

Notice: Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

Definitions

"Property" refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

"Liability Clarification" refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

"Technical Assistance" refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

"Post-closure modification" refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do not use this form if one of the following applies:

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: dnr.wi.gov/topic/Brownfields/Pubs.html.

Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 2 of 6

Section 1. Contact and Recipient Information

Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Ivey	First Joshua	MI H	Organization/ Business Name Milwaukee Holdings LLC
Mailing Address P.O. Box 8460			City Des Moines
			State IA
			ZIP Code 50301
Phone # (include area code) (319) 530-0289	Fax # (include area code)	Email josh@woolysdm.com	

The requester listed above: (select all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Is currently the owner | <input type="checkbox"/> Is considering selling the Property |
| <input type="checkbox"/> Is renting or leasing the Property | <input type="checkbox"/> Is considering acquiring the Property |
| <input type="checkbox"/> Is a lender with a mortgagee interest in the Property | |
| <input type="checkbox"/> Other. Explain the status of the Property with respect to the applicant: | |

Contact Information (to be contacted with questions about this request) Select if same as requester

Contact Last Name Ivey	First Joshua	MI H	Organization/ Business Name Milwaukee Holdings LLC
Mailing Address P.O. Box 8460			City Des Moines
			State IA
			ZIP Code 50301
Phone # (include area code) (319) 530-0289	Fax # (include area code)	Email josh@woolysdm.com	

Environmental Consultant (if applicable)

Contact Last Name Anderson	First Timothy	MI J	Organization/ Business Name United Engineering Consultants, Inc.
Mailing Address 16237 W. Ryerson Road			City New Berlin
			State WI
			ZIP Code 53151
Phone # (include area code) (262) 785-1447	Fax # (include area code) (262) 706-4400	Email tauec@sbcglobal.net	

Section 2. Property Information

Property Name Comedy Club Cafe (Former)	FID No. (if known) 341170170
BRRTS No. (if known) 02-41-553001	Parcel Identification Number 3600045100
Street Address 615 E. Brady Street	City Milwaukee
	State WI
	ZIP Code 53202
County Milwaukee	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Milwaukee
	Property is composed of: <input checked="" type="radio"/> Single tax parcel <input type="radio"/> Multiple tax parcels
	Property Size Acres 0

**Technical Assistance, Environmental Liability
Clarification or Post-Closure Modification Request**

Form 4400-237 (R 9/15)

Page 3 of 6

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

- No Yes

Date requested by: 03/30/2018

Reason: SBA loan is contingent on WDNR review of the Remedial Action Plan (RAP)

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

- No. **Include the fee that is required for your request in Section 3, 4 or 5.**
 Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:

Section 3. Technical Assistance or Post-Closure Modifications;

Section 4. Liability Clarification; or Section 5. Specialized Agreement.

Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
 - Include a fee of \$300 for sites with residual soil contamination; and
 - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: dnr.wi.gov/topic/Brownfields/Igu.html#tabx4.

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model (dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf).

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model (dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf).

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of \$1400, and the information listed below:**

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

Section 6. Other Information Submitted

Identify all materials that are included with this request.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

Phase I Environmental Site Assessment Report - Date: _____

Phase II Environmental Site Assessment Report - Date: _____

Legal Description of Property (required for all liability requests and specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater Soil Sediment Other medium - Describe: _____

Date of Collection: 10/19/2017

A copy of the closure letter and submittal materials

Draft tax cancellation agreement

Draft agreement for assignment of tax foreclosure judgment

Other report(s) or information - Describe: _____

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): _____

No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at:

dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf.

Technical Assistance, Environmental Liability
Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 5 of 6

Section 7. Certification by the Person who completed this form

I am the person submitting this request (requester)

I prepared this request for: Joshua Ivey

Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

Timothy J. Anderson
Signature

3/5/2018
Date Signed

PRINCIPAL
Title

262-785-1447
Telephone Number (include area code)

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 6 of 6

Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a [DNR regional brownfields specialist](#) with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

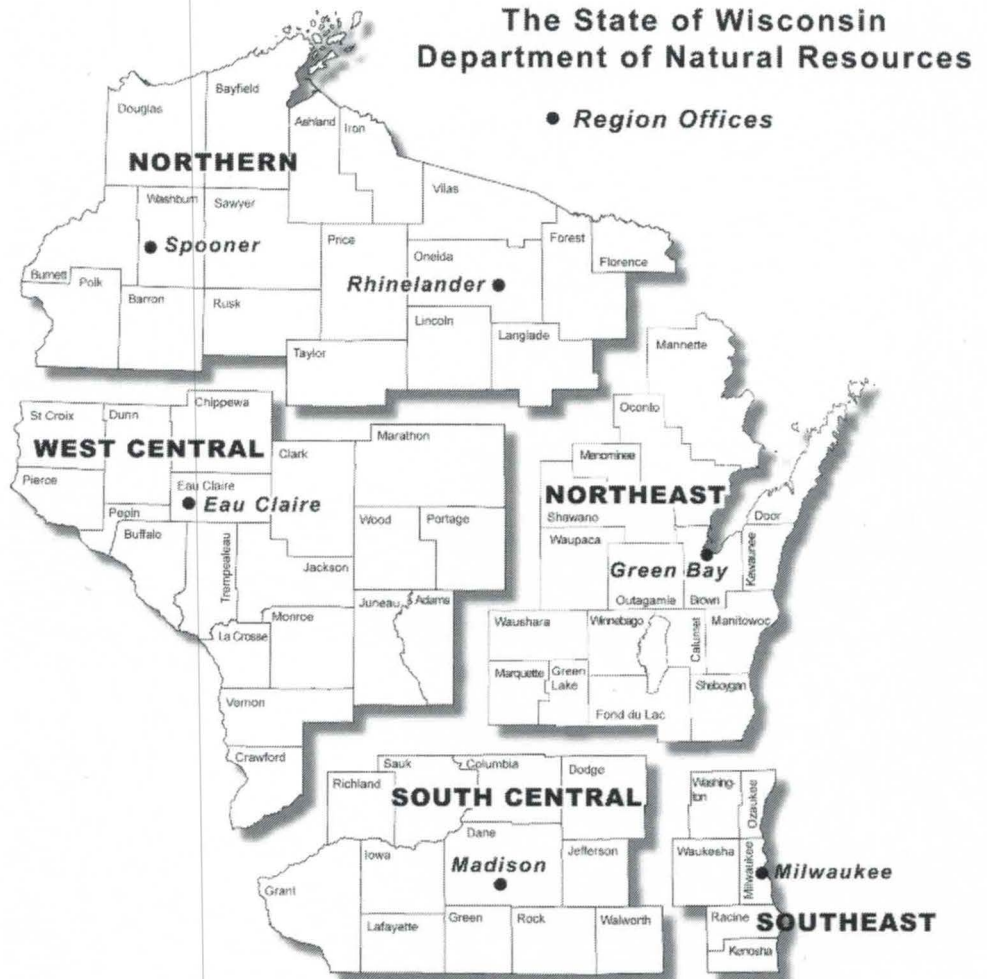
DNR NORTHERN REGION
 Attn: RR Program Assistant
 Department of Natural Resources
 223 E Steinfest Rd Antigo, WI 54409

DNR NORTHEAST REGION
 Attn: RR Program Assistant
 Department of Natural Resources
 2984 Shawano Avenue
 Green Bay WI 54313

DNR SOUTH CENTRAL REGION
 Attn: RR Program Assistant
 Department of Natural Resources
 3911 Fish Hatchery Road
 Fitchburg WI 53711

DNR SOUTHEAST REGION
 Attn: RR Program Assistant
 Department of Natural Resources
 2300 North Martin Luther King Drive
 Milwaukee WI 53212

DNR WEST CENTRAL REGION
 Attn: RR Program Assistant
 Department of Natural Resources
 1300 Clairemont Ave.
 Eau Claire WI 54702



Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		



March 5, 2018

Ms. Nancy Ryan
Wisconsin Department of Natural Resources
Southeast Region Office
2300 N. Martin Luther King Jr. Drive
Milwaukee, Wisconsin 53212

RE: Remedial Action Plan (RAP)
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202
UEC Project No. 17028
BRRTS No. 02-41-553001

Dear Ms. Ryan:

United Engineering Consultants, Inc. (United) is pleased to submit this Remedial Action Plan (RAP) which addresses the chlorinated solvent impacted soil and sub-slab vapor at the above referenced property. Should you have any questions regarding the information contained in this report, or if we may be of any additional assistance on this project, please contact us by mail at 16237 W. Ryerson Road New Berlin, Wisconsin 53151, telephone at (262) 785-1447 or via email at tauec@sbcglobal.net.

Sincerely,
United Engineering Consultants, Inc.

Nick Anderson

Nicholas J. Anderson, E.I.T.
Staff Engineer

Timothy J. Anderson

Timothy J. Anderson, P.E.
Principal

Cc: Mr. Josh Ivey JRS Management Inc.

REMEDIAL ACTION PLAN

PERFORMED AT:

**FORMER COMEDY CLUB CAFE
615 E. BRADY STREET
MILWAUKEE, WISCONSIN 53202**

PREPARED FOR:

**MR. JOSH IVEY
JRS MANAGEMENT INC.
P.O. BOX 8460
DES MOINES, IOWA 50301**

MARCH 5, 2018

PREPARED BY:

**UNITED ENGINEERING CONSULTANTS, INC.
16237 W. RYERSON ROAD
NEW BERLIN, WISCONSIN 53151**

TABLE OF CONTENTS

CERTIFICATION

EXECUTIVE SUMMARY

SECTION I – INTRODUCTION	1
SITE DESCRIPTION	1
UTILITIES	1
ADJACENT PROPERTIES	1
SECTION II – PROPOSED SITE DEVELOPMENT	5
SECTION III - SITE CHARACTERIZATION	5
SOIL CONDITIONS.....	5
GROUNDWATER OBSERVATIONS	5
SECTION IV – NATURE AND EXTENT OF TCE AND PCE IMPACTS	6
SECTION V – REMEDIAL ACTION.....	8
SOIL EXCAVATION AND OFF-SITE DISPOSAL	8
SUB-SLAB VAPOR DEPRESSURIZATION SYSTEMS	9

TABLES

- Table 1 – Soil Analytical Results – VOC – November 7, 2005, March 30, 2009, November 30, 2009 and August 23, 2016
- Table 2 – Sub-Slab Vapor Analytical Results – VOC – April 11, 2011, June 9, 2015 and November 17, 2015
- Table 3 – Ambient Air Vapor Analytical Results – VOC – October 12, 2011, June 9, 2015, September 17, 2015 and November 17, 2015
- Table 4 – Soil Analytical Results – VOC– September 12, 2017
- Table 5 – Soil Analytical Results – VOC – October 19, 2017

FIGURES

- Figure 1 – Site Location Map
- Figure 2 – Site Plan Map
- Figure 3 – Soil Boring and Groundwater Monitoring Well Location Map
- Figure 4 – Ambient and Sub-Slab Vapor Sample Location Map
- Figure 5 – Approximate Lateral Extent of Trichloroethene Impacted Soil above its Non-Industrial Direct Contact RCL
- Figure 6 – Approximate Lateral Extent of Trichloroethene Impacted Soil above its Industrial Direct Contact RCL
- Figure 7 – Approximate Lateral Extent of Trichloroethene Impacted Soil above its Groundwater Pathway RCL
- Figure 8 – Approximate Lateral Extent of Tetrachloroethene Impacted Soil above its Non-Industrial Direct Contact RCL
- Figure 9 – Approximate Lateral Extent of Tetrachloroethene Impacted Soil above its Groundwater Pathway RCL
- Figure 10 – Approximate Lateral Extent of TCE and/or PCE Impacted Sub-Slab Vapor in Exceedance of Residential VRSLs
- Figure 11 – Approximate Lateral Extent of PCE and/or TCE Impacted Sub-Slab Vapor in Exceedance of Small Commercial VRSLs

APPENDIX

- Waste Management Profile 128792WI
Pressure Field Extension (PFE) Testing Results
Proposed Commercial Building Sub-Slab Vapor Depressurization System
Proposed Exterior Vertical Pipe and Earth Gas Fan for the Commercial Building
Proposed Residential Sub-Slab Vapor Depressurization System
Proposed Exterior Vertical Pipe and Earth Gas Fan for the Duplex

CERTIFICATION

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

Timothy J. Anderson

Principal

March 5, 2018

I, Nicholas J. Anderson, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Nick Anderson

Staff Engineer

March 5, 2018

EXECUTIVE SUMMARY

The subject property is located at 615 E. Brady Street which is within the Northwest $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 21, Township 7 North, Range 22 East of the City of Milwaukee in Milwaukee County, Wisconsin. The parcel's Wisconsin Transverse Mercator (WTM) X and Y coordinates are 690681 and 288806, respectively, as noted by the Bureau for Remediation and Redevelopment Tracking System (BRRTS). The active BRRTS number for the site is 02-41-553001.

The subject property is approximately 0.20 acres in size and is currently occupied by a duplex approximately eleven hundred seventy four (1,174) square feet in plan dimension. The basement of the duplex was most recently utilized as a break room and office for the former Comedy Club Cafe. The first floor contains three (3) bedrooms and one (1) bathroom. The second floor is approximately six hundred thirty seven (637) square feet in plan dimension and consists of two (2) bedrooms and a bathroom.

The foundation for a former three thousand five hundred seventy nine (3,579) square foot commercial structure is located immediately east-northeast of the duplex. The surface of the interior of the former commercial building is covered with sand and gravel. The remainder of the surface of the subject property is covered with concrete and asphaltic concrete.

Due to the presence of Trichloroethene (TCE) and Tetrachloroethene (PCE) sub-slab vapors at concentrations in exceedance of their respective residential and small commercial VRSLs in the former commercial building and existing duplex, soil excavation and proper off-site disposal will be necessary to reduce the mass and concentration of TCE and PCE in the soil per NR 726.05 (8) (b) (1) to obtain site closure. Due to the planned eight hundred (800) square foot addition located immediately north of the former commercial building foundation, approximately one hundred fifty (150) tons of soil will be excavated to facilitate the installation of the perimeter frost depth footings. Although TCE and PCE were not documented in the nearest boreholes, GP-3, 15, 16 and 17, at concentrations at or above their respective detection limits throughout the planned excavation depth of approximately five (5) feet below the existing grade, these soils will be considered impacted and will be transported to Waste Management's Metro RDF in Franklin, Wisconsin.

In addition, twenty five (25) tons of TCE and PCE impacted soil at GP-5, which is within the proposed addition footprint, will also be excavated to an approximate depth of five (5) feet to remove the TCE and PCE concentrations of sixty (60) and eighty seven (87) parts per billion (ppb) documented at the three (3) to four (4) foot sample interval. Any soil excavated for placement of the interior column pads in the footprint of the former commercial structure or during evaluation and/or reinforcement of the existing foundation will also be transported to Metro RDF. Waste Management has issued profile number 128792WI for these soils.

TCE and PCE are present at concentrations exceeding their respective Groundwater Pathway and Industrial and/or Non-Industrial Direct Contact RCLs at the approximate sample interval of seven (7) to nine (9) feet at GP-20 which is located at the southwest corner of the site. TCE and PCE are not present at concentrations in exceedance of their respective RCLs or detection limits at the three (3) to four (4) foot and nineteen (19) to twenty (20) foot sample intervals at GP-35 and 41 located approximately seven (7) feet to the northwest. In addition, TCE is present at a concentration exceeding its Non-Industrial Direct Contact RCL at the approximate sample interval of one (1) to two (2) feet at GP-36 which is located immediately west of the former westernmost footing of the former commercial building. TCE and PCE are also present at concentrations exceeding their respective Groundwater Pathway RCL at GP-4 and GP-39 located about ten and one-half (10½) feet north and six (6) feet west of GP-36 at the approximate sample intervals of one (1) to two (2) and three (3) to four (4) feet, respectively. TCE and PCE Direct Contact RCL exceedances are not present at GP-4, 36 and 39 at approximate depths exceeding six (6) feet.

To attempt to reduce the mass and concentration of TCE and PCE in the soil, about fifty (50) tons of impacted soil at approximately five (5) to ten (10) feet in the immediate area of GP-20 and the approximate upper six (6) feet at GP-36 and possibly extending north to GP-4 and west to GP-39 will be excavated and transported to Metro RDF for proper disposal. However, several existing underground utilities are present in these areas which may significantly limit or prohibit removal. The accessibility of these soils to typical excavation techniques will be determined during installation or upgrade of the potable water, sanitary sewer and natural gas service for the proposed commercial building.

If excavation in these areas is practicable, a second Waste Management profile would be generated for these soils due to the increase in documented TCE and PCE concentrations at these areas of the site. Toxicity Characteristic Leaching Procedure (TCLP) analysis for TCE and PCE may be required to receive landfill approval. Excavation limit sampling will be performed subsequent to soil removal. The samples will be analyzed for the presence of VOCs.

Based on the results of the Pressure Field Extension (PFE) or sub-slab vacuum testing it was determined that the entire concrete slab would be removed in the former commercial building footprint and two (2) sub-slab depressurization systems will be installed for the proposed development. The system for the planned commercial building will consist of the installation of four (4) inch diameter triple wall perforated Polyvinyl Chloride (PVC) schedule 40 piping around the interior foundation perimeter. The holes in the PVC piping will face downward and laterally and the piping will be surrounded by #1 stone with a minimum of two (2) inches of stone below and adjacent to the piping. Six (6) inches of #1 stone will extend across the entire building footprint to insure total air flow beneath the concrete slab. The piping and #1 stone will be overlain by twelve (12) inch lapped forty (40) mil polyethylene plastic and a four (4) inch concrete slab. The lapping will be caulked and taped.

The horizontal perforated piping will be connected to a four (4) inch diameter vertical pipe located at the southeast corner of the proposed commercial structure which will extend above the planned roof line to an exterior earth gas fan. One hundred ten (110) volt at 1.5 amp maximum wire will be extended from the building to a 15A exterior rated outlet installed adjacent to the exterior fan. A manometer will be placed along the interior of the eastern wall of the commercial structure for monthly inspection.

The proposed system for the duplex will also consist of four (4) inch diameter triple wall perforated Polyvinyl Chloride (PVC) schedule 40 piping placed in a U shaped trench ranging in width from approximately twelve (12) to twenty (20) inches and about ten (10) to twelve (12) inches in depth. The holes in the piping will face downward and laterally and the piping will be surrounded by a minimum of two (2) inches of #1 stone below and adjacent to the piping. The piping will be overlain by forty (40) mil polyethylene plastic and a four (4) inch concrete slab.

The horizontal perforated piping will be connected to a vertical four (4) inch diameter PVC pipe located at the northeast corner of the duplex which will extend above the planned roof line. The exterior earth gas fan will be located at the bottom of the vertical pipe. One hundred ten (110) volt at 1.5 amp maximum wire will be extended from the duplex to a 15A exterior rated outlet installed adjacent to the exterior fan. A manometer will be placed along the interior of the northern wall of the duplex for monthly inspection.

Following construction and initial operation of the duplex sub-slab depressurization system, adequate sub-slab vacuum testing will be performed to confirm negative pressure beneath the entire duplex basement concrete slab. Sub-slab vacuum testing of the commercial building will not be necessary subsequent to initial system operation due to anticipated unrestricted air flow throughout the uniform six (6) inch stone sub-base. It is estimated that approximately two hundred fifty (250) Cubic Feet per Minute (CFM) of air flow will be generated beneath the proposed four thousand (4000) square foot floor slab.

The planned schedule for the implementation of the proposed remedial actions consists of TCE and PCE impacted soil excavation and off-site disposal in March and April of 2018 and the installation of the sub-slab depressurization systems in May of 2018. It should be noted that the interior portion of the sub-slab depressurization system will be installed in March of 2018. The exterior portion of the system will be completed in May of 2018.

The sub-slab depressurization system design and final construction specifications as well as an Operations and Maintenance (O&M) plan will be documented in attachment D of the Case Closure – GIS Registry Form 4400-202. The vapor mitigation trench located immediately north of the duplex will be properly abandoned during site development activities.

SECTION I – INTRODUCTION

SITE DESCRIPTION

The subject property is located at 615 E. Brady Street which is within the Northwest ¼ of the Southwest ¼ of Section 21, Township 7 North, Range 22 East of the City of Milwaukee in Milwaukee County, Wisconsin (See Figure 1 – Site Location Map). The parcel's Wisconsin Transverse Mercator (WTM) X and Y coordinates are 690681 and 288806, respectively, as noted by the Bureau for Remediation and Redevelopment Tracking System (BRRTS). The active BRRTS number for the site is 02-41-553001.

The subject property is approximately 0.20 acres in size and is currently occupied by a duplex approximately eleven hundred seventy four (1,174) square feet in plan dimension. The basement of the duplex was most recently utilized as a break room and office for the former Comedy Club Cafe. The first floor contains three (3) bedrooms and one (1) bathroom. The second floor is approximately six hundred thirty seven (637) square feet in plan dimension and consists of two (2) bedrooms and a bathroom.

The foundation for a former three thousand five hundred seventy nine (3,579) square foot commercial structure is located immediately east-northeast of the duplex. The surface of the interior of the former commercial building is covered with sand and gravel. The remainder of the surface of the subject property is covered with concrete and asphaltic concrete (See Figure 2 – Site Plan Map).

UTILITIES

Underground natural gas, sanitary sewer and potable water service entered the former commercial site building and enters the duplex along their respective western elevations from laterals connected to mains in the N. Jackson Street right-of-way. An apparent abandoned catch basin is located in the N. Jackson Street right-of-way immediately adjacent to the western property line. Electric and telecommunication service is overhead.

ADJACENT PROPERTIES

The site is bordered to the north by the N. Water Street and E. Brady Street right-of-ways followed by an undeveloped property (1701 N. Water Street) and Brady Street Park (1711 N. Van Buren Street), the south by multi-level residential properties, the west by the N. Jackson Street right-of-way followed by a undeveloped property and the N. Water Street right-of-way and to the east by a public alleyway followed by a multi-tenant commercial building containing the Polished Nail Bar (621 E. Brady Street), Digicopy (1681 N. Van Buren Street) and Wing Zone (1683 N. Van Buren Street) and the N. Van Buren Street right-of-way.

PROJECT BACKGROUND

A limited Phase I Environmental Site Assessment (ESA) performed by Key Engineering (Key) in November of 2005 included the advancement of three (3) soil borings and the installation of one (1) groundwater monitoring well in the paved parking area northwest of the site building (See Figure 3 – Soil Boring and Groundwater Monitoring Well Location Map). The results of the analysis of collected soil samples indicated the presence of Chlorinated Volatile Organic Compounds (CVOC) most likely from historic dry cleaner operations at the site and “low levels” of petroleum compounds from suspected service and filling station operations at the property between 1937 and 1962. The groundwater was not impacted with CVOCs at concentrations at or above their respective detection limits. Naphthalene and total Trimethylbenzenes were present in the groundwater at concentrations below their respective Preventive Action Limits (PALs).

In March and November of 2009 and August of 2016, Key advanced twenty two (22) additional borings on the subject property, the E. Brady Street and N. Jackson Street right-of-ways and in the alleyway immediately to the east (See Figure 3 – Soil Boring and Groundwater Monitoring Well Location Map). Soil samples were collected for analysis from the near surface to approximately fifteen (15) feet below the existing grade. The results of the analysis indicated the presence of several CVOCs, Petroleum Volatile Organic Compounds (PVOC) and Polycyclic Aromatic Hydrocarbons (PAH) in the soils at concentrations which exceed their respective Direct Contact Residual Contaminant Level (RCL) in the upper four (4) feet of the soil column and their Groundwater Pathway RCLs at various depths on the subject property and extending into the adjacent E. Brady Street and N. Jackson Street right-of-ways and most likely the adjacent alleyway to the east (See Table 1 – Soil Analytical Results – VOC – November 7, 2005, March 30, 2009, November 30, 2009 and August 23, 2016). Additional groundwater sampling did not indicate the presence of any CVOC and PVOC at concentrations in exceedance of their respective detection limits. Therefore it was determined that one hundred (100) percent of the total contaminated mass is estimated to be in the soil.

With regard to potential vapor intrusion of the CVOCs and PVOCs into the site building and adjacent structures, Key collected nine (9) sub-slab vapor samples from seven (7) sample ports in the main portion of the former Comedy Club Cafe building, the adjacent break room and the basement of the duplex at 1680 N. Jackson Street. Ambient air samples were collected from the foyer of the former Comedy Club Cafe, the break room and laundry room as well as the residence at 1680 N. Jackson Street. In addition, the outdoor air was sampled between the site building and the adjacent residence at 1680 N. Jackson Street (See Figure 4 – Ambient and Sub-Slab Vapor Sample Location Map).

The results of the vapor analysis initially indicated the presence of Trichloroethene (TCE) in the sub-slab samples (AS-1 and SS-4) collected from the basement of the duplex at concentrations in exceedance of its respective residential and small commercial sub-slab Vapor Risk Screening Levels (VRSLs). A subsequent sampling of SS-4B indicated the presence of TCE at a concentration only above its residential VRSL.

Tetrachloroethene (PCE) was present in the basement of the duplex at both sampled locations at concentrations exceeding its residential VRSL. PCE was also present at AS-1 at a concentration in exceedance of its small commercial VRSL.

TCE was present in the sub-slab vapor at the northeast corner of the main portion of the former Comedy Club Cafe building at a concentration in exceedance of its small commercial VRSL. The vapor analysis of sub-slab samples collected from the basement at 1680 N. Jackson Street did not indicate the presence of any compounds at concentrations in exceedance of their respective residential VRSLs (See Table 2 - Sub-Slab Vapor Analytical Results – VOC – April 11, 2011, June 9, 2015 and November 17, 2015).

TCE and PCE were not detected in the indoor ambient air in the basement of the duplex or the former commercial building at concentrations exceeding their residential or small commercial indoor air VRSLs. The most recent indoor ambient air analysis at 1680 N. Jackson Street did not indicate the presence of any compounds at concentrations in exceedance of their respective residential indoor air VRSLs (See Table 3 - Ambient Air Vapor Analytical Results – VOC – October 12, 2011, June 9, 2015, September 17, 2015 and November 17, 2015).

Based on the initial sub-slab and indoor air sampling results, Key coordinated the installation of a vapor mitigation trench immediately north of the laundry room and storage area of the former Comedy Club Cafe building. The trench is reportedly four (4) feet in depth to match the adjacent drain tile depth. The trench conduit is a slotted, schedule 40, four (4) inch diameter PVC pipe connected to a low voltage fan which discharged approximately two (2) feet above the Comedy Club Cafe roof line. The trench is reportedly filled with two (2) feet of pea gravel overlain by traffic bond and about four (4) inches of asphaltic concrete.

The results of the Site Investigation (SI) and remedial activities were submitted by Key to the WDNR with a Case Closure GIS Registry submittal on March 6, 2014. The WDNR rejected the site closure request on March 18, 2014 due to an incomplete NR 716 site investigation. The case closure denial letter requested the performance of additional soil sampling in the paved area of the property, specifically adjacent to GP-4, GP-19 and GP-20 and additional vapor intrusion pathway assessment of the Comedy Club Cafe building, the property to the east and the residence to the south. The assessment of the potential for migration of contaminants along utility lines was also requested. It was recommended that the requested additional site investigation activities be summarized in a SI Work Plan to be submitted to the WDNR for review prior to initiation of the investigative activities. The WDNR considered this closure request substantially incomplete and the fee submitted for the case closure review was applied to review of the SI report. The WDNR stated that an additional closure review fee would be required.

A second closure request was submitted to the WDNR by Key on December 8, 2016. The case closure was again denied on December 21, 2016 due to several remaining outstanding issues including but not limited to the completion of the previously requested additional soil sampling and analysis adjacent to GP-4, GP-19 and GP-20 and subsequent assessment of any pathways of concern related to residual soil contamination. Further discussion of the extent and degree of the residual soil contamination to the east was also recommended.

Additional vapor sampling was also requested including sub-slab sampling of existing vapor ports, if they remain at AS-1, SS-1, SS-3 and SS-4 and at additional locations in the main portion of the former Comedy Club Cafe building. The WDNR requested that the samples be collected at AS-1 and SS-4 a minimum of one (1) week subsequent to ceasing operation of the trench mitigation fan. The WDNR stated that a sub-slab depressurization system under the former commercial building would most likely be required to allow for future occupancy of the entire structure.

Additional evaluation and discussion of the sub-slab vapor and indoor ambient air results at the adjacent residence to the south at 1680 N. Jackson Street and the potential for vapor intrusion from the adjacent alley to the east into the building located at 1681-1683 E. Brady Street was also requested. The WDNR will require that the City of Milwaukee be re-notified regarding the actual soil impacts in the adjacent E. Brady Street and N. Jackson Street right-of-ways.

Based on the WDNRs repeated requests for additional soil sampling and analysis adjacent to GP-4, GP-19 and GP-20, United advanced nine (9) boreholes to approximate depths ranging from four (4) to twenty four (24) feet on September 12, and October 19, 2017. Soil samples were collected from various sample intervals ranging from one (1) to two (2) feet and twenty three (23) to twenty four (24) feet. The samples were analyzed for the presence of PAH and/or VOC depending on approximate depth and location (See Table 4 - Soil Analytical Results – VOC– September 12, 2017 and Table 5 – Soil Analytical Results – VOC – October 19, 2017). Based on the additional analytical results, the lateral and vertical extent of the TCE and PCE TCE impacted soil with concentrations exceeding their respective Non-Industrial, Industrial Direct Contact and Groundwater Pathway RCLs has been generally defined.

The WDNR stated they would consider waiving the requirement for additional sub-slab vapor sampling if an active sub-slab depressurization system were installed beneath the residential portion of the site building. In addition, a vapor mitigation system would be required in the commercial portion of the structure if it was to be occupied. Since the planned development includes the removal of the walls and roof of the commercial building and continued commercial occupancy of the basement of the duplex, a sub-slab depressurization system will be necessary beneath the duplex basement floor slab and the concrete slab for the planned bar and restaurant. Therefore, no additional sub-slab vapor sampling was performed.

SECTION II – PROPOSED SITE DEVELOPMENT

The proposed development will include the construction of a two (2) story restaurant and bar approximately four thousand (4,000) square feet in plan dimension. The planned second floor is approximately two thousand five hundred (2500) square feet in plan dimension. An approximate twelve hundred (1200) square foot terrace with an overhead four hundred (400) square foot patio are proposed along the western elevation of the planned restaurant and bar. A dumpster corral and walk in cooler are proposed immediately north of the duplex. The remaining existing asphaltic concrete and concrete will be removed and replaced with the exception of the asphaltic concrete beneath the proposed terrace.

The existing footings beneath the former commercial structure will be utilized for the foundation of the proposed two (2) story restaurant and bar. The proposed four thousand (4,000) square foot first floor includes an approximate eight hundred (800) square feet addition with proposed frost depth strip footings immediately north of the former commercial building footprint. The basement of the duplex will be utilized in the commercial development while the first and second floors will remain residential.

SECTION III - SITE CHARACTERIZATION

SOIL CONDITIONS

The surface of the site is covered with approximately four (4) to eight (8) inches of asphaltic concrete and/or concrete underlain by several inches of granular base course. The surface materials are typically underlain by very stiff to hard brown or gray clayey silt to silty clay with varying amounts of sand and gravel to at least the termination depth of the borings. Intermittent seams of sand and gravel are located throughout the investigated depth of the cohesive soils. The depth to bedrock is estimated to be greater than one hundred (100) feet and is identified as Dolomite and Shale of Devonian age. The hydraulic conductivity of the cohesive soils is estimated to be 0.0000001 cm/second or less.

GROUNDWATER OBSERVATIONS

A groundwater elevation measurement recorded in September of 2013 of the single NR 141 compliant monitoring well indicates the depth to shallow groundwater is approximately thirty two and one-half (32½) feet below the existing grade. A west-northwest flow direction is anticipated due to the presence of the Milwaukee River approximately four hundred (400) feet west of the site and the approximate seven (7) foot difference in elevation downward across the parcel to the northwest.

SECTION IV – NATURE AND EXTENT OF TCE AND PCE IMPACTS

The lateral extent of the TCE impacted soil at concentrations in exceedance of its Non-Industrial Direct Contact RCL is limited to an area immediately west of the former commercial building (GP-36) and at the southwest corner of the subject property (GP-20) and most likely extending to the west into the N. Jackson Street right-of-way. The approximate depth of the exceedance immediately west of the former commercial structure is estimated to extend from the near surface to approximately five (5) to six (6) feet due to its absence at a concentration at or above its detection limit at the approximate sample interval of nine (9) to ten (10) feet at GP-36. In addition, TCE was not present at a concentration in exceedance of its Non-Industrial Direct Contact RCL at the approximate one (1) to two (2) foot, three (3) to four (4) foot, six (6) to seven (7) foot and seven (7) to eight (8) foot sample intervals at GP-4 and GP-39 located about ten and one-half (10½) and six (6) feet to the north and west of GP-36, respectively.

The approximate depth of the TCE Non-Industrial Direct Contact RCL exceedance at the southwest corner of the site (GP-20) is assumed to extend from approximately five (5) feet to about ten (10) feet below the existing grade due to its absence at a concentration in exceedance of its detection limit at the three (3) to four (4) foot interval at GP-41 located approximately seven (7) feet to the northwest and at the approximate twelve (12) to thirteen (13) foot interval at GP-20. The TCE concentration at the approximate seven (7) to nine (9) foot interval is also in exceedance of its Industrial Direct Contact RCL (See Figure 5 – Approximate Lateral Extent of Trichloroethene Impacted Soil above its Non-Industrial Direct Contact RCL and Figure 6 – Approximate Lateral Extent of Trichloroethene Impacted Soil above its Industrial Direct Contact RCL).

TCE is present in the soil at concentrations in exceedance of its Groundwater Pathway RCL at the above referenced locations and depths and extending to the northwest and east beneath the former commercial building and into the adjacent alleyway and possibly the property at 1681 N. Van Buren Street. The depth of the TCE Groundwater Pathway RCL exceedances extend from the near surface soils to approximately six (6) feet beneath the existing ground surface immediately west and north of the former commercial building and to greater depths in the adjacent alleyway (See Figure 7 – Approximate Lateral Extent of Trichloroethene Impacted Soil above its Groundwater Pathway RCL).

The lateral extent of the PCE impacted soil at concentrations in exceedance of its Non-Industrial Direct Contact RCL is limited to an area at the southwest corner of the subject property and most likely extending into the N. Jackson Street right-of-way. The approximate depth of the PCE Non-Industrial Direct Contact RCL exceedance at the southwest corner of the site (GP-20) is assumed to extend from approximately five (5) feet to about ten (10) feet below the existing grade due to its absence at a concentration in exceedance of its detection limit and/or Non-Industrial Direct Contact RCL at the three (3) to four (4) foot sample interval at GP-41 located approximately seven (7) feet to the northwest and at the approximate twelve (12) to thirteen (13) foot sample interval at GP-20 (See Figure 8 - Approximate Lateral Extent of Tetrachloroethene Impacted Soil above its Non-Industrial Direct Contact RCL).

With the exception of the northeast corner of the site, PCE is present at concentrations in exceedance of its Groundwater Pathway RCL for the majority of the property and extending into the N. Jackson Street and N. Van Buren Street right-of-ways and the adjacent alleyway and possibly into the 1681 N. Van Buren Street parcel. The depth of the PCE Groundwater Pathway RCL exceedance extends from the near surface soils to approximate depths ranging from six (6) to eleven (11) feet beneath the existing ground surface (See Figure 9 - Approximate Lateral Extent of Tetrachloroethene Impacted Soil above its Groundwater Pathway RCL).

The results of the vapor analysis indicated the presence of TCE in the sub-slab samples (AS-1 and SS-4) collected from the basement of the duplex at concentrations in exceedance of its respective residential and small commercial sub-slab Vapor Risk Screening Levels (VRSLs). A subsequent sampling of SS-4B indicated the presence of TCE at a concentration only above its residential VRSL. PCE was present in the basement of the duplex at both sampled locations at concentrations exceeding its residential VRSL (See Figure 10 – Approximate Lateral Extent of TCE and/or PCE Impacted Sub-Slab Vapor in Exceedance of Residential VRSLs).

TCE was present in the sub-slab vapor at the northeast corner of the main portion of the former Comedy Club Cafe building at a concentration in exceedance of its small commercial VRSL. PCE was also present at AS-1 at a concentration in exceedance of its small commercial VRSL. (See Figure 11 – Approximate Lateral Extent of PCE and/or TCE Impacted Sub-Slab Vapor in Exceedance of Small Commercial VRSLs). TCE and PCE were not detected in the indoor ambient air in the basement of the duplex or the former commercial building at concentrations exceeding their residential or small commercial indoor air VRSLs.

Based on the sub-slab vapor analyses, it is possible that the TCE concentration in exceedance of its residential and small commercial VRSL at the northeast corner of the former commercial building is due to vapor intrusion from the documented Groundwater Pathway RCL TCE exceedances in the upper soils in the immediately adjacent alleyway. However, PCE is also present in the alleyway in the upper soils at concentrations in exceedance of its Groundwater Pathway RCL, but it is not present at the northeast corner in the sub-slab vapor at a concentration in exceedance of its small commercial VRSL. PCE is present at the northeast and northwest corner of the former commercial building at concentrations in exceedance of its residential VRSLs.

Vapor intrusion from the natural gas, potable water and sanitary sewer service trenches entering the western elevation of the former commercial building does not seem likely due to the absence of residential and/or small commercial VRSL exceedances at SS-3 and AS-2 with the exception of the PCE residential VRSL exceedance at SS-3. The highest TCE and PCE sub-slab vapor concentrations are located at AS-1 which is located in the northeast corner of the duplex approximately ten (10) feet south of the natural gas service at 615 E. Brady Street. Vapor intrusion from the potable water, sanitary sewer and natural gas service for the duplex does not appear likely since these laterals are further south than the natural gas service at 615 E. Brady Street.

SECTION V – REMEDIAL ACTION

SOIL EXCAVATION AND OFF-SITE DISPOSAL

Due to the presence of TCE and PCE sub-slab vapors at concentrations in exceedance of their respective residential and small commercial VRSLs in the former commercial building and existing duplex, soil excavation and proper off-site disposal will be necessary to reduce the mass and concentration of TCE and PCE in the soil per NR 726.05 (8) (b) (1) to obtain site closure. Due to the planned eight hundred (800) square foot addition located immediately north of the former commercial building foundation, approximately one hundred fifty (150) tons of soil will be excavated to facilitate the installation of the perimeter frost depth footings. Although TCE and PCE were not documented in the nearest boreholes, GP-3, 15, 16 and 17, at concentrations at or above their respective detection limits throughout the planned excavation depth of approximately five (5) feet below the existing grade, these soils will be considered impacted and will be transported to Waste Management's Metro RDF in Franklin, Wisconsin.

In addition, twenty five (25) tons of TCE and PCE impacted soil at GP-5, which is within the proposed addition footprint, will also be excavated to an approximate depth of five (5) feet to remove the TCE and PCE concentrations of sixty (60) and eighty seven (87) parts per billion (ppb) documented at the three (3) to four (4) foot sample interval. Any soil excavated for placement of the interior column pads in the footprint of the former commercial structure or during evaluation and/or reinforcement of the existing foundation will also be transported to Metro RDF. Waste Management has issued profile number 128792WI for these soils (See Appendix – Waste Management Profile 128792WI).

TCE and PCE are present at concentrations exceeding their respective Groundwater Pathway and Industrial and/or Non-Industrial Direct Contact RCLs at the approximate sample interval of seven (7) to nine (9) feet at GP-20 which is located at the southwest corner of the site. TCE and PCE are not present at concentrations in exceedance of their respective RCLs or detection limits at the three (3) to four (4) foot and nineteen (19) to twenty (20) foot sample intervals at GP-35 and 41 located approximately seven (7) feet to the northwest. In addition, TCE is present at a concentration exceeding its Non-Industrial Direct Contact RCL at the approximate sample interval of one (1) to two (2) feet at GP-36 which is located immediately west of the former westernmost footing of the former commercial building. TCE and PCE are also present at concentrations exceeding their respective Groundwater Pathway RCL at GP-4 and GP-39 located about ten and one-half (10½) feet north and six (6) feet west of GP-36 at the approximate sample intervals of one (1) to two (2) and three (3) to four (4) feet, respectively. TCE and PCE Direct Contact RCL exceedances are not present at GP-4, 36 and 39 at approximate depths exceeding six (6) feet.

To attempt to reduce the mass and concentration of TCE and PCE in the soil, about fifty (50) tons of impacted soil at approximately five (5) to ten (10) feet in the immediate area of GP-20 and the approximate upper six (6) feet at GP-36 and possibly extending north to GP-4 and west to GP-39 will be excavated and transported to Metro RDF for proper disposal.

However, several existing underground utilities are present in these areas which may significantly limit or prohibit removal. The accessibility of these soils to typical excavation techniques will be determined during installation or upgrade of the potable water, sanitary sewer and natural gas service for the proposed commercial building.

If excavation in these areas is practicable, a second Waste Management profile would be generated for these soils due to the increase in documented TCE and PCE concentrations at these areas of the site. Toxicity Characteristic Leaching Procedure (TCLP) analysis for TCE and PCE may be required to receive landfill approval. Excavation limit sampling will be performed subsequent to soil removal. The samples will be analyzed for the presence of VOCs.

SUB-SLAB VAPOR DEPRESSURIZATION SYSTEMS

Based on the results of the Pressure Field Extension (PFE) or sub-slab vacuum testing it was determined that the entire concrete slab would be removed in the former commercial building footprint and two (2) sub-slab depressurization systems will be installed for the proposed development (See Appendix – Pressure Field Extension (PFE) Testing Results). The system for the planned commercial building will consist of the installation of four (4) inch diameter triple wall perforated Polyvinyl Chloride (PVC) schedule 40 piping around the interior foundation perimeter. The holes in the PVC piping will face downward and laterally and the piping will be surrounded by #1 stone with a minimum of two (2) inches of stone below and adjacent to the piping. Six (6) inches of #1 stone will extend across the entire building footprint to insure total air flow beneath the concrete slab.

The piping and #1 stone will be overlain by twelve (12) inch lapped forty (40) mil polyethylene plastic and a four (4) inch concrete slab. The lapping will be caulked and taped (See Appendix – Proposed Commercial Building Sub-Slab Vapor Depressurization System).

The horizontal perforated piping will be connected to a four (4) inch diameter vertical pipe located at the southeast corner of the proposed commercial structure which will extend above the planned roof line to an exterior earth gas fan (See Appendix – Proposed Exterior Vertical Pipe and Earth Gas Fan for the Commercial Building). One hundred ten (110) volt at 1.5 amp maximum wire will be extended from the building to a 15A exterior rated outlet installed adjacent to the exterior fan. A manometer will be placed along the interior of the eastern wall of the commercial structure for monthly inspection.

The proposed system for the duplex will also consist of four (4) inch diameter triple wall perforated Polyvinyl Chloride (PVC) schedule 40 piping placed in a U shaped trench ranging in width from approximately twelve (12) to twenty (20) inches and about ten (10) to twelve (12) inches in depth. The holes in the piping will face downward and laterally and the piping will be surrounded by a minimum of two (2) inches of #1 stone below and adjacent to the piping. The piping will be overlain by forty (40) mil polyethylene plastic and a four (4) inch concrete slab (See Appendix – Proposed Residential Sub-Slab Vapor Depressurization System).

The horizontal perforated piping will be connected to a vertical four (4) inch diameter PVC pipe located at the northeast corner of the duplex which will extend above the planned roof line. The exterior earth gas fan will be located at the bottom of the vertical pipe. One hundred ten (110) volt at 1.5 amp maximum wire will be extended from the duplex to a 15A exterior rated outlet installed adjacent to the exterior fan (See Appendix – Proposed Exterior Vertical Pipe and Earth Gas Fan for the Duplex). A manometer will be placed along the interior of the northern wall of the duplex for monthly inspection.

Following construction and initial operation of the duplex sub-slab depressurization system, adequate sub-slab vacuum testing will be performed to confirm negative pressure beneath the entire duplex basement concrete slab. Sub-slab vacuum testing of the commercial building will not be necessary subsequent to initial system operation due to anticipated unrestricted air flow throughout the uniform six (6) inch stone sub-base. It is estimated that approximately two hundred fifty (250) Cubic Feet per Minute (CFM) of air flow will be generated beneath the proposed four thousand (4000) square foot floor slab.

The planned schedule for the implementation of the proposed remedial actions consists of TCE and PCE impacted soil excavation and off-site disposal in March and April of 2018 and the installation of the sub-slab depressurization systems in May of 2018. It should be noted that the interior portion of the sub-slab depressurization system will be installed in March of 2018. The exterior portion of the system will be completed in May of 2018.

The sub-slab depressurization systems design and final construction specifications as well as an Operations and Maintenance (O&M) plan will be documented in attachment D of the Case Closure – GIS Registry Form 4400-202. The vapor mitigation trench located immediately north of the duplex will be properly abandoned during site development activities.

TABLES

Table 1
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Identification	GP-3	GP-3	GP-4	GP-4	GP-4R	GP-5	GP-5R	GP-12	GP-12	KB-12A	GP-13	GP-13	GP-14	RCL		
Sample Depth	7'-8'	11'-12'	1'-2'	7'-8'	11'-13'	3'-4'	6'-8'	1'-2.5'	7'-9'	11'-13'	1'-2.5'	7.5'-10'	1'-2.5'	GWP	NIDC	IDC
Sample Date	11/7/05	11/7/05	11/7/05	11/7/05	3/30/09	11/7/05	3/30/09	3/30/09	3/30/09	8/23/16	3/30/09	3/30/09	3/30/09			
Volatile Organic Compounds (VOC)																
Benzene	<500	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	5.1	1600	7070
sec-Butylbenzene	4400	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	145000	145000
n-Butylbenzene	21800	<25	<25	<25	<40.4	<25	<40.4	<40.4	<40.4	<25.0	<40.4	<25.0	<40.4	-	108000	108000
1,1-Dichloroethane	<500	<25	<25	<25	<25.0	<25	<25.0	<25.0	41.5J	<25.0	<25.0	<25.0	<25.0	483.4	5060	22200
cis-1,2-Dichloroethene	<500	<25	<25	<25	<25.0	<25	<25.0	34.1J	<u>417</u>	<25.0	<25.0	<25.0	<25.0	41.2	156000	2340000
trans-1,2-Dichloroethene	<500	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	62.6	1560000	1850000
Ethylbenzene	53000	34	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1570	8020	35400
Isopropylbenzene	7400	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	-	-
p-Isopropyltoluene	980	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	162000	162000
Naphthalene	13600	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<40.0	<40.0	<40.0	<25.0	658.2	5520	24100
n-Propylbenzene	40000	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	-	-
Tetrachloroethene	<500	<25	<u>10000</u>	<u>34J</u>	<25.0	<u>87</u>	<25.0	<u>258</u>	<u>7830</u>	<25.0	<u>584</u>	<u>2350</u>	<25.0	4.5	33000	145000
Toluene	<500	<25	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1107.2	818000	818000
1,1,1-Trichloroethane	<500	<25	<25	<25	<25.0	<25	<25.0	<25.0	38.1	<25.0	<25.0	<25.0	<25.0	140.2	640000	640000
Trichloroethene	<500	<25	<u>41J</u>	<25	<25.0	<u>60</u>	<25.0	<u>47.8J</u>	<u>479</u>	<25.0	<u>34.2</u>	<u>229</u>	<25.0	3.6	1300	8410
1,2,4 -Trimethylbenzene	4600	41	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	219000	219000
1,3,5 -Trimethylbenzene	17000	34	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	182000	182000
Total Trimethylbenzenes	<u>21600</u>	75	<25	<25	<25.0	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1382.1	-	-
Vinyl Chloride	<500	<25	<25	<25	<25.0	<25	<25.0	<25.0	<u>42.1J</u>	<25.0	<25.0	<25.0	<25.0	0.1	67	2080
Total Xylenes	<u>46780</u>	78J	<25	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3960	260000	260000

Cumulative Hazard Index	0.3218	0.0058	0.1	0.0057	0.0057	0.0124	0.0057	0.0119	0.1599	0.0057	0.0125	0.063	0.0057
Cumulative Cancer Risk	1.70E-05	4.20E-07	7.40E-07	4.20E-07	4.20E-07	4.50E-07	4.20E-07	4.50E-07	1.30E-06	4.20E-07	4.40E-07	6.50E-07	4.20E-07

Notes: All samples collected from the unsaturated zone
All results expressed as µg/kg

RCL Residual Contaminant Level (3/2017 RCL Spreadsheet)

GWP Groundwater Pathway RCL (Exceedances in underline)

NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)

IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)

- RCL not established for this compound

J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)

< Compound not detected at or above Limit of Detection (LOD)

Table 1
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Identification	GP-14	GP-15	GP-15	GP-15R	GP-16	GP-16	GP-17	GP-17	GP-18	GP-18	GP-19	RCL		
Sample Depth	7.5'-10'	2.5'-5'	9'-11'	11'-12'	1'-2.5'	10.5'-12'	2.5'-5'	10.5'-12'	1'-2.5'	10'-12'	1'-2.5'	GWP	NIDC	IDC
Sample Date	3/30/09	3/30/09	3/30/09	11/30/09	03/30/09	03/30/09	03/30/09	03/30/09	03/30/09	03/30/09	03/30/09			
Volatile Organic Compounds (VOC)														
Benzene	<25.0	<25.0	684	<25.0	<25.0	<25.0	<25.0	<25.0	<u>362J</u>	<25.0	<500	5.1	1600	7070
sec-Butylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	149	<25.0	1520	<25.0	3850	-	145000	145000
n-Butylbenzene	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<404	<40.4	<808	-	108000	108000
1,1-Dichloroethane	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<250	<25.0	<500	483.4	5060	22200
cis-1,2-Dichloroethene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<250	<25.0	<500	41.2	156000	2340000
trans-1,2-Dichloroethene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<250	<25.0	<500	62.6	1560000	1850000
Ethylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	86.8	<25.0	30000	<25.0	8650	1570	8020	35400
Isopropylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3550	<25.0	2390	-	-	-
p-Isopropyltoluene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	2220	<25.0	9870	-	162000	162000
Naphthalene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	22600	<25.0	14000	658.2	5520	24100
n-Propylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	239	<25.0	13600	<25.0	8190	-	-	-
Tetrachloroethene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<250	<25.0	<500	4.5	33000	145000
Toluene	<25.0	<25.0	<25.0	<25.0	31.8J	<25.0	<25.0	<25.0	381J	<25.0	<500	1107.2	818000	818000
1,1,1-Trichloroethane	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<250	<25.0	<500	140.2	640000	640000
Trichloroethene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<250	<25.0	<500	3.6	1300	8410
1,2,4 -Trimethylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	35.4J	<25.0	45900	<25.0	<500	-	219000	219000
1,3,5 -Trimethylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	595J	<25.0	1830J	-	182000	182000
Total Trimethylbenzenes	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	35.4J	<25	<u>46495</u>	<25.0	<u>1830J</u>	1382.1	-	-
Vinyl Chloride	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<250	<25.0	<500	0.1	67	2080
Total Xylenes	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<u>14160</u>	<25.0	<500	3960	260000	260000

Cumulative Hazard Index	0.0057	0.0057	0.0119	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.3311	0.0057	0.1954
Cumulative Cancer Risk	4.20E-07	4.20E-07	8.30E-07	4.20E-07	4.20E-07	4.20E-07	4.30E-07	4.20E-07	1.20E-05	4.20E-07	1.20E-05	

Notes: All samples collected from the unsaturated zone IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)
All results expressed as µg/kg - RCL not established for this compound
RCL Residual Contaminant Level (3/2017 RCL Spreadsheet) J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)
GWP Groundwater Pathway RCL (Exceedances in underline) < Compound not detected at or above Limit of Detection (LOD)
NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)

Table 1
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Identification	GP-19	GP-20	GP-20	GP-21	GP-21	GP-22	GP-22	GP-23	GP-24	GP-24	GP-25	GP-25	RCL		
Sample Depth	13.5'-15'	7'-9'	12'-13'	7'-9'	13'-15'	7'-9'	13'-15'	7'-9'	7'-9'	13'-15'	5'-7'	10'-12'	GWP	NIDC	IDC
Sample Date	03/30/09	3/30/09	3/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09			
Volatile Organic Compounds (VOC)															
Benzene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	5.1	1600	7070
sec-Butylbenzene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	145000	145000
n-Butylbenzene	<40.4	<505	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<25.0	<40.4	<40.4	-	108000	108000
1,1-Dichloroethane	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	483.4	5060	22200
cis-1,2-Dichloroethene	<25.0	<u>3130</u>	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	41.2	156000	2340000
trans-1,2-Dichloroethene	<25.0	<u>346J</u>	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	62.6	1560000	1850000
Ethylbenzene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1570	8020	35400
Isopropylbenzene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	-	-
p-Isopropyltoluene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	162000	162000
Naphthalene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	658.2	5520	24100
n-Propylbenzene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	-	-
Tetrachloroethene	<25.0	98800	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<u>27.0J</u>	<25.0	<25.0	<25.0	4.5	33000	145000
Toluene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1107.2	818000	818000
1,1,1-Trichloroethane	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	140.2	640000	640000
Trichloroethene	<25.0	15300	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3.6	1300	8410
1,2,4 -Trimethylbenzene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	219000	219000
1,3,5 -Trimethylbenzene	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	182000	182000
Total Trimethylbenzenes	<25.0	<312	<25	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1382.1	-	-
Vinyl Chloride	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	0.1	67	2080
Total Xylenes	<25.0	<312	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3960	260000	260000

Cumulative Hazard Index	0.0057	3.631	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057	0.0057
Cumulative Cancer Risk	4.20E-07	2.00E-05	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07

Notes: All samples collected from the unsaturated zone
 All results expressed as µg/kg
 RCL Residual Contaminant Level (3/2017 RCL Spreadsheet)
 GWP Groundwater Pathway RCL (Exceedances in underline)
 NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)

IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)
 - RCL not established for this compound
 J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)
 < Compound not detected at or above Limit of Detection (LOD)

Table 1
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Identification	GP-26	GP-26	GP-27	GP-27	GB-28	GB-28	GB-29	GB-29	KB-30	KB-30	KB-31	KB-32	RCL		
Sample Depth	3'-5'	9'-11'	7'-9'	13'-15'	1'-3'	9'-11'	1'-3'	7'-9'	1'-3'	13'-15'	1'-3'	1'-3'	GWP	NIDC	IDC
Sample Date	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	11/30/09	08/23/16	08/23/16	08/23/16	08/23/16			
Volatile Organic Compounds (VOC)															
Benzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	5.1	1600	7070
sec-Butylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	145000	145000
n-Butylbenzene	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	<40.4	-	108000	108000
1,1-Dichloroethane	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	483.4	5060	22200
cis-1,2-Dichloroethene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	36.4J	<25.0	<25.0	<25.0	<25.0	<25.0	41.2	156000	2340000
trans-1,2-Dichloroethene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	62.6	1560000	1850000
Ethylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1570	8020	35400
Isopropylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	-	-
p-Isopropyltoluene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	162000	162000
Naphthalene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	658.2	5520	24100
n-Propylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	-	-
Tetrachloroethene	<u>113</u>	<25.0	<25.0	<25.0	<u>205</u>	<25.0	<u>377</u>	<25.0	<25.0	<25.0	<u>67</u>	<25.0	4.5	33000	145000
Toluene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1107.2	818000	818000
1,1,1-Trichloroethane	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	140.2	640000	640000
Trichloroethene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<u>43.9J</u>	<25.0	<25.0	<25.0	<25.0	<25.0	3.6	1300	8410
1,2,4 -Trimethylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	219000	219000
1,3,5 -Trimethylbenzene	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	-	182000	182000
Total Trimethylbenzenes	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	1382.1	-	-
Vinyl Chloride	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	0.1	67	2080
Total Xylenes	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	3960	260000	260000

Cumulative Hazard Index	0.0065	0.0057	0.0057	0.0057	0.0057	0.0057	0.0123	0.0057	0.0057	0.0057	0.006	0.0057
Cumulative Cancer Risk	4.30E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.50E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07	4.20E-07

Notes: All samples collected from the unsaturated zone IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)
All results expressed as µg/kg - RCL not established for this compound
RCL Residual Contaminant Level (3/2017 RCL Spreadsheet) J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)
GWP Groundwater Pathway RCL (Exceedances in underline) < Compound not detected at or above Limit of Detection (LOD)
NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)

Table 2
Vapor Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Identification	AS-1	SS-4	SS-4B	SS-5	SS-5B	AS-2	SS-1	SS-2	SS-3	Residential	Small Commercial
										Sub-Slab VRSL	Sub-Slab VRSL
Volatile Organic Compounds (VOC) (Method: TO-15)											
Vinyl Acetate	<0.95	<0.53	<0.53	1.4	<0.66	<0.95	<0.55	<0.49	<0.55	7000	29333
Vinyl Bromide	-	-	-	-	-	-	-	-	-	29	127
Vinyl Chloride	9.8	<0.31	<0.31	<0.33	<0.39	<0.35	<0.33	<0.29	<0.33	57	930
m&p-Xylene	15.3	51.3	1.5J	72.4	3.7	12.7	63.3	52.1	1.4J	3300	15000
o-Xylene	4.9	17.5	<0.57	23.1	1.5J	3.8	20.8	17.4	<0.59	3300	15000
Total Xylenes	20.2	68.8	1.5J/ <0.57	95.5	3.7/ 1.5J	16.5	84.1	69.5	1.4J/ <0.59	3300	15000

Notes: All results expressed as µg/m³
VRSL Vapor Risk Screening Level (June 2017 Version)
Residential Sub-slab VRSL exceedances in underline (AF=0.03)
Commercial Sub-slab VRSL exceedances in **bold** (AF=0.03)
- Sub-slab VRSL not established for this compound
J Analyte detected below limit of quantitation
E Concentration exceeded the calibration range, the reported result is estimated
Time period for sample collection, method and results of leak detection, date, method and results of communication testing unknown
All analysis completed by Pace Analytical Services
Tracer gas was not present in any samples

Table 3
Vapor Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Identification	BREAK ROOM	LAUNDRY ROOM	IA-1	IA-1B	IA-1C	IA-2	IA-2B	IA-2C	OA-1B	OA-1B	FOYER	Residential	Small Commercial
												Indoor Air	Indoor Air
Volatile Organic Compounds (VOC) (Method: TO-15)													
1,2,4 -Trimethylbenzene	2.7	6.8	<0.19	1.0J	<0.18	1.7	0.96J	<0.19	<0.19	<0.18	1.6	63	260
1,3,5 -Trimethylbenzene	<2.7	<6.7	<0.28	<0.26	<0.26	<0.27	0.76J	<0.27	<0.28	<0.26	<1.3	63	260
Total Trimethylbenzenes	2.7/ <2.7	6.8/ <6.7	<0.19/ <0.28	1.0J/ <0.26	<0.18/ <0.26	1.7/ <0.27	0.96J/ <0.76J	<0.19/ <0.27	<0.19/ <0.28	<0.18/ <0.26	1.6/ <1.3	-	-
2,2,4-Trimethylpentane	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	<1.9	<4.8	6.5	<0.48	0.80J	<0.49	4.2	1.3	<0.51	<0.48	<0.95	210	880
Vinyl Bromide	-	-	-	-	-	-	-	-	-	-	-	0.88	3.8
Vinyl Chloride	<0.7	<1.7	<0.30	<0.28	<0.28	<0.29	<0.29	<0.29	<0.30	<0.28	<0.35	2	28
m&p-Xylene	<4.7	<11.8	<1.2	1.9J	<1.1	4.1	3.1J	1.2J	<1.2	<1.1	<2.4	100	440
o-Xylene	<2.4	<5.9	<0.54	0.64J	<0.51	1.6	1.2J	<0.52	<0.54	<0.51	<1.2	100	440
Total Xylenes	<4.7/ <2.4	<11.8/ <5.9	<1.2/ <0.54	1.9J/ 0.64J	<1.1/ <0.51	5.7	3.1J/ 1.2J	1.2J/ <0.52	<1.2/ <0.54	<1.1/ <0.51	<2.4/ <1.2	100	440

Notes: All results expressed as µg/m³

VAL Vapor Action Level (June 2017 Version)

Residential Indoor Air VAL exceedances in underline (AF=0.03)

Commercial Indoor Air VAL exceedances in **bold** (AF=0.03)

- Indoor Air VAL not established for this compound

J Analyte detected below limit of quantitation

E Concentration exceeded the calibration range, the reported result is estimated

Time period for sample collection, method and results of leak detection, date, method and results of communication testing unknown

All analysis completed by Pace Analytical Services

Tracer gas was not present in any samples

Table 4
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Date	September 12, 2017				RCL		
Sample Identification	GP-35	GP-36	GP-36	GP-36	GWP	NIDC	IDC
Sample Depth	19'-20'	1'-2'	9'-10'	14'-15'			
Soil Type	ML	ML	ML	ML			
Volatile Organic Compounds (Method: 8260B)							
Benzene	<0.03	<0.03	<0.03	<0.03	0.0051	1.6	7.07
Bromobenzene	<0.025	<0.025	<0.025	<0.025	-	342	679
Bromodichloromethane	<0.074	<0.074	<0.074	<0.074	0.0003	0.418	1.83
Bromoform	<0.029	<0.029	<0.029	<0.029	0.0023	25.4	113
n-Butylbenzene	<0.04	<0.04	<0.04	<0.04	-	108	108
sec-Butylbenzene	<0.033	<0.033	<0.033	<0.033	-	145	145
tert-Butylbenzene	<0.026	<0.026	<0.026	<0.026	-	183	183
Carbon tetrachloride	<0.016	<0.016	<0.016	<0.016	0.0039	0.916	4.03
Chlorobenzene	<0.013	<0.013	<0.013	<0.013	-	370	761
Chloroethane	<0.091	<0.091	<0.091	<0.091	0.2266	-	-
Chloroform	<0.035	<0.035	<0.035	<0.035	0.0033	0.454	1.98
Chloromethane	<0.076	<0.076	<0.076	<0.076	0.0155	159	669
2-Chlorotoluene	<0.015	<0.015	<0.015	<0.015	-	-	-
4-Chlorotoluene	<0.018	<0.018	<0.018	<0.018	-	-	-
1,2-Dibromo-3-chloropropane	<0.058	<0.058	<0.058	<0.058	0.0002	0.008	0.092
Dibromochloromethane	<0.025	<0.025	<0.025	<0.025	0.032	8.28	38.9
1,2-Dibromoethane	<0.023	<0.023	<0.023	<0.023	0.0000282	0.05	0.221
1,2-Dichlorobenzene	<0.028	<0.028	<0.028	<0.028	1.168	376	376
1,3-Dichlorobenzene	<0.037	<0.037	<0.037	<0.037	1.1528	297	297
1,4-Dichlorobenzene	<0.037	<0.037	<0.037	<0.037	0.144	3.74	16.4
Dichlorodifluoromethane	<0.48	<0.048	<0.48	<0.48	3.0863	126	530
1,1-Dichloroethane	<0.034	<0.034	<0.034	<0.034	0.4834	5.06	22.2
1,2-Dichloroethane	<0.038	<0.038	<0.038	<0.038	0.0028	0.652	2.87
1,1-Dichloroethene	<0.022	<0.022	<0.022	<0.022	0.005	320	1190
cis-1,2-Dichloroethene	<0.032	<u>0.227</u>	<0.032	<0.032	0.0412	156	2340
trans-1,2-Dichloroethene	<0.028	<0.028	<0.028	<0.028	0.0626	1560	1850
1,2-Dichloropropane	<0.035	<0.035	<0.035	<0.035	0.0033	0.406	1.78
1,3-Dichloropropane	<0.025	<0.025	<0.025	<0.025	-	1490	1490
trans-1,3-Dichloropropene	<0.022	<0.022	<0.022	<0.022	0.0003	1510	1510
cis-1,3-Dichloropropene	<0.039	<0.039	<0.039	<0.039	0.0003	1210	1210

- Notes: All samples collected from the unsaturated zone
All results expressed as mg/kg
- RCL Residual Contaminant Level (March 2017 RCL Spreadsheet Update)
- IDC Industrial Direct Contact RCL (Exceedances in **bold**)
- NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)
- GWP Groundwater Pathway RCL (Exceedances in **bold**)
- RCL not established for this compound
- < Compound not detected at or above the limit of detection (LOD)
- J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)

Table 4
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Date	September 12, 2017				RCL		
	GP-35	GP-36	GP-36	GP-36	GWP	NIDC	IDC
Sample Identification	19'-20'	1'-2'	9'-10'	14'-15'			
Sample Depth							
Volatile Organic Compounds (Method: 8260B)							
Di-isopropyl ether	<0.01	<0.01	<0.01	<0.01	-	2260	2260
Ethylbenzene	<0.035	<0.035	<0.035	<0.035	1.57	8.02	35.4
Hexachlorobutadiene	<0.085	<0.085	<0.085	<0.085	-	1.63	7.19
Isopropylbenzene	<0.034	<0.034	<0.034	<0.034	-	-	-
p-Isopropyltoluene	<0.029	<0.029	<0.029	<0.029	-	162	162
Methylene chloride	<0.15	<0.15	<0.15	<0.15	0.0026	61.8	1150
Methyl tert-butyl ether	<0.05	<0.05	<0.05	<0.05	0.027	63.8	282
Naphthalene	<0.094	<0.094	<0.094	<0.094	0.6582	5.52	24.1
n-Propylbenzene	<0.033	<0.033	<0.033	<0.033	-	-	-
1,1,1,2-Tetrachloroethane	<0.028	<0.028	<0.028	<0.028	0.0534	2.78	12.3
1,1,2,2-Tetrachloroethane	<0.028	<0.028	<0.028	<0.028	0.0002	0.81	3.6
Tetrachloroethene	<0.032	<u>0.36</u>	<0.032	<0.032	0.0045	33	145
Toluene	<0.032	<0.032	<0.032	<0.032	1.1	818	818
1,2,3-Trichlorobenzene	<0.066	<0.066	<0.066	<0.066	-	62.6	934
1,2,4-Trichlorobenzene	<0.064	<0.064	<0.064	<0.064	0.408	24	113
1,1,1-Trichloroethane	<0.03	<0.03	<0.03	<0.03	0.1402	640	640
1,1,2-Trichloroethane	<0.033	<0.033	<0.033	<0.033	0.0032	1.59	7.01
Trichloroethene	<0.041	1.71	<0.041	<0.041	0.0036	1.3	8.41
Trichlorofluoromethane	<0.041	<0.041	<0.041	<0.041	-	1230	1230
1,2,4-Trimethylbenzene	<0.025	<0.025	<0.025	<0.025	-	219	219
1,3,5-Trimethylbenzene	<0.032	<0.032	<0.032	<0.032	-	182	182
Total Trimethylbenzenes	<0.025/<0.032	<0.025/<0.032	<0.025/<0.032	<0.025/<0.032	1.3821	-	-
Vinyl Chloride	<0.019	<0.019	<0.019	<0.019	0.0001	0.067	2.08
m,p-Xylene	<0.072	<0.072	<0.072	<0.072	-	778	778
o-Xylene	<0.044	<0.044	<0.044	<0.044	-	434	434
Total Xylenes	<0.072/<0.044	<0.072/<0.044	<0.072/<0.044	<0.072/<0.044	3.96	260	260
Cumulative Hazard Index	0.0451	0.3432	0.0451	0.0451			
Cumulative Cancer Risk	9.10E-06	1.00E-05	9.10E-06	9.10E-06			

- Notes: All samples collected from the unsaturated zone
All results expressed as mg/kg
- RCL Residual Contaminant Level (3/2017 RCL Spreadsheet)
- IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)
- NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)
- GWP Groundwater Pathway RCL (Exceedances in underline)
- RCL not established for this compound
- < Compound not detected at or above the limit of detection (LOD)
- J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)

Table 5
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Date	October 19, 2017					RCL		
Sample Identification	GP-37	GP-38	GP-38	GP-39	GP-39	GWP	NIDC	IDC
Sample Depth	3'-4'	3'-4'	7'-8'	3'-4'	6'-7'			
Soil Type	GW	CL	CL	CL	CL			
Volatile Organic Compounds (Method: 8260B)								
Benzene	<0.03	<0.03	<0.03	<0.06	0.045J	0.0051	1.6	7.07
Bromobenzene	<0.025	<0.025	<0.025	<0.05	<0.025	-	342	679
Bromodichloromethane	<0.074	<0.074	<0.074	<0.148	<0.074	0.0003	0.418	1.83
Bromoform	<0.029	<0.029	<0.029	<0.058	<0.029	0.0023	25.4	113
n-Butylbenzene	<0.04	<0.211	<0.04	<0.08	<0.04	-	108	108
sec-Butylbenzene	<0.033	0.10J	<0.033	<0.066	<0.033	-	145	145
tert-Butylbenzene	<0.026	<0.026	<0.026	<0.052	<0.026	-	183	183
Carbon tetrachloride	<0.016	<0.016	<0.016	<0.032	<0.016	0.0039	0.916	4.03
Chlorobenzene	<0.013	<0.013	<0.013	<0.026	<0.013	-	370	761
Chloroethane	<0.091	<0.091	<0.091	<0.182	<0.091	0.2266	-	-
Chloroform	<0.035	<0.035	<0.035	<0.07	<0.035	0.0033	0.454	1.98
Chloromethane	<0.076	<0.076	<0.076	<0.152	<0.076	0.0155	159	669
2-Chlorotoluene	<0.015	<0.015	<0.015	<0.03	<0.015	-	-	-
4-Chlorotoluene	<0.018	<0.018	<0.018	<0.036	<0.018	-	-	-
1,2-Dibromo-3-chloropropane	<0.058	<0.058	<0.058	<0.116	<0.058	0.0002	0.008	0.092
Dibromochloromethane	<0.025	<0.025	<0.025	<0.05	<0.025	0.032	8.28	38.9
1,2-Dibromoethane	<0.023	<0.023	<0.023	<0.046	<0.023	0.0000282	0.05	0.221
1,2-Dichlorobenzene	<0.028	<0.028	<0.028	<0.056	<0.028	1.168	376	376
1,3-Dichlorobenzene	<0.037	<0.037	<0.037	<0.074	<0.037	1.1528	297	297
1,4-Dichlorobenzene	<0.037	<0.037	<0.037	<0.074	<0.037	0.144	3.74	16.4
Dichlorodifluoromethane	<0.48	<0.48	<0.48	<0.096	<0.48	3.0863	126	530
1,1-Dichloroethane	<0.034	<0.034	<0.034	<0.068	<0.034	0.4834	5.06	22.2
1,2-Dichloroethane	<0.038	<0.038	<0.038	<0.076	<0.038	0.0028	0.652	2.87
1,1-Dichloroethene	<0.022	<0.022	<0.022	<0.044	<0.022	0.005	320	1190
cis-1,2-Dichloroethene	<0.032	<0.032	<0.032	<0.064	<0.032	0.0412	156	2340
trans-1,2-Dichloroethene	<0.028	<0.028	<0.028	<0.056	<0.028	0.0626	1560	1850
1,2-Dichloropropane	<0.035	<0.035	<0.035	<0.07	<0.035	0.0033	0.406	1.78
1,3-Dichloropropane	<0.025	<0.025	<0.025	<0.05	<0.025	-	1490	1490
trans-1,3-Dichloropropene	<0.022	<0.022	<0.022	<0.044	<0.022	0.0003	1510	1510
cis-1,3-Dichloropropene	<0.039	<0.039	<0.039	<0.078	<0.039	0.0003	1210	1210

- Notes: All samples collected from the unsaturated zone
All results expressed as mg/kg
- RCL Residual Contaminant Level (March 2017 RCL Spreadsheet Update)
- IDC Industrial Direct Contact RCL (Exceedances in **bold**)
- NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)
- GWP Groundwater Pathway RCL (Exceedances in **bold**)
- RCL not established for this compound
- < Compound not detected at or above the limit of detection (LOD)
- J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)

Table 5
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Date	October 19, 2017					RCL		
	GP-37	GP-38	GP-38	GP-39	GP-39	GWP	NIDC	IDC
Sample Identification	3'-4'	3'-4'	7'-8'	3'-4'	6'-7'			
Sample Depth								
Volatile Organic Compounds (Method: 8260B)								
Di-isopropyl ether	<0.01	<0.01	<0.01	<0.02	<0.01	-	2260	2260
Ethylbenzene	<0.035	<0.035	<0.035	<0.07	<0.035	1.57	8.02	35.4
Hexachlorobutadiene	<0.085	<0.085	<0.085	<0.17	<0.085	-	1.63	7.19
Isopropylbenzene	<0.034	0.112	<0.034	<0.068	<0.034	-	-	-
p-Isopropyltoluene	<0.029	<0.029	<0.029	<0.058	<0.029	-	162	162
Methylene chloride	<0.15	<0.15	<0.15	<0.3	<0.15	0.0026	61.8	1150
Methyl tert-butyl ether	<0.05	<0.05	<0.05	<0.1	<0.05	0.027	63.8	282
Naphthalene	<0.094	<0.094	<0.094	<0.188	<0.094	0.6582	5.52	24.1
n-Propylbenzene	<0.033	0.50	<0.033	<0.066	<0.033	-	-	-
1,1,1,2-Tetrachloroethane	<0.028	<0.028	<0.028	<0.056	<0.028	0.0534	2.78	12.3
1,1,2,2-Tetrachloroethane	<0.028	<0.028	<0.028	<0.056	<0.028	0.0002	0.81	3.6
Tetrachloroethene	<0.032	<u>0.202</u>	<u>0.169</u>	<u>27.3</u>	<0.032	0.0045	33	145
Toluene	<0.032	<0.032	<0.032	<0.064	<0.032	1.1	818	818
1,2,3-Trichlorobenzene	<0.066	<0.066	<0.066	<0.128	<0.066	-	62.6	934
1,2,4-Trichlorobenzene	<0.064	<0.064	<0.064	<0.132	<0.064	0.408	24	113
1,1,1-Trichloroethane	<0.03	<0.03	<0.03	<0.06	<0.03	0.1402	640	640
1,1,2-Trichloroethane	<0.033	<0.033	<0.033	<0.066	<0.033	0.0032	1.59	7.01
Trichloroethene	<0.041	<0.041	<0.041	<u>0.199J</u>	<0.041	0.0036	1.3	8.41
Trichlorofluoromethane	<0.041	<0.041	<0.041	<0.082	<0.041	-	1230	1230
1,2,4 -Trimethylbenzene	<0.025	<0.025	<0.025	<0.05	<0.025	-	219	219
1,3,5 -Trimethylbenzene	<0.032	<0.032	<0.032	<0.064	<0.032	-	182	182
Total Trimethylbenzenes	<0.025/ <0.032	<0.025/ <0.032	<0.025/ <0.032	<0.05/ <0.064	<0.025/ <0.032	1.3821	-	-
Vinyl Chloride	<0.019	<0.019	<0.019	<0.038	<0.019	0.0001	0.067	2.08
m,p-Xylene	<0.072	<0.072	<0.072	<0.144	<0.072	-	778	778
o-Xylene	<0.044	<0.044	<0.044	<0.088	<0.044	-	434	434
Total Xylenes	<0.072/ <0.044	<0.072/ <0.044	<0.072/ <0.044	<0.144/ <0.088	<0.072/ <0.044	3.96	260	260
Cumulative Hazard Index	0.0451	0.0467	0.0464	0.3537	0.0452			
Cumulative Cancer Risk	9.10E-06	9.10E-06	9.10E-06	1.90E-05	9.10E-06			

- Notes: All samples collected from the unsaturated zone
All results expressed as mg/kg
- RCL Residual Contaminant Level (3/2017 RCL Spreadsheet)
- IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)
- NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)
- GWP Groundwater Pathway RCL (Exceedances in underline)
- RCL not established for this compound
- < Compound not detected at or above the limit of detection (LOD)
- J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)

Table 5
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

Sample Date	October 19, 2017					RCL		
	GP-40	GP-40	GP-41	GP-42	GP-42	GWP	NIDC	IDC
Sample Identification	3'-4'	5'-6'	3'-4'	3'-4'	7'-8'			
Sample Depth	CL	CL	CL	CL	ML			
Soil Type	Volatile Organic Compounds (Method: 8260B)							
Benzene	<0.03	<0.03	<0.03	<0.03	<0.03	0.0051	1.6	7.07
Bromobenzene	<0.025	<0.025	<0.025	<0.025	<0.025	-	342	679
Bromodichloromethane	<0.074	<0.074	<0.074	<0.074	<0.074	0.0003	0.418	1.83
Bromoform	<0.029	<0.029	<0.029	<0.029	<0.029	0.0023	25.4	113
n-Butylbenzene	1.1	<0.04	<0.04	<0.04	<0.04	-	108	108
sec-Butylbenzene	0.291	<0.033	<0.033	<0.033	<0.033	-	145	145
tert-Butylbenzene	<0.026	<0.026	<0.026	<0.026	<0.026	-	183	183
Carbon tetrachloride	<0.016	<0.016	<0.016	<0.016	<0.016	0.0039	0.916	4.03
Chlorobenzene	<0.013	<0.013	<0.013	<0.013	<0.013	-	370	761
Chloroethane	<0.091	<0.091	<0.091	<0.091	<0.091	0.2266	-	-
Chloroform	<0.035	<0.035	<0.035	<0.035	<0.035	0.0033	0.454	1.98
Chloromethane	<0.076	<0.076	<0.076	<0.076	<0.076	0.0155	159	669
2-Chlorotoluene	<0.015	<0.015	<0.015	<0.015	<0.015	-	-	-
4-Chlorotoluene	<0.018	<0.018	<0.018	<0.018	<0.018	-	-	-
1,2-Dibromo-3-chloropropane	<0.058	<0.058	<0.058	<0.058	<0.058	0.0002	0.008	0.092
Dibromochloromethane	<0.025	<0.025	<0.025	<0.025	<0.025	0.032	8.28	38.9
1,2-Dibromoethane	<0.023	<0.023	<0.023	<0.023	<0.023	0.0000282	0.05	0.221
1,2-Dichlorobenzene	<0.028	<0.028	<0.028	<0.028	<0.028	1.168	376	376
1,3-Dichlorobenzene	<0.037	<0.037	<0.037	<0.037	<0.037	1.1528	297	297
1,4-Dichlorobenzene	<0.037	<0.037	<0.037	<0.037	<0.037	0.144	3.74	16.4
Dichlorodifluoromethane	<0.48	<0.48	<0.48	<0.48	<0.48	3.0863	126	530
1,1-Dichloroethane	<0.034	<0.034	<0.034	<0.034	<0.034	0.4834	5.06	22.2
1,2-Dichloroethane	<0.038	<0.038	<0.038	<0.038	<0.038	0.0028	0.652	2.87
1,1-Dichloroethene	<0.022	<0.022	<0.022	<0.022	<0.022	0.005	320	1190
cis-1,2-Dichloroethene	<0.032	<0.032	<0.032	<0.032	<0.032	0.0412	156	2340
trans-1,2-Dichloroethene	<0.028	<0.028	<0.028	<0.028	<0.028	0.0626	1560	1850
1,2-Dichloropropane	<0.035	<0.035	<0.035	<0.035	<0.035	0.0033	0.406	1.78
1,3-Dichloropropane	<0.025	<0.025	<0.025	<0.025	<0.025	-	1490	1490
trans-1,3-Dichloropropene	<0.022	<0.022	<0.022	<0.022	<0.022	0.0003	1510	1510
cis-1,3-Dichloropropene	<0.039	<0.039	<0.039	<0.039	<0.039	0.0003	1210	1210

- Notes: All samples collected from the unsaturated zone
All results expressed as mg/kg
- RCL Residual Contaminant Level (3/2017 RCL Spreadsheet)
- IDC Industrial Direct Contact RCL (Exceedances in **bold**)
- NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)
- GWP Groundwater Pathway RCL (Exceedances in **bold**)
- RCL not established for this compound
- < Compound not detected at or above the limit of detection (LOD)
- J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)

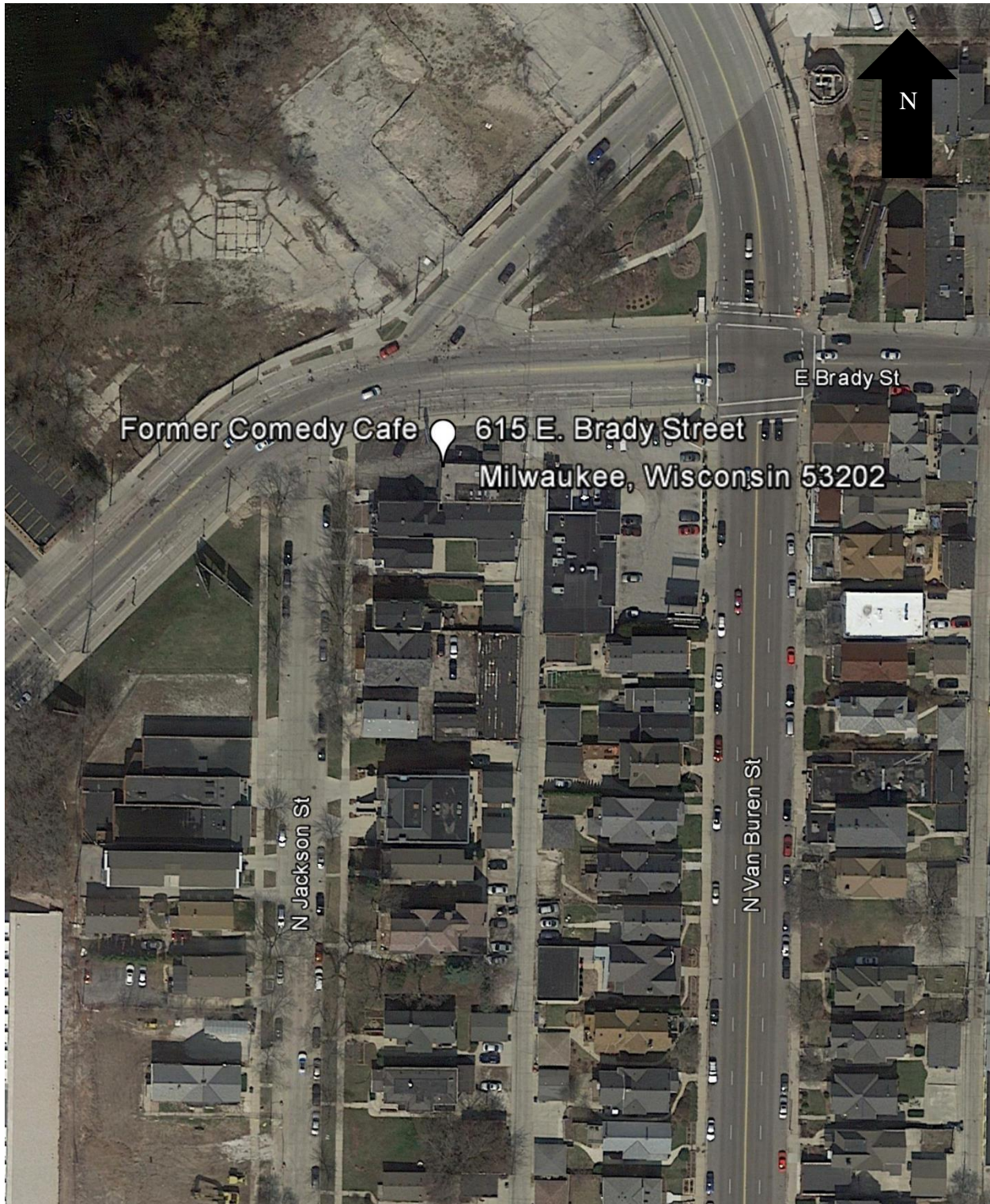
Table 5
Soil Analytical Results - Volatile Organic Compounds
Former Comedy Club Cafe
615 E. Brady Street
Milwaukee, Wisconsin 53202

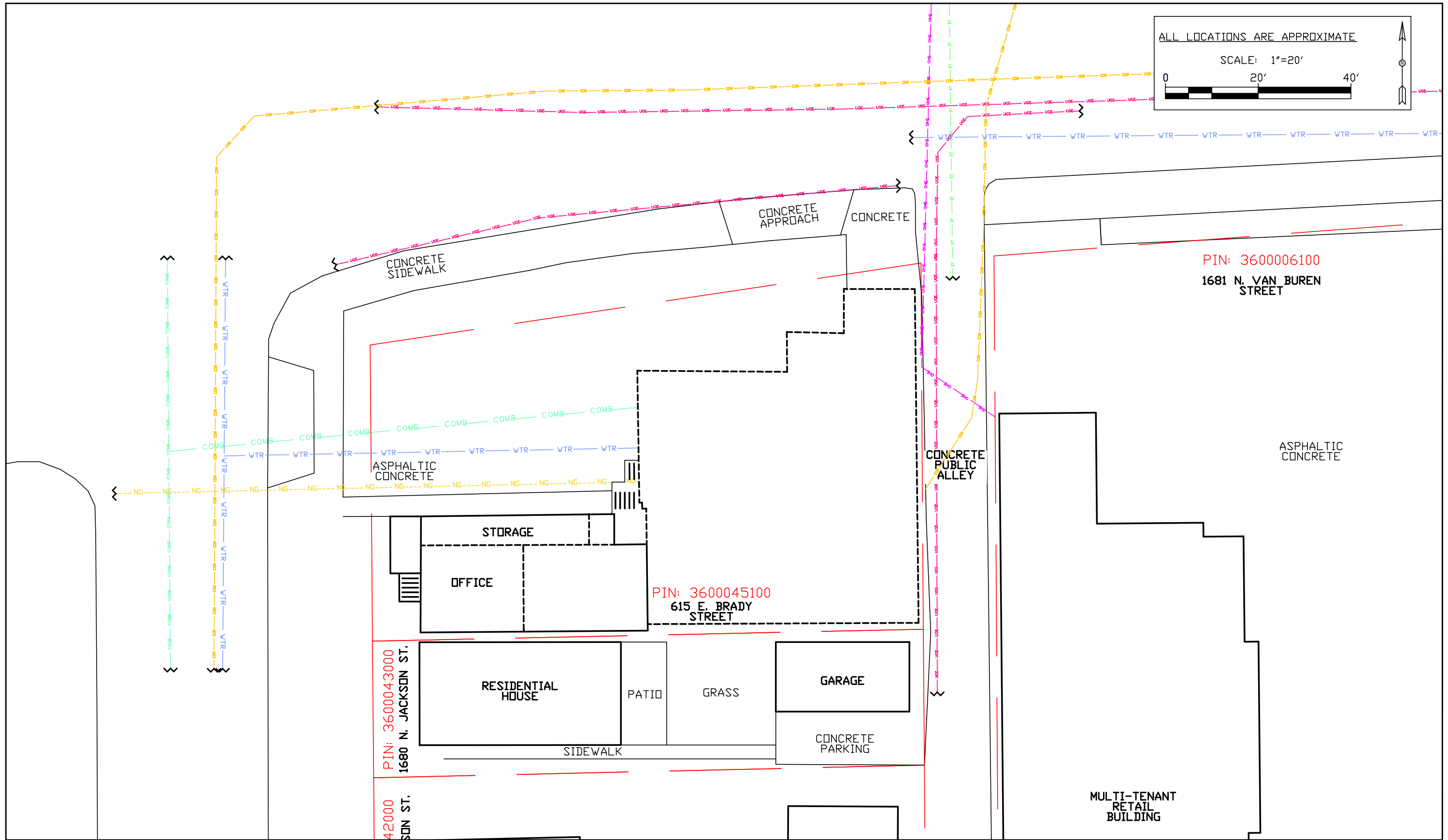
Sample Date	October 19, 2017					RCL		
Sample Identification	GP-40	GP-40	GP-41	GP-42	GP-42	GWP	NIDC	IDC
Sample Depth	3'-4'	5'-6'	3'-4'	3'-4'	7'-8'			
Volatile Organic Compounds (Method: 8260B)								
Di-isopropyl ether	<0.01	<0.01	<0.01	<0.01	<0.01	-	2260	2260
Ethylbenzene	0.309	<0.035	<0.035	<0.035	<0.035	1.57	8.02	35.4
Hexachlorobutadiene	<0.085	<0.085	<0.085	<0.085	<0.085	-	1.63	7.19
Isopropylbenzene	0.253	<0.034	<0.034	<0.034	<0.034	-	-	-
p-Isopropyltoluene	0.104	<0.029	<0.029	<0.029	<0.029	-	162	162
Methylene chloride	<0.15	<0.15	<0.15	<0.15	<0.15	0.0026	61.8	1150
Methyl tert-butyl ether	<0.05	<0.05	<0.05	<0.05	<0.05	0.027	63.8	282
Naphthalene	<0.094	<0.094	<0.094	<0.094	<0.094	0.6582	5.52	24.1
n-Propylbenzene	1.31	<0.033	<0.033	<0.033	<0.033	-	-	-
1,1,1,2-Tetrachloroethane	<0.028	<0.028	<0.028	<0.028	<0.028	0.0534	2.78	12.3
1,1,2,2-Tetrachloroethane	<0.028	<0.028	<0.028	<0.028	<0.028	0.0002	0.81	3.6
Tetrachloroethene	<u>0.054J</u>	<u>0.164</u>	<u>0.048J</u>	<u>0.034J</u>	<u>0.132</u>	0.0045	33	145
Toluene	<0.032	<0.032	<0.032	<0.032	<0.032	1.1	818	818
1,2,3-Trichlorobenzene	<0.066	<0.066	<0.066	<0.066	<0.066	-	62.6	934
1,2,4-Trichlorobenzene	<0.064	<0.064	<0.064	<0.064	<0.064	0.408	24	113
1,1,1-Trichloroethane	<0.03	<0.03	<0.03	<0.03	<0.03	0.1402	640	640
1,1,2-Trichloroethane	<0.033	<0.033	<0.033	<0.033	<0.033	0.0032	1.59	7.01
Trichloroethene	<0.041	<0.041	<0.041	<0.041	<0.041	0.0036	1.3	8.41
Trichlorofluoromethane	<0.041	<0.041	<0.041	<0.041	<0.041	-	1230	1230
1,2,4 -Trimethylbenzene	0.048J	<0.025	<0.025	<0.025	<0.025	-	219	219
1,3,5 -Trimethylbenzene	<0.032	<0.032	<0.032	<0.032	<0.032	-	182	182
Total Trimethylbenzenes	<0.025/ <0.032	<0.025/ <0.032	<0.025/ <0.032	<0.025/ <0.032	<0.025/ <0.032	1.3821	-	-
Vinyl Chloride	<0.019	<0.019	<0.019	<0.019	<0.019	0.0001	0.067	2.08
m,p-Xylene	<0.072	<0.072	<0.072	<0.072	<0.072	-	778	778
o-Xylene	<0.044	<0.044	<0.044	<0.044	<0.044	-	434	434
Total Xylenes	<0.072/ <0.044	<0.072/ <0.044	<0.072/ <0.044	<0.072/ <0.044	<0.072/ <0.044	3.96	260	260
Cumulative Hazard Index	0.0457	0.0463	0.0453	0.0451	0.046			
Cumulative Cancer Risk	9.10E-06	9.10E-06	9.10E-06	9.10E-06	9.10E-06			

- Notes: All samples collected from the unsaturated zone
All results expressed as mg/kg
- RCL Residual Contaminant Level (3/2017 RCL Spreadsheet)
- IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)
- NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)
- GWP Groundwater Pathway RCL (Exceedances in underline)
- RCL not established for this compound
- < Compound not detected at or above the limit of detection (LOD)
- J Analyte detected above limit of detection (LOD) and below limit of quantitation (LOQ)

FIGURES

**FIGURE 1
SITE LOCATION MAP**





ALL LOCATIONS ARE APPROXIMATE
 SCALE: 1"=20'
 0 20' 40'

Figure 2: Site Plan Map

United Engineering Consultants, Inc. 16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400	#17028	Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202	Legend — Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- CM --- Underground Communication Line --- ST --- Underground Storm Sewer Line --- COMB --- Combined Sewer Line
	DRAWN BY: NJA		
	DATE: 02/08/2018		

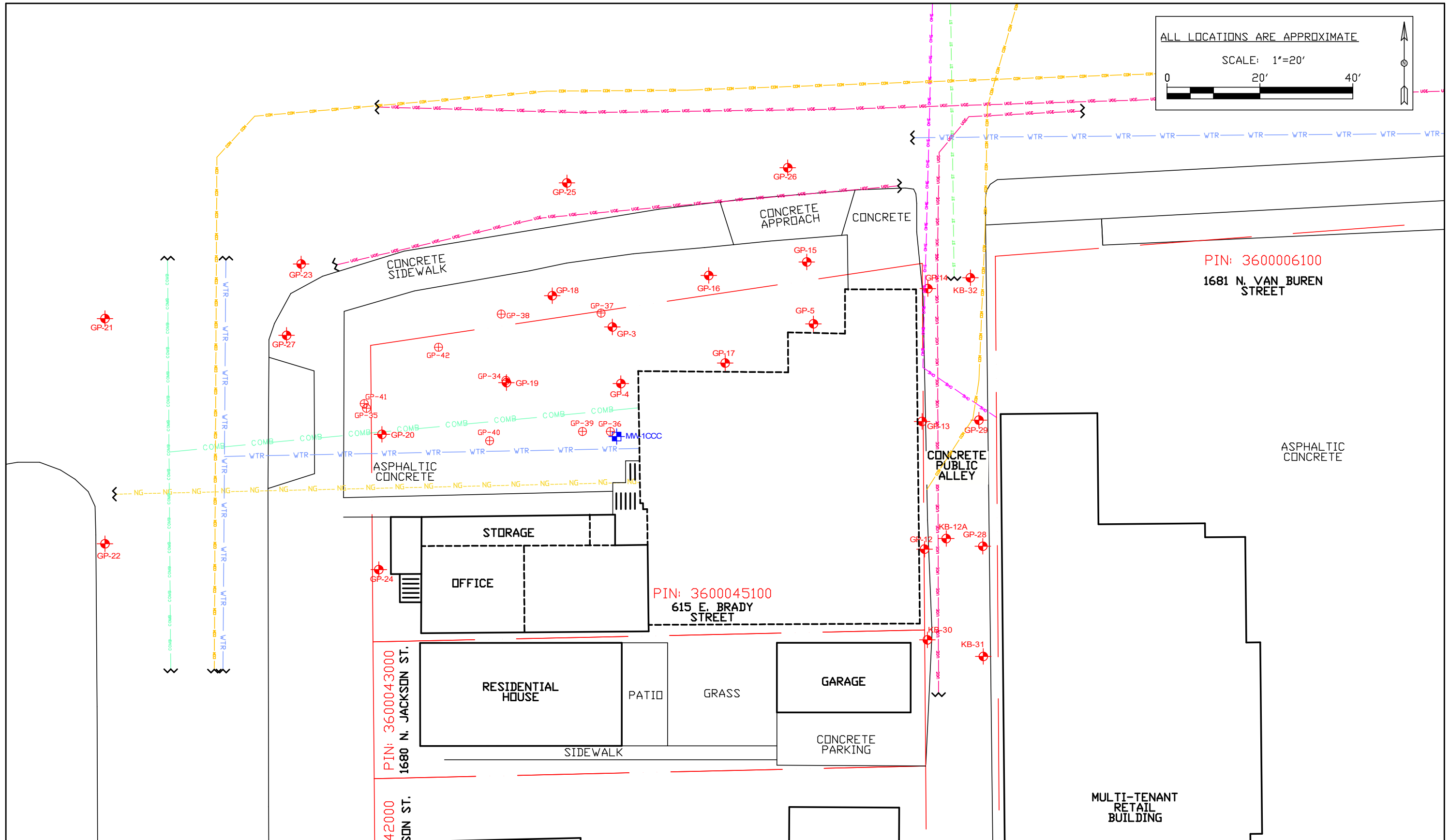


Figure 3: Soil Boring and Groundwater Monitoring Well Location Map

<p>United Engineering Consultants, Inc.</p> <p>16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400</p>	<p>#17028</p>	<p>Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202</p>	<p>Legend</p> <ul style="list-style-type: none"> — Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- UGE --- Underground Electric Line --- COM --- Underground Communication Line --- ST --- Underground Storm Sewer Line GP-3 Soil Sample Location (KEY) GP-34 Soil Probe Location (UEC) MW-1CCC Groundwater Monitoring Well Location (KEY)
	<p>DRAWN BY: NJA</p>		
	<p>DATE: 02/08/2018</p>		

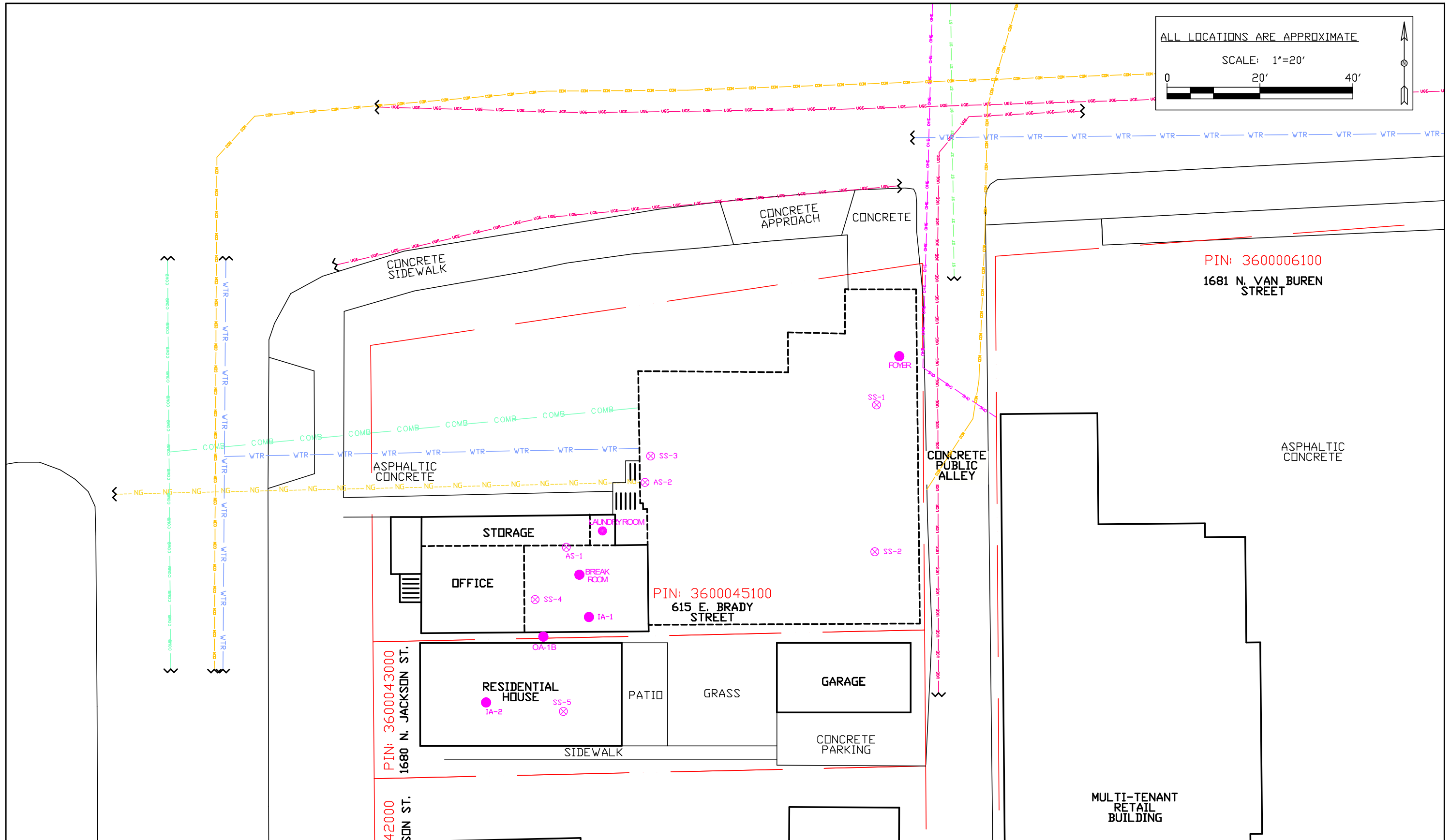


Figure 4: Ambient and Sub-Slab Vapor Sample Location Map

<p>United Engineering Consultants, Inc.</p> <p>16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400</p>	<p>#17028</p>	<p>Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202</p>	<p>Legend</p> <ul style="list-style-type: none"> — Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- CM --- Underground Communication Line --- ST --- Underground Storm Sewer Line --- COMB --- Combined Sewer Line ● BREAK ROOM ● Ambient-Air Vapor Sample Location (KEY) ⊗ IA-1 ⊗ Sub-Slab Vapor Sample Location (KEY)
	<p>DRAWN BY: NJA</p>		
	<p>DATE: 02/08/2018</p>		

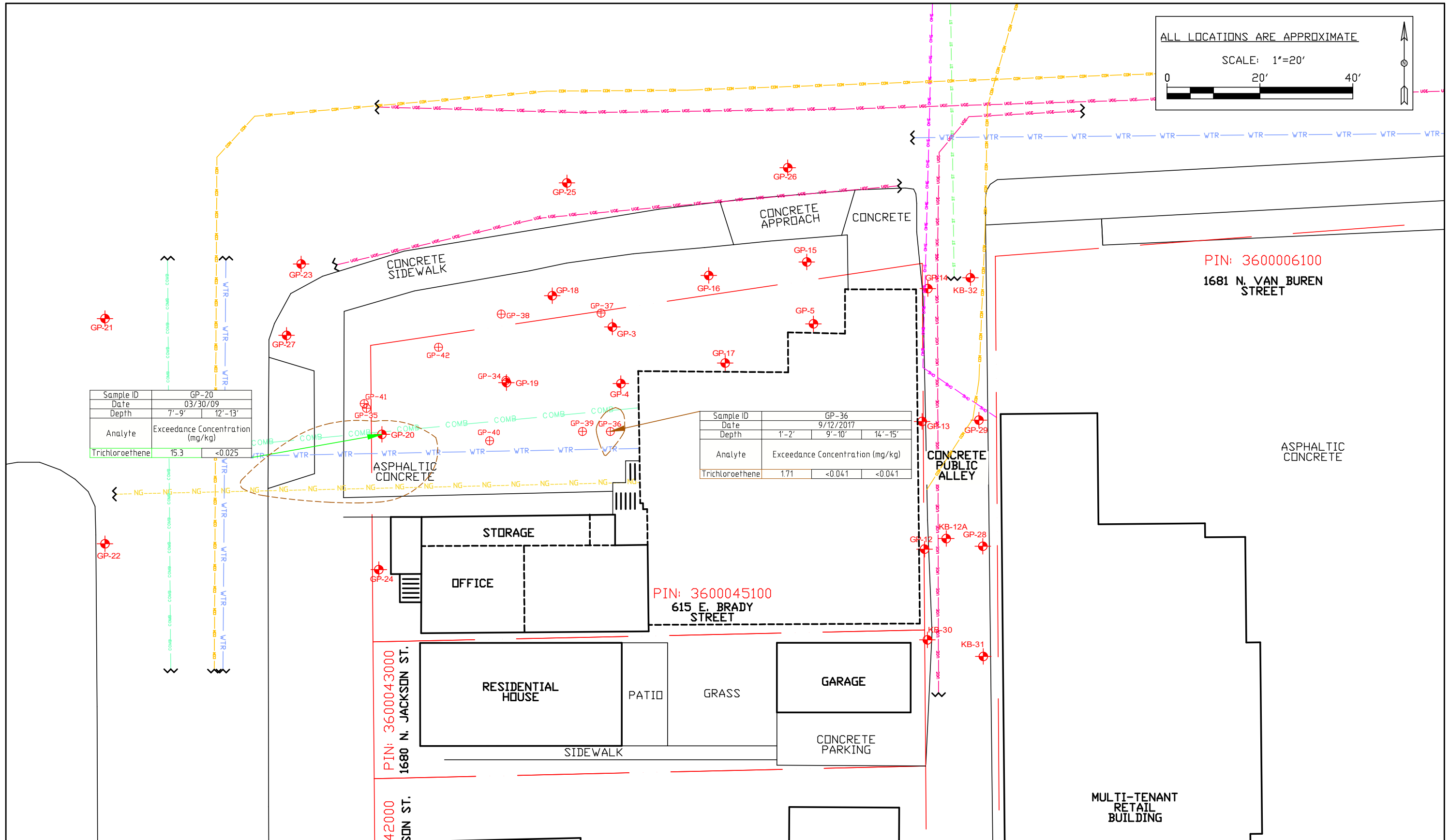


Figure 5: Approximate Lateral Extent of Trichloroethene Impacted Soil above its Non-Industrial Direct Contact RCL

United Engineering Consultants, Inc. 16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400	#17028	Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202	Legend --- Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- COM --- Underground Communication Line --- ST --- Underground Storm Sewer Line GP-3 (KEY) Soil Sample Location GP-34 (UEC) Soil Probe Location
	DRAWN BY: NJA		
	DATE: 02/08/2018		

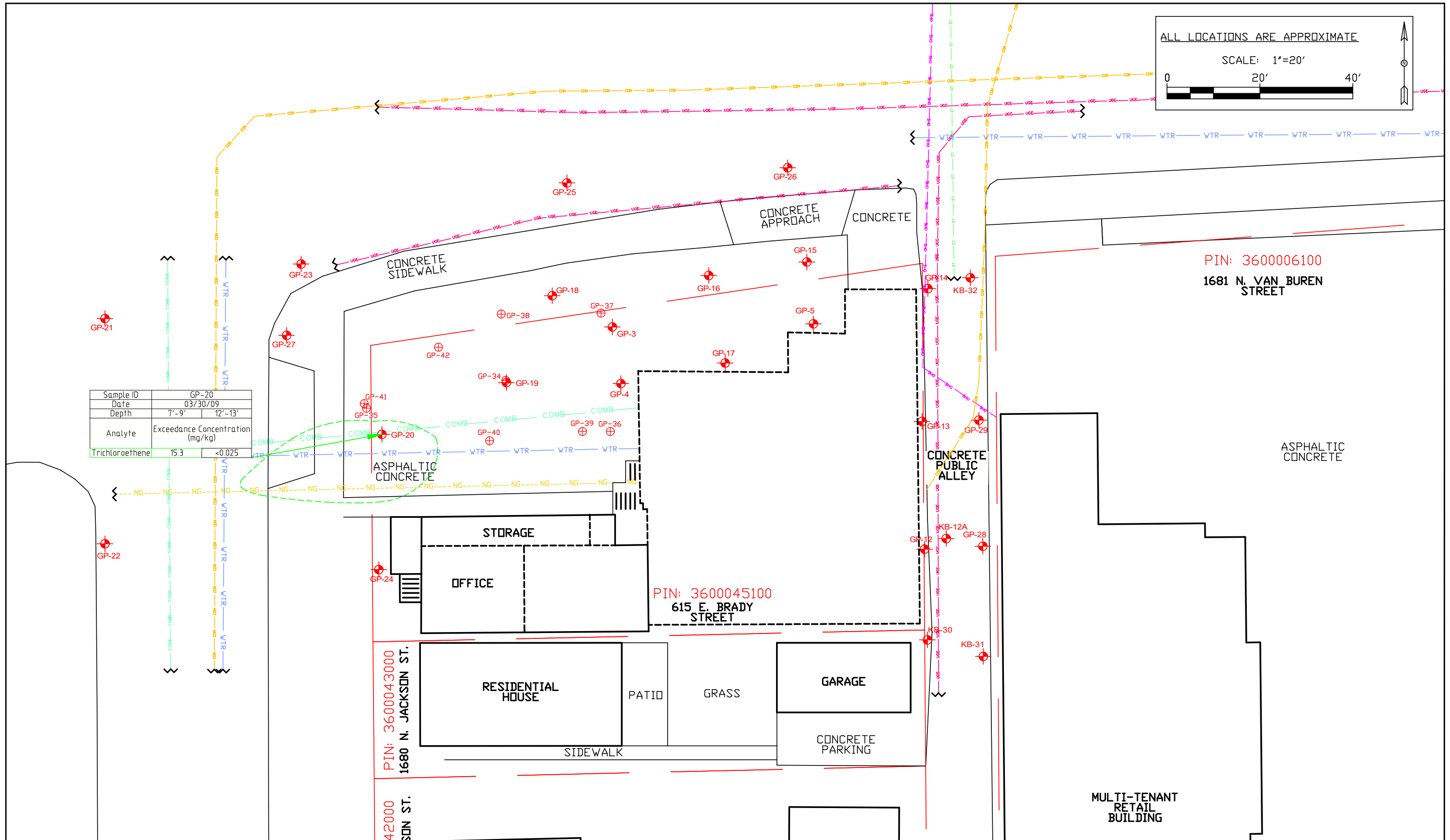


Figure 6: Approximate Lateral Extent of Trichloroethene Impacted Soil above its Industrial Direct Contact RCL

<p>United Engineering Consultants, Inc.</p> <p>16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400</p>	<p>#17028</p>	<p>Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202</p>	<p>Legend</p> <ul style="list-style-type: none"> — Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- COM --- Underground Communication Line --- ST --- Underground Storm Sewer Line GP-3 Soil Sample Location (KEY) GP-34 Soil Probe Location (UEC)
	<p>DRAWN BY: NJA</p>		
	<p>DATE: 02/08/2018</p>		

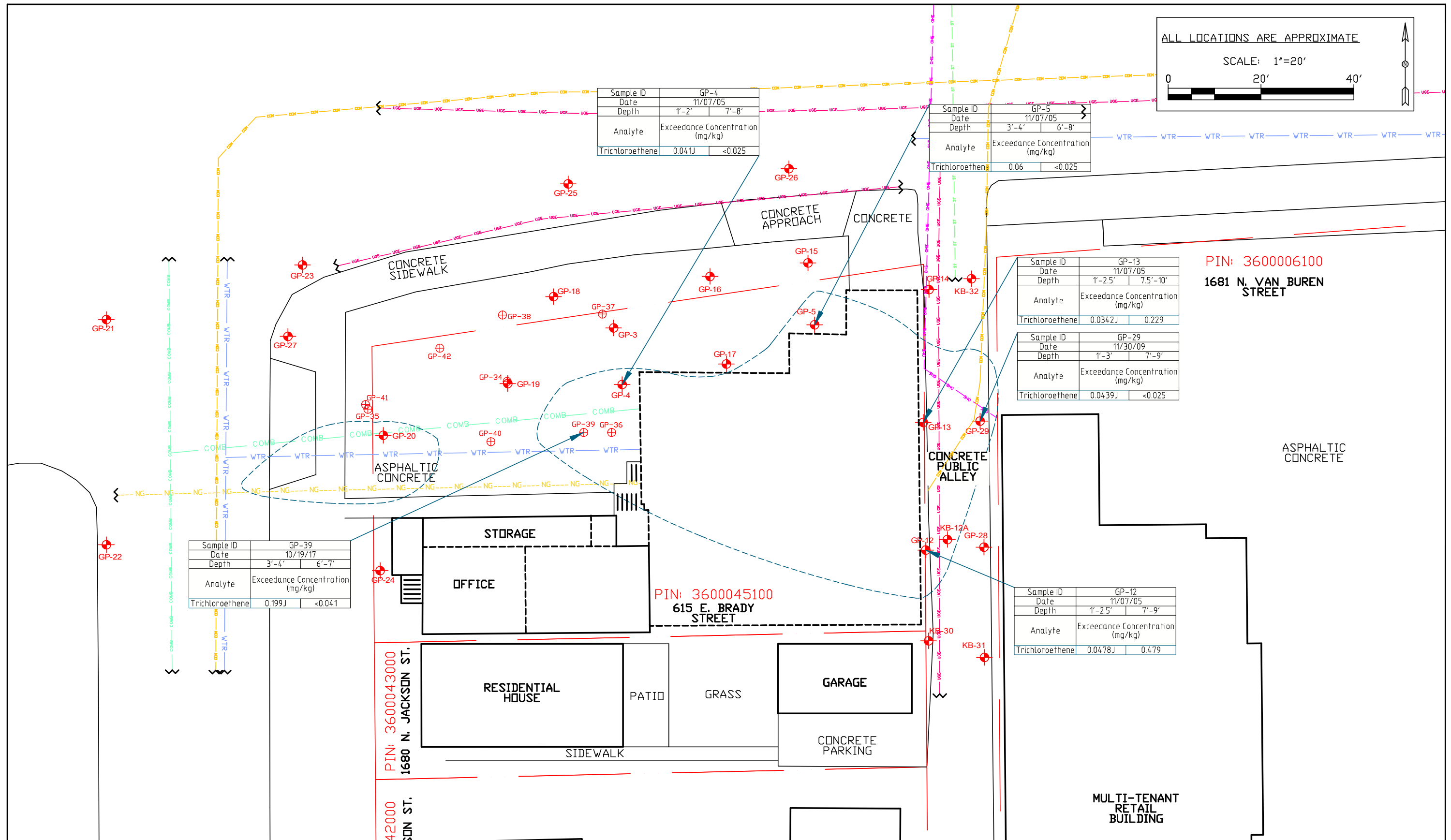


Figure 7: Approximate Lateral Extent of Trichloroethene Impacted Soil above its Groundwater Pathway RCL

United Engineering Consultants, Inc. 16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400	#17028	Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202	Legend --- Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- CCM --- Underground Communication Line --- ST --- Underground Storm Sewer Line GP-3 Soil Sample Location (KEY) GP-34 Soil Probe Location (UEC)
	DRAWN BY: NJA		
	DATE: 02/08/2018		

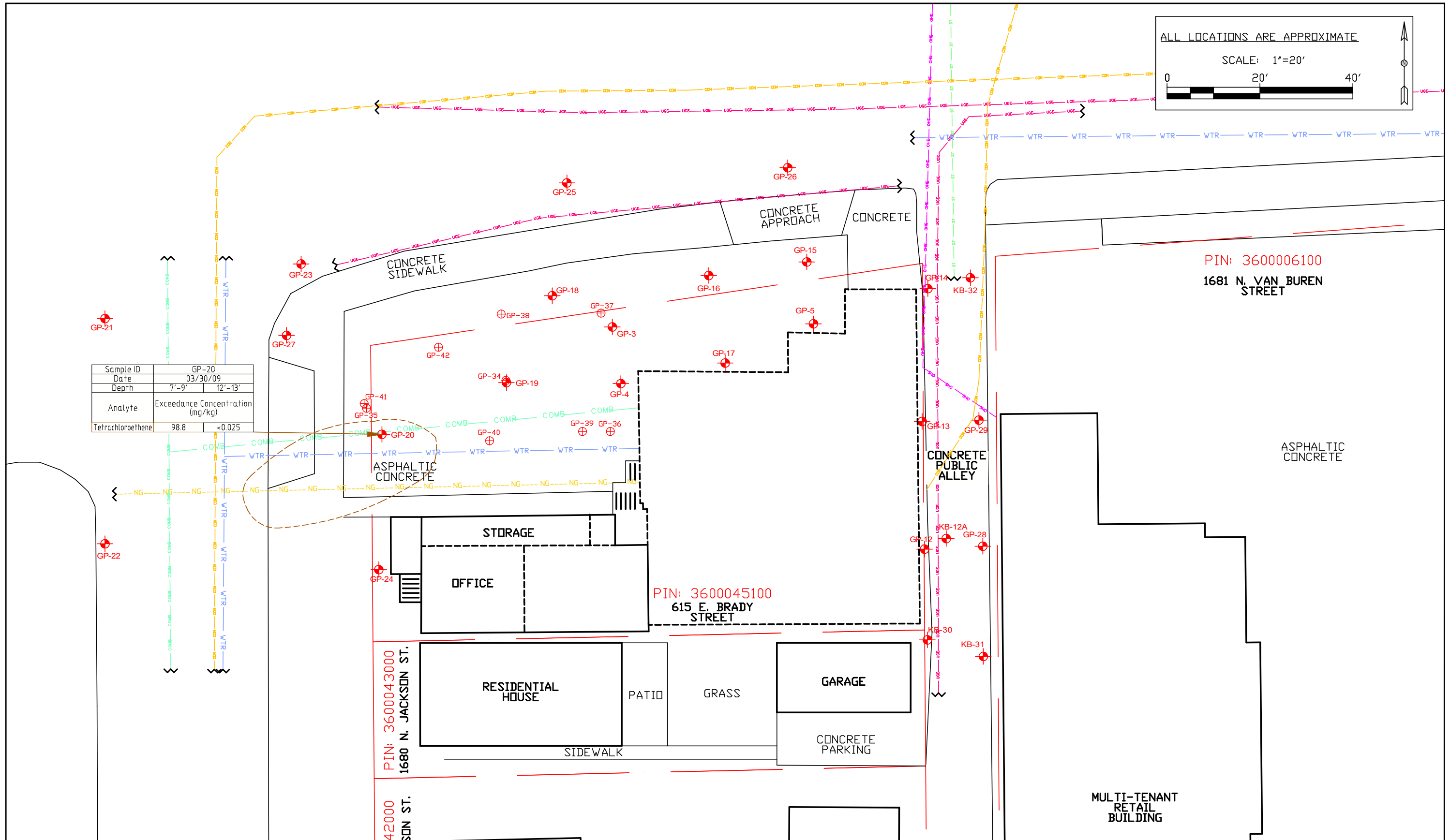


Figure 8: Approximate Lateral Extent of Tetrachloroethene Impacted Soil above its Non-Industrial Direct Contact RCL

<p>United Engineering Consultants, Inc.</p> <p>16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400</p>	<p>#17028</p>	<p>Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202</p>	<p>Legend</p> <ul style="list-style-type: none"> — Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- UCL --- Underground Communication Line --- USS --- Underground Storm Sewer Line --- COMB --- Combined Sewer Line ⊕ Soil Sample Location (KEY) ⊕ Soil Probe Location (UEC)
	<p>DRAWN BY: NJA</p>		
	<p>DATE: 02/08/2018</p>		

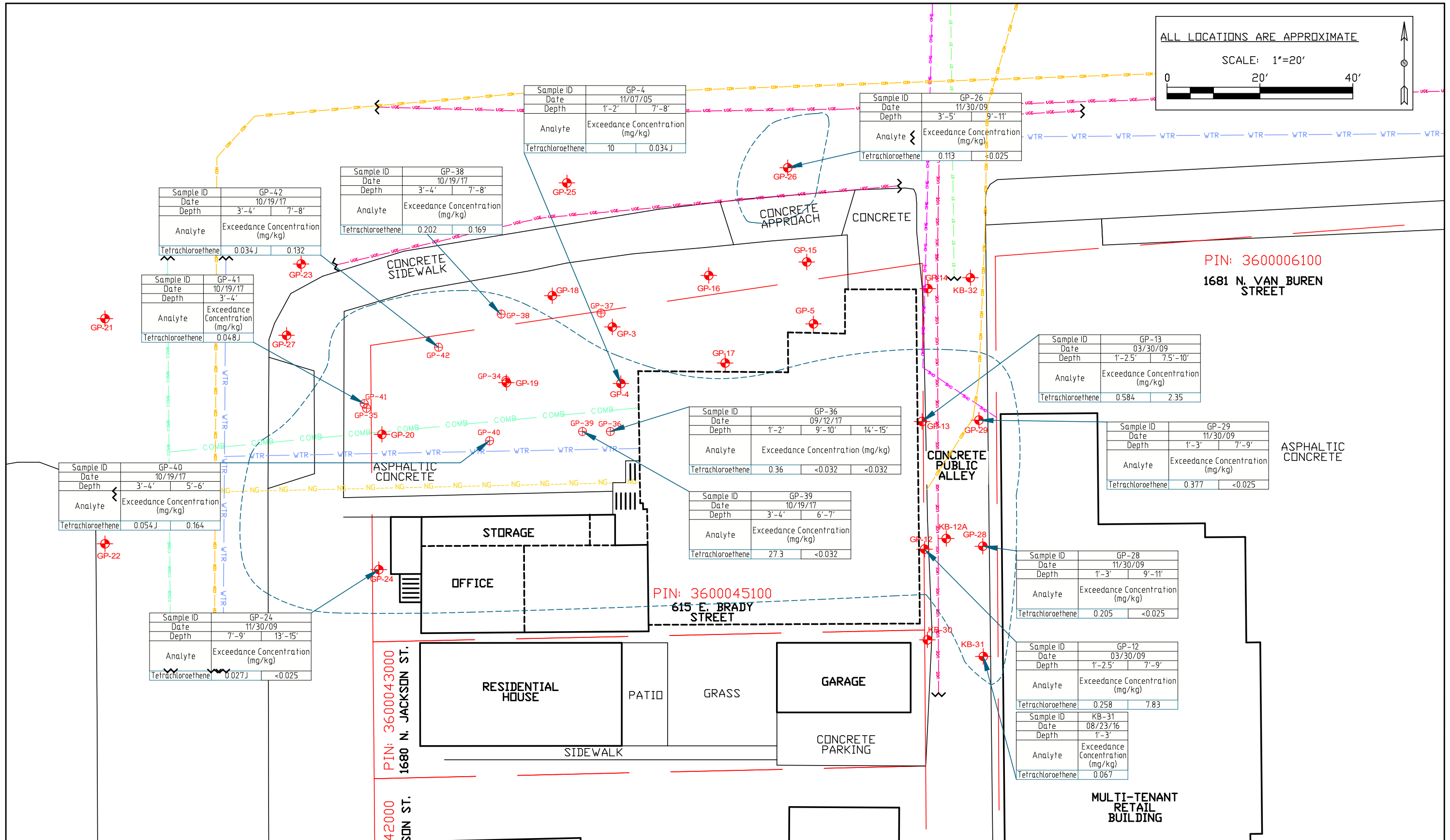


Figure 9: Approximate Lateral Extent of Tetrachloroethene Impacted Soil above its Groundwater Pathway RCL

United Engineering Consultants, Inc. 16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400	#17028 DRAWN BY: NJA DATE: 02/08/2018	Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202	Legend --- Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- COM --- Underground Communication Line --- ST --- Underground Storm Sewer Line GP-3 Soil Sample Location (KEY) GP-34 Soil Probe Location (UEC)
	United Engineering Consultants, Inc.		

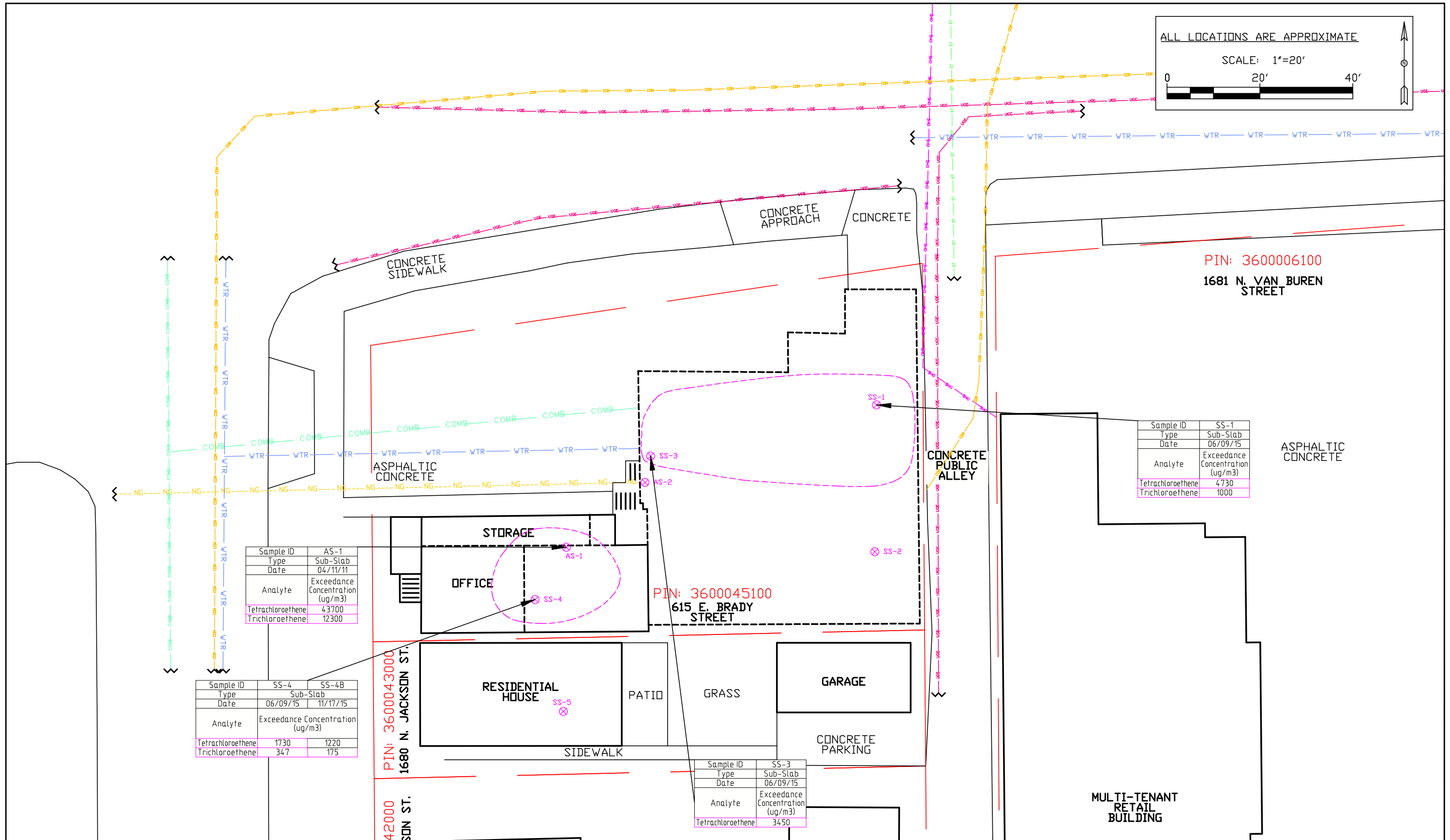
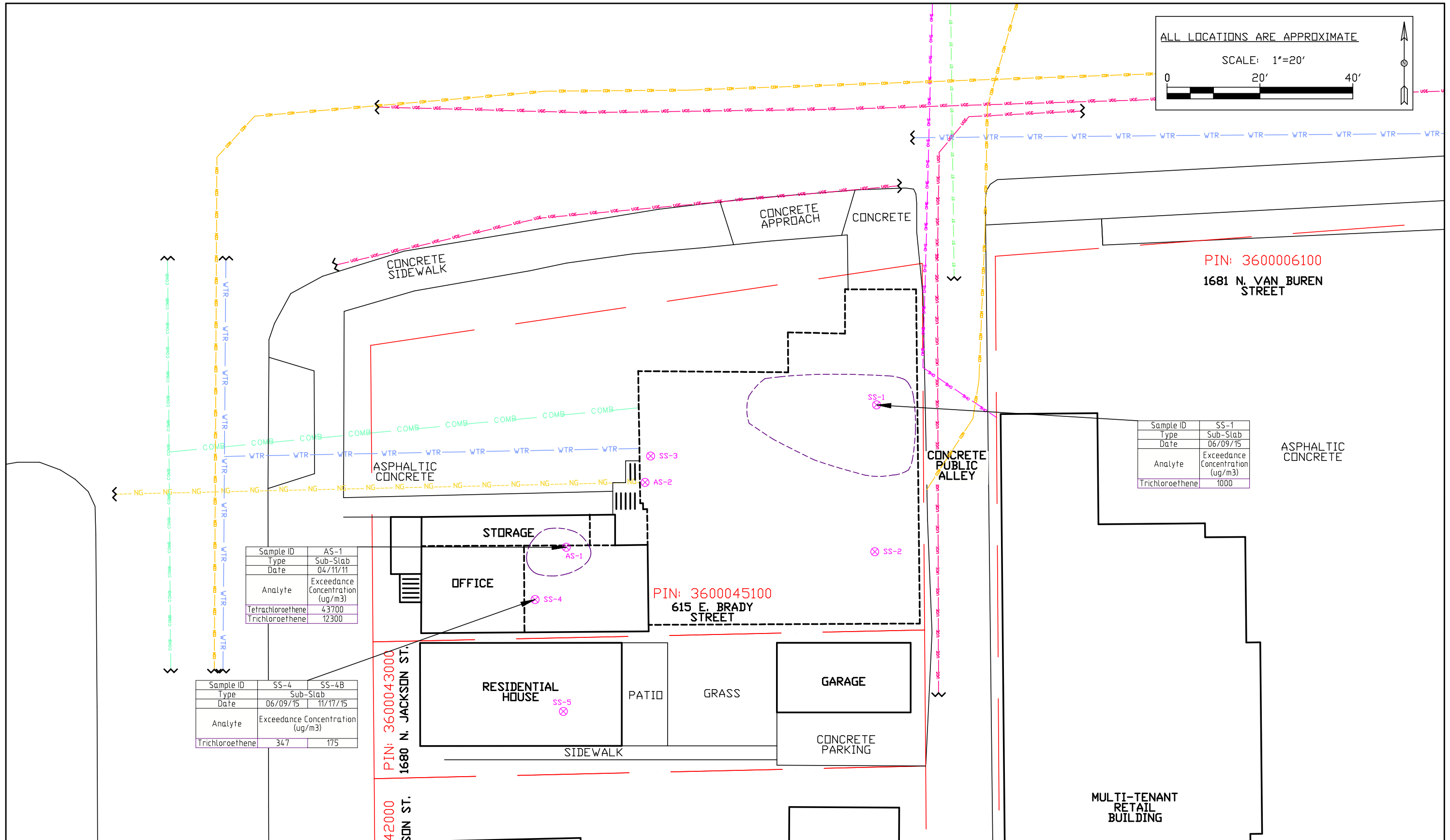


Figure 10: Approximate Lateral Extent of TCE and/or PCE Impacted Sub-Slab Vapor in Exceedance of Residential VRSLs

United Engineering Consultants, Inc. 16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400	#17028	Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202	Legend --- Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- CM --- Underground Communication Line --- ST --- Underground Storm Sewer Line --- COMB --- Combined Sewer Line IA-1 Sub-Slab Vapor Sample Location (KEY)
	DRAWN BY: NJA DATE: 02/08/2018		



ALL LOCATIONS ARE APPROXIMATE
 SCALE: 1"=20'
 0 20' 40'

Sample ID	SS-1
Type	Sub-Slab
Date	06/09/15
Analyte	Exceedance Concentration (ug/m3)
Trichloroethene	1000

Sample ID	AS-1
Type	Sub-Slab
Date	04/11/11
Analyte	Exceedance Concentration (ug/m3)
Tetrachloroethene	43700
Trichloroethene	12300

Sample ID	SS-4	SS-4B
Type	Sub-Slab	Sub-Slab
Date	06/09/15	11/17/15
Analyte	Exceedance Concentration (ug/m3)	Exceedance Concentration (ug/m3)
Trichloroethene	347	175

Figure 11: Approximate Lateral Extent of PCE and/or TCE Impacted Sub-Slab Vapor in Exceedance of Small Commercial VRSLs

United Engineering Consultants, Inc. 16237 W. Ryerson Road New Berlin, WI 53151 Tel. (262) 785-1447 Fax (262) 706-4400	#17028	Remedial Action Plan (RAP) Former Comedy Club Cafe 615 E. Brady Street Milwaukee, WI 53202	Legend --- Property Line --- NG --- Underground Natural Gas Line --- WTR --- Underground Water Line --- OHE --- Overhead Electric Line --- USE --- Underground Electric Line --- CM --- Underground Communication Line --- ST --- Underground Storm Sewer Line --- COMB --- Combined Sewer Line IA-1 ⊗ Sub-Slab Vapor Sample Location (KEY)
	DRAWN BY: NJA DATE: 02/08/2018		

APPENDIX



Requested Facility: Metro RDF Profile Number: 128792WI
Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number:

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: Former Comedy Cafe
2. Site Address: 615 E. Brady Street
3. County: Milwaukee
4. Contact Name: Timothy Anderson
5. Email: tau.ec@sbcglobal.net
6. Phone: (262) 785-1447
8. Generator EPA ID: N/A
9. State ID: N/A

C. MATERIAL INFORMATION

1. Common Name: Contaminated Clay Soils
Describe Process Generating Material: Excavation of soils on open ERP site.
2. Material Composition and Contaminants:
Table with 2 columns: Material, Percentage. Row 1: Soil, 100%.
Total comp. must be equal to or greater than 100% >=100%
3. State Waste Codes: N/A
4. Color: Brown
5. Physical State at 70°F: Solid
6. Free Liquid Range Percentage: N/A
7. pH: N/A
8. Strong Odor: No
9. Flash Point: >=200°F

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached Yes
Please identify applicable samples and/or lab reports:
GP-5, GP-5R, GP-15, GP-15, GP-16 and GP-17
2. Other information attached (such as MSDS)? No

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.

Name (Print): TIM ANDERSON Date: 02/09/2018
Title: Principal
Company: United Engineering Consultants, Inc

B. BILLING INFORMATION

SAME AS GENERATOR

1. Billing Name: K&S Contractors, Inc.
2. Billing Address: 9654 W. Schlinger Avenue
3. Contact Name: Jeff Seeger
4. Email: kandscontractorsinc@gmail.com
5. Phone: (414) 476-5006
7. WM Hauled? Yes No
8. P.O. Number:
9. Payment Method: Credit Account Cash Credit Card

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? Yes* No
2. State Hazardous Waste? Yes No
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes* No
4. Contains Underlying Hazardous Constituents? Yes* No
5. From an industry regulated under Benzene NESHAP? Yes* No
6. Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
7. CERCLA or State-mandated clean-up? Yes* No
8. NRC or State-regulated radioactive or NORM waste? Yes* No
*If Yes, see Addendum (page 2) for additional questions and space.
9. Contains PCBs? -> If Yes, answer a, b and c. Yes No
a. Regulated by 40 CFR 761? Yes No
b. Remediation under 40 CFR 761.61 (a)? Yes No
c. Were PCB imported into the US? Yes No
10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
11. Contains Asbestos? Yes No
-> If Yes: Non-Friable Non-Friable - Regulated Friable

F. SHIPPING AND DOT INFORMATION

1. One-Time Event Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: 200
Tons Yards Drums Gallons Other:
3. Container Type and Size:
4. USDOT Proper Shipping Name: N/A

Certification Signature
Timothy J. Anderson



Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: 128792WI

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): If more space is needed, please attach additional pages.

Empty text box for describing process generating material.

Material Composition and Contaminants (Continued from page 1): If more space is needed, please attach additional pages.

Table with 2 columns: Contaminant (5-9) and Percentage. Total composition must be equal to or greater than 100%.

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

Empty text box for listing USEPA waste code numbers.

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)?
c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)?
d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)?

2. State Hazardous Waste -> Please list all state waste codes:

3. For material that is Treated, Delisted, or Excluded -> Please indicate the category, below:

- Delisted Hazardous Waste, Excluded Waste under 40 CFR 261.4, Treated Hazardous Waste Debris, Treated Characteristic Hazardous Waste

4. Underlying Hazardous Constituents -> Please list all Underlying Hazardous Constituents:

Text box containing: Tetrachloroethene Trichloroethene

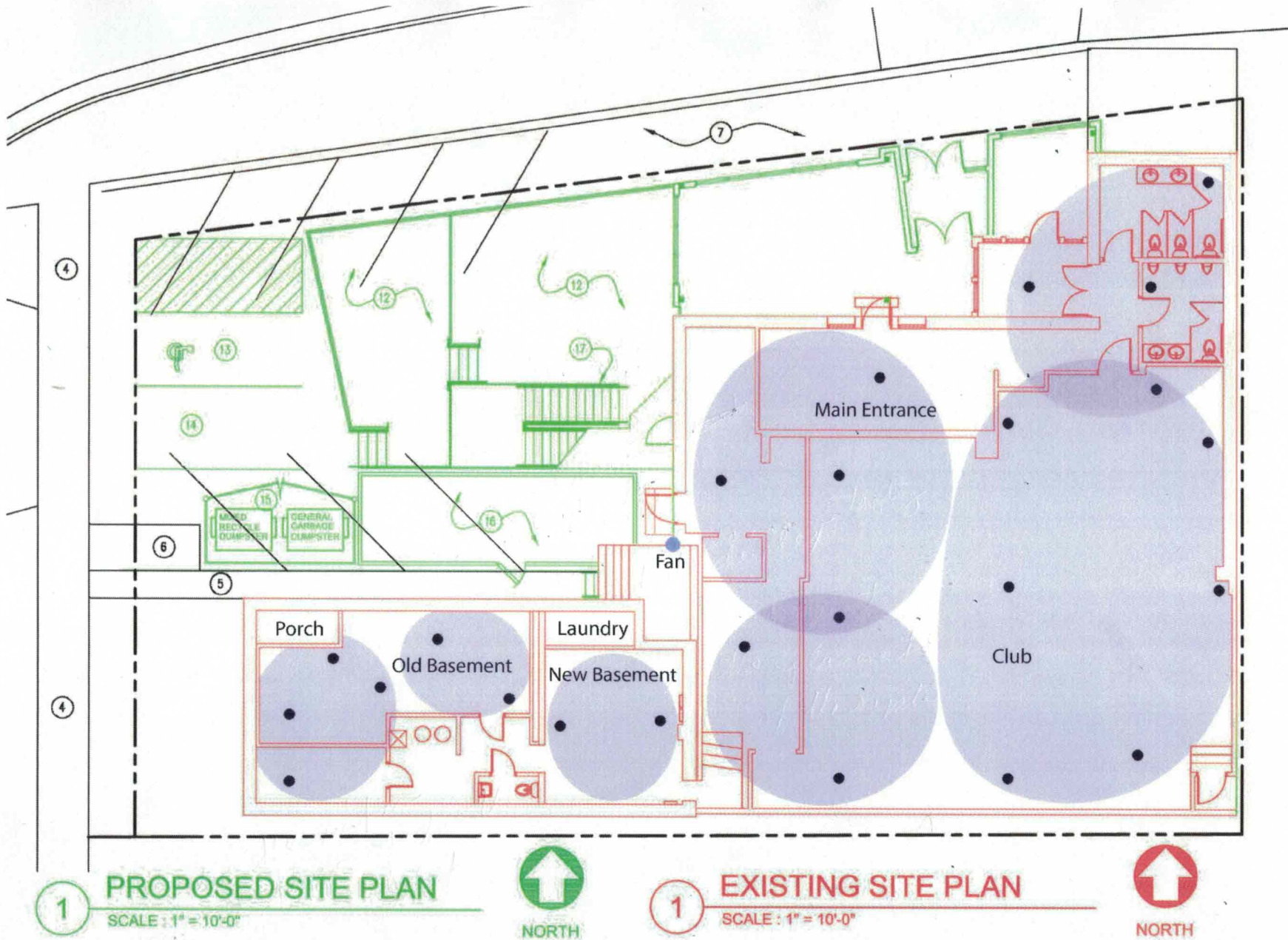
5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF?
b. Does this material contain benzene?
c. What is your facility's current total annual benzene quantity in Megagrams?
d. Is this waste soil from a remediation?
e. Does the waste contain >10% water/moisture?
f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw?
g. Is material exempt from controls in accordance with 40 CFR 61.342?
h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF?

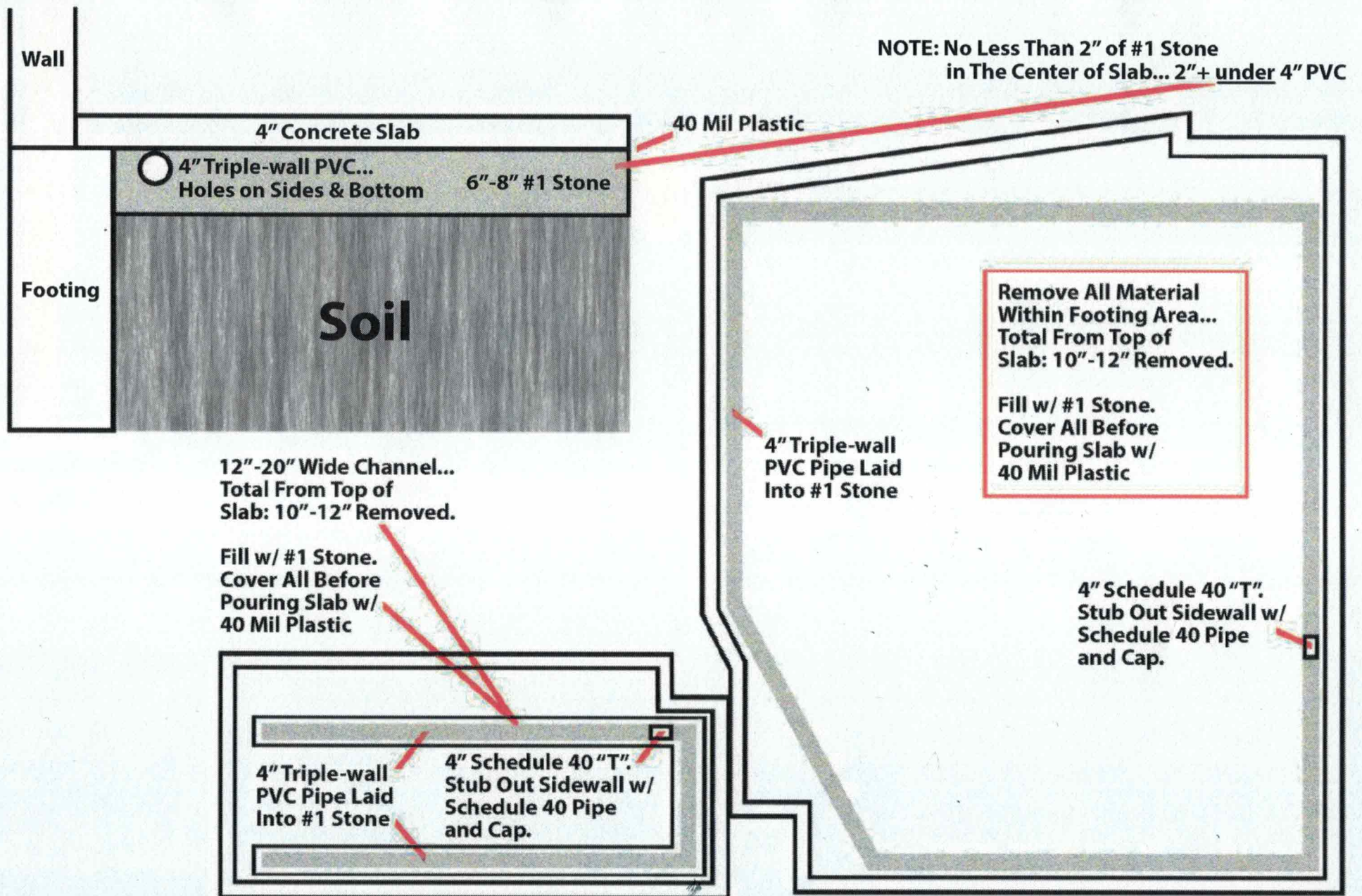
6. 40 CFR 63 GGGGG -> Does the material contain <500 ppmw VOHAPs at the point of determination?

7. CERCLA or State-Mandated clean up -> Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal.

8. NRC or state regulated radioactive or NORM Waste -> Please identify Isotopes and pCi/g:



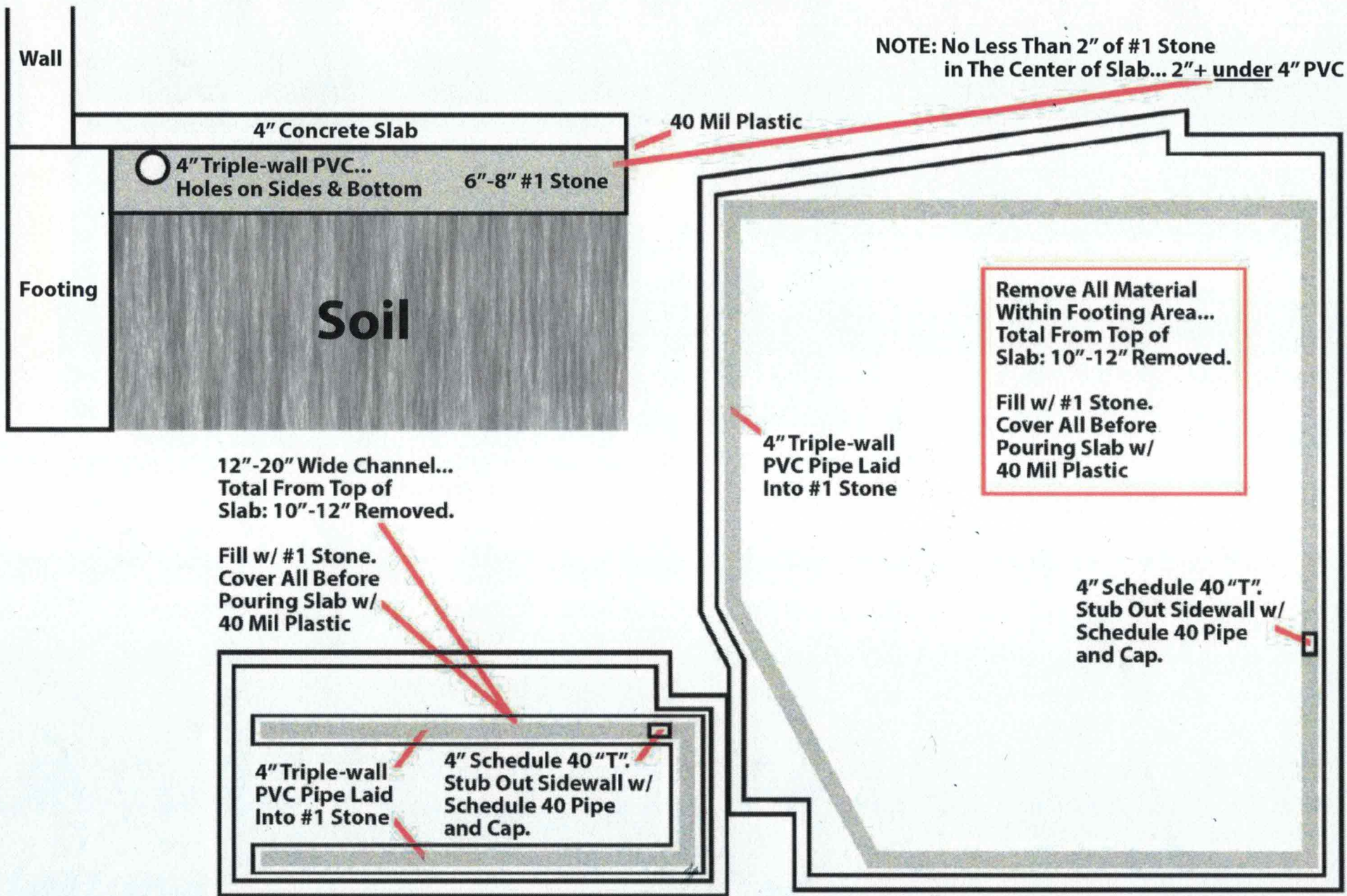
Pressure Field Extension (PFE) Testing Results



Proposed Commercial Building Sub-Slab Vapor Depressurization System



Proposed Exterior Vertical Pipe and Earth Gas Fan for the Commercial Building



Proposed Residential Sub-Slab Vapor Depressurization System



Proposed Exterior Vertical Pipe and Earth Gas Fan for the Duplex