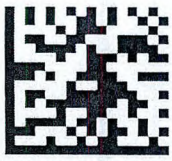

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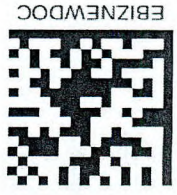

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INDOOR AIR MONITORING PLAN

Prepared for the

"General Switch" Property

located at

20 Industrial Place
City of Middletown
Orange County, New York

January 9, 2004
Revised July 2004

Prepared By:

ECOSYSTEMS STRATEGIES, INC.
24 DAVIS AVENUE
POUGHKEEPSIE, NEW YORK 12603
(845) 452-1658

ESI File: LM97145.41

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Prepared By:

Ecosystems Strategies, Inc.
24 Davis Avenue
Poughkeepsie, New York 12603

Prepared For:

Laurwal Holding Corporation
P.O. Box 117
Hartsdale, New York 10530

The undersigned has reviewed this Report and certifies to Laurwal Holding Corporation that the information provided in this document is accurate as of the date of issuance by this office.

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.

Paul H. Ciminello
President

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

This Indoor Air Monitoring Plan has been prepared to provide guidance on the manner in which site remediation services will be provided to address potential indoor air quality concerns in the building on the property known as "General Switch", located at the intersection of Highland Avenue and Industrial Place in the City of Middletown, Orange County, New York.

This IAMP is considered by Ecosystems Strategies, Inc. (ESI) to be a "Draft" document for submission to the United States Environmental Protection Agency (USEPA) for their review and acceptance. This document will be considered "Final" when specific comments made by the USEPA are considered and incorporated into this IAMP.

The IAMP is modeled on the USEPA's Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils - Subsurface Vapor Intrusion Guidance (hereafter "Indoor Air Evaluation Guidance" or "IAEG").

The USEPA has developed the Data Quality Objectives (DQO) process as a means of securing accurate and usable data on a specific site as well as ensuring consistency of data over different sites. This IAMP has been prepared and will be implemented in general conformance with the DQO process.

1.2 Limitations

This Indoor Air Monitoring Plan has been prepared as a response to potential indoor air quality concerns on the General Switch property, located at 20 Industrial Place in the City of Middletown, Orange County, New York. The on-site building is considered the Site for the purposes of the IAMP. This IAMP is not relevant to other media of concern, other portions of this property or any other property. It is based on information gathered to date from multiple on-site investigations. This IAMP cannot address conditions that have not been documented to date, or that have occurred after the dates of fieldwork. Other areas of concern and media of concern that have been identified on and/or near the General Switch property are the focus of separate investigations and remedial workplans.

1.3 Site Location and Description

The General Switch property is an approximately 5-acre parcel located on the southern side of Industrial Place, City of Middletown, Orange County, New York. One on-site building exists on the General Switch property, near its northwestern corner. This building is considered the Site for the purposes of this IAMP. The on-site building is an approximately 40,000-square-foot, one-story structure. It is currently used as an auto parts warehouse, with no documented use of chlorinated volatile organic compounds (cVOCs) or storage of significant quantities of cVOCs.

1.4 Previous Investigations

Because of the known environmental history and condition of the property, this IAMP has been developed to assess indoor air quality. To that end, the Site history, investigations conducted to date, and current conditions are described in this section to provide context for the proposed activities.

According to a review of these reports, manufacturing activities at General Switch included the production of electrical switches, circuit breakers, and panel boards. The manufacturing process included the use of tetrachloroethylene (PCE, or Perc).

Investigations of the General Switch property began in 1983 when PCE and trichloroethylene (TCE), and other chlorinated solvents were identified in groundwater samples collected from adjoining and surrounding properties. Jacobs Environmental, Inc. (Jacobs), and Shakti Consultants, Inc. (Shakti) conducted on-site soil and groundwater investigations documented in their Draft Partial Site Characterization Report (Characterization Report) dated March 29, 1993.

In 1997, Ecosystems Strategies, Inc. (ESI) began providing environmental services to the property owner. ESI has conducted additional soil and groundwater investigations, and also developed and implemented remedial workplans for soil and groundwater, some of which are ongoing through present. In addition, ESI conducted groundwater testing as a means of documenting changes in water quality and determining the need for active groundwater remediation. Each medium (soil and groundwater) is discussed separately below.

Soil

On various dates in 1998 and 1999, soil removal activities were conducted on-site to remediate "hot spots" north and south of the building where Jacobs and Shakti identified PCE, TCE and trichloroethane in soils and groundwater. In total, over 500 cubic yards of solvent contaminated soils were removed. With the exception of one soil sampling point along the building's southern wall, post-excavation confirmatory sampling of soils on the General Switch property indicates that concentrations of cVOCs, where they are detected, are below the site-specific federal guidance level. PCE was detected at 37 parts per million (ppm) in a single sample near one of the building's southern footings. Because of concern for the structural integrity of the building, further excavation in this southern area was halted. Remaining soils near this southern footing continue to have levels of PCE is excess of federal guidance value, and soils beneath the building's slab in this southern area may also have elevated levels of this cVOC.

Groundwater

The Site currently contains 19 wells (15 overburden wells and four bedrock wells) which have been sampled in 1992, 2000, and 2003 (not all wells were sampled on all rounds due to site conditions). Data confirmed PCE (and metabolite) contamination in both the shallow and bedrock aquifers. Groundwater is moving to the south, supporting the conclusion that any dissolved PCE in shallow groundwater near the northern "hot spot" would migrate under the building. Shallow groundwater contamination is present in the

highest concentrations at wells to the south of the southern "hot spot", with no detected concentrations of PCE in wells to the north of the building (however, no well is located within the boundary of the northern "hot spot"). Similarly, PCE concentrations in the bedrock wells are highest to the south of the building.

2.0 Sampling Plan

2.1 Specified Objective

The objective of this IAMP is to assess indoor air quality (IAQ) associated with volatile organic compounds (VOCs), specifically PCE, in soils and groundwater at the General Switch property that were identified during previous environmental investigations.

If warranted, mitigation actions may be taken at a later date. It is not an objective of this IAMP to propose specific mitigation actions, as necessary actions cannot be determined until IAMP activities are complete.

2.2 Air Sampling

2.2.1 Site Preparation

- *Scheduling of Sampling Event*

  Sampling will be timed, in coordination with on-site management, to occur when the building is not in use.

- *Closed-building Conditions*

  The building will remain closed during the term of the sampling event. Any direct opening to the outside will be sealed (e.g., open windows, window fans, etc.) and mechanical fans turned off. The heating system and any HVAC systems present will be operated consistent with the usual pattern of operation (heating systems produce temperature and pressure differentials that tend to draw contaminants into the building from subsurface soils under and around the building), resembling reasonable worst-case conditions.

- *On-site Personnel Notifications*

  On-site personnel will be notified of possible IAQ concerns and plans for indoor air monitoring in accordance with Occupations Safety & Health Administration (OSHA).

- *Agency Notification/ Oversight Mandate*

  The USEPA will be notified in writing at least one week prior to the initiation of the air sampling event.

2.2.2 Sample Collection: Indoor Air Quality

Task 1a: Physical Inspection for On-site Vapor Sources

Prior to sample collection, the on-site building will be inspected to identify any "point sources", where chemicals are used or stored, that would significantly impact testing results. The inspection and any findings will be recorded on a standard Survey Form (attached as Appendix B). The building manager will also be interviewed as an information reference for all portions of the Survey Form. Any potentially confounding indoor sources shall be removed from the warehouse prior to sampling. Additionally, the Site will be screened in multiple locations using a photo-ionization detector (PID) calibrated to 100 parts per million-calibration gas equivalents (ppm-cge) isobutylene in air. The purpose of this screening will be to determine if there are any "hot spots" that would legitimize the relocation of a proposed sampling point. The pre-sampling inspection shall also include an interview with the building manager.

Task 1b: Survey of Potential Off-site Vapor Sources

Prior to sample collection, potential off-site sources will be evaluated. Any identified sources of "fugitive vapors" will be noted, and additional ambient air samples will be taken from locations between potential off-site sources and the on-site building.

Task 2: Sample Collection

Six Summa canisters fitted with calibrated flow controllers will be used to collect the air samples. The canisters will be certified clean by the laboratory. The sampling canister placed near the expansion joint will be placed on the slab. The remaining indoor sampling canisters will be placed at a height of three feet off the floor. The Summa canisters will be set to collect air over an eight (8) hour period (the average length of time per day a full-time employee is present on-site). An eight-hour sample will allow for a time-weighted average.

Air samples from five points (four indoor, and one outdoor) will be collected. A method blank will also be included. Proposed Air Sampling Points are shown on Figure 3 in Appendix A. Proposed indoor sample points include a bathroom area near the northern "hot spot", office space in the northwest corner of the building, a point near the expansion joint approximate to the center of the building, and a point near the southern "hot spot". The outdoor sample will be collected from a point upwind of the on-site building, and away from potential fugitive vapor sources, including roadways. The outdoor "field blank" location will be determined at the time of the survey, based on wind direction.

Field logs will be maintained that record ambient outdoor and indoor temperature, outdoor and indoor humidity, outdoor and indoor barometric pressure prior to and after sampling is completed. For each sampling canister,

the pre- and post-sample canister pressure, start and stop times, and the exact location of each sampling point will be recorded. Any obvious mitigating factors (e.g., drafts, noted foundation or floor cracks, etc.) will also be recorded.

2.2.3 Sample Collection: Subslab Gas

Subslab gas sampling will be conducted to determine if subsurface contamination is a potential source of VOCs. One subslab air sample will be collected from a sampling point located near the southern "hot spot" (see Proposed Air Sampling Point, in Appendix A). The sample will be collected in the following manner:

Subslab gas sampling will be conducted through driven soil gas probes utilizing a Geoprobe Post-Run Tubing System (PRT). The sampling device will be driven to an approximate depth of five (5) feet below surface grade (BSG), but actual depth will be dependent on Site conditions. The cause of any significant deviation from this depth will be documented. The probe will then be retracted one (1) foot to create a void space between the 4 to 5 foot interval.

Sample tubing (0.188 inch inner diameter Teflon) will be inserted through the probe rod and attached to an adapter within the bottom probe rod. The surface and any space between the borehole and probe rod will be sealed off with a non-VOC containing material and hydrated to prevent surface air from entering the system. Before purging, a properly calibrated PID will be used to measure volatile organics by connecting the PID to the inserted Teflon tubing. Field measurement of temperature and weather conditions will also be records at the time of sampling.

A vacuum pump will be utilized to purge the standing air from the tubing and open soil interval prior to sample collection. The exact purge volume will be dependent on the boring depth and subsequent length of tubing. Three borehole and tubing volumes will be purged prior to collection.

The formula for calculating purge volume (under these conditions) is detailed below:

internal volume of 0.188 inch inner diameter tubing	=	5.43 millileters/foot [ml.ft]
5 foot bore hole typically utilizes 8 feet of tubing	=	43.44 ml per 8 feet of tubing
volume of a one (1) foot void	=	240 ml (approx.)
purge volume of one borehole and tubing	=	283 ml (approx.)
x 3	=	849 ml (approx.) total purge

Following purging of ambient air from the collection device, the subslab soil gas sample will be collected using a handheld sterile pump and a Tedlar bag.

2.2.4 Laboratory Analyses

After sample collection, samples will be transported within 24 hours via courier to York Analytical Laboratories, Inc., a New York State Department of Health Environmental

Laboratory Approval Program (ELAP) certified laboratory (ELAP # 10854) for VOC analyses. Appropriate chain of custody procedures will be followed.

Samples will be analyzed for volatile organic compounds using USEPA Method TO-14. All detected chlorinated compounds will be provided in the complete laboratory data and will be discussed in the Final Report

2.2.5 Laboratory Data Review

The Occupational Safety & Health Administration (OSHA) has recommended a permissible exposure limit (PEL) of 100 parts per million (ppm) of tetrachloroethylene averaged over an eight-hour work shift. The National Institute for Occupational Safety and Health (NIOSH) has amore conservative recommended exposure limit (REL) of 50 ppm for PCE. PCE-related compounds have NIOSH RELs that are similarly more conservative than their respective OSHA PELs. For the purpose of this assessment, air quality data will be compared to the more conservative NIOSH PELs.

Analytical laboratory reports will be reviewed for detected PCE and TCE as well as any other compound detected by the analyses. Any detected concentrations in excess of the NIOSH RELs will result in recommendation for specific follow-up actions. Other detected compounds, if any, will be compared to respective NIOSH PELs.

For this preliminary assessment, no independent data validation will be conducted.

3.0 Timing

This sampling event will be conducted within three weeks of written authorization from the USEPA. A second sampling round may be warranted depending on the data from this round.

The air sampling described in this IAMP will be conducted within three weeks of the USEPA's written acceptance of this IAMP. Because meteorological conditions influence the penetration and distribution of pollutants into a structure, periods of extreme weather may postpone implementation of the IAMP. The following meteorological conditions will be sufficient cause for postponing sampling:

- Temperature – between 40 and 85 degrees Fahrenheit
- Humidity – between 30 and 65%

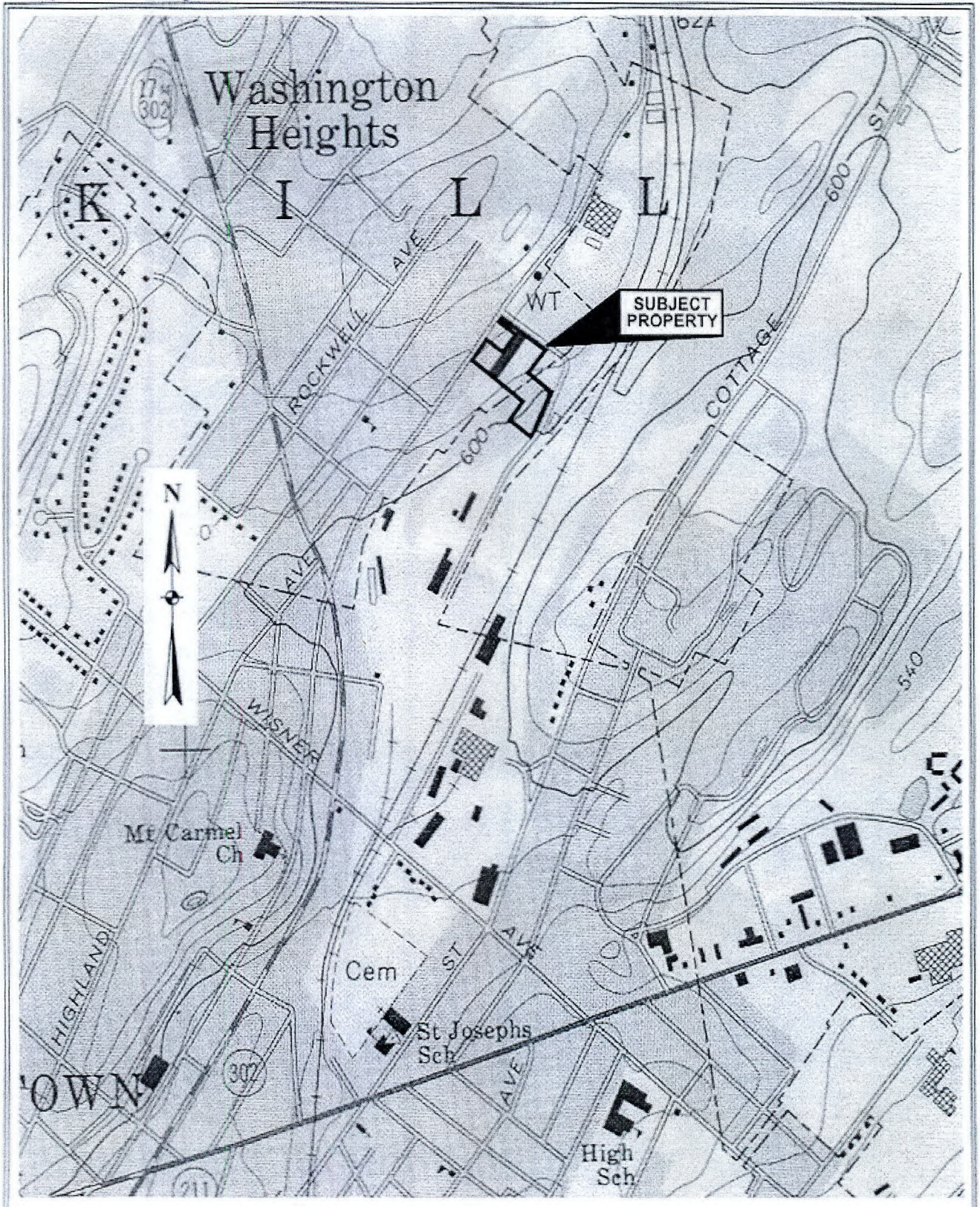
4.0 Deliverables

Upon receipt of laboratory results, an Interim Indoor Air Quality Report (IIAQ Report) will be prepared that summarizes all fieldwork conducted (including field recordings and mitigating factors), laboratory findings, and conclusions and recommendations. This IIAQ Report will include (as appendices) figures detailing sampling points, field logs, laboratory analyses and a QA/QC report from an independent, third party.

Within three weeks of receipt of all laboratory reports and QA/QC reports, three copies of the IIAQ Report will be delivered to the USEPA.

APPENDIX A

MAPS

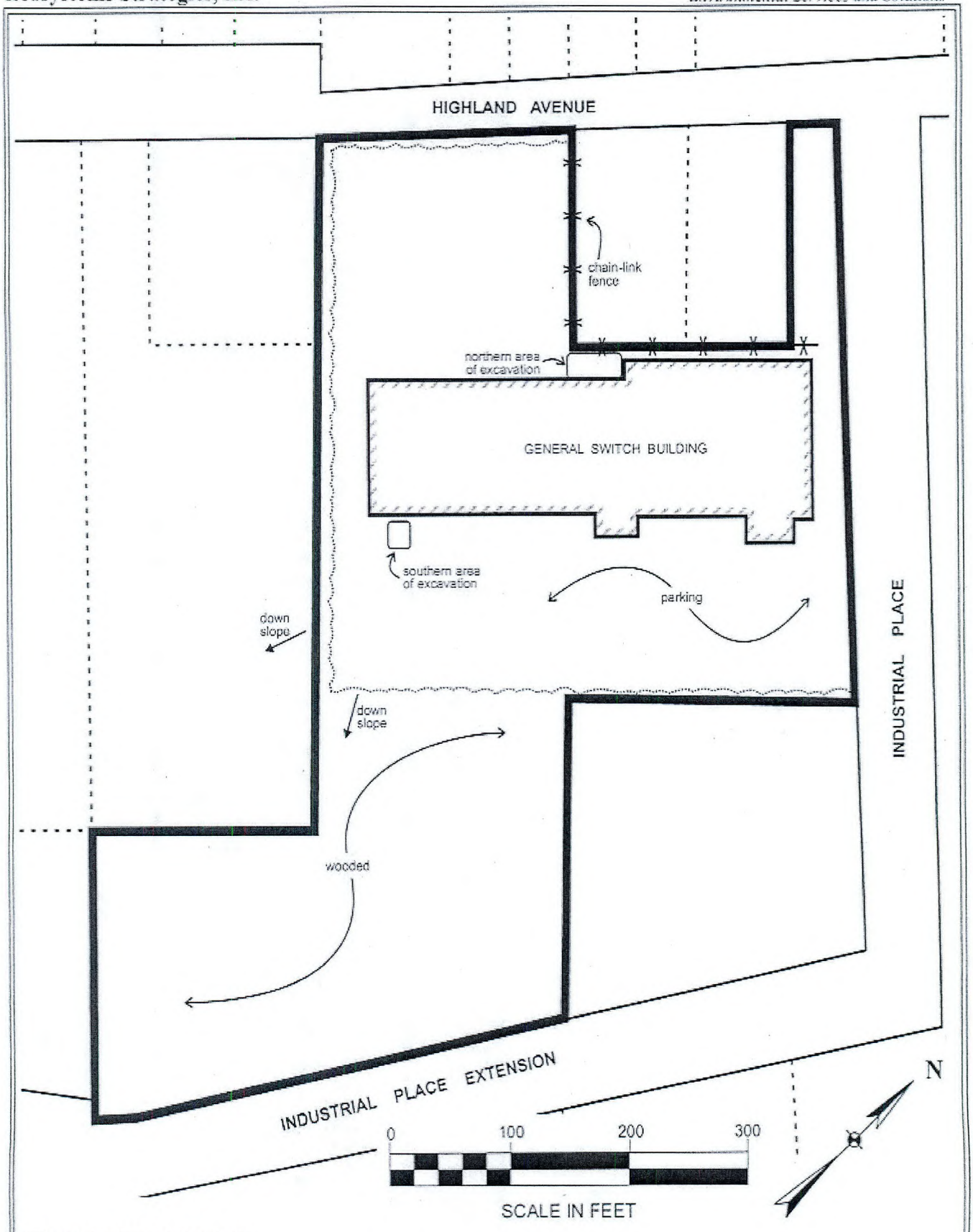


Source: U.S. Department of the Interior Geological Survey Topographic Map of the Middletown, NY Quadrangle, dated 1969 (photorevised 1976).

Figure 1 - Site Location on U.S.G.S. Topographic Map
General Switch Property
20 Industrial Place, City of Middletown
Orange County, New York

Legend:
subject property border

ESI File: LM97145.41
January 2004
Scale 1 : 24,000
Appendix A - Figure 1



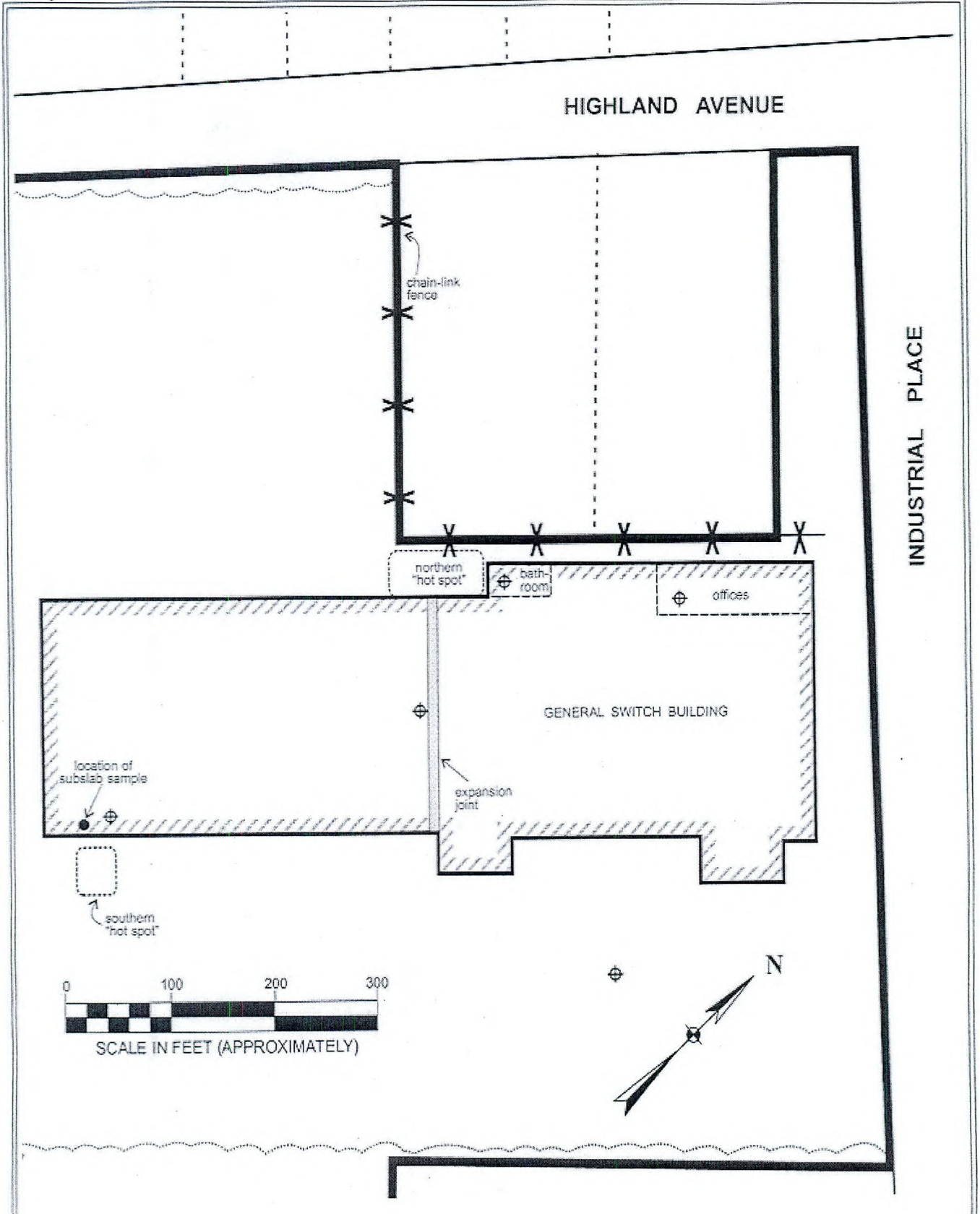
All feature locations are approximate.
Map sources: Shakti Consultants, Inc. 1991 and Lawler, Matusky & Skelly Engineers, LLP, 1998.

Figure 2 - Site Property Map

General Switch Site
City of Middletown, Orange County, New York

Legend:
subject property border

ESI File: LM97145.41
January 2004
Appendix A - Figure 2



All feature locations are approximate.
Map sources: Shakti Consultants, Inc. 1991 and Lawler, Matusky & Skelly Engineers, LLP, 1998.

Figure 3 - Proposed Air Sampling Points

General Switch Site
City of Middletown, Orange County, New York

Legend:
⊕ proposed air sampling point

ESI File: LM97145.41
January 2004
Appendix A - Figure 3

APPENDIX B

Survey Form

INDOOR AIR QUALITY BUILDING SURVEY

Date: _____ ID#: _____
Address: _____
_____
_____

Residential Contact: _____
Phone: home: ( )_____ work: ( )_____

List of Current Occupants/Occupation:

AGE (IF UNDER 18)	SEX (M/F)	OCCUPATION

Building Construction Characteristics:

What type of building do you have? (Circle appropriate response)

Single Family	Multiple Family	School	Commercial
Ranch	2-Family		
Raised Ranch	Duplex		
Cape	Apartment House		
Colonial	# of units ____		
Split Level	Condominium		
Colonial	# of units ____		
Mobile Home	Other (specify) _____		
Other (specify) _____			

General Description of Building Construction Materials: _____
_____

How many occupied stories does the building have? _____

Has the building been weatherized with any of the following? (Circle all that apply)
Insulation Storm Windows Energy-Efficient Windows Other (specify) _____

What type of basement does the building have? (Circle all that apply)
Full basement Crawlspace Slab-on-Grade Other (specify) _____

What are the characteristics of the basement? (Circle all that apply)

Finished	Basement Floor:	Foundation Walls:	Moisture:
Unfinished	Concrete	Poured Concrete	Wet
	Dirt	Block	Damp
	Other (specify) _____	Layed Up Stone	Dry

Is a basement sump present? (Y/N) ____
Does the basement have any of the following characteristics (i.e., preferential pathways into the building) that might permit soil vapor entry? (Circle all that apply)

Cracks Pipes/Utility Conduits Other (specify) _____
Foundation/slab drainage Sump pumps

Heating and Ventilation System(s) Present:

What type of heating system(s) are used in this building? (Circle all that apply)

Hot Air Circulation Heat Pump Steam Radiation Wood Stove
Hot Air Radiation Unvented Kerosene heater Electric Baseboard Other (specify): _____

What type (s) of fuel(s) are used in this building? (Circle all that apply)

Natural Gas Electric Coal Other (specify): _____
Fuel Oil Wood Solar

What type of mechanical ventilation systems are present and/or currently operating in the building? (Circle all that apply)

Central Air Conditioning Mechanical Fans Bathroom Ventilation Fan
Individual Air Conditioning Units Kitchen Range Hood Air-to-Air Heat Exchanger
Open windows Other (specify): _____

Sources of Chemical Contaminants:

Which of these items are present in the building? (Check all that apply)

Potential VOC Source	Location of Source	Removed 48 hours prior to sampling (Yes/No/NA)
Paints or paint thinners		
Gas-powered equipment		
Gasoline storage cans		
Cleaning solvents		
Air fresheners		
Oven cleaners		
Carpet/upholstery cleaners		
Hairspray		
Nail polish/polish remover		
Bathroom cleaner		
Appliance cleaner		
Furniture/floor polish		
Moth balls		
Fuel tank		
Wood stove		
Fireplace		
Perfume/colognes		
Hobby supplies (e.g., solvents, paints, lacquers, glues, photographic darkroom chemicals)		
Scented trees, wreaths, potpourri, etc.		
Other		
Other		

Do one or more smokers occupy this building on a regular basis?
Has anybody smoked in the building in the last 48 hours?
Does the building have an attached garage?
If so, is a car usually parked in the garage?

Do the occupants of the building frequently have their clothes dry-cleaned?

Was there any recent remodeling or painting done in the building?

Are there any pressed wood products in the building (e.g., hardwood plywood wall paneling, particleboard, fiberboard)?

Are there any new upholstery, drapes or other textiles in the building?

Has the building been treated with any insecticides/pesticides? If so, what chemicals are used and how often are they applied?

_____
_____
_____

Do any of the occupants apply pesticides/herbicides in the yard or garden? If so, what chemicals are used and how often are they applied?

_____
_____
_____

Outdoor Sources of Contamination:

Is there any stationary emission source in the vicinity of the building? _____
_____

Are there any mobile emission sources (e.g., highway; bus stop; high-traffic area) in the vicinity of the building?

_____
_____

Weather Conditions During Sampling:

Outside Temperature (°F):
Prevailing wind direction: _____
Describe the general weather conditions (e.g., sunny, cloudy, rain): _____
Was there any significant precipitation (0.1 inches) within 12 hours preceding the sampling event? _____
Type of ground cover (e.g., grass, pavement, etc.) outside the building: _____

General Comments

Is there any other information about the structural features of this building, the habits of its occupants or potential sources of chemical contaminants to the indoor air that may be of importance in facilitating the evaluation of the indoor air quality of the building?

_____
_____
_____

(NHDES, 1998; NYDOH, 1997; VDOH, 1993)