



May 18, 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 6100 West Jefferson Avenue; 399, 501, 503, 521, 525, 531, 599 South Dragoon Street; 272, 280, 292, 310, 314,
320 South Military Street, Detroit, MI, Tax ID 16000021-7; 16016653-5, 16016646-51; 16016528-30, 16016532,
16016533.001, 16016533.002L (MDOT Parcel 5091_COMB)
Potentially toward West Jefferson Avenue, South Dragoon Street, South Military Street, and/or alleys rights-of-way
Notification No. 5091.5092.5356.5357.5364.5720-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 6100 West Jefferson Avenue; 399, 501, 503, 521, 525, 531, 599 South Dragoon Street; and 272, 280, 292, 310, 314, 320 South Military 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

CC: 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

TECHNICAL SKILL.
CREATIVE SPIRIT.

5091_COMB.Notice Cover Letter.DetroitDPW.docx

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

RECEIVED JUN 18 2018



For DEQ Use Only ITS # _____ Site ID # _____ Category Code: _____
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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/deqducare, 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/deqducare.

THIS NOTICE IS PROVIDED PURSUANT TO: R 299.51017 MCL 324.20114(1)
(check both, if applicable)

Please provide the following information as completely as possible.

<p>1. Name and location of the property that hazardous substances are emanating from:</p> <p>Name: MI Dept. of Transportation (MDOT) Parcel 5091_COMB Address: 6100 W. Jefferson Ave.; 399, 501, 503, 521, 525, 531, 599 S. Dragoon St.; 272, 280, 292, 310, 314, 320 S. Military St. Property Tax Identification Number: 16000021-7; 16016653-5; 16016646-51; 16016528-30, 16016532, 16016533.001, 16016533.002L Location: Michigan City/County: Detroit/Wayne Latitude (decimal degrees): 42.302238 °N Longitude (decimal degrees): -83.097767 °W Reference Point for Latitude and Longitude: Center of Site: <input checked="" type="checkbox"/> Main/front door: <input type="checkbox"/> Front gate/main entrance: <input type="checkbox"/> Other: <input type="checkbox"/> Collection Method: Survey: <input type="checkbox"/> Interpolation: <input type="checkbox"/> GPS: <input checked="" type="checkbox"/></p>	<p>Status relative to the property: (Check one or both, as applicable.) Owner <input checked="" type="checkbox"/> Operator <input type="checkbox"/></p>
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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 Parcels 5091, 5092, 5356, 5357, 5364, 5720; Part 213 Facility ID 00039168;
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: 304 S. Military Street
City/State: Detroit, MI
Property Tax ID number: 16016531
Other: Crown Enterprises, Inc. Notified? No Yes Date: May 18, 2018

Address: 395 S. Dragoon Street
City/State: Detroit, MI
Property Tax ID number: 16016656
Other: MDOT Parcel 5358 Notified? No Yes Date: May 18, 2018

Address: 511 S. Dragoon Street
City/State: Detroit, MI
Property Tax ID number: 16016652
Other: MDOT Parcel 5355 Notified? No Yes Date: May 18, 2018

Address: 266 S. Military Street
City/State: Detroit, MI
Property Tax ID number: 16016527
Other: MDOT Parcel 5365 Notified? No Yes Date: May 18, 2018

Address: 2 Woodward Avenue, Ste. 611
City/State: Detroit, MI, 48226
Property Tax ID number: NA
Other: City of Detroit (West Jefferson Avenue, South Dragoon Street, South Military Street, and alleys adjacent to addresses listed in Item 1 above) Notified? No Yes Date: May 18, 2018



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
REMEDIATION AND REDEVELOPMENT DIVISION

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: May 18, 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: May 18, 2018

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: May 18, 2018

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: May 18, 2018

Address: 12775 Lydon Street
City/State: Detroit, MI, 48227
Property Tax ID number: NA
Other: Comcast/Xfinity (utility holder)
Notified? No Yes Date: May 18, 2018

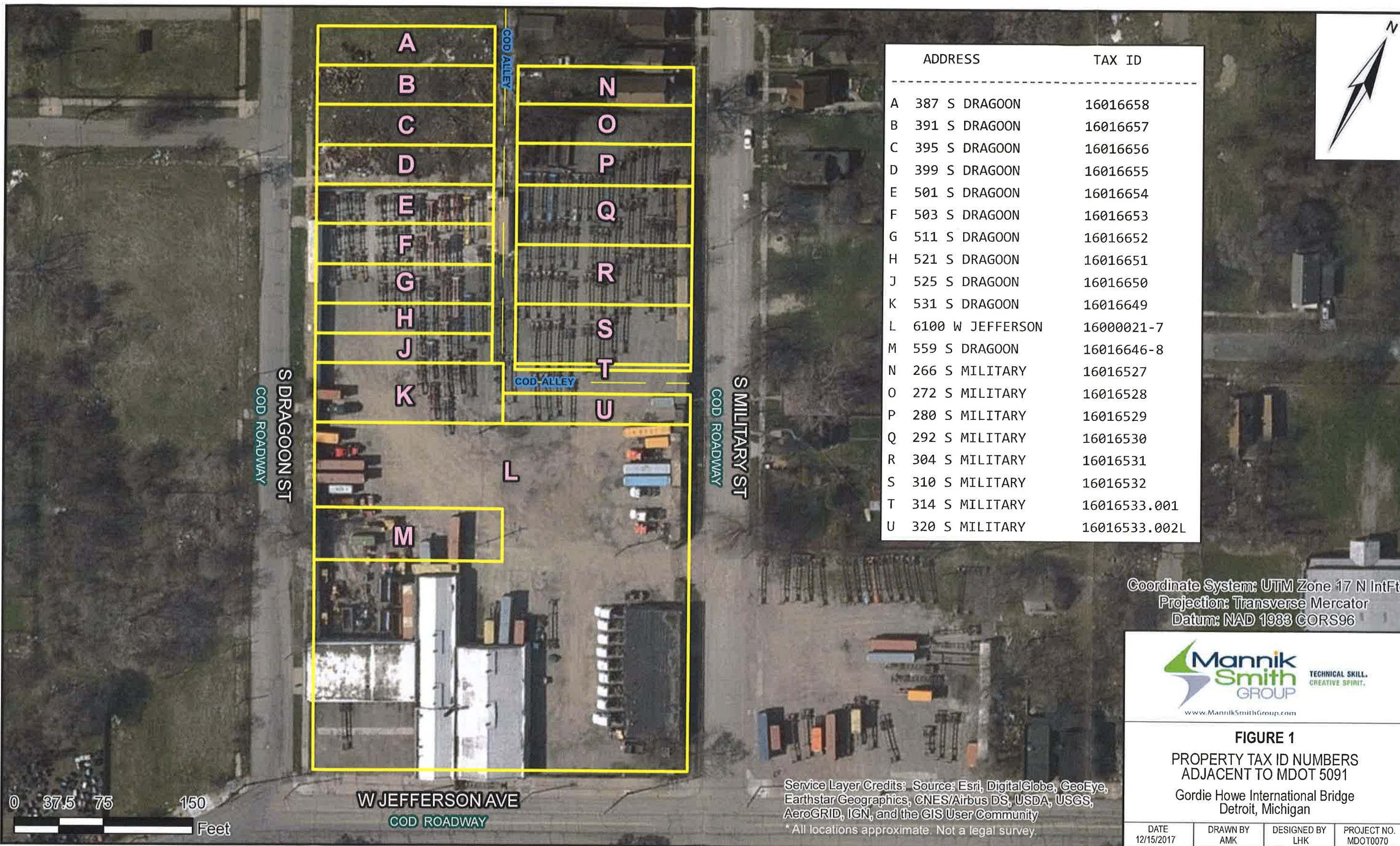
Address: 208 S. Akard Street
City/State: Dallas, TX, 75202
Property Tax ID number: NA
Other: AT&T Headquarters (utility holder)
Notified? No Yes Date: May 18, 2018

Address: 27700 Donald Court
City/State: Warren, MI, 48092-2793
Property Tax ID number: NA
Other: MDEQ, Southeast Michigan District Office
Office of Drinking Water & Municipal Assistance Division
Notified? No Yes Date: May 18, 2018

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: May 18, 2018

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

MAP OF PROPERTY TAX ID NUMBERS



Date Saved: 12/15/2017 10:55:51 AM
Path: S:\Projects\Project K-OMDOT0070\ENGAPP\GIS\Map_Files\Notification Maps\5091_TaxID_Map.mxd

Coordinate System: UTM Zone 17 N IntFt
Projection: Transverse Mercator
Datum: NAD 1983 CORS96



FIGURE 1
PROPERTY TAX ID NUMBERS
ADJACENT TO MDOT 5091
Gordie Howe International Bridge
Detroit, Michigan

DATE 12/15/2017	DRAWN BY AMK	DESIGNED BY LHK	PROJECT NO. MDOT0070
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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
*All locations approximate. Not a legal survey.

PARCEL BOUNDARIES



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 R 299.1017(1) or all impacted 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.
8. If the person making this notice has reason to believe that a migrating hazardous substance has affected, or is likely to affect, a private or public water supply, then that water supply must be identified here:

NA

YES NO

9. Is this notice being submitted within the timeframes established under R 299.51017 and/or MCL 324.20114(1), as applicable?
10. Is this notice in addition to a notice that was submitted prior to *December 21, 2002*? (R 299.51017(4)(c))
11. Is this notice related to an oil and gas well permit (R 299.51017(2))? Permit #:
12. Is this notice related to an easement (R 299.51017(3))? (NOTE: All easement grantors *must* receive this notice.)
13. Has surface water been affected (R 299.51017(1))? (If yes, please identify the affected surface water body.)

CERTIFICATION:

With my signature below, I certify that I am the owner of the facility or that I am legally authorized to execute this notice on behalf of the owner or operator named on this form, and that to the best of my knowledge and belief the above representations are complete and accurate. I understand that intentionally submitting false information to the DEQ is a felony and may result in fines up to \$25,000 for each violation.

Signature Walter J. Bolt
(Owner or person legally authorized to bind the person making this report)

Date May 18, 2018

Name (Typed or Printed) Walter J. Bolt

Title (Typed or Printed) Project Manager, Environmental Owners Representative Consultant, Gordie Howe International Bridge Project, on behalf of Michigan Department of Transportation



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 Name of hazardous substance.
- Column B Chemical Abstract Service (CAS) Number for the hazardous substance.
- Column C 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.
- Column D Sample location for Column C (relate to label on map).
- Column E Environmental medium in which concentration reported in Column C was measured (e.g., soil or groundwater).
- Column F Distance from point of maximum measured concentration (Column D) to property boundary, in direction of contaminant migration, if direction is known or can reasonably be inferred. If direction is unknown, list distance to nearest property boundary.
- Column G Direction of contaminant migration, if known.
- Column H Concentration closest to property boundary, if known. If a concentration lower than the maximum concentration reported in Column C has been measured at a point closer to the property boundary in the direction of contaminant migration, use Column H to list the concentration that was measured closest to the property boundary in the direction of contaminant migration.
- Column I Sample location for Column H (relate to label on map).
- Column J Environmental medium for measurement reported in Column H, if applicable.

PLEASE SEE ATTACHED TABLE 1

A Hazardous Substance	B CAS Number	C Maximum Concentration	D Sample Location for "C"	E Environmental Medium for "C"	F Distance to Property Boundary	G Direction of Migration	H Boundary Concentration	I Sample Location for "H"	J Environmental Medium for "H"

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 FIGURES 2 AND 3

TABLE 1

DEQ NOTICE OF MIGRATION ATTACHMENT

A	B	C	D	E	F	G	H	I	J
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"
Benzo(a)pyrene	50-32-8	7,900	5091_DUP-1_S_SOM_20170814 *	Soil	25 feet	Unknown	-	-	-
Fluoranthene	206-44-0	34,000	5091_DUP-1_S_SOM_20170814 *	Soil	25 feet	Unknown	-	-	-
Fluorene	86-73-7	6,700	5091_DUP-1_S_SOM_20170814 *	Soil	25 feet	Unknown	-	-	-
Naphthalene	91-20-3	2,600	5091_DUP-1_S_SOM_20170814 *	Soil	25 feet	Unknown	-	-	-
Phenanthrene	85-01-8	40,000	5091_DUP-1_S_SOM_20170814 *	Soil	25 feet	Unknown	-	-	-
Arsenic	7440-38-2	62,000	5091_SB-17_5-7_S_SOM_20170814	Soil	20 feet	Unknown	-	-	-
Cadmium	7440-43-9	53,000	5091_SB-16_0-2_S_SOM_20170815	Soil	80 feet	Unknown	-	-	-
Chromium (Total)	7440-47-3	70,000	5091_SB-10_0-2_S_SOM_20170815	Soil	5 feet	Unknown	-	-	-
Copper	7440-50-8	950,000	5091_SB-07_0-2_S_SOM_20170815	Soil	15 feet	Unknown	-	-	-
Lead - Total (calculated)	7439-92-1	2,200,000	5091_SB-14_0-2_S_SOM_20170815	Soil	50 feet	Unknown	-	-	-
Lead - Fine Fraction	7439-92-1	530,000	5091_SB-10_0-2_S_SOM_20170815	Soil	5 feet	Unknown	-	-	-
Lead - Coarse Fraction	7439-92-1	3,700,000	5091_SB-14_0-2_S_SOM_20170815	Soil	50 feet	Unknown	-	-	-
Mercury	7439-97-6	420	5091_SB-16_0-2_S_SOM_20170815	Soil	80 feet	Unknown	-	-	-
Selenium	7782-49-2	7,900	5091_SB-17_5-7_S_SOM_20170814	Soil	20 feet	Unknown	-	-	-
Zinc	7440-66-6	660,000	5091_SB-07_0-2_S_SOM_20170815	Soil	15 feet	Unknown	-	-	-

Total Number of Samples Collected: 44 soil, 2 groundwater.

Total Number of Samples Exceeding Criteria: 44 soil, 0 groundwater.

Footnote:

* Duplicate sample corresponding to 5091_SB-18_0-2_S_SOM_20170814

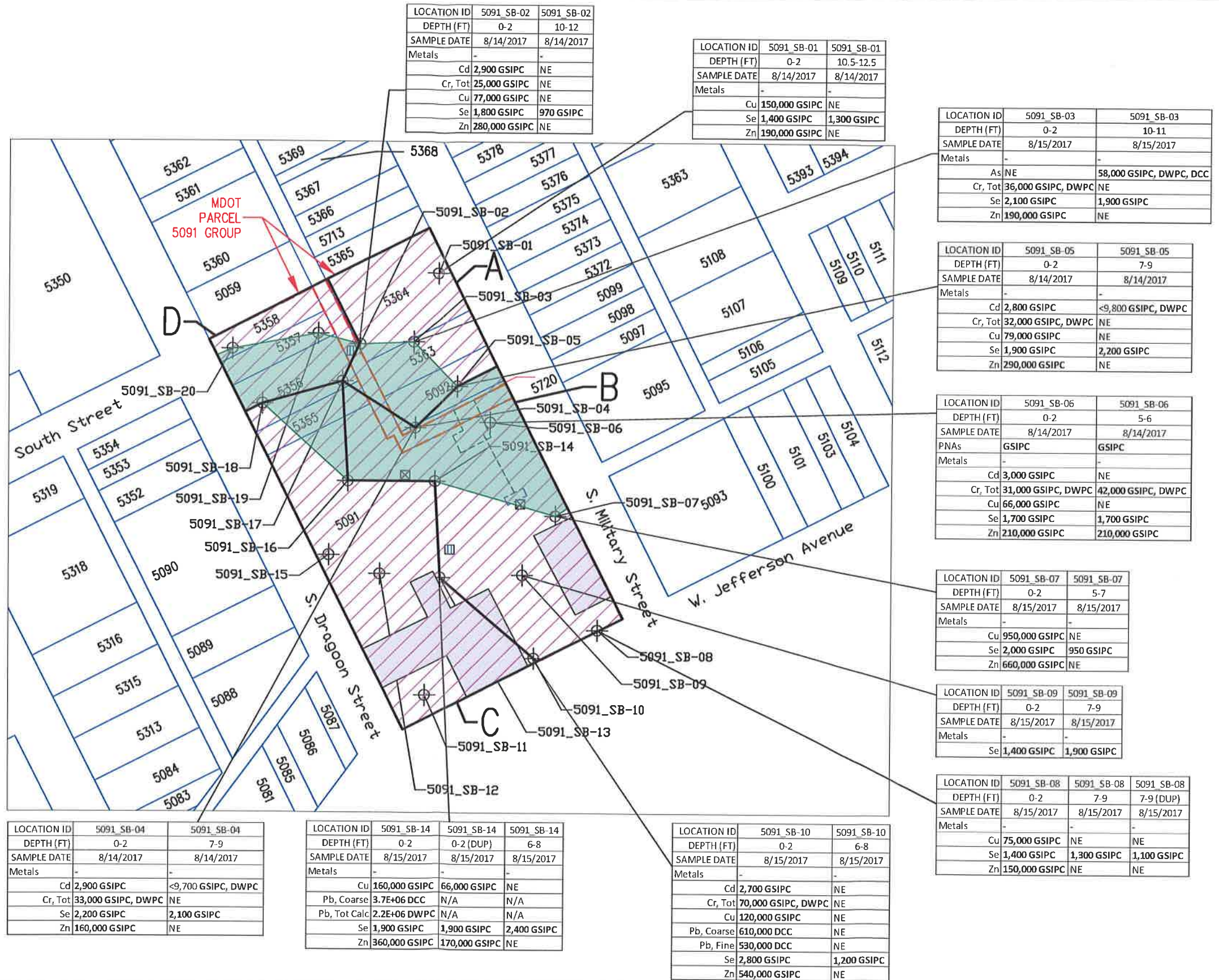
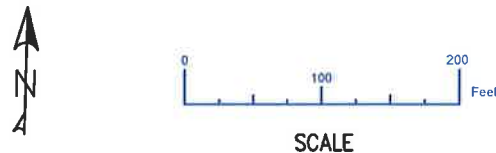
LEGEND

- SITE
- BORING LOCATION (2017 PSI)
- APPROXIMATE LIMITS OF EXISTING BUILDING(S)
- POLE-MOUNTED TRANSFORMER
- CATCH BASIN
- APPROXIMATE LIMITS OF FORMER DISPENSER ISLAND
- APPROXIMATE LIMITS OF FORMER UST REMOVAL EXCAVATION
- APPROXIMATE LIMITS OF FORMER PIPE
- ESTIMATED AREA OF IMPACT BY PNAs
- ESTIMATED AREA OF IMPACT BY METALS
- ZONES FOR VOLUME ESTIMATION

ACRONYMS		ABBREVIATIONS	
DCC	Direct Contact Criteria	As	Arsenic
DWPC	Drinking Water Protection Criteria	Cd	Cadmium
GSIPC	Groundwater Surface Water Interface Protection Criteria	Cr, Tot	Chromium, Total
N/A	Not Available	Cu	Copper
NE	No Exceedance	Hg	Mercury
PNA	Polynuclear Aromatic	Pb, Coarse	Lead, Coarse Fraction
		Pb, Fine	Lead, Fine Fraction
		Pb, Tot Calc	Lead, Total Calculated
		Se	Selenium
		Zn	Zinc

NOTES:

1. Concentrations are reported in micrograms per kilogram ($\mu\text{g}/\text{kg}$).
3. Refer to Table 1 and Table 5 of the PSI Report for a detailed summary of analytical data compared to residential GCC for the 2017 and 1996-97 investigations, respectively.
4. 1997 LUST Closure Report: All samples were analyzed for BTEX and PNAs. BTEX and PNAs were either not detected or detected at levels that do not exceed residential GCC. Samples were collected from within the former UST system on-site.
5. 2017 PSI: All samples were analyzed for VOCs, PNAs, and MI-10 metals. VOCs were either not detected or detected at levels that do not exceed residential GCC. Select samples were analyzed in select locations for PCBs and were not detected. All shallow samples were analyzed for asbestos. Asbestos was either not detected or detected at levels that do not exceed residential GCC.



LOCATION ID	5091_SB-02	5091_SB-02
DEPTH (FT)	0-2	10-12
SAMPLE DATE	8/14/2017	8/14/2017
Metals	-	-
Cd	2,900 GSIPC	NE
Cr, Tot	25,000 GSIPC	NE
Cu	77,000 GSIPC	NE
Se	1,800 GSIPC	970 GSIPC
Zn	280,000 GSIPC	NE

LOCATION ID	5091_SB-01	5091_SB-01
DEPTH (FT)	0-2	10.5-12.5
SAMPLE DATE	8/14/2017	8/14/2017
Metals	-	-
Cu	150,000 GSIPC	NE
Se	1,400 GSIPC	1,300 GSIPC
Zn	190,000 GSIPC	NE

LOCATION ID	5091_SB-03	5091_SB-03
DEPTH (FT)	0-2	10-11
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
As	NE	58,000 GSIPC, DWPC, DCC
Cr, Tot	36,000 GSIPC, DWPC	NE
Se	2,100 GSIPC	1,900 GSIPC
Zn	190,000 GSIPC	NE

LOCATION ID	5091_SB-05	5091_SB-05
DEPTH (FT)	0-2	7-9
SAMPLE DATE	8/14/2017	8/14/2017
Metals	-	-
Cd	2,800 GSIPC	<9,800 GSIPC, DWPC
Cr, Tot	32,000 GSIPC, DWPC	NE
Cu	79,000 GSIPC	NE
Se	1,900 GSIPC	2,200 GSIPC
Zn	290,000 GSIPC	NE

LOCATION ID	5091_SB-06	5091_SB-06
DEPTH (FT)	0-2	5-6
SAMPLE DATE	8/14/2017	8/14/2017
PNAs	GSIPC	GSIPC
Metals	-	-
Cd	3,000 GSIPC	NE
Cr, Tot	31,000 GSIPC, DWPC	42,000 GSIPC, DWPC
Cu	66,000 GSIPC	NE
Se	1,700 GSIPC	1,700 GSIPC
Zn	210,000 GSIPC	210,000 GSIPC

LOCATION ID	5091_SB-07	5091_SB-07
DEPTH (FT)	0-2	5-7
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
Cu	950,000 GSIPC	NE
Se	2,000 GSIPC	950 GSIPC
Zn	660,000 GSIPC	NE

LOCATION ID	5091_SB-09	5091_SB-09
DEPTH (FT)	0-2	7-9
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
Se	1,400 GSIPC	1,900 GSIPC

LOCATION ID	5091_SB-08	5091_SB-08	5091_SB-08
DEPTH (FT)	0-2	7-9	7-9 (DUP)
SAMPLE DATE	8/15/2017	8/15/2017	8/15/2017
Metals	-	-	-
Cu	75,000 GSIPC	NE	NE
Se	1,400 GSIPC	1,300 GSIPC	1,100 GSIPC
Zn	150,000 GSIPC	NE	NE

LOCATION ID	5091_SB-04	5091_SB-04
DEPTH (FT)	0-2	7-9
SAMPLE DATE	8/14/2017	8/14/2017
Metals	-	-
Cd	2,900 GSIPC	<9,700 GSIPC, DWPC
Cr, Tot	33,000 GSIPC, DWPC	NE
Se	2,200 GSIPC	2,100 GSIPC
Zn	160,000 GSIPC	NE

LOCATION ID	5091_SB-14	5091_SB-14	5091_SB-14
DEPTH (FT)	0-2	0-2 (DUP)	6-8
SAMPLE DATE	8/15/2017	8/15/2017	8/15/2017
Metals	-	-	-
Cu	160,000 GSIPC	66,000 GSIPC	NE
Pb, Coarse	3.7E+06 DCC	N/A	N/A
Pb, Tot Calc	2.2E+06 DWPC	N/A	N/A
Se	1,900 GSIPC	1,900 GSIPC	2,400 GSIPC
Zn	360,000 GSIPC	170,000 GSIPC	NE

LOCATION ID	5091_SB-10	5091_SB-10
DEPTH (FT)	0-2	6-8
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
Cd	2,700 GSIPC	NE
Cr, Tot	70,000 GSIPC, DWPC	NE
Cu	120,000 GSIPC	NE
Pb, Coarse	610,000 DCC	NE
Pb, Fine	530,000 DCC	NE
Se	2,800 GSIPC	1,200 GSIPC
Zn	540,000 GSIPC	NE

DRAWN BY:
W. TRAM

DATE DRAWN:
09/14/2017

CHECKED BY:
M. CARRIERE

DATE CHECKED:
09/18/2017

PAGE 8 OF 9

SE Somat Engineering, Inc.
3031 WEST GRAND BOULEVARD, SUITE 228
DETROIT, MI 48202
PHONE: (313) 963-2721
FAX: (313) 963-2736

PREPARED FOR:

Mannik Smith GROUP

FIGURE 2
SOIL RESIDENTIAL EXCEEDANCE MAP (PART I OF 2)
PRELIMINARY SITE INVESTIGATION
PLAZA AREA MDOT PARCELS 5091/5092/5355/5356/5357/5358/5363/5364/5720
Multiple Addresses off S. Military Street, S. Dragoon Street, & W. Jefferson Avenue
Detroit Michigan

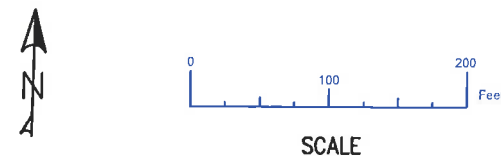
LEGEND

- SITE
- BORING LOCATION (2017 PSI)
- APPROXIMATE LIMITS OF EXISTING BUILDING(S)
- POLE-MOUNTED TRANSFORMER
- CATCH BASIN
- APPROXIMATE LIMITS OF FORMER DISPENSER ISLAND
- APPROXIMATE LIMITS OF FORMER UST REMOVAL EXCAVATION
- APPROXIMATE LIMITS OF FORMER PIPE
- ESTIMATED AREA OF IMPACT BY PNAs
- ESTIMATED AREA OF IMPACT BY METALS
- ZONES FOR VOLUME ESTIMATION

ACRONYMS		ABBREVIATIONS	
DCC	Direct Contact Criteria	As	Arsenic
DWPC	Drinking Water Protection Criteria	Cd	Cadmium
GSIPC	Groundwater Surface Water Interface Protection Criteria	Cr, Tot	Chromium, Total
N/A	Not Available	Cu	Copper
NE	No Exceedance	Hg	Mercury
PNA	Polynuclear Aromatic	Pb, Coarse	Lead, Coarse Fraction
		Pb, Fine	Lead, Fine Fraction
		Pb, Tot Calc	Lead, Total Calculated
		Se	Selenium
		Zn	Zinc

NOTES:

- Concentrations are reported in micrograms per kilogram ($\mu\text{g}/\text{kg}$).
- Refer to Table 1 and Table 5 of the PSI Report for a detailed summary of analytical data compared to residential GCC for the 2017 and 1996-97 investigations, respectively.
- 1997 LUST Closure Report: All samples were analyzed for BTEX and PNAs. BTEX and PNAs were either not detected or detected at levels that do not exceed residential GCC. Samples were collected from within the former UST system on-Site.
- 2017 PSI: All samples were analyzed for VOCs, PNAs, and MI-10 metals. VOCs were either not detected or detected at levels that do not exceed residential GCC. Select samples were analyzed in select locations for PCBs and were not detected. All shallow samples were analyzed for asbestos. Asbestos was either not detected or detected at levels that do not exceed residential GCC.



LOCATION ID	5091_SB-19	5091_SB-19
DEPTH (FT)	0-2	11-13
SAMPLE DATE	8/14/2017	8/14/2017
Metals	-	-
As	21,000 GSIPC, DWPC, DCC	NE
Cr, Tot	30,000 GSIPC	NE
Cu	100,000 GSIPC	NE
Se	1,500 GSIPC	1,800 GSIPC
Zn	190,000 GSIPC	NE

LOCATION ID	5091_SB-20	5091_SB-20
DEPTH (FT)	0-2	10-12
SAMPLE DATE	8/14/2017	8/14/2017
Metals	-	-
Se	1,500 GSIPC	1,300 GSIPC
Zn	270,000 GSIPC	NE

LOCATION ID	5091_SB-18	5091_SB-18	5091_SB-18
DEPTH (FT)	0-2	0-2 (DUP)	5.5-7.5
SAMPLE DATE	8/14/2017	8/14/2017	8/14/2017
PNAs	GSIPC, DCC	GSIPC, DCC	NE
Metals	-	-	-
As	39,000 GSIPC, DWPC, DCC	NE	NE
Cd	3,000 GSIPC	NE	NE
Se	1,800 GSIPC	1,900 GSIPC	1,900 GSIPC
Zn	200,000 GSIPC	180,000 GSIPC	NE

LOCATION ID	5091_SB-16	5091_SB-16
DEPTH (FT)	0-2	5-7
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
Cd	53,000 GSIPC, DWPC	NE
Cu	52,000 GSIPC	NE
Hg	420 GSIPC	NE
Se	1,900 GSIPC	2,000 GSIPC
Zn	160,000 GSIPC	NE

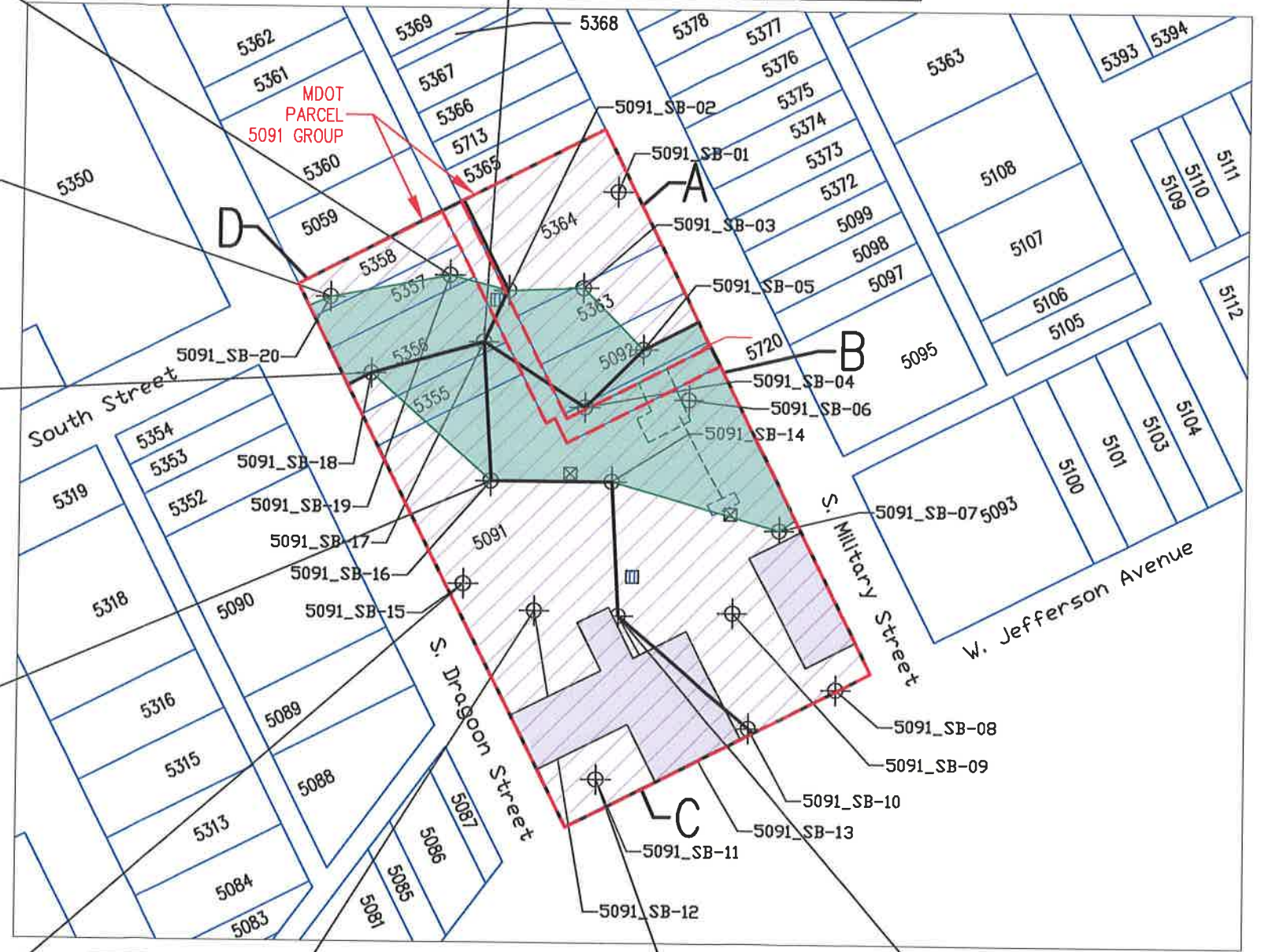
LOCATION ID	5091_SB-15	5091_SB-15
DEPTH (FT)	0-2	5-7
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
Se	1,700 GSIPC	1,300 GSIPC

LOCATION ID	5091_SB-12	5091_SB-12
DEPTH (FT)	0-2	5-7
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
Se	1,600 GSIPC	1,400 GSIPC

LOCATION ID	5091_SB-11	5091_SB-11	5091_SB-11
DEPTH (FT)	0-2	0-2 (DUP)	5-6.5
SAMPLE DATE	8/16/2017	8/16/2017	8/16/2017
Metals	-	-	-
Cr, Tot	21,000 GSIPC	28,000 GSIPC	NE
Cu	120,000 GSIPC	93,000 GSIPC	NE
Se	2,100 GSIPC	2,000 GSIPC	1,400 GSIPC
Zn	360,000 GSIPC	280,000 GSIPC	NE

LOCATION ID	5091_SB-13	5091_SB-13
DEPTH (FT)	0-2	5-7
SAMPLE DATE	8/15/2017	8/15/2017
Metals	-	-
Se	1,700 GSIPC	2,100 GSIPC

LOCATION ID	5091_SB-17	5091_SB-17
DEPTH (FT)	0-2	5-7
SAMPLE DATE	8/14/2017	8/14/2017
PNAs	GSIPC, DCC	NE
Metals	-	-
As	NE	62,000 GSIPC, DWPC, DCC
Cd	NE	3,200 GSIPC
Cr, Tot	32,000 GSIPC, DWPC	NE
Cu	NE	54,000 GSIPC
Se	1,600 GSIPC	7,900 GSIPC
Zn	140,000 GSIPC	140,000 GSIPC



DRAWN BY: W. TRAM
 CHECKED BY: M. CARRIERE
 DATE DRAWN: 09/14/2017
 DATE CHECKED: 09/18/2017

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PREPARED FOR:

FIGURE 3
 SOIL RESIDENTIAL EXCEEDANCE MAP (PART 2 OF 2)
 PRELIMINARY SITE INVESTIGATION
 PLAZA AREA MDOT PARCELS 5091/5092/5355/5356/5357/5358/5363/5364/5720
 Multiple Addresses off S. Military Street, S. Dragon Street, & W. Jefferson Avenue
 Detroit Michigan