Phase II Environmental Site Assessment

839-857 East 63rd Street
6300 South Drexel Avenue
935 East 63rd Street
Chicago, Illinois
PINs: 20-23-101-036, 20-23-101-038, 20-23-101-039, 20-23-101-047, and 20-23-105-001

Report Date: September 14, 2017
Terracon Project No. 11177032

Prepared for:
City of Chicago – Department of Fleet and Facility Management
Chicago, Illinois

Prepared by:
Terracon Consultants, Inc.
Chicago, Illinois

PHASE II ENVIRONMENTAL SITE ASSESSMENT
839-857 EAST 63RD STREET
6300 SOUTH DREXEL AVENUE
935 EAST 63RD STREET
CHICAGO, COOK COUNTY, ILLINOIS
PINs: 20-23-101-036, 20-23-101-038, 20-23-101-039, 20-23-101-047, and 20-23-105-001

TERRACON PROJECT NO.: 11177032
TOR No.: 16-2FMEHS-00017
SEPTEMBER 14, 2017

EXECUTIVE SUMMARY

Terracon Consultants, Inc. (Terracon) provided Phase II Environmental Site Assessment (Phase II ESA) services for the City of Chicago Department of Fleet and Facility Management (2FM) of the vacant lot/asphalt paved parking lot located at 839-857 East 63rd Street/6300 South Drexel Avenue and of the vacant lot located at 935 East 63rd Street in Chicago, Cook County, Illinois.

The scope of work for this Phase II ESA was based on 2FM's Task Order Request (TOR) No.: 16-2FMEHS-00017, and the associated site access agreement for the portion of the site owned by 915 EAST 63RD, LLC. The work was conducted in general accordance with applicable subsections of the Illinois Environmental Protection Agency's (IEPA's) Site Remediation Program (SRP) regulations as set forth at 35 Illinois Administrative Code (IAC) Part 740. Comparison to established remediation objectives (ROs) was performed in accordance with the procedures outlined in the Tiered Approach to Corrective Action Objectives (TACO) regulations as set forth at 35 IAC Part 742. The analytical results are compared to residential, construction worker, and industrial/commercial soil remediation objectives (SROs). Class I groundwater remediation objectives (GROs) were assumed to be applicable at this site and used for comparison based on site geology. Laboratory analytical procedures and methods were performed in accordance with United States Environmental Protection Agency (USEPA) SW 846 protocols, as applicable.

Background

The site consists of two non-contiguous parcels of vacant land owned by the City of Chicago and asphalt paved parking owned by 915 EAST 63RD, LLC, all totaling approximately 2.9-acres. Terracon prepared a Phase I Environmental Site Assessment (Phase I ESA) dated March 30, 2017 that identified the following recognized environmental conditions (RECs) in connection with the site:

- Former dry cleaners (with petroleum distillate open leaking underground storage tank [LUST]) located at 820-824 East 63rd Street, 834 East 63rd Street, 860 East 63rd Street, 874-876 East 63rd Street, 910 East 63rd Street, 1004 East 63rd Street, 1029-31 East 63rd Street, 6247-49 South Drexel Avenue, 6246 South Ingleside Avenue, 6247-49 South Ingleside Avenue, 6250 South Ingleside Avenue, 6322 South Maryland Avenue, and 6248 South Ellis Avenue;

- The former steam laundry depicted on 821 East 63rd Street;
- Current and historical fueling station since at least 1975 located at 840-850 East 63rd Street;
- The Leslie Shankman School IEPA SRP site with groundwater ordinance institutional control and modeled off-site impacts (900 East 63rd Street); and,
- Open LUST incident at 824 East 63rd Street.

Although the site is not currently enrolled in the IEPA's SRP, SRP requirements including data quality, usability, and validation were met for this project. The purpose of the Phase II ESA is to determine the presence or absence of impacts at the site, their approximate extent, and determine if remediation is necessary.

Investigation

Field sampling for soil (surface and subsurface) samples was conducted on July 14, 2017 and samples for groundwater were collected on July 17, 2017. The samples were submitted to a subcontract laboratory for analysis of the contaminants of concern (COCs) appropriate to the RECs identified in the TOR, in addition to multiple other possible contaminants. Pursuant to the TOR and approved revised work plan, the samples were analyzed for a combination of volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PNAs), Resource Conservation Recovery Act (RCRA) 8 metals, benzene toluene ethylbenzene and xylene (BTEX), herbicides, Target Compound List (TCL), fraction of organic carbon (f_{oc}), toxicity precipitation leaching procedure (TCLP) synthetic precipitation leaching procedure (SPLP) chromium, total petroleum hydrocarbons (TPH), and pH.

Executive Summary Conclusions

Terracon compared the analytical data to the IEPA's TACO Tier 1 ROs. Laboratory analyses indicated that various PNAs and inorganics were detected at concentrations exceeding applicable Tier 1 soil remediation objectives (SROs) in the soil samples analyzed during this investigation. Exposure route exceedances for residential ingestion, industrial/commercial ingestion, construction worker ingestion, construction worker inhalation, and soil component to Class I groundwater were identified in soil samples. Exceedances of Class I GROs for aluminum and iron were detected in one groundwater sample collected. Exceedances of the Tier 1 SRO or GRO for the residential outdoor or indoor inhalation exposure routes were not identified.

Depending on the future land use, the identified impacts may be best addressed by enrolling the site in the SRP. Site soil and groundwater should be properly managed and/or disposed during any future development activities.

3.2.2 Groundwater Evaluation

Volatile Organic Compounds

VOC constituents were not detected above the laboratory reporting limits in the samples analyzed from MW101, MW106, MW107, and MW110.

Semivolatile Organic Compounds

PNA / SVOC constituents were not detected above the laboratory reporting limits in the samples analyzed from MW106, MW107, and MW110.

Pesticides/PCBs

MW106 was analyzed for pesticides and PCBs, which were not reported above the laboratory reporting limits.

Herbicides

Herbicides were analyzed on sample MW106. Herbicides were not reported at concentrations above the laboratory reporting limit.

Inorganics

Aluminum and iron were identified to exceed the Class I GROs in sample MW106. No other inorganics were detected above the Class I GROs in the samples collected.

Volatile Chemicals

Tier 1 GRO exceedances of the residential indoor inhalation exposure route were not identified.

4.0 CONCLUSIONS AND RECOMMENDATIONS

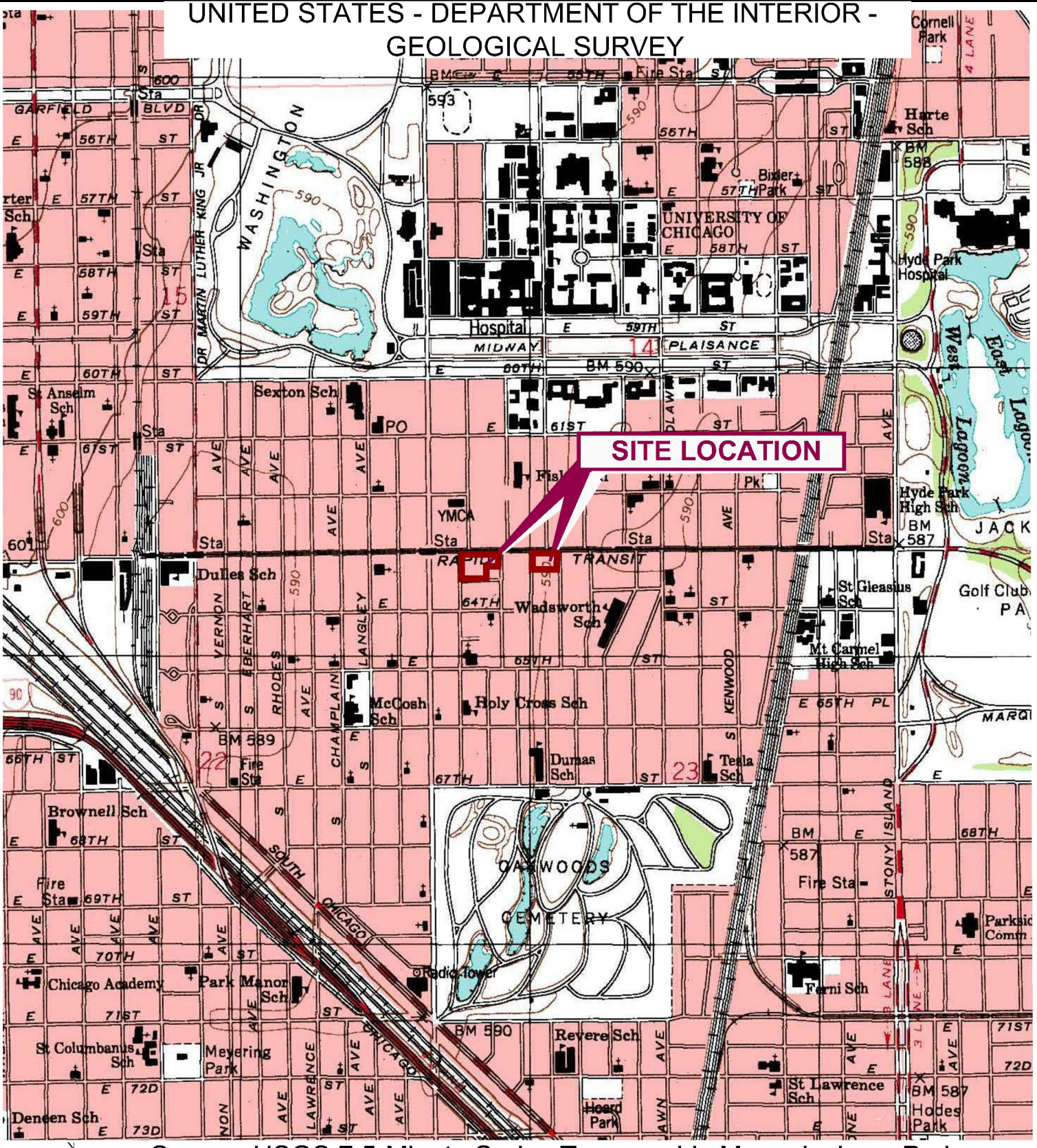
A Phase II ESA was conducted at the 839-857 East 63rd Street/6300 South Drexel Avenue and 935 East 63rd Street site. Twenty (20) soil samples were collected from 10 soil borings advanced at the site to investigate the identified RECs, which included on-site drycleaners / launderers, photo shop, and the potential for impacted demolition debris, as well as off-site dry cleaners, including one with petroleum distillate LUST, north adjacent fueling station, north adjacent SRP facility, and north adjacent open LUST incident. The site soil profile was found to consist of 2 to 4 inches of topsoil fill or asphalt underlain by urban fill material with silty clay, gravel, crushed brick,

wood chips, and/or cinders to a depth of 4 to 9 feet bgs. The fill was underlain by a layer of silty sand to a depth of 16 to 17.8 feet bgs. Silty clay was encountered beneath the silty sand to depths of 24 feet bgs. Four of the soil borings were converted to temporary groundwater wells, and groundwater was measured at depths from 9.21 and 10.78 feet bgs, with a southwestern flow direction.

Soil and groundwater samples were submitted for analysis of a combination of VOCs, SVOCs, RCRA metals, PNAs, TCL, BTEX, herbicides, Foc, TPH, SPLP chromium, TCLP lead, and pH. Terracon compared the analytical data to the IEPA's TACO Tier 1 ROs. Laboratory analyses indicated that various PNAs and inorganics were detected at concentrations exceeding applicable Tier 1 soil remediation objectives (SROs) in the soil samples analyzed during this investigation. Residential ingestion, industrial/commercial ingestion, construction worker ingestion, construction worker inhalation, and soil component to Class I groundwater exposure route exceedances were noted in soil samples. Exceedances of Class I GROs were found in one groundwater sample collected. Tier 1 SRO or GRO exceedances of the residential outdoor or indoor inhalation exposure routes were not identified.

Depending on the future land use, the identified impacts may be best addressed by enrolling the site in the SRP with the goal of obtaining a No Further Remediation (NFR) letter. Additional site investigation would be recommended to meet SRP requirements, including further horizontal and vertical delineation of identified impacts. Site soil and groundwater should be properly managed and/or disposed during any future development activities.

UNITED STATES - DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY



Source: USGS 7.5-Minute Series Topographic Map, Jackson Park Quadrangles, Revised 1998

N

0 1,500'

APPROXIMATE SCALE

Project Mngr:	RMO
Drawn By:	SDM
Checked By:	RMO
Approved By:	RMO
Project No.	11177032
Scale:	AS-SHOWN
Revised By:	~
Date:	September 14, 2017

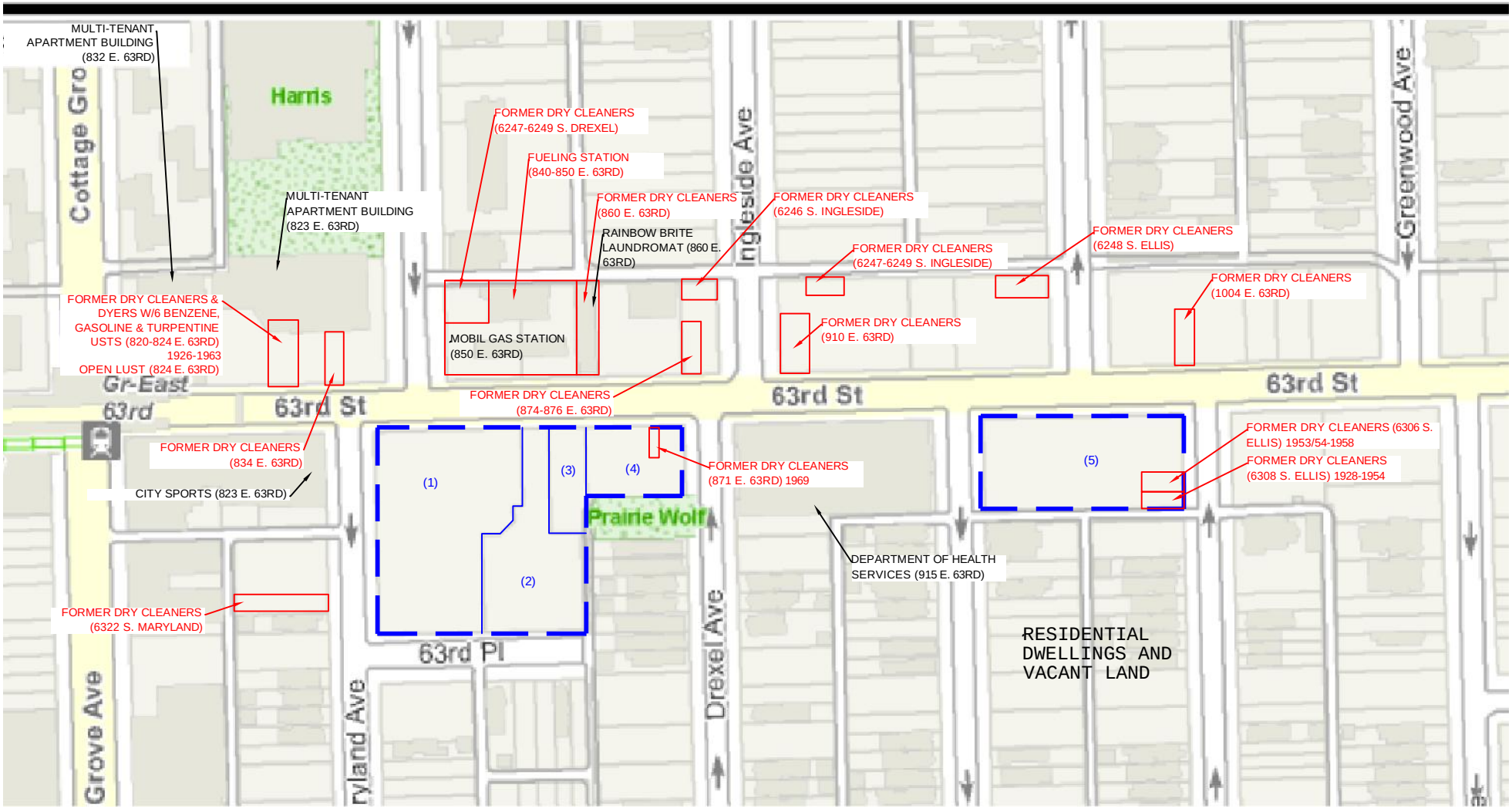
Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

TOPOGRAPHIC VICINITY MAP

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT

1



CITY OWNED
(1) 20-23-101-039-0000
(5) 20-23-105-001-0000

OWNED BY 915 EAST 63RD, LLC
(2) 20-23-101-036-0000
(3) 20-23-101-038-0000
(4) 20-23-101-047-0000

Approximate Site Location

(Source: City of Chicago GIS maps)

N

0 200'

APPROXIMATE SCALE

Project Mngr:	RO
Drawn By:	SM
Checked By:	LT
Approved By:	JDM
Project No.	11177032
Scale:	AS-SHOWN
Revised By:	~
Date:	February 13, 2017

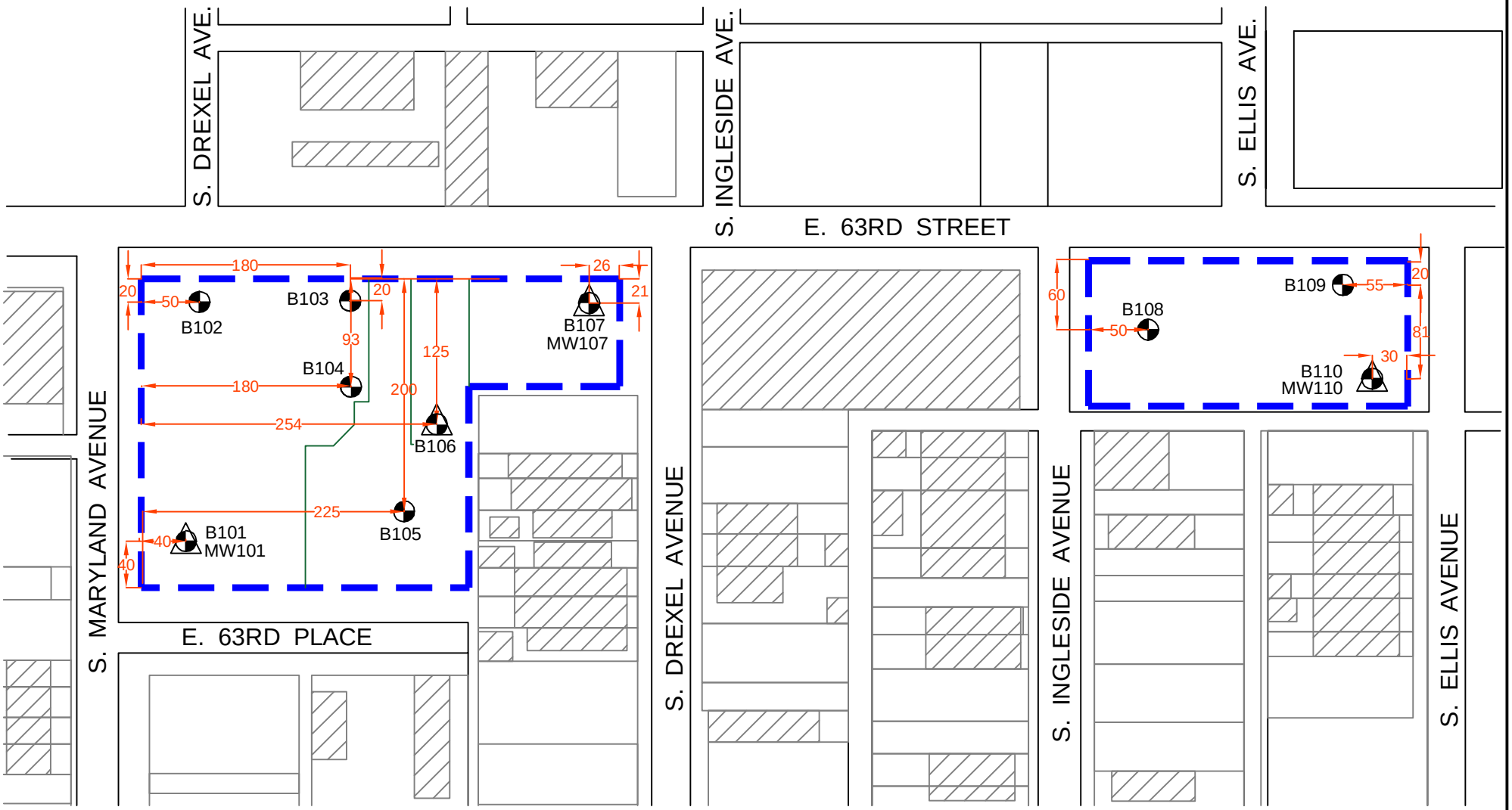
Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

SITE DIAGRAM

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 2

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.



LEGEND

- Approximate Site Boundary
- Approximate Boring Location
- Approximate Combined Boring / Temporary Well
- Building
- 50 — Approximate Distance of Boring to Property Boundary (measured in feet)

N

0 125'

APPROXIMATE SCALE

Project Mngr:	RO
Drawn By:	SM
Checked By:	LT
Approved By:	RO
Project No.	11177032
Scale:	AS-SHOWN
Revised By:	~
Date:	September 14, 2017

Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

BORING LOCATION DIAGRAM

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 3

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

LEGEND

- Approximate Site Boundary
- Approximate Boring Location
- Approximate Combined Boring / Temporary Well
- Building
- Approximate Extent of Soil Exceeding Tier 1 SROs for the Ingestion Exposure Route for Residential Properties - PNAs
- Approximate Extent of Soil Exceeding Tier 1 SROs for the Ingestion Exposure Route for Industrial/Commercial Properties - PNAs

Note: No industrial/commercial exceedances in B105-B107.
I/C impacted area estimated to be half way to the next clean boring

N

0 125'

APPROXIMATE SCALE

Project Mngr: RO	Project No. 11177032
Drawn By: SM	Scale: AS-SHOWN
Checked By: LT	Revised By: ~
Approved By: RO	Date: September 14, 2017

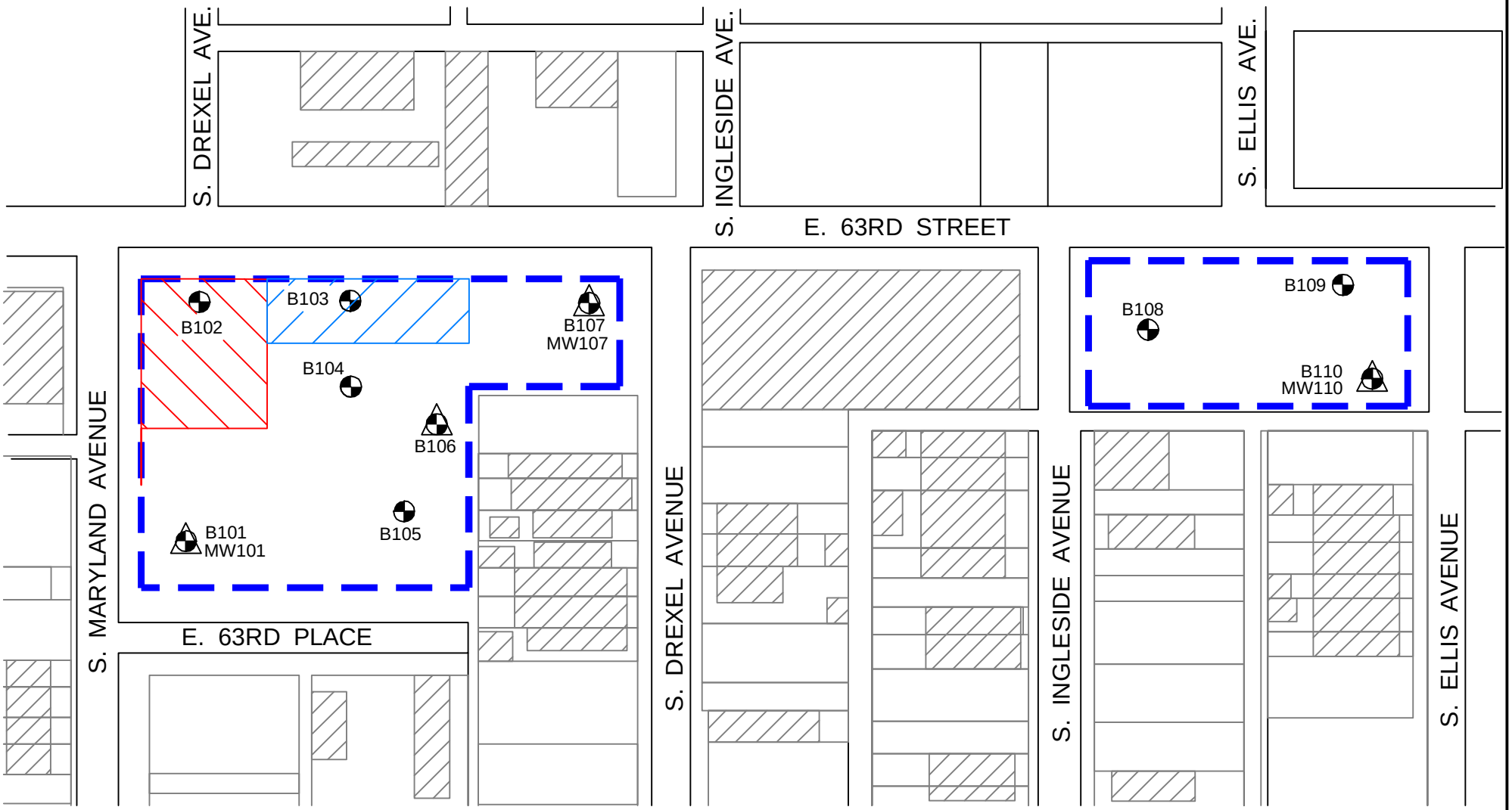
Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

Ingestion Exposure Route Exceedances - PNAs

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 4

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.



LEGEND

- Approximate Site Boundary
- Approximate Boring Location
- Approximate Combined Boring / Temporary Well
- Building
- Approximate Extent of Soil Exceeding Ingestion Exposure Route Tier 1 SROs for Residential & Industrial Commercial Properties - Arsenic
- Approximate Extent of Soil Exceeding Ingestion Exposure Route Tier 1 SROs for Residential & Industrial Commercial Properties - Lead

Note: No industrial/commercial exceedances in B105-B107.
I/C impacted area estimated to be half way to the next clean boring

N

0 125'

APPROXIMATE SCALE

Project Mngr: RO	Project No. 11177032
Drawn By: SM	Scale: AS-SHOWN
Checked By: LT	Revised By: ~
Approved By: RO	Date: September 14, 2017

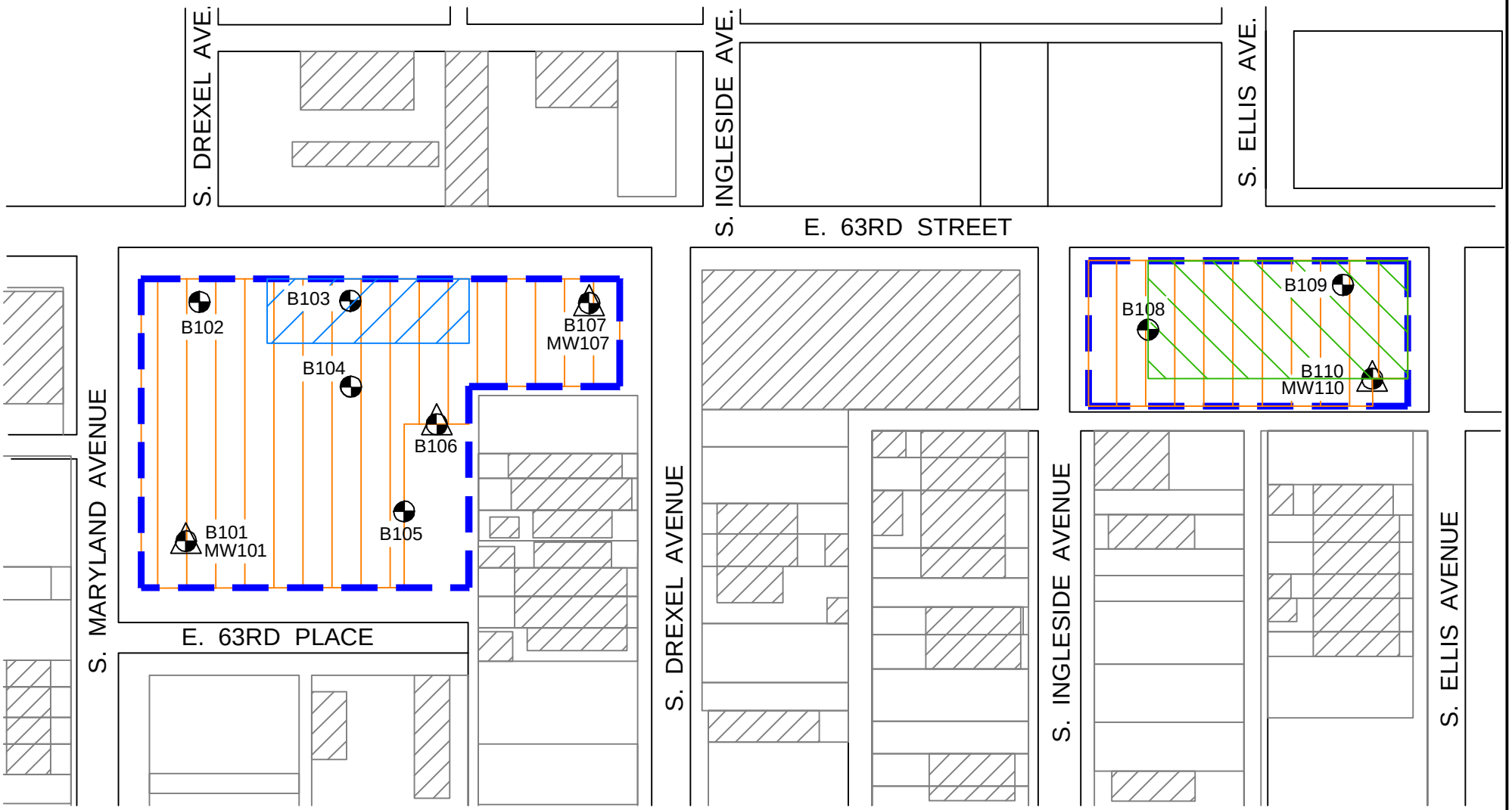
Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

Ingestion Exposure Route Exceedances - Metals

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 5

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.



LEGEND

- Approximate Site Boundary
- Approximate Boring Location
- Approximate Combined Boring / Temporary Well
- Building
- Approximate Extent of Soil Exceeding the Tier 1 SRO for the Inhalation Exposure Route for Construction Workers - Mercury
- Approximate Extent of Soil Exceeding the Tier 1 SRO for the Ingestion Exposure Route for Construction Workers - Lead
- Approximate Extent of Soil Exceeding Tier 1 SROs for the Ingestion Exposure Route for Construction Workers - PNAs

N

0 125'

APPROXIMATE SCALE

Project Mngr: RO	Project No. 11177032
Drawn By: SM	Scale: AS-SHOWN
Checked By: LT	Revised By: ~
Approved By: RO	Date: November 14, 2017

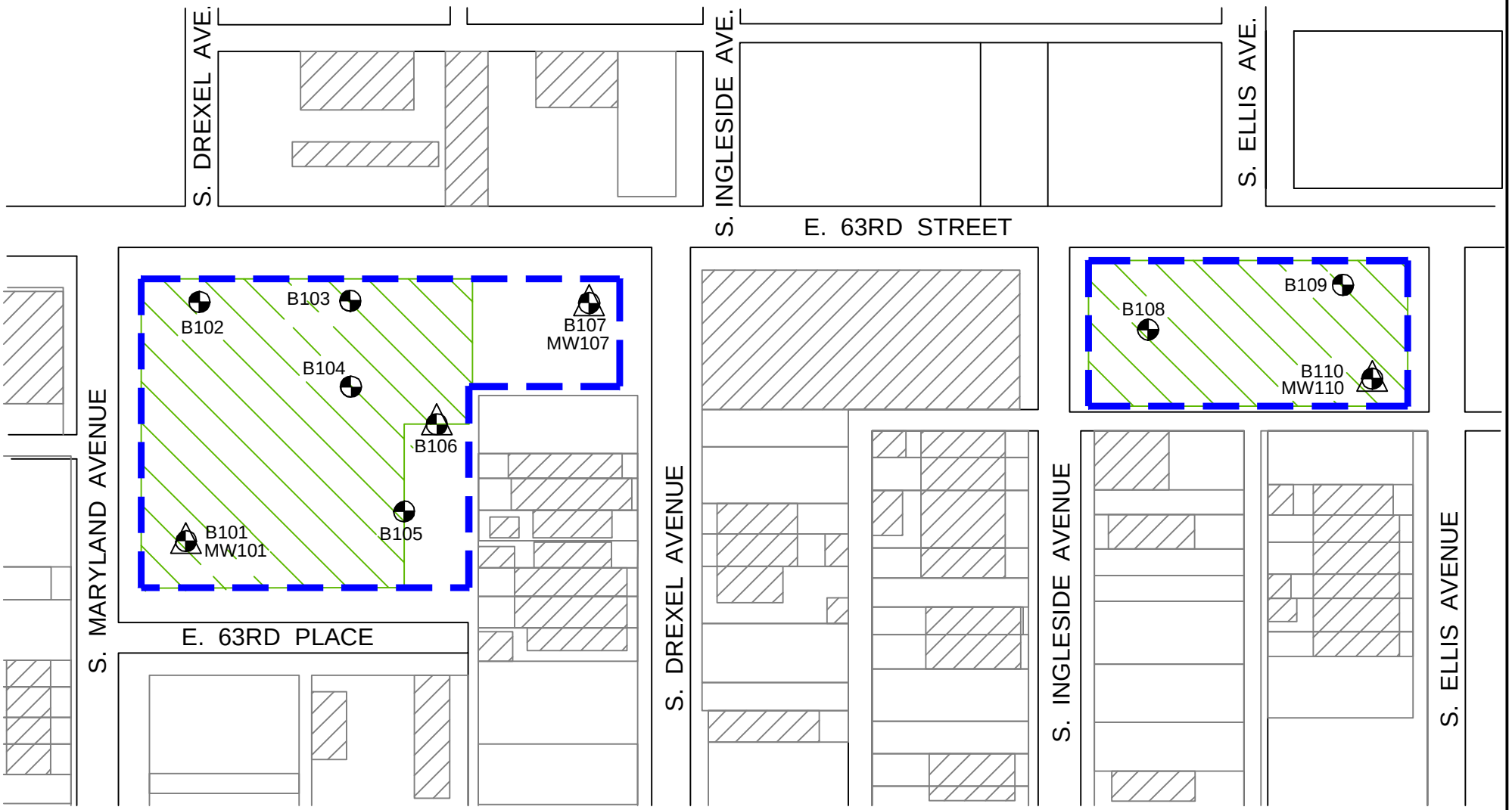
Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

Construction Worker Exposure Route Exceedances

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 6

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.



LEGEND

- Approximate Site Boundary
- Approximate Boring Location
- Approximate Combined Boring / Temporary Well
- Building
- Approximate Extent of Soil Exceeding Tier 1 SROs for the Soil Component to Class I Groundwater - PNAs

N

0 125'

APPROXIMATE SCALE

Project Mngr: RO	Project No. 11177032
Drawn By: SM	Scale: AS-SHOWN
Checked By: LT	Revised By: ~
Approved By: RO	Date: November 14, 2017

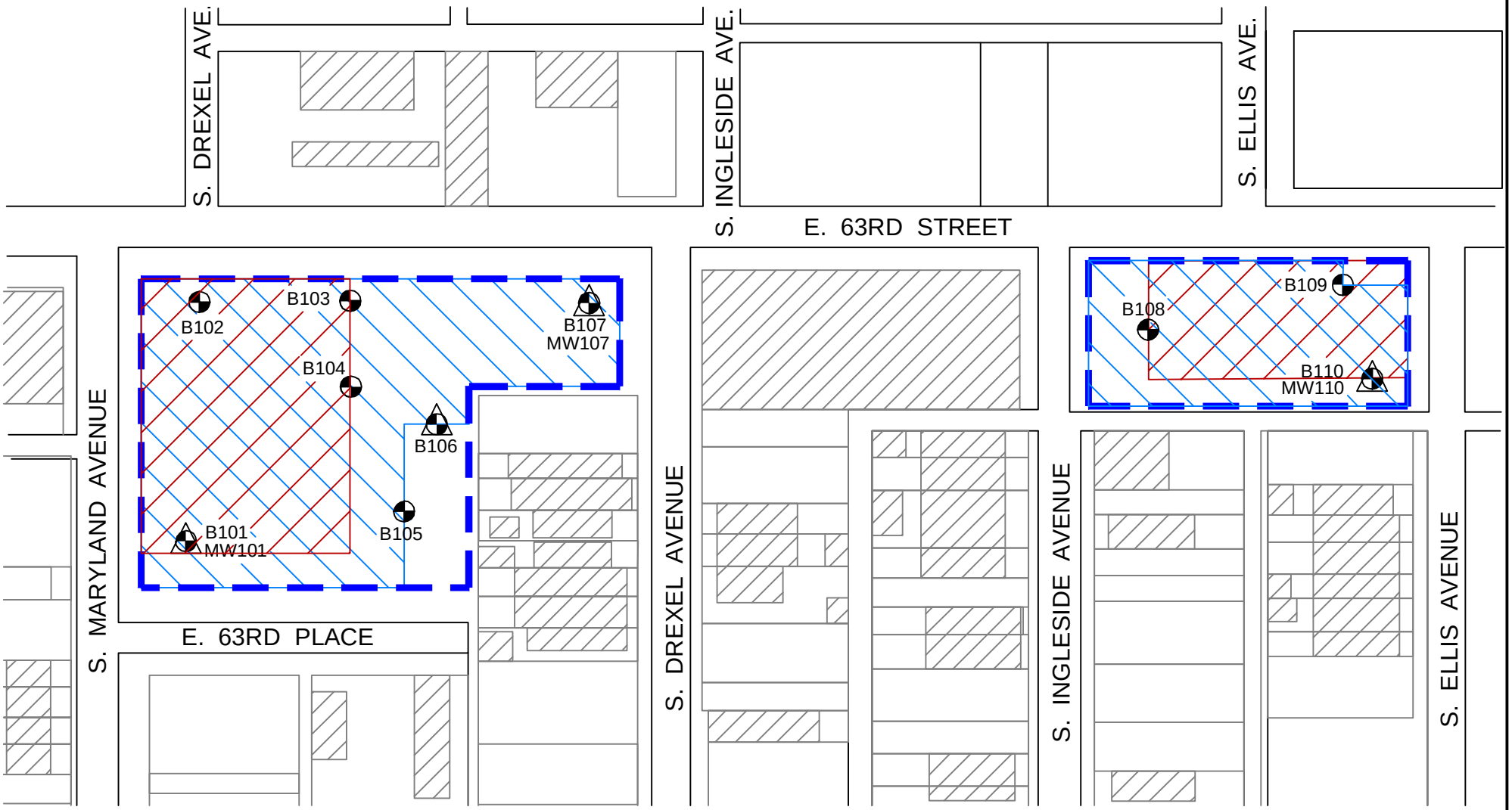
Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

Soil Component to Groundwater Exposure Route - PNAs

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 7

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.



LEGEND

- Approximate Site Boundary
- Approximate Boring Location
- Approximate Combined Boring / Temporary Well
- Building
- Approximate Extent of Soil Exceeding Tier 1 SROs for the Soil Component to Class I Groundwater Exposure Route - Lead
- Approximate Extent of Soil Exceeding Tier 1 SROs for the Soil Component to Class I Groundwater Exposure Route - Chromium

N

0 125'

APPROXIMATE SCALE

Project Mngr: RO	Project No. 11177032
Drawn By: SM	Scale: AS-SHOWN
Checked By: LT	Revised By: ~
Approved By: RO	Date: August 24, 2017

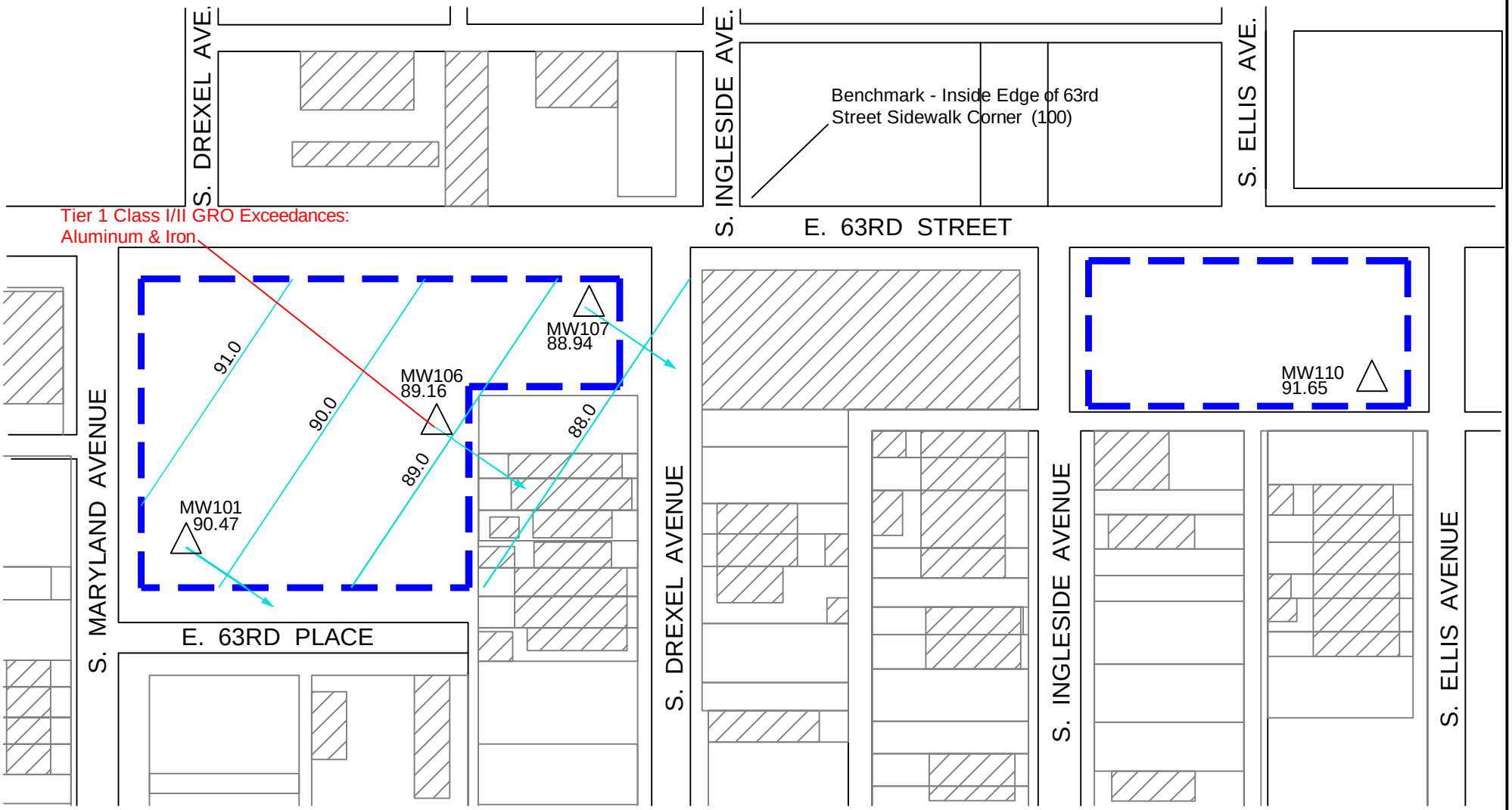
Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

Soil Component to Groundwater Exposure Route - Metals

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 8

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.



LEGEND

- Approximate Site Boundary
- Approximate Temporary Well Location
- 90.0 Measured Relative Groundwater Elevation
- Building
- Approximate Groundwater Contour and Flow Direction

N

0 125'

APPROXIMATE SCALE

Project Mngr: RO	Project No. 11177032
Drawn By: SM	Scale: AS-SHOWN
Checked By: LT	Revised By: ~
Approved By: RO	Date: August 24, 2017

Terracon
Consulting Engineers and Scientists
650 W. LAKE ST., SUITE 420 CHICAGO, ILLINOIS 60661
PH. (312) 575-0014 FAX. (312) 575-0111

GROUNDWATER CONTOUR MAP & GRO EXCEEDANCES

839-57 E. 63RD STREET
CHICAGO, ILLINOIS

EXHIBIT 9

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.