No	Yes	N/A	Describe Deficiency	Describe Corrective Action
HVAC System	Operational and maintained?			✓		See Note 1 Below
Building Floor Slab	Holes, cracks or other physical deficiencies?	✓				
Riser Pipes (above roofline)	Holes, cracks, or other physical deficiencies?	✓				
Fan #1 (See attached map for fan location)	Operational?		✓		Fan operating poorly. Weak vacuum recorded at corresponding U-manometer.	Replace Fan
	Physical Damage?	✓				
	Excessive Noise?	✓				
Fan#2 (See attached map for fan location)	Operational?		✓			
	Physical Damage?	✓				
	Excessive Noise?	✓				
Fan#3 (See attached map for fan location)	Operational?		✓			
	Physical Damage?	✓				
	Excessive Noise?	✓				
Barrier Layer - asphalt parking areas	Is asphalt intact?		✓			
	Substantial cracks?	✓				
Barrier Layer - sidewalk/walkways (on-site only)	Are sidewalks intact?		✓			
	Substantial cracks?	✓				
Barrier layer - landscaped area	Any subsidence?	✓				
	Substantial cracks?	✓				

Note 1: Each residential unit has its own HVAC system. These units have no effect on the Site's VES.

Felipe Sipowicz
Name of Inspector (Print)

6/16/2016
Date of Inspection

Felipe Sipowicz
Signature of Inspector

APPENDIX D

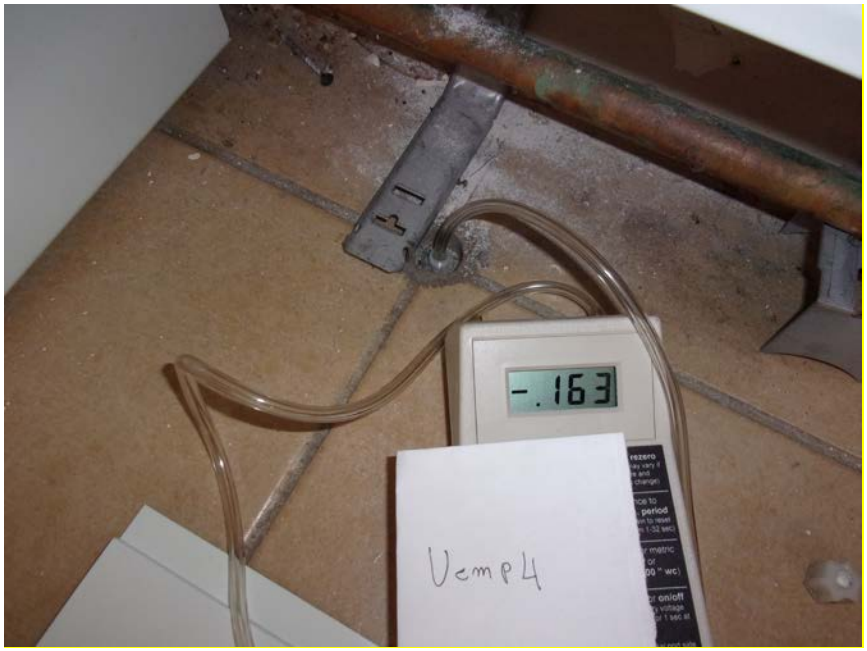
Site Inspection Photographs

PHOTOGRAPHS

View of paved parking barrier layer

2. View of courtyard barrier layer

PHOTOGRAPHS



3. View of VEMP-4

4. View of VEMP-1

PHOTOGRAPHS

5. View of U-manometers corresponding to VP-1 (left) and VP-2 (right)

6. View of VP-1 (front) and VP-2 (back)

PHOTOGRAPHS

7. View of U-manometer corresponding to VP-3

8. View of VP-3

APPENDIX E

Corrective Measures Work Plan

CORRECTIVE MEASURE WORK PLAN

Parkview Commons Site

436 East 161st Street

Borough of Bronx, New York

NYSDEC BCP Site: C203014

August 2016

ESI File: LB03027.72

Prepared By:

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845.505.0324

Ecosystems Strategies, Inc.
24 Davis Avenue, Poughkeepsie, NY 12603
phone 845.452.1658 | fax 845.485.7083 | ecosystemsstrategies.com

CERTIFICATION

I, Jolanda G. Jansen, certify that I am currently a NYS registered professional engineer and that this Corrective Measures Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation.

8/8/2016

Jolanda G. Jansen

NYS Professional Engineer # 068972-1 Date

Signature/Stamp

TABLE OF CONTENTS

ATTACHMENTS

1.0 INTRODUCTION

Jansen Engineering, PLLC (JE PLLC) and Ecosystems Strategies, Inc. (ESI) have prepared this Corrective Measures Work Plan (CMWP) on behalf of BX Parkview Associates, LLC to detail proposed corrective measures at the Parkview Commons Site. Corrective measures have been developed to repair and/or replace damaged monitoring points of the Vapor Extraction System (VES) at the Site.

The CMWP has been prepared under the direct supervision of and certified by a New York State registered professional engineer as specified in the Division of Environmental Remediation-10 Technical Guidance for Site Investigation and Remediation.

The proposed modifications to the current VES were designed in conformance with the following applicable standards and guidelines:

- Standard Practice for Installing Radon Mitigation Systems in Existing Low-Rise Residential Buildings, Designation: E22121-09, prepared by American Society for Testing Materials (ASTM), dated 2009.
- Sub-slab Depressurization for Low Permeability Fill Material, prepared by USEPA, dated July 1991.

This CMWP has been prepared to implement operation and maintenance activities outlined in the Site Management Plan (SMP), prepared by ESI, dated September 2006.

2.0 DESCRIPTION OF CORRECTIVE MEASURES

The following sections provide a description of the proposed work to be performed under this CMWP.

2.1 Repairs and/or Relocation of Monitoring Points

Two of the four permanent vapor extraction monitoring points (VEMPs, VEMP-1 and VEMP-3) are not operational and must be replaced. Existing non-functional VEMPs, i.e., VEMP-1 and VEMP-2, will be sealed. An inspection of the basement and areas directly above the concrete slab was conducted on June 24, 2016 in order to identify proposed locations for replacement VEMPs. Two new VEMPs (VEMP-1R and VEMP-3R) are proposed in the following locations:

- VEMP-1R, Northern Stairs (First Level)
- VEMP-3R, Public Residential Hallway (First Level)

Existing monitoring point VEMP-2, located in the water meter room (Basement Level), was noted to have been capped and painted over. VEMP-2 will be opened and retested to ensure there is sufficient vacuum. If found defective VEMP-2 will be sealed and then replaced.

Existing monitoring point VEMP-4, located in Community Room No. 2 (First Level), was noted to be in good condition and does not require repairs or replacement.

Figure 1, provided as Attachment A, indicates the proposed new monitoring point locations. Proposed locations are spaced to provide the best available representative measurements associated with each fan unit, and easy access during future monitoring events. The best available location for VEMP-3R is in close proximity to extraction points EP-5 and EP-6, as the space above the concrete slab in this area is occupied by private residential apartments. A site

plan of the underground utilities will be reviewed prior to installation of the VEMPs to ensure that on-site utilities are not compromised, and to modify the proposed VEMPs location if needed.

A visual inspection of the concrete slab will be conducted immediately prior to installation to ensure that cracks and other openings do not compromise the integrity of the VES. All openings encountered or created during the inspection and installation will be sealed with hydraulic cement. All fans operating under the VES will be turned off prior and during the installation of the VEMPs.

2.2 Installation Methodology

The VEMPs will be constructed with a ½-inch hole from the top of the concrete slab to 6 inches below the bottom of the concrete slab, and counter-bored with a 1-inch bit to approximately 3 inches below surface grade (bsg) to accommodate a fitting (see Details Figure 2, Attachment A). The fitting will consist of a stainless steel compression coupler with ¼-inch plastic tubing at one end and a removable sealed cap at the other end to insert a portable manometer. The last 3 inches of the plastic tubing will be perforated to allow for the movement of vapors from beneath the concrete slab into the tubing. The coupler and tubing will be placed in the hole and the space below (approximately 3 inches) and around the tubing and the bottom of the coupler will be filled with clean sand. The stainless steel compression coupler and the tubing will be set in place with quick setting hydraulic cement. A metal cap will cover each monitoring point.

Completed VEMPs will be visually inspected to ensure that no cracks or unnecessary obstructions impact the integrity of the VES and VEMPs. The roof top fans will be turned on after installation.

2.3 SSDS Fan Installation

The SSDS fan servicing the vertical pipe 1 (VP-1) will be replaced to ensure proper venting of sub-slab vapors. The fan will be placed at the top of VP-1, accessible on the roof. A Fantech FR 250 or comparable inline duct fan is recommended. Installation procedures outlined by the manufacturer will be followed (installation instructions for the Fantech FR 250 are provided as Attachment B). After the installation of the fan, the unit will be turned on and the vacuum measurement from the corresponding U-manometer will be recorded.

2.4 Sub-Slab Communication

Sub-slab vacuum measurements will be collect at least 24 hours after the installation of the VEMPs. Vacuum measurements will be first collected from all VEMPs and U-manometers with roof top fan units off and then with the roof top fans units on.

Vacuum measurements will be evaluated against the criteria set forth in Section 5.1 (b) of the SMP, Inspection of Vapor Extraction System, which outlines the protocol for the assessment of vacuum:

> "Assessment of Vacuum Function
>
> A qualified person will assess the strength of the vacuum created by the VES. A monitoring point for each system will be installed to confirm effective vacuum in the entire sub-grade. Vacuum data (as measured in inches of water) will be collected from the monitoring points. Sufficient vacuum will be achieved if levels greater than 0.02 inches of water are measured at each monitoring point."

If insufficient vacuum is documented during monitoring activities, the VES will be evaluated. This evaluation will consist of the careful inspection of each of the VES components and the assessment of vacuum in other areas underneath the slab to determine the lateral extent of the area with vacuum deficiency. Appropriate measures to address vacuum deficiency will be made in consultation with NYSDEC under a separate CMWP.

2.5 VES Inspections and Reporting

Existing Inspections and Reporting

The VES will be inspected at the frequency outlined in the SMP and in subsequent NYSDEC communication. Assessment of the vacuum function will be reported in the Periodic Review Reports. Site personnel will continue to perform quarterly inspections and document the findings of those inspections in the "VES and Barrier Inspection/Monitoring Checklist" form.

Additional Inspections and Reporting – Site Management Plan Modification

In addition to the inspections and reporting described above, Site personnel will conduct biweekly readings (i.e. every other week) of all three U-manometers. ESI will train site personnel to take correct measurements and will repeat this training as necessary. U-manometer readings will be recorded on a log sheet to document vacuum measurements at the influent vertical pipes. A sample log sheet is provided as Attachment C. Log sheet records will be provided to ESI monthly for the first year. Log sheets will be included in the PRR. If adequate vacuum is not documented ESI personnel will be contacted by Site personnel within 48 hours to evaluate the VES.

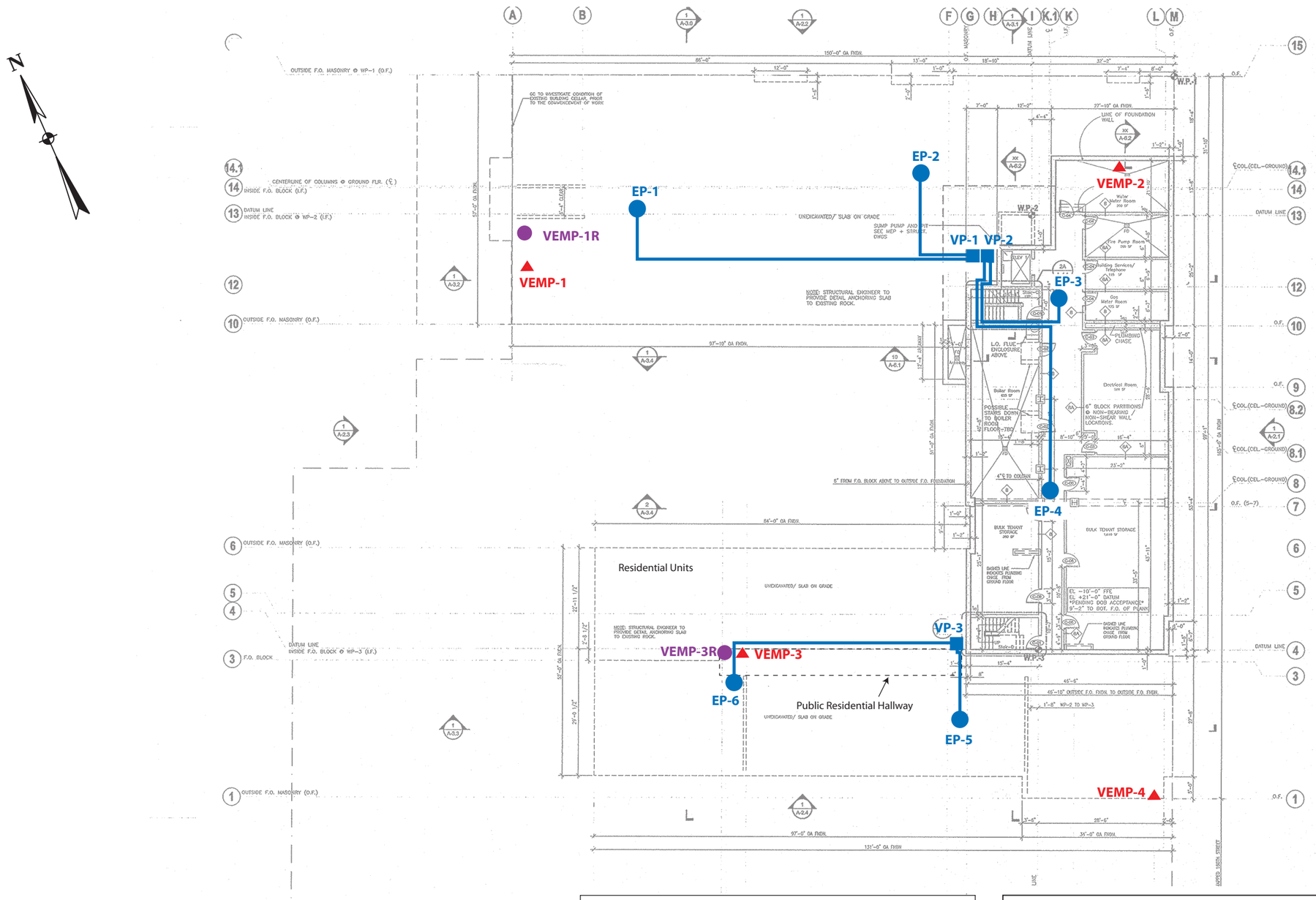
The above paragraph will be incorporated into the Site Management and the revised SMP submitted to NYSDEC within 30 days of PRR approval.

3.0 SCHEDULE OF IMPLEMENTATION

ESI will conduct the work outlined in this CMWP within 30 days of receiving approval from NYSDEC. A report documenting the implementation of the activities outlined in this CMWP and a certified PRR will be prepared within 30 days of the completion of the work. If the PRR cannot be certified based upon implementation of this CMWP, a summary report with an additional CMWP will be submitted to the NYSDEC within 30 days of completion of the work.

ATTACHMENT A

Figure 1: VES and Proposed Monitoring Points Locations



Legend:

- Extraction point (EP)
- Vertical pipes (VP)
- Vapor extraction monitoring point (VEMP)
- Connecting pipes
- Proposed new locations of vapor extraction monitoring points (VEMPs)

Note: To be used to install vapor extraction monitoring points only. For all other details, use other applicable drawings.
Source: Map based on Magnusson Architecture & Planning PC - Cellar Construction Plan Drawing #A-1.1

Figure 1: VES Monitoring Point Locations

Parkview Commons Site 436 East 161st Street Borough of Bronx Bronx County, New York	ESI File: LB03027.72
	Not to scale
	June 2016 | Attachment A

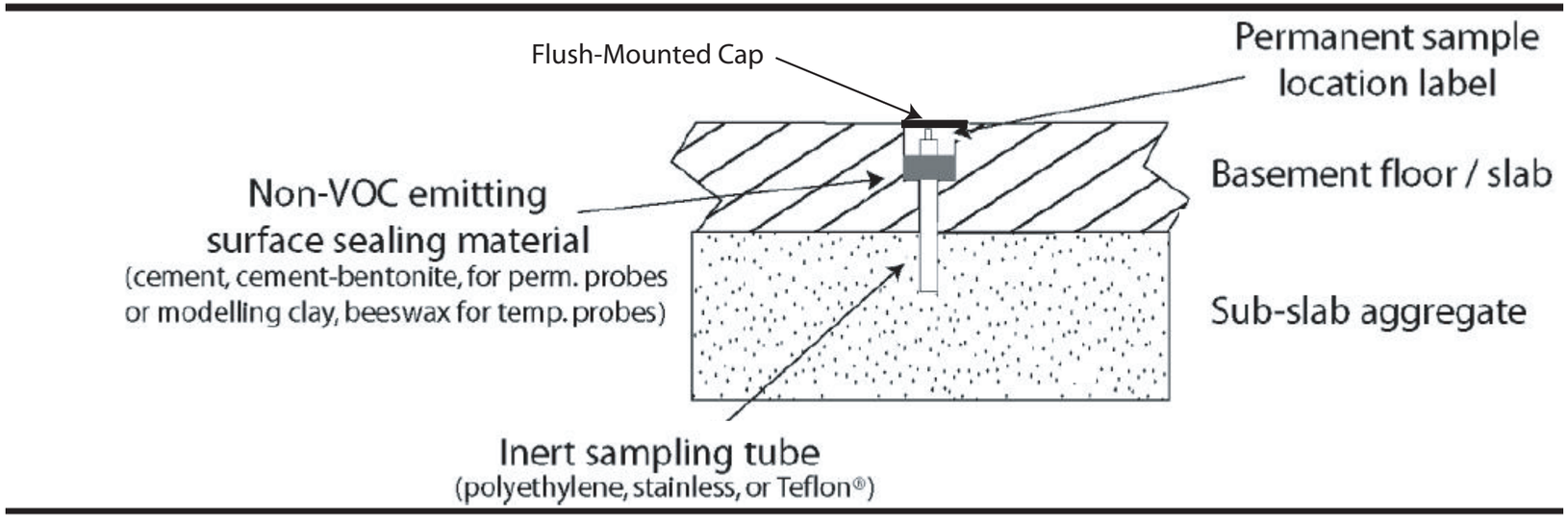


Figure 2: VES Monitoring Point Details

Parkview Commons Site 436 East 161st Street Borough of Bronx Bronx County, New York	ESI File: LB03027.72
	Not to scale
	June 2016 / Attachment A

ATTACHMENT B

Fantech FR 250 Installation Instructions

Installation and Operation Manual
Manuel d'installation et d'opération
Manual de Instalación y Mantenimiento

Item #: 401444
Rev Date: 2016-05-19

FR Series

Inline Centrifugal Fans
Ventilateurs Centrifuge en ligne
Ventiladores para Conductos Circulares

To ensure quiet operation of ENERGY STAR® qualified inline and remote fans, each fans shall be installed using sounds attenuation techniques appropriate for the installation. For bathroom and general ventilation applications, at least 8 feet of insulated duct shall be installed between the exhaust or supply grilles(s) and the fan. For kitchen range hood remote ventilation applications, where metal duct is generally required by code, a metal sound attenuator shall be installed between the range hood and the fan.

Pour assurer un fonctionnement silencieux des ventilateurs et des ventilateurs à distance qualifiés ENERGY STAR®, chaque ventilateurs doit être installé en utilisant des techniques d'atténuation du son appropriées pour l'installation. Pour les applications de salles de bain et les applications de ventilation générales, au moins 8 pieds de conduits flexible isolé doivent être installées entre les grilles d'évacuation et d'approvisionnement du ventilateur. Pour les applications de hotte de cuisinière à distance, où un conduit en métal est généralement requis par le code du bâtiment, un atténuateur acoustique en métal doit être installé entre la hotte et le ventilateur.

Para asegurar una operación silenciosa de los ventiladores en línea certificados ENERGY STAR, cada ventilador debe instalarse utilizando técnicas de atenuación de sonido apropiadas para cada caso. Para baños y aplicaciones comunes de ventilación se recomienda instalar por lo menos 8' de ducto flexible con aislamiento entre la rejilla de expulsión y/o inyección y el ventilador. Para campanas de cocina con un ventilador de extracción remoto, done se usa por código ducto rígido, se recomienda instalar un atenuador de sonido entre la campana y el ventilador.

Techical / Customer Support:

United States Tel.: 800.747.1762 **Canada** Tel.: 800.565.3548

fantech®
a systemair company

WARNINGS

DO NOT CONNECT POWER SUPPLY until fan is completely installed. Make sure electrical service to the fan is in the locked "OFF" position.

1. All fans are suitable for use with solid-state speed control.

2. This unit has rotating parts and safety precaution should be exercised during installation, operation and maintenance.

3. CAUTION: For General Ventilation Use Only. Do Not Use To Exhaust Hazardous Or Explosive Materials And Vapors

4. WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS - OBSERVE THE FOLLOWING:

a. Use this unit in the manner intended by the manufacturer. If you have any questions, contact your manufacturer's representative or contact us directly.
b. CAUTION: Before installation, servicing or cleaning unit, switch power off at service panel and lock the service disconnection means to prevent power from being switched on accidentally.
c. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
d. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Association (NFPA), and the American Society for Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE), and the local code authorities.
e. When cutting or drilling into wall and ceiling, do not damage electrical wiring and other hidden utilities.
f. Ducted fans must always be vented to the outdoors.
g. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit.
h. NEVER place a switch where it can be reached from a tub or shower.

5. WARNING! Check voltage at the fan to see if it corresponds to the motor name plate.

GUARDS MUST BE INSTALLED WHEN FANS IS WITHIN REACH OF PERSONNEL OR WITHIN SEVEN (7) FEET OF WORKING LEVEL OR WHEN DEEMED ADVISABLE FOR SAFETY.

ADVERTISSEMENTS

NE PAS BRANCHER l'électricité jusqu'à ce que le ventilateur soit complètement installé. Veillez à ce que le tableau électrique du ventilateur soit verrouillé ("OFF").

1. Tous les ventilateurs sont faits pour être utilisés avec une commande de vitesse.
2. Cette unité à des pièces d'échange et que les mesures de sécurité soient respectées pendant l'installation, le fonctionnement et l'entretien.
3. ATTENTION: Pour une ventilation générale seulement. À ne pas utiliser pour évacuer des échappements dangereux ou des matériaux et des gaz explosifs.
4. AVERTISSEMENTS POUR RÉDUIRE LES RISQUES D'INCENDIE, DE DECHARGE ELECTRIQUE OU RISQUE DE BLESSURES. SUIVEZ LES CONSEILS SUIVANTS:

a. Cet appareil ne doit pas être utilisé pour une autre fonction que celle prévue par son fabricant. Si vous avez des questions, contactez les représentants de vos fabricants ou contactez-nous directement.
b. ATTENTION: Avant l'installation, le service ou le nettoyage de l'appareil, fermer l'électri-cité et fermer à clé le compteur électrique afin d'éviter que l'électricité ne soit retranchée accidentellement. Si le compteur ne peut pas être fermé à clé, attachez au compteur un dispositif de sécurité comme par exemple une étiquette.
c. L'installation de l'électricité doit être faite par une personne qualifiée en accord avec les codes applicables et les règles pour la construction anti-feu.
d. La circulation de l'air est nécessaire pour une bonne combustion et pour l'aspiration des gazs dans la cheminée afin d'éviter des refoulements. Suivez le guide de chauffage du fabriquant ainsi que les règles de sécurités comme celles qui sont éditées par l'Association Nationale des Sapeurs Pompiers (NFPA) et l 'Association américaine des Ingénieurs pour le chauffage et l'air conditionné (ASHRAE) ainsi que celles des autorités locales.
e. Lorsque vous coupez ou percez le mur et le plafond faites attention de ne pas endommager les câbles électriques des autres appareils utilitaires.
f. Le ventilateur caréné doit toujours être branché sur l'extérieur.
g. Si l'appareil doit être installé au-dessus d'une baignoire ou d'une douche, il doit être signalé comme tel pour son utilisation et l'installation d'une prise de terre est nécessaire.
h. NE JAMAIS placer près de la baignoire ou de la douche un interrupteur à porté de la main.

5. ATTENTION : Vérifier le voltage afin de voir s'il correspond à celui indiqué sur la plaque du moteur.

DES BARRIÈRES DOIVENT ÊTRE INSTALLÉES QUAND LE VENTILATEUR EST DANS LE PÉRIMÈTRE D'ATTEINTE PAR LE PERSONNEL OU À MOINS DE 2 MÈTRES DU NIVEAU DE TRAVAIL OU SELON LES RECOMMANDATIONS DE SÉCURITÉ.

ADVERTENCIAS

NO CONECTE LA ALIMENTACION hasta tanto el ventilador quede completamente instalado. Cerciórese de que el servicio eléctrico al ventilador quede asegurado en la posición "OFF" (desactivado).

1. Todos los ventiladores vienen preparados para controlarse mediante controles de estado sólido.
2. Esta unidad tiene piezas rotativas, y se deben tomar precauciones de seguridad durante la instalación, operación y mantenimiento.
3. PRECAUCION: Sólo para Ventilación General. No Usar ParaDesalojar Materiales y Vapores Peligrosos o Explosivos.
2. ADVERTENCIA: PARA REDUCIR EL RIESGO DE INCENDIO, CONMOCION ELECTRICA O LESIONES A PERSONAS, OBSERVE LO SIGUIENTE:

a. Sólo utilice esta unidad de la manera dispuesta por el fabricante. Si tiene cualquier pregunta, diríjase al representante del fabricante, o bien a nosotros directamente.
b. PRECAUCION: Antes de la instalación, mantenimiento o limpieza de la unidad, desconecte la alimentación en el tablero de servicio y cierre con llave el interruptor del circuito para impedir la reactivación accidental. De no poder cerrarse el interruptor con llave, aplíquele al tablero una etiqueta o dispositivo de advertencia bien visible.
c. Los trabajos de instalación y cableado eléctrico tienen que ser realizados por personal calificado conforme todos los códigos y normas del caso, incluso el código de incendio en la construcción.
d. La debida combustión y extracción de gases a través de la chimenea de equipos quemadores de combustibles, requiere de una cantidad adecuada de aire que impida el contratiro. Siga las pautas y normas de seguridad del fabricante, tales como publica la National Fire Association (NFPA) (Asociación Nacional de Incendios) y la American Society for Heating Refrigeration and Air-conditioning Engineers (ASHRAE), así como las de las autoridades locales del código.
e. Al cortar o perforar paredes y cielos rasos, tenga cuidado de no dañar el cableado eléctrico u otros servicios públicos ocultos.
f. Los ventiladores montados en conductos siempre deben contar con respiraderos al exterior.
g. Si esta unidad ha de instalarse por encima de una bañera o ducha, tiene que venir marcada como tal par dicha aplicación y conectarse a un circuito protector interruptor de circuitos de tierra falla.
h. JAMAS coloque un interruptor al alcance de una bañera o ducha.

3. ¡ADVERTENCIA! Revise el voltaje entrante al ventilador para constatar que corresponda al que indica la placa de fábrica.

HAY QUE INSTALAR GUARDAS DONDE QUIERA QUE EL VENTILADOR QUEDE AL ALCANCE DEL PERSONAL, A MENOS DE SIETE (7) PIES DEL NIVEL DE OPERACION, O DONCE SE ESTIME ACONSEJABLE PARA LA SEGURIDAD.

INSTALLING MOUNTING BRACKET & FAN

1. When selecting fan mounting location, the following criteria should be considered: a) mounting to minimize noise generated by fan operation; b) service accessibility

   a) Mounting the fan as far as possible from the intake point will minimize fan operating noise from being transmitted back through the duct work. If the fan is to be used as a booster for moving the air between two rooms, a central point along the duct may be optimal. Insulated flexible type duct work (recommended for all bathroom exhaust applications) will result in much quieter operation. Fantech recommends minimum 8' of insulated flexible duct between any exhaust grill and fan for low noise level.

   
   Mount Bracket (NB).

   
   Mount Fan.

   b) Fan location should allow sufficient access for service.

2. Using the wood screws provided, attach the mounting bracket (NB or MB) to a support beam at the selected location. Fan mounting can be at any point along the duct and in any angle, however, vertical mounting is recommended to reduce condensation buildup in the fan. If a horizontal installation is necessary and condensation buildup may pose a problem, either wrap insulation around the fan or drill a 1/4" hole in the bottom of the housing (along with an NPT insert [by others] and drain tubing) allowing condensation to drain.

   
   Mount Bracket (MB).

3. Attach fan to the mounting bracket with the sheet metal screws provided. Wiring box should be positioned for easy access. Bracket is provided with rubber vibration isolation grommets to prevent the transmission of sound through the structure. Be careful not to overtighten. Also, care should be taken not to strip the plastic housing. Screws are self tapping and do not require pilot holes. However, pilot holes (no larger than 3/32") are recommended.

   
   Mount Fan.

4. Connect duct work to inlet and outlet of fan using CB clamps or duct tape. When using insulated duct, it is recommended that the inner vinyl core be clamped or taped to the inlet and outlet and that the vapor barrier surrounding the insulation be duct taped to the fan housing.

NOTE: Steps 2 & 3 may be reversed.

INSTALLING DG SUPPLY/EXHAUST GRILL

If a Vent/Light combination kit is purchased, the VLC vent/lights are supplied with a separate installation instruction replacing steps 1 through 4.

1. Select the grill mounting point within the area to be ventilated. To ease installation, locations of framing beams within the walls or joists supporting the ceiling should be considered. Collar/damper is provided with a perforated hanging strap for attachment directly to a beam or joist. Allow sufficient space between the collar/damper and the beam to attach the duct work. If the location of the grill does not allow direct attachment, a cross-member mounted to the framing should be used.

   
   Mount Collar

   
   Side view grill and collar.

2. Place the mounting collar/damper in the selected location and trace a circle onto the surface. From the interior side of the room, cut through the surface. Please note: In order to assure a smoother finish when mounting through a sheetrock or tile type ceiling, it is recommended that a razor knife be used to make the cut.

3. From within the attic or crawl space, place the mounting collar into the hole until the edge of the collar is flush with the interior wall or ceiling surface. Attach collar to the support beam with the 2" wood screws provided. Attach duct work. Secure using CB or FC clamps and/or duct tape. When installing the damper into rigid type ducting, FC clamps or duct tape should be used.

   PLEASE NOTE: When attaching flex duct to the collar/damper combination and an immediate elbow is necessary, be certain that the elbow is installed with a "soft" bend to allow damper blades to operate properly.

4. Snap the grill into the mounting collar/damper. Grill should be pushed tightly into place for an airtight fit. If there is a gap between the collar and the ceiling it should be caulked to avoid air leakage. For subsequent cleaning the grill can be pulled out and cleaned.

Flexible Duct Installation Hints

Flexible insulated duct is strongly recommended where allowed by local code for bathroom exhaust applications, where ducting passes through unconditioned space or where noise is a factor. Failure to use insulation could result in excessive condensation buildup within the duct, and undesirable sound levels within the room. For the quietest possible installations, Fantech recommends a minimum of 8' of insulated flexduct between any exhaust grill and fan. When using flexible type duct work, duct should be stretched as tight and straight as possible. Failure to do so could result in dramatic loss of system performance. Flexible duct should be connected to the fan with CB type clamps or duct tape. All connections should be as airtight as possible to maximize system performance.

ELECTRICAL CONNECTION

1. Remove the screws securing the terminal box cover plate located on the side of the fan. All fan motor connections are pre-wired to an electrical terminal strip. A 3/8" romex type cable restraint connector will be needed to secure the wiring through the knockout provided on the side of the terminal box.

Liquid tight wiring – Top View
(For outside applications).

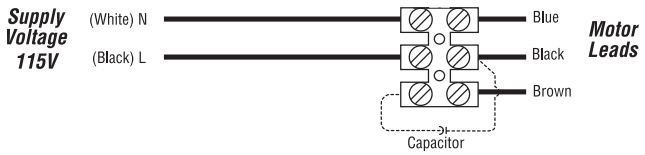
2. Bring incoming electrical service through the romex connector and the fan knockout. Be sure to place the connector nut over the wiring coming into the terminal box. There are two open ports on the terminal strip. Using a small regular screwdriver, tighten the neutral (white) wire of the incoming supply under the open terminal strip port labeled "N". Tighten the line (black) wire of the incoming supply under the open terminal strip port labeled "L". Since the fan motor is isolated within a plastic housing, grounding is not necessary.

Romex wiring – Top View

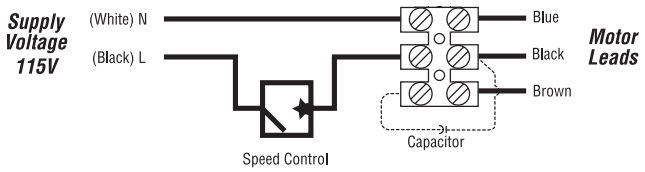
3. Secure the romex connector. Secure the incoming supply with the romex connector. Replace the fan terminal box cover. All fan motor and capacitor connections have been pre-wired from the factory. No additional fan wiring is necessary.

WIRING DIAGRAMS

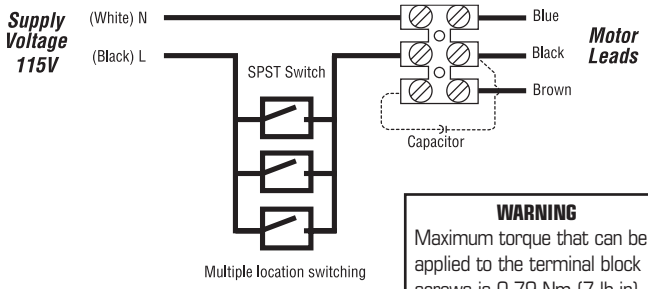
All Models
Without Motor Speed Controller



With Motor Speed Controller



Multiple Location Switching Wiring Diagram



WARNING
Maximum torque that can be applied to the terminal block screws is 0.79 Nm (7 lb-in).

TROUBLESHOOTING

If fan fails to operate, please check the following:

1. Consult wiring diagrams (see below) to insure proper connection.
2. Check motor lead wiring, capacitor leads and incoming supply leads to insure definite contact.
3. If possible, use a meter to test for continuity across the fan motor leads. In order to do this, the capacitor must be disconnected (do not test the capacitor - it will not meter continuity). If motor leads show continuity, consult factory for a replacement capacitor.

MAINTENANCE INSTRUCTIONS

Since fan bearings are sealed and provided with an internal lubricating material, no addition lubrication is necessary.

INSTALLER LES ATTACHES DU SUPPORT ET DU VENTILATEUR

1. Pour choisir l'emplacement des fixations du ventilateur, les critères suivants devraient être considérés: a) fixer pour réduire au minimum le bruit produit par le fonctionnement du ventilateur; b) type d'application; et c) l'accessibilité pour le service.


Fixer le support de montage (NB)

a) Monter le ventilateur aussi loin que possible des sources d'aération réduira au minimum le bruit de fonctionnement du ventilateur transmis par le tuyau. Si le ventilateur doit être utilisé comme régulateur pour déplacer l'air entre deux salles, un point central le long du tuyau peut être optimal. Un travail d'isolation pour les tuyaux d'aération (recommandé pour tout le système d'aération des salles de bain) permettra un fonctionnement plus silencieux. Fantech recommande le tuyau d'aération isolé de 8 pieds minimum entre n'importe quelle grille d'aération et du ventilateur pour minimiser le bruit.


Attacher le ventilateur.

b) L'emplacement du ventilateur devrait permettre un accès suffisant pour le service.

2. Utilisez les vis en bois fournies, attachez le support (NB ou MB) à une poutre du support à l'emplacement choisi. Le support du ventilateur peut être située à un point quelconque le long du tuyau et dans n'importe quel angle, cependant, le support vertical est recommandé pour réduire la formation de condensation dans le ventilateur. Si une installation horizontale est nécessaire, la formation de condensation peut poser un problème, enrouler alors l'isolation autour du ventilateur ou faites un trou 1/4" dans le bas de la boite (avec une insertion de NPT (supporter par autre) et une tuyauterie de vidange) permet à la condensation de s'écouler.


Fixer le support de montage (MB).

3. Attacher le ventilateur au support avec les vis en métal fournies. La boite de câblage devrait être placée de façon a avoir un accès facile. L'attache est équipée d'oeillets d'isolement de vibration en caoutchouc pour empêcher la transmission du bruit par la structure. Faites attention à ne pas trop serrer. En outre, prenez soin de ne pas enlever le revêtement en plastique. Les vis sont auto-collantes et n'exigent pas les trous pilotes. Cependant, les trous pilotes (pas plus grands que 3/32") sont recommandés.


Attacher le ventilateur.

4. Connectez le tuyau à la prise et à la sortie du ventilateur à l'aide des pinces CB ou de ruban adhésif. En utilisant le tuyau isolé, il est recommandé que l'intérieur en vinyle soit maintenu ou coller avec du ruban adhésif sur la prise d'entrée et de sortie et que la barrière de vapeur entourant l'isolation soit collée au logement du ventilateur par du ruban adhésif.

NOTE: Les étapes 2 & 3 peuvent être renversées.

INSTALLER LA GRILLE D'ALIMENTATION ET D'AÉRATION DG

Si un kit de combinaison de Vent/Lumière est acheté, les VLC vent/lumière sont fournis avec une instruction d'installation séparée substituant les étapes 1 à 4.

1. Choisissez le point du support de la grille dans la zone qui doit être ventilée. Pour faciliter l'installation, les emplacements des poutres d'encadrement dans les murs ou les solives de plafond devraient être considérés. Le collier/régulateur est équipé de courroie perforée pour la connexion directe à une solive de plafond ou à une poutrelle. Permettez suffisamment d'espace entre le collier/régulateur et la poutre pour attacher la tuyauterie. Si l'emplacement de la grille ne permet pas une connexion directe, une entretoise montée sur l'encadrement devrait être utilisée.


Collet de montage.


Vue latérale grille et collet

2. Placez la fixation du collier/ régulateur dans l'emplacement choisi et tracez un cercle sur la surface. A l'intérieur de la salle, coupez à travers la surface. Veuillez noter : Afin d'assurer une finition plus lisse pour un montage sur un toit de pierres ou un toit de tuiles il est recommandé qu'un couteau rasoir soit utilisé pour couper.

3. A partir d'un grenier ou d'un vide sanitaire, placez le support du collier dans le trou jusqu'à ce que le bord du collier soit aligné avec le mur ou la surface intérieure du plafond. Attachez le collier à la poutre avec les vis en bois de 2 pouces fournies. Attachez le tuyau. Fixez à l'aide des pinces CB ou FC et/ou avec du ruban adhésif. Pour installer le régulateur sur la tuyauterie rigide, des pinces FC ou du ruban adhésif devront être utilisés.

   VEUILLEZ NOTER: Lorsque vous attachez le tuyau au collier/régulateur et qu'un coude est nécessaire, veillez à ce que le coude soit installé avec une courbe "douce" pour permettre aux lames du régulateur de fonctionner correctement.

4. Enclencher la grille sur le support du collier/régulateur. La grille devrait être pousser fermement en place pour un ajustement hermétique. S'il y a un espace entre le collier et le plafond il devra être colmaté pour éviter la fuite d'air. La grille peut être retirée et nettoyée pour le nettoyage ultérieur.

Conseils pour l'installation du tuyau

Le tuyau flexible isolé est vivement recommandé où permis par le code local pour l'installation du système d'aération dans les salles de bains où la tuyauterie passent à travers des endroits isolés et où le bruit est un facteur. Ne pas utiliser d'isolation peut entraîner la formation de condensation excessive sur le tuyau et des bruits indésirables dans la pièce. Pour des installations insonorisées au maximum, Fantech recommande un tuyau flexible isolé de 8 pieds au minimum entre toutes les grilles aération et du ventilateur. En utilisant un tuyau flexible, le tuyau devrait être étiré aussi fortement et droit que possible. Ne pas le faire peut entraîner la perte d'efficacité du fonctionnement du système. Le tuyau flexible devrait être relié au ventilateur avec des pinces de type CB ou par ruban adhésif. Toutes les connexions devraient être aussi hermétiques que possible afin de maximiser le fonctionnement du système.

CONNEXTION ÉLECTRIQUE

1. Retirer les vis fixant le couvercle de la boite de connexion située à côté du ventilateur. Toutes les connexions de moteur du ventilateur sont précablées à une bande de connexion électrique. Un connecteur encastré câble de type romex 3/8" pouces sera nécessaire pour fixer le câblage par l'éjection fournie sur le côté de la boite de connexion.

Câblage sserré de liquide - vue de dessus (pour des installations extérieur)

2. Amener le courant électrique par le connecteur romex et le ventilateur d'éjection. Soyez sûr de placer l'écrou du connecteur au-dessus du câblage venant de la boite de connexion. Il y a deux ports ouverts sur la bande de connexion. En utilisant un petit tournevis régulier, serrez le fil (blanc) neutre de l'entrée de l'alimentation sous le port de la bande de connexion étiqueté "N". Serrez le fil (noir) de la ligne d'entrée de l'alimentation sous le port de la bande de connexion étiqueté "L". Le moteur du ventilateur étant isolé dans une boite en plastique, la prise de terre n'est pas nécessaire.

Câblage Romex - Vue de dessus

3. Fixez le connecteur romex. Fixez l'entrée de l'alimentation avec le connecteur romex. Substituez la couverture de la boite de connexion du ventilateur. Toutes les connexions du moteur et du condensateur du ventilateur ont été précablées à l'usine. Aucun câblage supplémentaire pour le ventilateur est nécessaire.

DÉPANNAGE

Si le ventilateur ne fonctionne pas, vérifier ce qui suit:

1. Consultez les diagrammes de câblage (voir ci-dessous) pour vous assurer que la connexion est appropriée.
2. Contrôlez le fil de sortie du moteur, les fils de sortie du condensateur et l'alimentation électrique pour vous assurer d'un bon contact.
3. Si possible, utilisez un appareil de mesure pour déterminer la continuité à travers les fils de sortie du moteur du ventilateur. Pour faire ceci, le condensateur doit être débranché (ne pas tester le condensateur - il ne montrera pas la continuité). Si les fils de sortie du moteur montrent la continuité, consultez l'usine pour un condensateur de rechange.

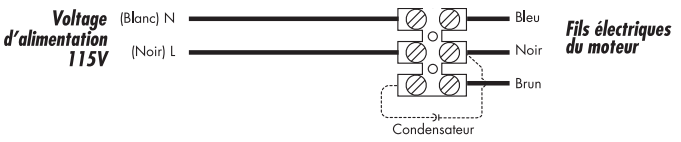
INSTRUCTION POUR L'ENTRETIEN

Puisque les roulements du ventilateur sont scellés et équipés d'un matériel lubrifiant interne, aucune lubrification supplémentaire n'est nécessaire.

DIAGRAMMES DE RACCORDEMENT

Tous les modèles

Sans contrôle de vitesse du moteur



Avec contrôle de vitesse du moteur

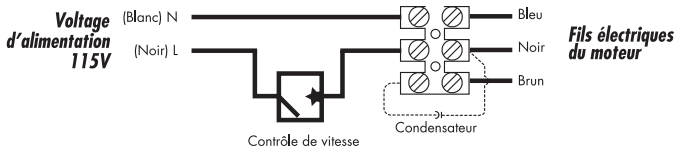
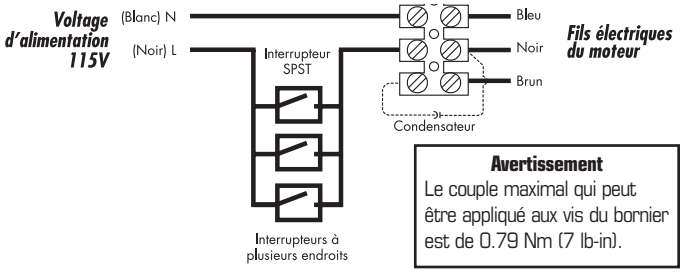


Diagramme de branchement pour plusieurs pièces



Avertissement
Le couple maximal qui peut être appliqué aux vis du bornier est de 0.79 Nm (7 lb-in).

INSTALACIÓN DEL SOPORTE DE MONTAJE Y EL VENTILADOR

1. Al ubicar el ventilador, hay que considerar las siguientes normas: a) el montaje que reduzca al mínimo el ruido que produce el ventilador en operación; b) el tipo de aplicación; y c) el acceso para facilitar el mantenimiento.

a) El ventilador se debe montar lo más lejos posible de la salida a fin de minimizar el retroceso del ruido del ventilador a través del conducto. Si se ha de emplear el ventilador como refuerzo para mover el aire entre dos cuartos, acaso resulte óptimo montarlo en un punto céntrico a lo largo del conducto. Un conducto flexible aislado (recomendado para cualquier instalación de escape para baños) resulta mucho más silencioso. Fantech recomienda un mínimo de 8 pies de conducto flexible aislado entre cualquier rejilla de escape y el ventilador, para lograr un mínimo de ruido.

b) El ventilador debe situarse donde haya acceso suficiente para el mantenimiento.


Monte el suporte (NB)


Monte el ventilador.

2. Mediante los tornillos tirafondo, fije el soporte de montaje (NB o MB) a una viga estructural en el sitio escogido. Aunque el ventilador se puede montar en cualquier punto a lo largo del conducto y a cualquier ángulo, es recomendable montarlo en posición vertical para reducir el cúmulo de condensado en el ventilador. Si hay que recurrir a una instalación horizontal, dando lugar a la posible condensación, envuelva el ventilador con aislante o bien perfore un agujero de 1/2" en el fondo de la carcasa (junto con un adaptador de NPT [provisto por otros] y tubería de drenaje) para desalojar el condensado.

3. Fije el ventilador al soporte de montaje mediante los tornillos de hojalata suministrados. La caja de conexiones se debe ubicar para facilitar el acceso. El soporte de montaje se ha provisto de guardaojales amortiguadores de goma que impiden la transmisión de ruidos a través de la estructura. Tenga cuidado de no sobreapretarlos. De paso, tenga cuidado de no desgarrar la carcasa de plástico. Los tornillos son autorroscantes y no requieren la perforación de pilotos. No obstante, recomendamos perforar pilotos (de no más de 3/32").


Monte el suporte (MB)


Monte el ventilador

4. Conecte los conductos de entrada y salida del ventilador mediante abrazaderas CB o con cinta especial para conductos. Al usarse conductos aislados, es recomendable fijar el núcleo de vinilo con abrazaderas o con cinta a la entrada y a la salida, de manera que la película impermeable que rodea el aislante quede fijada a la carcasa del ventilador con cinta para conductos.

NOTA: Se puede invertir el orden de los pasos 2 y 3.

INSTALACIÓN DE LA REJILLA DG DE ENTRADA Y ESCAPE

Si se ha comprado el conjunto de Respiradero y Luz, éstos se suministran con instrucciones particulares de instalación que reemplazan los Pasos 1 al 4.

1. Seleccio ne el punto de montaje de la rejilla dentro del ambiente a ventilar. Para facilitar la instalación, se debe tomar en consideración la ubicación de las vigas enmarcadoras dentro de las paredes, o las viguetas de apoyo del techo. El Collarín/mariposa viene provisto de una cinta perforada para montaje directo en una viga o vigueta. Deje suficiente espacio entre el collarín/mariposa y la viga para fijar el conducto. Si la ubicación de la rejilla no permite el montaje directo, se debe emplear un travesaño auxiliar fijado al enmarcamiento.


Monte el collarin

2. Coloque el collarín/mariposa en el sitio deseado, y trace un círculo sobre la superficie. Desde el interior de la habitación, haga un corte a través de la superficie. Favor observar: Para poder asegurar un acabado más liso al hacer un montaje a través de un techo de cartón-piedra, recomendamos hacer el corte con una navaja.


Vista lateral de la rejilla y el collarin

3. Desde la buhardilla o el entresuelo, coloque el collarín de montaje en el agujero hasta que el borde del collarín quede al ras de la pared interior o la superficie del techo. Fije el collarín a la viga de apoyo con los tornillos tirafondo de 2" suministrados. Conecte el conducto. Asegúrelo con abrazaderas CB o FC y/o cinta para conductos. Si se trata de instalar la mariposa dentro de un conducto de tipo rígido, se deben emplear abrazaderas de tipo FC o cinta para conductos.Veuillez noter : Afin d'assurer une finition plus lisse pour un montage sur un toit de pierres ou un toit de tuiles il est recommandé qu'un couteau rasoir soit utilisé pour couper..

   FAVOR NOTAR: Al conectar un conducto flexible al conjunto de collarín/mariposa, si hace falta un codo inmediatamente a renglón seguido, tenga cuidado de instalar el codo con un doblez "suave" para permitir que las hojas de la mariposa operen debidamente.

4. Enganche la rejilla en el collarín/mariposa de montaje. La rejilla debe oprimirse para que quede bien firme y hermética. Si queda una rajadura entre el collarín y el techo, se debe calafatear para evitar fugas de aire. Para la limpieza posterior, la rejilla se puede extraer y limpiar.

Sugerencias para la Instalación del Conducto Flexible

Recomendamos encarecidamente usar conducto flexible aislado para aplicaciones de escape de baños donde quiera que el código local lo permita, donde el conducto pase a través de espacios no acondicionados o donde el ruido sea un factor de importancia. La ausencia del aislante podría causar un exceso de condensación dentro del conducto, amén del exceso de ruido dentro del cuarto. Para lograr la instalación más silenciosa posible, Fantech recomienda un mínimo de 8 pies de conducto flexible aislado entre cualquier rejilla de escape y el ventilador. Al montar un conducto de tipo flexible, el mismo se debe estirar lo más apretado y recto posible. De lo contrario, el sistema podría mucho rendimiento. El conducto flexible se debe conectar al ventilador con abrazaderas de tipo CB o con cinta para conductos. Todas las conexiones deben quedar lo más herméticas posible para lograr un máximo de rendimiento.

CONEXIÓN ELÉCTRICA

1. Desenrosque los tornillos de montaje de la tapa de la caja de conexiones en el costado del ventilador. Todas las conexiones del motor del ventilador están precableadas a una regleta eléctrica. Hace falta un conector pasahilos protector 3/8" de tipo romex para sujeción del cableado a través del agujero ciego provisto en el costado de la caja de conexiones.

Cableado impermeable - Vista de Planta (Para aplicaciones al exterior).

2. Pase la alimentación eléctrica a través de conector romex y el agujero ciego del ventilador. Tenga cuidado de colocar la tuerca conectora encima del cableado entrante a la caja de conexiones.
   En la regleta de conexiones hay dos lumbreras abiertas. Usando un pequeño destornillador común, apriete el cable neutro (de color blanco) de la alimentación eléctrica debajo de la lumbrera marcada "N" en la regleta. Apriete el hilo de Línea (negro) de la alimentación eléctrica debajo de la lumbrera marcada "L". Debido a que el motor del ventilador está aislado por su carcasa de plástico, no hay que conectarlo a tierra.

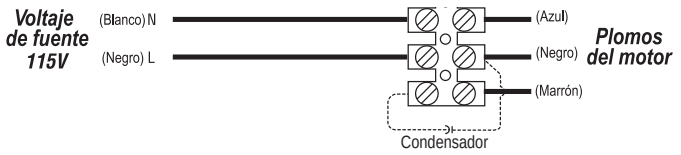
Cableado en Romex - Vista de Planta

3. Asegure el conector romex. Asegure la alimentación entrante con el conector romex. Tape de nuevo la caja de conexiones del ventilador. Todas las conexiones del motor del ventilador y del capacitor vienen precableadas de fábrica. No hace falta ningún cableado adicional para el ventlador.

DIAGRAMAS DE ALAMBRADO

Todos los modelos

Con controlador de velocidad de motor



Sin controlador de velocidad de motor

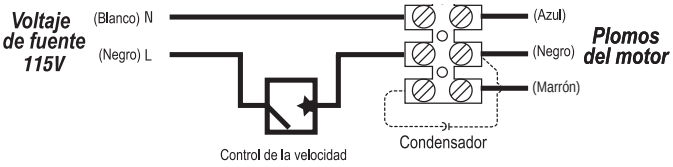
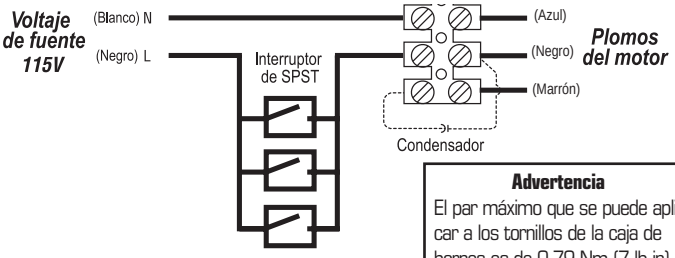


Diagrama de cableado para conmutación desde varios puntos



Advertencia

El par máximo que se puede aplicar a los tornillos de la caja de bornes es de 0.79 Nm (7 lb-in).

ANÁLISIS DE FALLAS

Si le ventilateur ne fonctionne pas, vérifier ce qui suit:

1. Consultez les diagrammes de câblage (voir ci-dessous) pour vous assurer que la connexion est appropriée.
2. Contrôlez le fil de sortie du moteur, les fils de sortie du condensateur et l'alimentation électrique pour vous assurer d'un bon contact.
3. Si possible, utilisez un appareil de mesure pour déterminer la continuité à travers les fils de sortie du moteur du ventilateur. Pour faire ceci, le condensateur doit être débranché (ne pas tester le condensateur - il ne montrera pas la continuité). Si les fils de sortie du moteur montrent la continuité, consultez l'usine pour un condensateur de rechange.

INSTRUCCIONES DE MANTENIMIENTO

Puisque les roulements du ventilateur sont scellés et équipés d'un matériel lubrifiant interne, aucune lubrification supplémentaire n'est nécessaire.

WARRANTY

Five (5) Year Warranty

This warranty supersedes all prior warranties

DURING ENTIRE WARRANTY PERIOD:
Fantech will repair or replace any part which has a factory defect in workmanship or material. Product may need to be returned to the Fantech factory, together with a copy of the bill of sale and identified with RMA number.

FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling Fantech either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

OR

The Distributor may place an order for the warranty part and/or product and is invoiced. The Distributor will receive a credit equal to the invoice only after product is returned prepaid and verified to be defective.

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE END USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY FANTECH.

THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
    1. Improper maintenance
    2. Misuse, abuse, abnormal use, or accident, and
    3. Incorrect electrical voltage or current.
- Removal or any alteration made on the Fantech label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

Limitation of Warranty and Liability

This warranty does not apply to any Fantech product or part which has failed as a result of faulty installation or abuse, incorrect electrical connections or alterations made by others, or use under abnormal operating conditions or misapplication of the product or parts. We will not approve for payment any repair not made by us or our authorized agent without prior written consent. The foregoing shall constitute our sole and exclusive warranty and our sole exclusive liability, and is in lieu of any other warranties, whether written, oral, implied or statutory. There are no warranties which extend beyond the description on the page hereof. In no event, whether as a result of breach of contract, or warranty or alleged negligence, defect incorrect advice or other causes, shall Fantech be liable for special or consequential damages, including, but not limited to, loss of profits or revenue, loss of use of equipment or any other associated equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs, or claims of customers of purchase for such damages. Fantech neither assumes or authorizes any person to assume for it any other liability in connection with the sale of product(s) or part(s). Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages so the above limitations and exclusions may not apply to you.

Warning

Fantech products are designed and manufactured to provide reliable performance, but they are not guaranteed to be 100% free from defects. Even reliable products will experience occasional failures and this possibility should be recognized by the user. If these products are used in a life support ventilation system where failure could result in loss or injury, the user should provide adequate backup ventilation, supplementary natural ventilation, failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

GARANTIE

Garantie de 5 ans

Cette garantie remplace toutes les garanties précédentes.

DURANT TOUTE LA PÉRIODE DE GARANTIE:
Fantech s'engage à réparer ou à remplacer toute pièce présentant un défaut d'usine en matière de qualité d'exécution ou de matériau. Il sera peut être nécessaire de retourner le produit à l'usine Fantech, accompagné d'une copie du contrat de vente et du numéro d'autorisation de retour.

POUR RETOURNER UN PRODUIT À L'USINE, VOUS DEVEZ:
- Obtenir un numéro d'autorisation de retour; pour ce faire, communiquer avec Fantech aux États-Unis au numéro 1.800.747.1762, ou au Canada, au numéro 1.800.565.3548. Veuillez avoir votre contrat de vente à portée de la main.
- S'assurer que le numéro d'autorisation de retour est lisible sur l'extérieur de la boîte, sinon la boîte sera refusée.
- Toutes les pièces et/ou le produit seront réparés ou remplacés puis retournés à l'acheteur. Aucun crédit ne sera accordé.

OU
Le Distributeur peut commander une pièce ou un produit couvert par la garantie; la facture lui sera envoyée. Le distributeur ne sera crédité du montant de sa facture qu'après que le produit a été retourné port payé et qu'il a été trouvé défectueux.

LES TERMES DE LA GARANTIE DE Fantech NE PRÉVOIENT PAS DE REMPLACEMENT SANS FRAIS AVANT QUE LA PIÈCE OU LE PRODUIT DÉFECTUEUX AIT ÉTÉ INSPECTÉ. LES PRODUITS OU PIÈCES REMPLACÉS AVANT L'INSPECTION DE LA DÉFECTUOSITÉ SERONT FACTURÉS ET LE MONTANT DU CRÉDIT EST FONCTION DE L'INSPECTION DE LA PIÈCE OU DU PRODUIT RETOURNÉ. LE DISTRIBUTEUR NE DOIT PAS REMPLACER SANS FRAIS POUR L'UTILISATEUR FINAL L'ÉQUIPEMENT DÉFECTUEUX RETOURNÉ PAR L'UTILISATEUR FINAL, CAR LE COMPTE DU DISTRIBUTEUR NE SERA CRÉDITÉ QU'APRÈS L'INSPECTION ET LA VÉRIFICATION PAR FANTECH DE LA DÉFECTUOSITÉ.

LES GARANTIES NE S'APPLIQUENT PAS DANS LES CAS SUIVANTS:
- Dommages dus au transport (dissimulés ou visibles). Les réclamations doivent être faites à la compagnie de fret.
- Dommages dus au mauvais câblage ou à l'installation inappropriée.
- Dommages ou défectuosité causés par une calamité naturelle ou résultant d'une procédure irrégulière de l'acheteur, notamment :
  1. Entretien irrégulier
  2. Mauvais usage, usage abusif, usage anormal ou accident
  3. Tension ou courant électrique incorrect
- Enlèvement ou toute modification du numéro de contrôle ou de la date de fabrication de l'étiquette Fantech
- Toute autre garantie expresse, écrite ou implicite, pour les dommages accidentels ou indirects, perte de biens, de recettes, manque à gagner ou coûts relatifs à la dépose, à l'installation ou à la réinstallation, en cas de violation de garantie.

CERTIFICATION DE LA GARANTIE:
- L'utilisateur doit conserver une copie du contrat de vente pour confirmer la date d'achat.
- Les présentes garanties vous donnent des droits spécifiques reconnus par la loi et sont régies par les lois sur la protection du consommateur appropriées. Il est possible que différents états offrent d'autres droits.

Limites de garanties et de responsabilités

Cette garantie ne s'applique à aucun produit de Fantech ou à aucune pièce détachée dont la défectuosité relève d'une erreur d'installation ou d'abus ou de mauvaise installation électrique ou dut à des modifications extérieures ou utilisées dans des conditions anormales ou encore une mauvaise installation du produit ou des pièces détachées. Nous n'approuverons aucun remboursement pour des réparations qui ne sont pas effectuées par un agent américain ou un agent autorisé sans un accord écrit. Ce dernier constituera notre seule et exclusive garantie et notre seule exclusive responsabilité et tient lieu de toute autre garantie ou bien écrite ou orale implicite ou statuaire. Aucune garantie ne s'appliquera au-delà des descriptions faites de la page ci-dessus. En aucun cas, que ce soit pour une rupture de contrat ou de garanties ou des dommages dut à la négligence ou a des conseils incorrects ou autres causes, Fantech ne pourra être tenu pour responsable des dommages particuliers ou consécutifs, incluant mais pas limités aux pertes et profits ou bénéfices perte de matériel ou autres matériels associés. Coût du capital, coût des équipements de remplacement, matériels ou services, coût de temps d'arrêt ou les réclamations des clients pour de tels dommages. Fantech ne délègue ou autorise aucune personne d'assumer sa responsabilité sur la vente du produit ou des pièces détachées. Certaines juridictions ne permettent pas l'exclusion de la limitation des dommages accidentels ou consécutifs ainsi ces limitations ci-dessus et les exclusions ne s'appliquent pas à vous.

Avertissement

Les produits de Fantech sont conçus et fabriqués pour produire des performances fiables, mais il n'y a aucune garantie qu'ils soient 100% sans défaut. Les plus produits les plus fiables ont occasionnellement des défectuosités et cette possibilité devraient être reconnu par les usagers. Si ces produits sont utilisés comme une source de ventilation ou leur panne risque de mettre en danger des vies humaines ou entraîner des blessures, les usagers devront avoir une source de ventilation de secours en addition à une ventilation naturelle, le défaut de système d'alarme ou la connaissance de ces conditions entraînent sa responsabilité envers de telles pertes ou blessures.

GARANTIA

Garantia por cinco (5) Años

Esta garantia de sin efecto cualquier otra garantia anterior

DURANTE EL PERÍODO INTEGRO DE LA GARANTÍA:
Fantech reparará o reemplazará toda parte que presente un defecto en el material o en la mano de obra. Es posible que el producto deba ser devuelto a la fabrica Fantech, juntamente con una copia de la constancia de compraventa e identificado con el número de RMA.

PARA DEVOLUCIÓN A FÁBRICA USTED DEBE:
- Tener un número de Autorización de Devolución de Material (RMA). Esto se puede obtener llamando a Fantech ya sea en los Estados Unidos al 1.800.747.1762
- en Canadá al 1.800.565.3548. Tenga a mano la constancia de compraventa.
- El número de RMA deberá estar claramente escrito en la parte exterior de la caja, de lo contrario la caja será rechazada.
- Todas las partes y/o el producto serán reparados/reemplazados y devueltos al comprador; no se otorgará crédito.

O BIEN
El Distribuidor puede colocar una orden por la parte y/o producto en garantía y facturarla/o. El Distribuidor recibirá un crédito igual a la factura sólo después de que se haya devuelto el producto con pago previo y con verificación de defecto.

LAS CONDICIONES DE LA GARANTÍA DE FANTECH NO CONTEMPLAN EL REEMPLAZO SIN CARGO ANTES DE REALIZAR LA INSPECCIÓN PARA DETECTAR DEFECTOS. LOS REEMPLAZOS EMITIDOS ANTES DE INSPECCIONAR POR DEFECTOS SON FACTURADOS, Y EL CRÉDITO ESTÁ A LA ESPERA DE INSPECCIÓN DEL MATERIAL DEVUELTO. EL MATERIAL DEFECTUOSO DEVUELTO POR LOS USUARIOS FINALES NO DEBERÁ SER REEMPLAZADO POR EL DISTRIBUIDOR SIN CARGO PARA EL USUARIO FINAL, YA QUE EL CRÉDITO DE LA CUENTA DEL DISTRIBUIDOR ESTARÁ A LA ESPERA DE INSPECCIÓN Y VERIFICACIÓN DEL DEFECTO REAL POR FANTECH.

LAS SIGUIENTES GARANTÍAS NO SE APLICAN:
- Daños durante el envío, ya sean encubiertos o visibles. Se deberá presentar el reclamo a la compañía transportadora.
- Daños ocasionados por cableado o instalación indebidos.
- Daños o fallas causados por hechos fortuitos, u ocasionados por procedimientos impropios por parte del usuario, tales como:
  1. Mantenimiento indebido
  2. Uso indebido, abuso, uso anormal o accidente y
  3. Tensión o corriente eléctrica incorrecta.
- Remoción o modificación realizada al número de control del rótulo de Fantech o de la fecha de fabricación.
- Toda otra garantía, expresa, implícita o escrita, daños y perjuicios, pérdida de propiedad, de ingresos, o de beneficios, o costo de remoción, instalación o reinstalación por incumplimiento de la garantía.

VALIDACIÓN DE LA GARANTÍA
- El usuario debe conservar una copia de la constancia de compraventa para verificar la fecha de compra.
- Estas garantías le otorgan derechos legales específicos, y están sujetas a una legislación aplicable para protección del consumidor. Usted puede tener derechos adicionales que varían de estado en estado.

Limitacion de Garantia y Responsabilidad Civil

Esta garantía no cubre ningún producto o pieza de Fantech que haya fallado por mala instalación, abuso, conexión eléctrica incorrecta o por alteraciones hechas por terceros, o por utilización bajo condiciones anormales de operación, o por aplicación incorrecta del producto o de las piezas. Nosotros no aprobamos el pago de ninguna reparación que no se haya realizado por nosotros o por nuestro agente autorizado previo consentimiento por escrito. Lo que antecede constituirá nuestra única y exclusiva garantía y nuestra única y exclusiva responsabilidad; y obra en lugar de cualquier otra garantía, ya sea escrita, verbal, tácita o estatutaria. No hay ninguna garantía que vaya más allá de lo que está descrito en esta página. Bajo ninguna circunstancia responderá Fantech, ya sea por incumplimiento de contrato o garantía ni por alegada negligencia, defecto, consejos incorrectos u otra causa, por daños especiales o consiguientes, incluso, pero no de manera única, pérdida de ganancias o ingresos, equipo cesante o cualquier otra pérdida relativa a equipos asociados; el costo del capital, costo de equipos, instalaciones o servicios sustitutos, tiempo ocioso o reclamos de clientes por compras incurridas por tales daños. Fantech ni asume ni autoriza a ninguna persona a que asuma a su nombre ninguna otra responsabilidad relativa a la venta de productos o piezas. Debido a que algunos distritos jurisdiccionales no permiten la exclusión o limitación por daños incidentales o consiguientes, puede que las limitaciones y limitaciones antes descritas no lo afe cten a Ud.

Advertencia

Aunque los productos de Fantech están diseñados y son fabricados para un rendimiento seguro, no garantizamos que estén libres de defectos al 100%. Hasta productos confiables a veces fallan; y el usuario debe reconocer esta posibilidad. Si estos productos se utilizan en un sistema de ventilación vital en donde una falla pudiera dar lugar a pérdidas o lesiones, el usuario debe disponer de una ventilación adecuada de reserva, ventilación natural suplemental, sistema de alarma de fallas, o expresar su voluntad de aceptar el riesgo de tales pérdidas o lesiones.

Fantech reserves the right to make technical changes.
For updated documentation please refer to www.fantech.net

Fantech se réserve le droit de faire des changements techniques. Pour de la documentation à jour, s'il vous plaît se référer au www.fantech.net

Fantech se reserva el derecho de hacer modificaciones técnicas en cualquier momento. Para obtener la documentación actualizada, por favor consulte www.fantech.net

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ATTACHMENT C

Sample Log Sheet

Ecosystems Strategies, Inc.

U-manometer Readings Log Sheet

Site Name: Parkview Commons Site
NYSDEC BCP Site No.: C203014

Instructions:

1) Record U-manometer biweekly (i.e. every other week) readings as described in the instructions adjacent to each U-manometer.
2) The liquid level on the side of the tubing connected to the pipe should be higher than the side of the tubing exposed to the air.
3) If you have questions on how to read the manometer please contact Ecosystems Strategies Inc. (ESI) at (845)452-1658.
4) **If the liquid level is NOT higher on the side of the tubing exposed to the air, contact ESI within 48 hours.**

Date	Inspector Name	Inspector Signature	U-manometer Readings (inches of water column)			Additional Notes
			VP-1 (Refuse Room)	VP-2 (Refuse Room)	VP-3 (Roof Top)	