

April 27, 2018

City of Detroit Department of Public Works
City Engineering & Street Maintenance Divisions
Coleman A. Young Municipal Center
2 Woodward Avenue, Suite 611
Detroit, Michigan 48226

Re:

Notice of Migration of Contamination

From 6118 West Fort Street, Detroit, MI, Tax ID 16000302 (MDOT Parcel 5513)

Potentially toward W. Fort Street right-of-way to the south and/or alley right-of-way to the north

Notification No. 5513-ROW

To whom it may concern:

The Mannik Smith Group, Inc. ("MSG"), on behalf of the Michigan Department of Transportation ("MDOT"), has directed or conducted underground environmental testing at 6118 West Fort Street, Detroit, Michigan ("the Site") in relation to the Gordie Howe International Bridge project underway in the vicinity of the rights-of-way referenced above ("the subject properties").

The Michigan Department of Environmental Quality ("MDEQ") requires distribution of the enclosed a Notice of Migration of Contamination form when there is evidence that environmental contamination at one property has or may have affected nearby properties. Hazardous substance(s) were identified in soil and/or groundwater sample(s) collected at the Site at concentration(s) that exceed Generic Residential Cleanup Criteria and Screening Levels established by the MDEQ.

At this time, it is not known if the subject properties have been affected by the environmental contamination at the Site. Also, the identification of hazardous substance(s) at the Site does not necessarily mean a hazardous situation or immediate danger currently exists. MSG, on behalf of the MDOT, is providing this notice to you as a precautionary measure and for your general awareness of environmental conditions at the Site.

Please review the enclosed document and if you have any questions regarding the Notice of Migration of Contamination please contact Karen Williams of the MDEQ at 586-753-3884. If you have general questions regarding the contents of this letter please contact Walter Bolt of MSG at 734-397-3100, extension 6025 or Jim Woodruff of the MDOT at 517-241-9115.

Sincerely

Walter J. Bolt, CPG

Project Manager

Environmental Owners Representative Consultant Gordie Howe International Bridge Project

Jim Woodruff – MDOT

Karen Williams - MDEQ RRD Project Manager

Paul Max – General Manager, Environmental Affairs, City of Detroit BSEED Anita Harrington – Environmental Specialist II, City of Detroit BSEED

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TECHNICAL SKILL. CREATIVE SPIRIT.

5513.Notice Cover Letter.DetroitDPW.docx

2365 Haggerty Road South, Canton, Michigan 48188 Tel: 734.397.3100 Fax: 734.397.3131 www.MannikSmithGroup.com



For DEQ Use Only	Ī
ITS#	
Site ID #	
Category Code:	

NOTICE OF MIGRATION OF CONTAMINATION (FORM EQP4482 REV. 4/16)

(Under the authority of Part 201, Natural Resources and Environmental Protection Act, 1994 Act 451, as amended, (NREPA) and the Rules promulgated thereunder)

An owner or operator of property that is a facility, and/or who is subject to MCL324.20107a, and who has reason to believe that a hazardous substance is emanating from, has emanated from, or is likely to be emanating from the property and migrating beyond the boundaries of the property that he or she owns or operates is required under R 299.51017(1) and MCL 324.20114(1)(b)(ii) & (iii) to notify the Michigan Department of Environmental Quality (DEQ) and affected property owners. Submission of this notice does not fulfill the notification requirements of MCL 324.21309a.

The notice must be provided within 45 days (MCL 324.20107a) or within 30 days (MCL 324.20114) after the owner or operator has reason to believe that hazardous substances have migrated, or are likely to have migrated, to or beyond the boundary of his or her property (see R 299.51017 for exceptions that apply to parties subject to MCL 324.20107a).

Use of this form is mandatory for the notice required by R 299.51017(1) and may also be used by parties subject to MCL 324.20114(1)(b)(ii) & (iii). This form may also be used to provide notice to affected property owners as required by those rules.

If a person holds a permit for an oil and gas well under Part 615, Supervisor of Wells, of the NREPA and there is a release from the oil and gas exploration or production activities, that person shall give notice to the DEQ and to the owner of the surface rights of the property.

If a person holds an easement and there is a release from the easement holder's activities, that person shall provide notice to the DEQ and to the grantor of the easement, or the grantor's successor in interest, if any.

Completing this notice in no way relieves a person who is subject to MCL 324.20114 from the responsibility to undertake required response activities.

This notice must be sent to the DEQ office that serves the county in which the property is located. A list of DEQ offices is available at www.michigan.gov/deqduecare, or by calling the Remediation and Redevelopment Division's Lansing office at 517-284-5187. The DEQ will not prepare acknowledgement of receipt of these notices. The sender is responsible for sending the report using a method that provides proof of delivery if such proof is desired. Please label the outside of the envelope "Migration Notice." Additional guidelines for the compliance with the requirements of R 299.51017(1) or MCL 324.20114(1)(b)(ii) & (iii) are available at www.michigan.gov/deqduecare.

	OTICE IS PROVIDED PU	JRSUANT TO:	R 299.51017	\boxtimes	MCL 324.20114(1)	
Please	provide the following in	formation as complet	ely as possible.			
	ne and location of the prestances are emanating f				s relative to the prope k one or both, as applicab	•
	Name: MI Dept. of Tran Address: 6118 West For Location: Michigan City/County: Detroit/Wa Property Tax Identification	t Street yne on Number, or if applic	able, the ward an	Op		
	Latitude (decimal degree	es): 42.307723 °N	Longitude	(decimal	degrees): -83.10166	37 °W
	Reference Point for Lati Center of Site: ⊠ Collection Method:	Main/front door:] Front gate/ nterpolation: □		trance: ☐ Othe S: ⊠	er: 🗌

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2. Provide any additional ID numbers associated with the property (e.g., EPA ID No., BEA No., Part 213 facility ID No., etc.):

GHIB MDOT Parcel 5513; MERA Site ID# 82002800; CNTS-RRD-16-001

3. Name, address, and telephone number of the property owner, operator, or other party submitting the notice:

Name: MDOT Bureau of Development, Environmental Services Section

Address: 425 W. Ottawa Street, P.O. Box 30050

City/State: Lansing, MI, 48909 Telephone Number: 517-241-9115

4. Name, address and telephone number of a contact person familiar with the content of the notice:

Name: Walter Bolt of The Mannik & Smith Group, Inc. Environmental Owner's Rep Consultant to MDOT

Address: 2365 Haggerty Road South

City/State: Canton, MI 48188

Telephone Number: 734-397-3100 x. 6025

5. If this Notice is provided pursuant to R 299.51017, provide the address and other location information for the *adjacent* property(s) onto which contamination is migrating, has migrated, or is likely to migrate.

If this Notice is provided pursuant to MCL Section 324.20114(1), provide the address and other location information for *each* property onto which contamination has migrated. Notice should be sent to the property owner of record. If the impacted property is owned by the State of Michigan, notice should be sent to the department managing the property (e.g., a prison, state park, etc.). Notices to the Michigan Department of Transportation (MDOT) for state owned roadways should be sent to Contaminated Site Specialist, Environmental Services Section, MDOT-Bureau of Development, 425 W. Ottawa Street, P.O. Box 30050, Lansing, MI 48909. If the impacted property is owned by the State of Michigan, notice should be sent to the department managing the property (i.e. a prison, state park, etc.).

Address: 6118 W. Fort St. (subject property)	Notified? No 🔲	Yes 🛛	Date: April 27, 2018
City/State: Detroit, MI Property Tax ID number: 16000302			
Other: Michael J. & Debra Schmidt			
Address: 6126 W. Fort St.	Notified? No □	Yes 🛛	Date: <u>April 27, 2018</u>
City/State: Detroit, MI Property Tax ID number: 16000301			
Other: MDOT Parcel 5512			
Address: 6114 W. Fort St.	Notified? No 🗌	Ves 🕅	Date: April 27, 2018
City/State: Detroit, MI	Notified? No	163 🖂	Date. April 27, 2010
Property Tax ID number: 16000303 Other: MDOT Parcel 5514			
	Name of the last o		
Address: MDOT M-85 Right-of-Way	Notified? No 🗌	Yes 🛛	Date: April 27, 2018
City/State: Detroit, MI Property Tax ID number: NA			
Other: West Fort Street (M-85) east of Dragoon Street,			
west of Military Street			
Address: 27700 Donald Court	Notified? No 🔲	Yes 🛛	Date: April 27, 2018
City/State: Warren, MI, 48092-2793			

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Property Tax ID number: NA

Other: MDEQ, Southeast Michigan District Office
Office of Drinking Water & Municipal Assistance Division

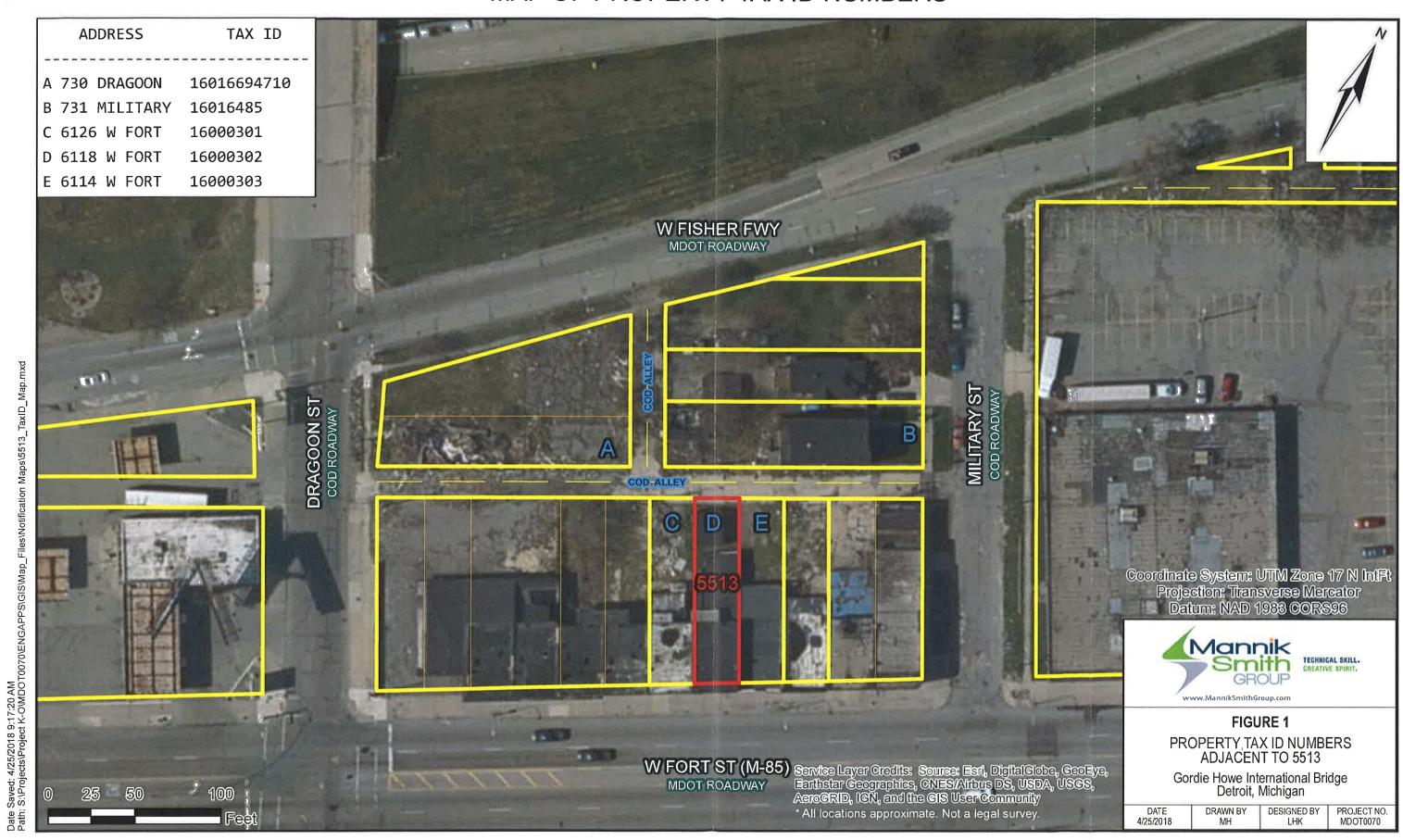


Address: 2 Woodward Avenue, Ste. 611	Notified? No ☐ Yes ☒	Date: <u>April 27, 2018</u>
City/State: Detroit, MI, 48226 Property Tax ID number: NA Other: City of Detroit (West Fort Street and alley adjacent to 6118 W. Fort St./16000302)		
Address: 27175 Energy Way City/State: Novi, MI, 48377 Property Tax ID number: NA Other: International Transmission Company (ITC) (utility holder)	Notified? No ☐ Yes ☒	Date: <u>April 27, 2018</u>
Address: 735 Randolph Street, Ste. 1900 City/State: Detroit, MI, 48226 Property Tax ID number: NA Other: Great Lakes Water Authority (utility holder)	Notified? No ☐ Yes ☒	Date: <u>April 27, 2018</u>
Address: 12775 Lydon Street City/State: Detroit, MI, 48227 Property Tax ID number: NA Other: Comcast/Xfinity (utility holder)	Notified? No ☐ Yes ☒	Date: <u>April 27, 2018</u>
Address: 208 S. Akard Street City/State: Dallas, TX, 75202 Property Tax ID number: NA Other: AT&T Headquarters (utility holder)	Notified? No ☐ Yes ☒	Date: April 27, 2018
Address: One Energy Plaza, Ste. 1935 City/State: Detroit, MI, 48226 Property Tax ID number: NA Other: Detroit Edison, DTE (utility holder)	Notified? No ☐ Yes ☒	Date: April 27, 2018
Address: 6425 Huber Street City/State: Detroit, MI, 48211 Property Tax ID number: NA Other: Detroit Water & Sewerage Department (utility holder) – via email	Notified? No ☐ Yes ☒	Date: <u>April 27, 2018</u>
Address: 3245 E. Jefferson Avenue, Ste. 100 City/State: Detroit, MI, 48207 Property Tax ID number: NA Other: Detroit Health Department – via email	Notified? No ☐ Yes ☒	Date: April 27, 2018

(Attach additional pages as needed) PLEASE SEE ATTACHED MAP OF PROPERTY TAX ID NUMBERS.

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MAP OF PROPERTY TAX ID NUMBERS



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5513



- 6. Complete the Table on Page 6 of this Form for each hazardous substance which has migrated, or is likely to have migrated, beyond the property boundary at a concentration that exceeds a Generic Residential Cleanup Criterion developed by the DEQ pursuant to MCL 324.20120a(1). Complete and attach additional copies of Page 6, if necessary, to list all hazardous substances that must be reported. Include a scaled map or drawing that shows the location of sampling points identified on the Table on Page 6, the property boundaries, and the adjacent property owners if providing notice pursuant to MCL 324.20114(1).
- 7. Provide a summary of the information which shows that contamination is emanating from, or has emanated from, and is present beyond the boundary of the source property at a concentration which exceeds the generic residential criteria developed by the DEQ pursuant to MCL 324.20120a(1)(a). This summary shall identify the environmental media affected, specific hazardous substances, and the concentrations of those hazardous substances in all affected environmental media at the property boundary and in any sample locations beyond the property boundary. The summary shall also describe the basis for the conclusion that the contamination is emanating, has emanated, or is present beyond the boundary of the source property, including whether the conclusion is based on groundwater analytical data or fate and transport modeling, both, or neither.

	3,			
8.	If the person making this notice has reason to believe that a n to affect, a private or public water supply, then that water supply	nigrating hazardous su bly must be identified h	bstance i ere:	nas affected, or is likely
	NA		YES	NO
9.	Is this notice being submitted within the timeframes established R 299.51017 and/or MCL 324.20114(1), as applicable?	ed under	\boxtimes	
10.	 Is this notice in addition to a notice that was submitted prior to (R 299.51017(4)(c)) 	December 21, 2002?	\$25°	
11.	 Is this notice related to an oil and gas well permit (R 299.510° Permit #: 	7(2))?	(40) (47)	
12.	2. Is this notice related to an easement (R 299.51017(3))? (NOTE: All easement grantors <i>must</i> receive this notice.)		(1) (1)	
13.	3. Has surface water been affected (R 299.51017(1)? (If yes, please identify the affected surface water body.)			
CE	ERTIFICATION:			
beh rep felc	with my signature below, I certify that I am the owner of the facility that I am the owner of the facility that I am the owner of the facility that I of the owner or operator named on this form, and that to the operations are complete and accurate. I understand that interior and may result in fines up to \$25,000 for each violation.	e best of my knowledg entionally submitting fa Date April 27	e and be Ise infori	lief the above
Naı	(Owner or person legally authorized to bind the person making this reame (Typed or Printed) Walter J. Bolt	port)		
Title	itle (Typed or Printed) <u>Project Manager, Environmental Owners Represen</u>	ative Consultant, Gordie Ho	we Interna	ional Bridge Project

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See Item 6 on Page 5 of this Form for instructions to be used in completing this table. Attach additional pages if necessary. The information to be included in each column of the table is:

Column A Column B Column C

Column E Column E Column F

Column G Column H

Name of hazardous substance.

Chemical Abstract Service (CAS) Number for the hazardous substance.

Chemical Abstract Service (CAS) Number for the hazardous substance.

Maximum hazardous substance concentration measured on the property, expressed in parts per billion (e.g., ug/L or ug/Kg). Report maximum concentration separately for each environmental medium.

Sample location for Column C (relate to label on map).

Environmental medium in which concentration reported in Column C was measured (e.g., soil or groundwater).

Environmental medium in which concentration reported in Column D) to property boundary, in direction of contaminant migration, if known.

Distance from point of maximum measured concentration (Column D) to property boundary, in direction of contaminant more reported in Column C has been measured at a point closer to the property boundary in the direction of contaminant migration, use Column I to list the concentration that was measured closest to the property boundary in the direction of contaminant migration.

Sample location for Column H (relate to label on map).

Environmental medium for measurement reported in Column H, if applicable.

Column J Column J

114				
Ö	J Environmental Medium for "H"			
	ן Sample Location for "H"			
	G H Direction of Boundary Migration Concentration			
	Sample Location Environmental F for "C" Medium for "C" Property Boundary			
	E Environmental Medium for "C"			
	D Sample Location for "C"			
ED I ABLE 1	B C CAS Maximum Number Concentration			
INACH	B CAS Number			
PLEASE SEE ALLACHED LABLE 1	A Hazardous Substance			

Total Number Samples Collected:

Total Number of Samples Exceeding Criteria:

A scaled map or drawing showing these locations and the property boundaries must be submitted with this Notice PLEASE SEE ATTACHED FIGURE 2

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TABLE 1

DEQ NOTICE OF MIGRATION ATTACHMENT

Hazardous Substance CAS Number Maximum Concentration Sample Location for TC* Environmental Bistance to 10te-tion of 10te-t	A	æ	ပ	D	ш	ъ	O	Ŧ		7
sele 108-88-3 830 5513_SB-02_0_2_S_SOM_2017106 Soil 5 feet Unknown - clob/flucranthene 78-01-6 250 5613_SB-01_2_8_SOM_2017106 Soil 5 feet Unknown - clob/flucranthene 505-32-8 18,000 5613_DUP-1_S_SOM_2017106 Soil 5 feet Unknown - azole 86-74-8 1,800 5613_DUP-1_S_SOM_20171106 Soil 5 feet Unknown - azole 86-74-9 1,800 5613_DUP-1_S_SOM_20171106 Soil 5 feet Unknown - nzade 1,200 5613_DUP-1_S_SOM_20171106 Soil 5 feet Unknown - 1/20-3 2,600 5613_DUP-1_S_SOM_20171106 Soil 5 feet Unknown - 1/20-3 2,000 5613_DUP-1_S_SOM_20171106 Soil 5 feet Unknown - 1/20-1-3 2,000 5613_DUP-1_S_SOM_20171106 Soil 5 feet Unknown - 1/20-1-3 2,000 5613_SB-01_0-2_S_SOM_20171106	Hazardous Substance	CAS Number	Maximum Concentration	Sample Location for "C"	Environmental Medium for "C"	Distance to Property Boundary	Direction of Migration	Boundary Concentration	Sample Location for "H"	Environmental Medium for "H"
1970-10-6 79-01-6 250 2513_B-01_7-9_S_SOM_20171106 Soil 5 feet 205-99-2 24,000 5513_DUP-1_S_SOM_20171106 Soil 5 feet 206-99-2 24,000 5513_DUP-1_S_SOM_20171106 Soil 5 feet 206-99-2 1,800 5513_DUP-1_S_SOM_20171106 Soil 5 feet 206-89-2 1,800 5513_DUP-1_S_SOM_20171106 Soil 5 feet 206-89-2 2,600 5513_DUP-1_S_SOM_20171106 Soil 5 feet 206-89-2 2,200 5513_DUP-1_S_SOM_20171106 Soil 5 feet 206-80-2 2,200 5513_DUP-1_S_SOM_20171106 Soil 5 feet 31-20-3 2,200 5513_DUP-1_S_SOM_20171106 Soil 5 feet 31-20-3 2,200 5513_DUP-1_S_SOM_20171106 Soil 5 feet 31-20-3 2,200 5513_B-01_0_2_S_SOM_20171106 Soil 5 feet 31-20-3 3,30,000,000 ppb), 5513_B-01_0_2_S_SOM_20171106 Soil 5 feet 31-20-3 3,30,000,000 ppb), 5513_B-01_0_2_S_SOM_20171106 Soil 5 feet 31-20-3 2,200 5513_B-01_0_2_S_SOM_20171106 Soil 5 feet 31-20-3 2,200 5513_B-01_0_2_S_SOM_20171106 Soil 5 feet 31-20-3 3,30,000,000 ppb), 5513_B-01_0_2_S_SOM_20171106 Soil 5 feet 31-20-3 3,30,000,000 ppb), 5513_DUP-1_S_SOM_20171106 Soil 5 feet 31-20-3 3,30,000,000 ppb)	Toluene	108-88-3	830	5513_SB-02_0-2_S_SOM_20171106	Soil	5 feet	Unknown	r	((4))	Ę
co(b)fluoranthene 205-99-2 24,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet co(a)pyrene 50-32-8 18,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet azole 86-74-8 1,800 5513_DUP-1_S_SOM_20171106* Soil 5 feet nzo(a,h)anthracene 53-70-3 2,600 5513_DUP-1_S_SOM_20171106* Soil 5 feet ranthene 206-44-0 40,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet ranthrene 85-01-8 2,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet ranthrene 85-01-8 20,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet ranthrene 85-01-8 20,000 5513_SB-01_0_S_SOM_20171106* Soil 5 feet ranthrene 85-01-8 770,000 5513_SB-01_0_S_SOM_20171106* Soil 5 feet rect 7440-6c-8 770,000 5513_SB-01_0_S_SOM_20171106* Soil 5 feet ranthrene 850,000 5513_SB-01_0_S_SOM_20171106* Soil 5 feet	Trichioroethylene	79-01-6	250	5513_SB-01_7-9_S_SOM_20171106	Soil	5 feet	Unknown	ā	(3(0)	
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azole 86-74-8 1,800 5513_DUP-1_S_SOM_20171106 * Soil 5 feet nzo(a,h)anthracene 53-70-3 2,600 5513_DUP-1_S_SOM_20171106 * Soil 5 feet anthene 206-44-0 40,000 5513_DUP-1_S_SOM_20171106 * Soil 5 feet anthrene 91-20-3 2,200 5513_DUP-1_S_SOM_20171106 * Soil 5 feet minum (Total) 7440-47-3 40,000 5513_DUP-1_S_SOM_20171106 * Soil 5 feet ser 7440-50-8 170,000 5513_SB-01_0-2_S_SOM_20171106 * Soil 5 feet l- Fine Fraction 7439-92-1 770,000 5513_SB-01_0-2_S_SOM_20171106 * Soil 5 feet l- Coarse Fraction 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 * Soil 5 feet nium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 * Soil 5 feet stost 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 * Soil 5 feet stost 7440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106 * Soi	Benzo(a)pyrene	50-32-8	18,000	5513_DUP-1_S_SOM_20171106 *	Soil	5 feet	Unknown	3		18
nzo(a,h)anthracene 53-70-3 2,600 5513 DUP-1_S SOM_20171106* Soil 5 feet ranthene 206.44-0 40,000 5513 DUP-1_S SOM_20171106* Soil 5 feet rithalene 91-20-3 2,200 5513 DUP-1_S SOM_20171106* Soil 5 feet ranthrene 85-01-8 20,000 5513 DUP-1_S SOM_20171106* Soil 5 feet mium (Total) 7440-47-3 40,000 5513 DUP-1_S SOM_20171106 Soil 5 feet e- Fine Fraction 7430-92-1 770,000 5513 SB-01_0-2_S_SOM_20171106 Soil 5 feet I- Fine Fraction 7439-92-1 770,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet I- Coarse Fraction 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet rium 7440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet stos -25% (50,000,000 ppb) 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet	Carbazole	86-74-8	1,800	5513_DUP-1_S_SOM_20171106 *	Soil	5 feet	Unknown		20	
ranthene 206.44-0 40,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet ruthalene 91-20-3 2,200 5513_DUP-1_S_SOM_20171106* Soil 5 feet ranthrene 85-01-8 20,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet per 7440-50-8 170,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 1- Coarse Fraction 7782-49-2 770,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 1- Coarse Fraction 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet nium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet rium 5-3% (30,000,000 ppb) 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet	Dibenzo(a,h)anthracene	53-70-3	2,600	5513_DUP-1_S_SOM_20171106 *	Soil	5 feet	Unknown	Œ.	o.	3
thalene 91-20-3 2,200 5513_DUP-1_S_SOM_20171106* Soil 5 feet anthrene 85-01-8 20,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet mium (Total) 7440-47-3 40,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet - Fine Fraction 7439-92-1 770,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet - Coarse Fraction 7439-92-1 560,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet - Loarse Fraction 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet nium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet A40-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 5543_SB-01 -2_S_SOM_20171106 Soil 5 feet 5543_SB-01_0-2_S_SOM_20171106 Soil 5 feet	Fluoranthene	206-44-0	40,000	5513_DUP-1_S_SOM_20171106 *	Soil	5 feet	Unknown	*	(6)	
narthrene 85-01-8 20,000 5513_DUP-1_S_SOM_20171106* Soil 5 feet mium (Total) 7440-47-3 40,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet ner 7440-50-8 170,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet I- Coarse Fraction 7439-92-1 770,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet I- Coarse Fraction 7439-92-1 560,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet Inium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet A440-66-6 270,000 5613_SB-01_0-2_S_SOM_20171106 Soil 5 feet stos 1332-21-4 -3% (30,000,000 ppb), 5613_DUP-1_S_SOM_20171106* Soil 5 feet	Naphthalene	91-20-3	2,200	5513_DUP-1_S_SOM_20171106 *	Soil	5 feet	Unknown	×	х	
mium (Total) 7440-47-3 40,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet ner 7440-50-8 170,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet I- Coarse Fraction 7439-92-1 770,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet I- Coarse Fraction 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet Inium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet A440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet sitos 1332-21-4 -3% (30,000,000 ppb) 5513_DUP-1_S_SOM_20171106* Soil 5 feet	Phenanthrene	85-01-8	20,000	5513_DUP-1_S_SOM_20171106 *	Soil	5 feet	Unknown	٠	×	*
Der 7440-50-8 170,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet 5 feet Fine Fraction 7439-92-1 770,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet 5 feet Coarse Fraction 7439-92-1 1,900 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet 5 feet nium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 5 feet 7440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 5 feet sctos 1332-21-4 -33% (30,000,000 ppb) 5513_DUP-1_S_SOM_20171106 * Soil 5 feet	Chromium (Total)	7440-47-3	40,000	5513_SB-01_0-2_S_SOM_20171106	Soil	5 feet	Unknown	ř	*	*
- Fine Fraction 7439-92-1 770,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet - Coarse Fraction 7439-92-1 560,000 5513_SB-01_0-2_S_SOM_2017106 Soil 5 feet nium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet rium 7740-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet rich 738,330,000,000 ppb) 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet stos 1332-21-4 560,000,000 ppb) 5513_DUP-1_S_SOM_20171106 Soil 5 feet	Copper	7440-50-8	170,000		Soil	5 feet	Unknown	8	×	*
- Coarse Fraction 7439-92-1 560,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 5 feet nium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet 5 feet 7440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet 5 feet sstos 1332-21-4 >3% (30,000,000 ppb) 5513_DUP-1_S_SOM_20171106* Soil 5 feet	Lead - Fine Fraction	7439-92-1	000'022	5513_SB-01_0-2_S_SOM_20171106	Soil	5 feet	Unknown		×	*
nium 7782-49-2 1,900 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet 5 feet 7440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106* Soil 5 feet 5 feet sstos 1332-21-4 >3% (30,000,000 ppb) 5513_DUP-1_S_SOM_20171106* Soil 5 feet	Lead - Coarse Fraction	7439-92-1	260,000	5513_SB-01_0-2_S_SOM_20171106	Soil	5 feet	Unknown	i	ĸ	
rstos 1,300 5513_DUP-1_S_SOM_20171106 * Soil 5 feet 5 feet 7440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 5 feet sstos 1332-214 >3% (30,000,000 ppb), 5513_DUP-1_S_SOM_20171106 * Soil 5 feet	Seleniim	7782.40.2	1 000	5513_SB-01_0-2_S_SOM_20171106	lio'o	5 feet	Unknown	2)	102	9)
7440-66-6 270,000 5513_SB-01_0-2_S_SOM_20171106 Soil 5 feet 5 feet sstos 1332-214 >3% (30,000,000 ppb), 5513_DUP-1_S_SOM_20171106* Soil 5 feet 5 feet		7-04-70 /	006,1	5513_DUP-1_S_SOM_20171106 *	IIOO	5 feet	Unknown	٠	-00	18.0
setos 1332-214	ZiiZ	7440 66 6	000 026	5513_SB-01_0-2_S_SOM_20171106	Ç	5 feet	Unknown	14	((*)	ja.
1332-21-4 >3% (30,000,000 ppb), 5513_DUP-1_S_SOM_20171106 * Soil 5 feet		0-00-044	210,000	5513_SB-02_0-2_S_SOM_20171106	lloo	5 feet	Unknown	Œ.	Э	
	Asbestos	1332-21-4	>3% (30,000,000 ppb), <5% (50,000,000 ppb)	5513_DUP-1_S_SOM_20171106 *	Soil	5 feet	Unknown	į	e.	ž.

Total Number of Samples Collected: 5

* Duplicate sample corresponding to 5513_SB-01_0-2_S_SOM_20171106

Page 7 of 8

<u>LEGEND</u>

SITE

BORING LOCATION

EXISTING STRUCTURES (APPROXIMATE)

ESTIMATED AREA OF IMPACT BY VOCs

ESTIMATED AREA OF IMPACT BY SVOCs

ESTIMATED AREA OF IMPACT BY METALS

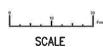
ESTIMATED AREA OF IMPACT BY ASBESTOS

ACRONYMS					
DCC	Direct Contact Criteria				
DWPC	Drinking Water Protection Criteria				
GSIPC	Groundwater Surface Water				
	Interface				
PSIC	Particulate Soil Inhalation Criteria				
NE	No Exceedance				
NT	Not Tested				
svoc	Semi-Volatile Organic Compound				
VOC	Volatile Organic Compound				

ABBREVIATIONS			
Cr (tot)	Chromium, Total		
Cu	Copper		
Pb, Coarse	Lead, Coarse Fraction		
Pb, Fine	Lead, Fine Fraction		
Se	Selenium		
Zn	Zinc		

- 1. Concentrations are reported in micrograms per kilogram (µg/kg).
 2. Refer to Table 1 of the PSI Report for a detailed summary of analytical data compared to residential GCC.
- 3. All samples were analyzed for VOCs, SVOCs, MI-10 metals, PCBs, and formaldehyde. PCBs and formaldehyde were not detected. 4. All shallow samples were analyzed for asbestos.





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DRAWN BY:	DATE DRAWN:
W.TRAM	12/07/2017
CHECKED BY:	DATE CHECKED:
M.CARRIERE	12/11/2017



Т	7)	
Н	L	5		-4
П	-	1		-4
L	_	M.	_	4

LOCATION ID

DEPTH (FT)

SAMPLE DATE

VOCs

Metals

5513_SB-02

0-2

11/6/2017

DWPC

Cu **67,000 GSIPC**

Zn 270,000 GSIPC

Se **1,300 GSIPC**

5513_SB-02

7 - 9

11/6/2017

ΝE

NE

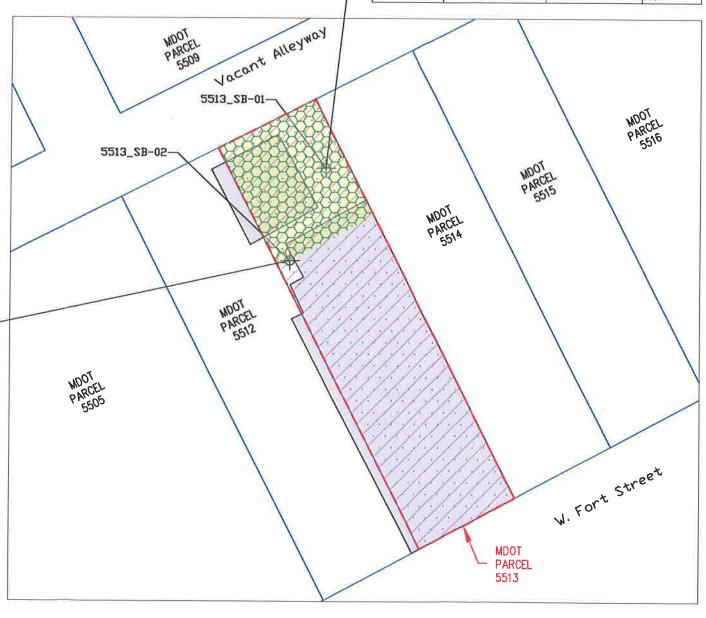
650 GSIPC

Somat Engineering, Inc. 3031 WEST GRAND BOULEVARD, SUITE 228 DETROIT, MI 48202

PHONE: (313) 963-2721 FAX: (313) 963-2736

PREPARED FOR:	
Mannik Smith	

LOCATION ID	5513_SB-01	5513_SB-01 (DUP)	5513_SB-01
DEPTH (FT)	0-2	0 - 2	7-9
SAMPLE DATE	11/6/2017	11/6/2017	11/6/2017
VOCs	DWPC	DWPC	DWPC
SVOCs	GSIPC, DWPC, DCC	GSIPC, DWPC, DCC	NE
Metals	#i	•	
Cr (tot)	40,000 GSIPC, DWPC	NE	NE
Cu	170,000 GSIPC	110,000 GSIPC	NE
Pb, Coarse	560,000 DCC	520,000 DCC	NE
Pb, Fine	770,000 DCC	520,000 DCC	NE
Se	1,900 GSIPC	1,900 GSIPC	660 GSIPC
Zn	270,000 GSIPC	240,000 GSIPC	NE
Other	P	#:	-
Asbestos	NE	> 3 ≤ 5 % PSIC	NT



SOIL RESIDENTIAL EXCEEDANCE MAP PRELIMINARY SITE INVESTIGATION

FIGURE 2

INTERCHANGE AREA MDOT PARCEL 5513 6118 W. Fort Street, Detroit MI