

# Appendix E

## Red Flag Investigation and Hazardous Materials



## INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N758-ES  
Indianapolis, Indiana 46204

PHONE: (855) 463-6848  
(855) INDOT4U

**Eric Holcomb, Governor**  
**Michael Smith, Commissioner**

Date: April 11, 2024

To: Site Assessment & Management (SAM)  
Environmental Policy Office - Environmental Services Division (ESD)  
Indiana Department of Transportation (INDOT)  
100 N Senate Avenue, Room N758-ES  
Indianapolis, IN 46204

From: Keaton Veldkamp  
Parsons  
101 W Ohio Street, Suite 2121  
Indianapolis, IN 46204  
[Keaton.Veldkamp@parsons.com](mailto:Keaton.Veldkamp@parsons.com)

Re: HYBRID RED FLAG INVESTIGATION  
DES 1901643, State Project  
Transportation Systems Management and Operations (TSMO)  
Borman Expressway (I-80/94), from Illinois State Line east 15 miles to US 6  
Lake County, Indiana

### PROJECT DETAILS

INDOT has identified the need to address traffic congestion and safety within the I-80/94 Borman Expressway corridor. A Planning and Environmental Linkages (PEL) Study was completed in 2021 and from this, several TSMO strategies and interchange geometric improvements were recommended for the National Environmental Policy Act (NEPA) process. The project corridor stretches from the Illinois State Line east 15 miles to the Ripley Street/US 6/SR 51 interchange. This project includes the installation of several different types of active traffic management (ATM) and intelligent transportation system (ITS) devices and structures. A request for a hybrid Limited Red Flag Investigation (LRFI) was sent to the SAM Group on October 30, 2023, and approval was received on December 6, 2023. The resource discussions below will only include discussions of resources that may have an impact on the proposed project. Resources that exhibit no impact have been omitted.

The preferred alternative will implement integrated ATM and ITS devices including improved signage, variable speed limits (VSL), dynamic lane controls, dynamic shoulder lanes (DSL), queue warnings, and ramp metering throughout the corridor. A table listing the proposed structure types that would require excavation and their depth of excavation is below. All structures are labeled on the attached graphics.

Structure Type	Number of Structures	Depth of Excavation (feet below ground surface (ft-bgs))
Cabinet (C)	21	3.3 ft-bgs
Gantry (G)	72	4 ft-bgs
Handhole (H)	201	3.3 ft-bgs
Ramp Meter (R)	21	3.3 ft-bgs

Additionally, the I-65 and Broadway Avenue interchanges would be modified. Improvements at the Broadway interchange would include an additional freeway lane from the Grant Street entrance ramp to eastbound (EB) I-80/94 to the I-65 southbound (SB) exit. Another lane would be created from the median lane between Broadway Avenue and I-65 SB, providing six lanes in total between Broadway and I-65 along EB I-80/94. Furthermore, storm sewer work would be completed in the interchange project area. All work would occur within existing right-of-way.

Bridge Work Included in Project: Yes  No  Structure #(s) \_\_\_\_\_

If this is a bridge project, is the bridge Historical? Yes  No , Select  Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Culvert Work Included in Project: Yes  No  Structure #(s) \_\_\_\_\_

Proposed right of way: Temporary  # Acres \_\_\_\_\_ Permanent  # Acres \_\_\_\_\_, Not Applicable

Type and proposed depth of excavation: Excavation to a depth of approximately 3.3 feet below the ground surface (ft-bgs) would occur at locations requiring the installation of cabinets, handholes, ramp meters, and pavement work for Broadway Avenue. Excavation to a depth of approximately 4 ft-bgs would be required for gantry construction. Excavation to a depth of 6 ft-bgs would be required for storm sewer work around Broadway Avenue. Please see the attached graphics for specific locations.

Maintenance of traffic (MOT): The MOT for the project would be implemented in several phases and includes shoulder closures, single lane closures, and temporary road closures of 20-minute traffic stoppage. Temporary road closures would occur only at night. All system and service interchange ramps would remain open during construction. The Broadway Avenue and I-65 interchange improvements would be constructed in phases with lane shifts. No local road closures or detours would be required.

Work in waterway: Yes  No  Below ordinary high water mark: Yes  No

State Project:  LPA:

Any other factors influencing recommendations: The resource discussions below will only include discussions of resources that may have an impact on the proposed project. Resources that exhibit no impact have been omitted.

**INFRASTRUCTURE TABLE AND SUMMARY**

<b>Infrastructure</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	<b>45</b>	Recreational Facilities	<b>50</b>
Airports <sup>1</sup>	<b>3</b>	Pipelines	<b>36</b>
Cemeteries	<b>N/A</b>	Railroads	<b>13</b>
Hospitals	<b>1</b>	Trails	<b>31</b>
Schools	<b>9</b>	Managed Lands	<b>21</b>

<sup>1</sup>In order to complete the required airport review, a review of public-use airports within 3.8 miles (20,000 feet) is required.

**Explanation:**

**Airports:** Although not located within the 0.5 mile search radius, three (3) public-use airports, Gary/Chicago International Airport, Griffith-Merrillville Airport, and Lansing Municipal Airport (Illinois), are located within 3.8 miles (20,000) feet of the project area. The Gary/Chicago International Airport is located approximately 2.7 miles north of the project area. The Griffith-Merrillville Airport is approximately 3.3 miles south and Lansing Municipal Airport is located approximately 2.65 miles south of the project area; therefore, early coordination with INDOT Aviation will occur.

**Pipelines:** Thirty-six (36) pipeline segments are located within the 0.5 mile search radius. Twenty-two (22) are located within 0.05 mile of the project area. Coordination with INDOT Utilities and Railroads should occur.

**Railroads:** Thirteen (13) railroad segments are located within the 0.5 mile search radius. Eight (8) railroad segments, CSX, Norfolk Southern, Chicago Fort Wayne & Eastern, and an unlabeled railroad, are adjacent to the project area. Standard coordination will occur with INDOT Utilities and Railroads by the Project Management Team or their consultant no later than the Ready for Contracts (RFC) date.

**Trails:** Thirty-one (31) trail segments are within the 0.5 mile search radius. Five (5) trail segments cross or are adjacent to the project area:

- East Lake Corridor (Marquette Greenway C&O Corridor) is a potential trail that is adjacent to H-186 to H-188. Coordination with the Northwest Indiana Regional Planning Commission will occur.
- Eerie Trail Linear Park (Eerie Trail Linear Park and Cabel’s to Little Calumet River) is an existing trail adjacent to C-4, H-29, H-30, R-4, and R-5. Coordination with City of Hammond Parks and Recreation Department will occur.
- Monon Trail (Monon Trail - Douglas Street south to Fisher Street) is an existing trail adjacent to H-3 and G-7. Coordination with City of Hammond Parks and Recreation Department will occur.
- Twin Rivers Trail (Grand Calumet Trail to Little Calumet Trail) is a planned trail adjacent to H-48 and H-49. Coordination with City of Hammond Parks and Recreation Department will occur.

**Managed Lands:** Twenty-one (21) managed lands are within the 0.5 mile search radius. Three (3) managed lands are adjacent to the project area:

- Carlson – Oxbow Park is adjacent to G-29, G-30, H-65, and H-66. Coordination with City of Hammond Parks and Recreation Department is recommended.
- Rich’s Park is adjacent to G-9, H-5, and H-6. Coordination with City of Hammond Parks and Recreation Department is recommended.
- Wicker Memorial Park is adjacent to G-18, H-27, H-28, and H-30. Coordination with North Township Park and Recreation Board is recommended.

**WATER RESOURCES TABLE AND SUMMARY**

<b>Water Resources</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Karst Springs	<b>N/A</b>	NWI - Wetlands	<b>566</b>
Canal Structures – Historic	<b>N/A</b>	Lakes	<b>119</b>
NPS NRI Listed	<b>1</b>	Floodplain - DFIRM	<b>75</b>
IDEM 303d Listed Streams and Lakes (Impaired)	<b>38</b>	Cave Entrance Density	<b>N/A</b>
Rivers and Streams	<b>133</b>	Sinkhole Areas	<b>N/A</b>
Canal Routes - Historic	<b>N/A</b>	Sinking-Stream Basins	<b>N/A</b>

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:

IDEM 303d Listed Streams and Lakes: Thirty-eight (38) 303d Listed Stream segments are within 0.5 mile search radius.

- Burns Ditch is adjacent to C-20, C-21, H-188 to H-195, and H-197 to H-199. Burns Ditch is listed as impaired for Dissolved Oxygen (DO), E. coli, Impaired Biotic Communities (IBC), and PCBs in fish tissue.
  - Concerning IBC and DO, Best Management Practices (BMPs) will be used to avoid further degradation to the stream.
  - Burns Ditch is listed for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.
  - Burns Ditch is impaired for PCBs in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur.

Rivers and Streams: One hundred thirty-three (133) river and stream segments are within the 0.5 mile search radius. One (1) river, Little Calumet River, is adjacent to H-155. A Waters of the US Report is recommended based on mapped river and stream segments, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI - Wetlands: Five hundred and sixty-six (566) wetlands are within the 0.5 mile search radius. Two-hundred and ten (210) wetlands are adjacent to the project area. A Waters of the US Report is recommended based on mapped NWI wetlands, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Floodplain - DFIRM: Seventy-five (75) floodplain polygons are located within the 0.5 mile search radius. The project area is located within four (4) polygons. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

**MINING AND MINERAL EXPLORATION TABLE AND SUMMARY**

<b>Mining/Mineral Exploration</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	<b>1</b>	Mineral Resources	<b>N/A</b>
Mines – Surface	<b>N/A</b>	Mines – Underground	<b>N/A</b>

Explanation: No mining and mineral exploration resources were identified that will have an impact on the project area.

**HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY**

<b>Hazardous Material Concerns</b>			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	<b>1</b>	Open Dump Waste Sites	<b>1</b>
RCRA Generator/ TSD	<b>17</b>	Restricted Waste Sites	<b>N/A</b>
RCRA Corrective Action Sites	<b>N/A</b>	Waste Transfer Stations	<b>N/A</b>
State Cleanup Sites	<b>5</b>	Tire Waste Sites	<b>1</b>
Septage Waste Sites	<b>N/A</b>	Landfill Boundaries	<b>3</b>
Underground Storage Tank (UST) Sites	<b>30</b>	Confined Feeding Operations (CFO)	<b>N/A</b>
Voluntary Remediation Program	<b>3</b>	Brownfields	<b>9</b>
Construction Demolition Waste	<b>1</b>	Notice of Contamination Sites	<b>N/A</b>
Solid Waste Landfill	<b>2</b>	Institutional Controls	<b>94</b>
Infectious/Medical Waste Sites	<b>N/A</b>	NPDES Facilities	<b>56</b>
Leaking Underground Storage (LUST) Sites	<b>48</b>	NPDES Pipe Locations	<b>16</b>
Manufactured Gas Plant Sites	<b>N/A</b>		

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC). Due to the nature of this LRFI, explanations for non-adjacent hazardous material concerns are not provided.

Explanation:

Superfund: One (1) Superfund site is within the 0.5 mile search radius. Lake Sandy Jo M&M Landfill, 3615 West 25th Avenue, Gary, Agency Interest Identification (AI ID #) 20154, is located adjacent to G-51, H-113, H-114, and H-116. G-50 and H-115 are within the mapped boundary of the site. Lake Sandy Jo M&M Landfill is located between the intersections of West 25th Avenue with Wright Street and Jennings Street. This former landfill was listed on the National Priority List (aka Superfund) in 1983 and is currently in the monitoring phase. The site is being considered for redevelopment as the Gary Commerce Center. Contaminants of Concern (COCs) include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, PCBs, and Resource Conservation and Recovery Act (RCRA) metals. It also has over sixty (60) Environmental Restrictive Covenants (ERCs), which include onsite engineering controls as well as aquifer use restrictions. An August 23, 2023, IDEM letter indicates that revisions to the ERCs are currently occurring. Coordination will be conducted with the IDEM

Project Manager, Justin Hodgson, [jhodgson@idem.in.gov](mailto:jhodgson@idem.in.gov), before RFC. After consultation with the IDEM Project Manager, a Phase II Environmental Site Assessment (ESA) may be recommended to occur before RFC. Prior to any investigation activities, a scope of work plan (SOW) will be prepared and submitted to INDOT SAM for review and approval. Special consideration should be given to monitoring and planning for the presence of methane gas.

**Institutional Controls:** Ninety-four (94) institutional controls are within the 0.5 mile search radius. One (1) institutional control facility, Lake Sandy Jo M&M Landfill, 3615 West 25th Avenue, AI ID #20154, is located adjacent to G-51, H-113, H-114, and H-116. G-50 and H-115 are within the boundary of the site. The site has over sixty (60) ERCs and is discussed above under Superfund Sites.

**NPDES Facilities:** Fifty-six (56) NPDES facilities are within the 0.5 mile search radius. Four (4) NPDES facilities are adjacent to the project area. Coordination with permit owners will be required for facilities with active permits.

- Oxbow Landing Second Addition, Carlson Drive, is adjacent to C-7, G-27, H-61, and R-9 and has an active permit. Permit Number INR10J907 was issued April 15, 2020, and is scheduled to terminate on April 14, 2025. Coordination with ATG Real Estate Development, LLC, will occur.
- West Lake Corridor – M-01 and S-06, Garfield Avenue and I-94, are adjacent to G-7 and H-3 and have active permits. Permit Number INRA09136 (M-01) was issued February 14, 2022, and is scheduled to terminate on February 13, 2027. Permit Number INRA09523 (S-06) was issued April 18, 2022, and is scheduled to terminate April 17, 2027. Coordination with Northern Indiana Commuter Transportation District will occur.
- Hammond Street Reconstruction, 177<sup>th</sup> Street and Carlson Drive, is adjacent to G-29, G-30, and H-64 to H-66 and has an active permit. Permit Number INRA09297 was issued on March 14, 2022, and is scheduled to terminate on March 13, 2027. Coordination with the City Engineer, City of Hammond, will occur.

## **ECOLOGICAL INFORMATION SUMMARY**

The Lake County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at [https://www.in.gov/dnr/nature-preserves/files/np\\_lake.pdf](https://www.in.gov/dnr/nature-preserves/files/np_lake.pdf). A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects.

Evidence of Birds in Bridge Report: Yes  No  N/A

\*If yes, further coordination with INDOT Ecology and Waterway Permitting may be necessary.

## **RECOMMENDATIONS SECTION**

### **INFRASTRUCTURE:**

**Airports:** Three (3) public-use airports are located within 3.8 miles (20,000) feet of the project corridor. The Gary/Chicago International Airport is located approximately 2.7 miles north of the project area; Griffith-Merrillville Airport is approximately 3.3 miles south of the project area; and Lansing Municipal Airport (Illinois) is located approximately 2.65 miles south of the project area. Coordination with INDOT Aviation will occur.

**Pipelines:** Twenty-two (22) pipeline segments are located within 0.05 mile of the project area. Coordination with INDOT Utilities and Railroads should occur.

Railroads: Eight (8) railroad segments, CSX, Norfolk Southern, Chicago Fort Wayne & Eastern, and an unlabeled railroad, are adjacent to the project area. Standard coordination will occur with INDOT Utilities and Railroads by the Project Management Team or their consultant no later than the RFC date.

Trails: Five (5) trail segments cross or are adjacent to the project area:

- East Lake Corridor (Marquette Greenway C&O Corridor) is a potential trail that is adjacent to H-186 to H-188. Coordination with Northwestern Indiana Regional Planning Commission will occur.
- Eerie Trail Linear Park (Eerie Trail Linear Park and Cabel's to Little Calumet River) is an existing trail adjacent to C-4, H-29, H-30, R-4, and R-5. Coordination with City of Hammond Parks and Recreation Department will occur.
- Monon Trail (Monon Trail - Douglas Street south to Fisher Street) is an existing trail adjacent to H-3. Coordination with City of Hammond Parks and Recreation Department will occur.
- Twin Rivers Trail (Grand Calumet Trail to Little Calumet Trail) is a planned trail adjacent to H-48 and H-49. Coordination with City of Hammond Parks and Recreation Department will occur.

Managed Lands: Three (3) managed lands are adjacent to the project area:

- Carlson – Oxbow Park is adjacent to G-29, G-30, H-65, and H-66. Coordination with City of Hammond Parks and Recreation Department is recommended.
- Rich's Park is adjacent to G-9, H-5, and H-6. Coordination with City of Hammond Parks and Recreation Department is recommended.
- Wicker Memorial Park is adjacent to G-18, H-27, H-28, and H-30. Coordination with North Township Park and Recreation Board is recommended.

#### WATER RESOURCES:

A Waters of the US Report is recommended based on the presence of mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur for the following features:

- Two hundred and ten (210) wetlands are located adjacent to the project area.
- One (1) river is adjacent to H-155.
- The project area is located within four (4) floodplain polygons (coordination only).
- IDEM 303d Listed Streams and Lakes: Burns Ditch is adjacent to C-20, C-21, H-188 to H-195, and H-197 to H-199 and is listed as impaired for DO, E. coli, IBCs, and PCBs in fish tissue.
  - Concerning IBC and DO, BMPs will be sued to avoid further degradation to the stream.
  - Burns Ditch is listed for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.
  - Burns Ditch is impaired for PCBs in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur.

MINING/MINERAL EXPLORATION: N/A


HAZARDOUS MATERIAL CONCERNS:

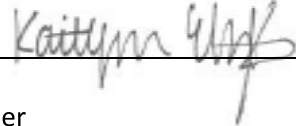
Superfund/Institutional Controls: Lake Sandy Jo M&M Landfill, 3615 West 25th Avenue, Gary, Agency Interest Identification (AI ID #) 20154, is located adjacent to G-51, H-113, H-114, and H-116. G-50 and H 115 are within the mapped boundary of the site. Lake Sandy Jo M&M Landfill is located between the intersections of West 25th Avenue with Wright Street and Jennings Street. This former landfill was listed on the National Priority List (aka Superfund) in 1983 and is currently in the monitoring phase. The site is being considered for redevelopment as the Gary Commerce Center. COCs include VOCs, SVOCs, pesticides, PCBs, and RCRA metals. It also has over sixty (60) ERCs, which include onsite engineering controls as well as aquifer use restrictions. An August 23, 2023, IDEM letter indicates that revisions to the ERCs are currently occurring. Coordination will be conducted with the IDEM Project Manager, Justin Hodgson, [jhodgson@idem.in.gov](mailto:jhodgson@idem.in.gov), before RFC. After consultation with the IDEM Project Manager, a Phase II ESA may be recommended to occur before RFC. Prior to any investigation activities, a SOW will be prepared and submitted to INDOT SAM for review and approval. Special consideration should be given to monitoring and planning for the presence of methane gas.

NPDES Facilities: Four (4) NPDES facilities are adjacent to the project area. Coordination with permit owners will be required for facilities with active permits.

- Oxbow Landing Second Addition, Carlson Drive, is adjacent to C-7, G-27, H-61, and R-9 and has an active permit. Permit Number INR10J907 was issued April 15, 2020, and is scheduled to terminate on April 14, 2025. Coordination with ATG Real Estate Development, LLC, will occur.
- West Lake Corridor – M-01 and S-06, Garfield Avenue and I-94, are adjacent to G-7 and H-3 and have active permits. Permit Number INRA09136 (M-01) was issued February 14, 2022, and is scheduled to terminate on February 13, 2027. Permit Number INRA09523 (S-06) was issued April 18, 2022, and is scheduled to terminate April 17, 2027. Coordination with Northern Indiana Commuter Transportation District will occur.
- Hammond Street Reconstruction, 177<sup>th</sup> Street and Carlson Drive, is adjacent to G-29, G-30, and H-64 to H-66 and has an active permit. Permit Number INRA09297 was issued on March 14, 2022, and is scheduled to terminate on March 13, 2027. Coordination with the City Engineer, City of Hammond, will occur.

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

Prepared by:  (Signature)  
Keaton Veldkamp  
Sr. GIS Specialist  
Parsons

QA/QC Completed by:  (Signature)  
Kaitlyn Etzkorn  
Sr. Environmental Planner  
Parsons

INDOT ESD concurrence:  **Dariane Davis** Digitally signed by Dariane Davis  
Date: 2024.04.12 15:36:31 -04'00' (Signature)

**Graphics:**

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

In order to reduce the number of pages in the NEPA document, the graphics and maps were omitted.

INDEX: YES

INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES



IDOT Sequence #: 23943  
IDOT Job #: NA

ISGS: 4227  
IDOT District #: 1

**PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT**

**FINAL REPORT**

**DATE:** March 28, 2022  
**IDOT DESIGN DATE:** NA  
**SURVEY TARGET DATE:** March 28, 2022  
**DATE REQUEST RECEIVED:** September 10, 2021

**LOCATION:** FAI 80/FAI 94/FAI 294/IL 394 (I-80/I-94/I-294/IL 394), IL 1 to State Line Avenue, 159th Place to I-80/I-294, and I-80/I-294 to Glenwood-Dyer Road, East Hazel Crest, Harvey, South Holland, Thornton, Homewood, Lansing, Glenwood, Lynwood, and unincorporated Thornton Township, Cook County; Harvey and Calumet City quadrangles (USGS 7.5-minute topographic maps), T35N, R14E, Sections 2, 11, and 14; T36N, R14E, Sections 14, 23, 25-29, and 33-35; T36N, R15E, Sections 29 and 30.



## GLOSSARY OF ACRONYMS

AAI	-	All Appropriate Inquiries	MTBE	-	methyl tertiary butyl ether
ACM	-	asbestos-containing material	NFR	-	No Further Remediation
AST	-	aboveground storage tank	NPL	-	National Priorities List
ASTM	-	American Society for Testing and Materials	NRCS	-	Natural Resources Conservation Service
AUL	-	activity and use limitation (includes institutional controls, engineered barriers, and HAAs)	OER	-	Office of Emergency Response (IEPA)
bgs	-	below ground surface	OSFM	-	Office of the State Fire Marshal
BOL	-	Bureau of Land (IEPA)	PAA	-	Permit Access Agreement
BTEX	-	benzene, toluene, ethylbenzene, and total xylene	PAH/PNA-	-	polynuclear aromatic hydrocarbon
CCDD	-	Clean construction and demolition debris	PCB	-	polychlorinated biphenyl
CDPH	-	Chicago Department of Public Health	PESA	-	Preliminary Environmental Site Assessment
CERCLIS-	-	Comprehensive Environmental Response, Compensation, and Liability Information System	P.G.	-	Professional Geologist
CTA	-	Chicago Transit Authority	ppb	-	parts per billion (equivalent to µg/kg for solids, and µg/l in liquids)
ERNS	-	Emergency Response Notification System	ppm	-	parts per million (equivalent to mg/kg in solids, and mg/l in liquids)
FEMA	-	Federal Emergency Management Agency	PRP	-	Potentially Responsible Party
FHWA	-	Federal Highway Administration	PSI	-	Preliminary Site Investigation
FOIA	-	Freedom of Information Act	RCRA	-	Resource Conservation and Recovery Act
GIS	-	Geographic Information System	REC	-	recognized environmental condition
GRO	-	Groundwater Remediation Objective	ROW	-	right-of-way
HAA	-	Highway Authority Agreement	SEMS	-	Superfund Enterprise Management System
IDNR	-	Illinois Department of Natural Resources	SGRO	-	Soil Gas Remediation Objective
IDOT	-	Illinois Department of Transportation	SIC	-	Standard Industrial Classification
IEMA	-	Illinois Emergency Management Agency	SPLP	-	synthetic precipitation leaching procedure
IEPA	-	Illinois Environmental Protection Agency	SRO	-	Soil Remediation Objective
IMD	-	Illinois Manufacturers Directory	SRP	-	Site Remediation Program
ISGS	-	Illinois State Geological Survey	SSTS	-	Section Seven Tracking System (USEPA)
ISTHA	-	Illinois State Toll Highway Authority	SVOC	-	semi-volatile organic compound
ISWS	-	Illinois State Water Survey	TACO	-	Tiered Approach to Corrective Action Objectives (IEPA)
LUST	-	leaking underground storage tank	TCLP	-	toxicity characteristic leaching procedure
µg/kg	-	micrograms per kilogram (ppb)	TPH	-	total petroleum hydrocarbons
µg/l	-	micrograms per liter (ppb)	TRI	-	Toxics Release Inventory
mg/kg	-	milligrams per kilogram (ppm)	UIC	-	Underground Injection Control (IEPA)
mg/l	-	milligrams per liter (ppm)	USDA	-	United States Department of Agriculture
M.M.	-	mile marker	USEPA	-	United States Environmental Protection Agency
MOU	-	memorandum of understanding	USGS	-	United States Geological Survey
M.P.	-	mile post	UST	-	underground storage tank
MSSA	-	Mahomet Sole Source Aquifer	VOC	-	volatile organic compound

### EXECUTIVE SUMMARY

This report presents the results of an environmental site assessment for the improvements to I-80/I-294 from IL 1 to State Line Avenue, I-94 from 159th Place to I-80/I-294, and IL 394 from I-80/I-294 to Glenwood-Dyer Road, East Hazel Crest, Harvey, South Holland, Thornton, Homewood, Lansing, Glenwood, Lynwood, and unincorporated Thornton Township, Cook County. This report was prepared on behalf of the Illinois Department of Transportation (IDOT) by the Illinois State Geological Survey (ISGS).

The following sites were examined for this project. The tables below list sites along the project for which recognized environmental conditions (RECs)\* were identified for each address or address range (Table 1); sites along the project for which only de minimis conditions were identified (Table 2); sites along the project for which no RECs or de minimis conditions were identified (Table 3); and sites adjoining but not on the project that were identified on environmental databases (Table 4). Further investigation of sites with RECs may be desired.

**Table 1. The following sites along the project were determined to contain RECs:**

Property name IDOT parcel #	ISGS site #	REC(s), including de minimis conditions	Regulatory database(s)	Land use
ROW NA	4227-1	USTs with documented released; former USTs with documented releases; potential UST(s); evidence of chemical use; monitoring wells; former monitoring wells; potential monitoring wells; spills; former drums; fill; solid waste; impacted soil and groundwater; likely petroleum pipelines; VOCs, SVOCs, metals, pesticides, and PCBs; HAAs; natural gas pipeline; likely natural gas pipelines; transformers; potential ACM and lead paint	RCRA, ERNS, LUST, UST, BOL, IEMA, HAAs, AULs	Transportation
Commercial building NA	4227-2	Potential former chemical use; transformers; potential ACM and lead paint	None	Commercial

Yellow highlighted ISGS Site #s indicate properties immediately adjacent to IDOT's I-80/94 ROW that contain RECs.

Thornton Quarry NA	4227-31	UST; former USTs with documented releases; former AST; potential AST; evidence of chemical use; CCDD landfills; spills; potential monitoring wells; impacted soil and groundwater; ELUC; HAA; SVOCs and metals; natural gas pipeline; transformers; potential ACM and lead paint	RCRA, LUST, UST, BOL, IEMA, HAA, AULs	Industrial
Village of Thornton Water Pumping Station NA	4227-33	Former UST with a documented release; potential UST(s); potential AST(s); potential chemical use; impacted soil; transformers; potential ACM and lead paint	LUST, UST, BOL, IEMA	Municipal
Railroad NA	4227-34	Evidence of chemical use; potential ACM	RCRA, BOL	Transportation
Thornwood High School NA	4227-37	Former UST; evidence of chemical use; transformers; potential ACM and lead paint	RCRA, UST, BOL	Educational
Thorn Creek NA	4227-42	Spill; non-attainment of water quality (including chloride)	None	Stream
Cook County Forest Preserve NA	4227-43	Former USTs; ASTs; potential ACM and lead paint	UST	Recreational
Railroad NA	4227-44	Spill; railroad signal building; potential ACM and lead paint	IEMA	Transportation

Commercial building and residence NA	4227-48	Former USTs with a documented release; potential UST(s); former AST; potential chemical use; evidence of former chemical use; drums; solid waste; SVOCs and metals; potential ACM and lead paint	RCRA, LUST, UST, BOL, IEMA	Commercial/residential
Commercial building NA	4227-49	Potential USTs; former ASTs; chemical container; drums; potential chemical use; solid waste; mounding; transformers; potential ACM and lead paint	Municipal	Commercial
Commercial buildings NA	4227-52	Potential UST(s); evidence of chemical use; transformers; potential ACM and lead paint	RCRA, BOL	Commercial
Progressive Truck Driving School NA	4227-53	Former USTs; potential UST(s); AST; former ASTs; potential chemical use; evidence of former chemical use; mounding; transformers; potential ACM and lead paint	RCRA, UST, BOL	Commercial
Commercial buildings NA	4227-54	Presence on the BOL list; transformer; potential ACM and lead paint	BOL	Commercial
Synergy Steel Structures, Inc. NA	4227-55	Evidence of chemical use; solid waste; transformers; potential ACM and lead paint	BOL	Industrial

Pilot Truck Sales NA	4227-56	Former UST with a documented release; potential UST(s); potential chemical use; potential ACM and lead paint	LUST, UST, BOL, IEMA	Commercial
Household of Faith NA	4227-57	Potential UST(s); evidence of former chemical use; transformer; potential ACM and lead paint	BOL	Commercial
JX Truck Center NA	4227-65	Potential UST(s); potential chemical use; potential ACM and lead paint	None	Commercial
United Motel NA	4227-68	Spill; natural gas pipeline; transformers; potential ACM and lead paint	IEMA	Commercial
Utility corridor NA	4227-70	Petroleum pipeline; natural gas pipelines	None	Utility
Utility corridor NA	4227-71	Petroleum pipeline; VOCs; natural gas pipelines	None	Utility
Pioneer Inn Motel NA	4227-73	Presence on the LUST, UST, and BOL lists; transformer; potential ACM and lead paint	LUST, UST, BOL, IEMA	Commercial
Academy for Children NA	4227-74	Potential UST(s); potential former chemical use; spill; petroleum pipeline; VOCs; natural gas pipeline; transformer; potential ACM and lead paint	IEMA	Commercial
Esporta Fitness NA	4227-77	Petroleum pipeline; VOCs; transformers; potential ACM and lead paint	None	Commercial

Witvoet & Co.	4227-AZ	BOL	Commercial
Stonytire Inc.	4227-BA	BOL	Commercial
Easy Clean Car Wash	4227-BB	State brownfields	Commercial
Vacant land	4227-BC	AUL	Vacant
The Echlin Company and residence	4227-BD	AUL	Commercial/ residential
Vacant lot	4227-BE	HAA, AUL	Vacant
Vacant lot	4227-BF	HAA, AUL	Vacant

\* For all sites:

Where REC(s) are indicated as present, a condition was noted that may be indicative of releases or potential releases of hazardous substances on, at, in, or to the site, as discussed in the text. Potential hazards were not verified by ISGS testing. Radon, biological hazards (such as mold, medical waste, or septic waste), and non-agricultural pesticides and/or herbicides may also be of concern. No further investigation concerning the presence or use of these factors was conducted for this PESA.

Where RECs are not indicated as present, radon, biological hazards (such as mold, medical waste, or septic waste), and non-agricultural pesticides and/or herbicides may still be of concern. No further investigation concerning the presence or use of these factors was conducted for this PESA.

For the purposes of this report, the following are considered to be de minimis conditions:

- Normal use of lead-based paint on exteriors and interiors of buildings and structures.
- Use of asbestos-containing materials in building construction.
- Transformers in normal use, unless the transformers were observed to be leaking, appear on an environmental regulatory list, or were otherwise determined to pose a hazard not related to normal use.
- Agricultural use of pesticides and herbicides. In addition, most land in Illinois was under agricultural use prior to its conversion to residential, industrial, or commercial development. Pesticides, both regulated and otherwise, may have been used throughout the project area at any time. Unless specifically discussed elsewhere in this report, no information regarding past pesticide use that would be subject to enforcement action was located for this project, and such use is considered a de minimis condition.

The following data gaps exist for all PESAs:

- For residences, only areas visible from public roads are inspected.
- Interiors of buildings are not inspected.
- Interiors of agricultural areas are not inspected during growing seasons.

Radon and biological hazards are not considered in this PESA unless specifically noted.

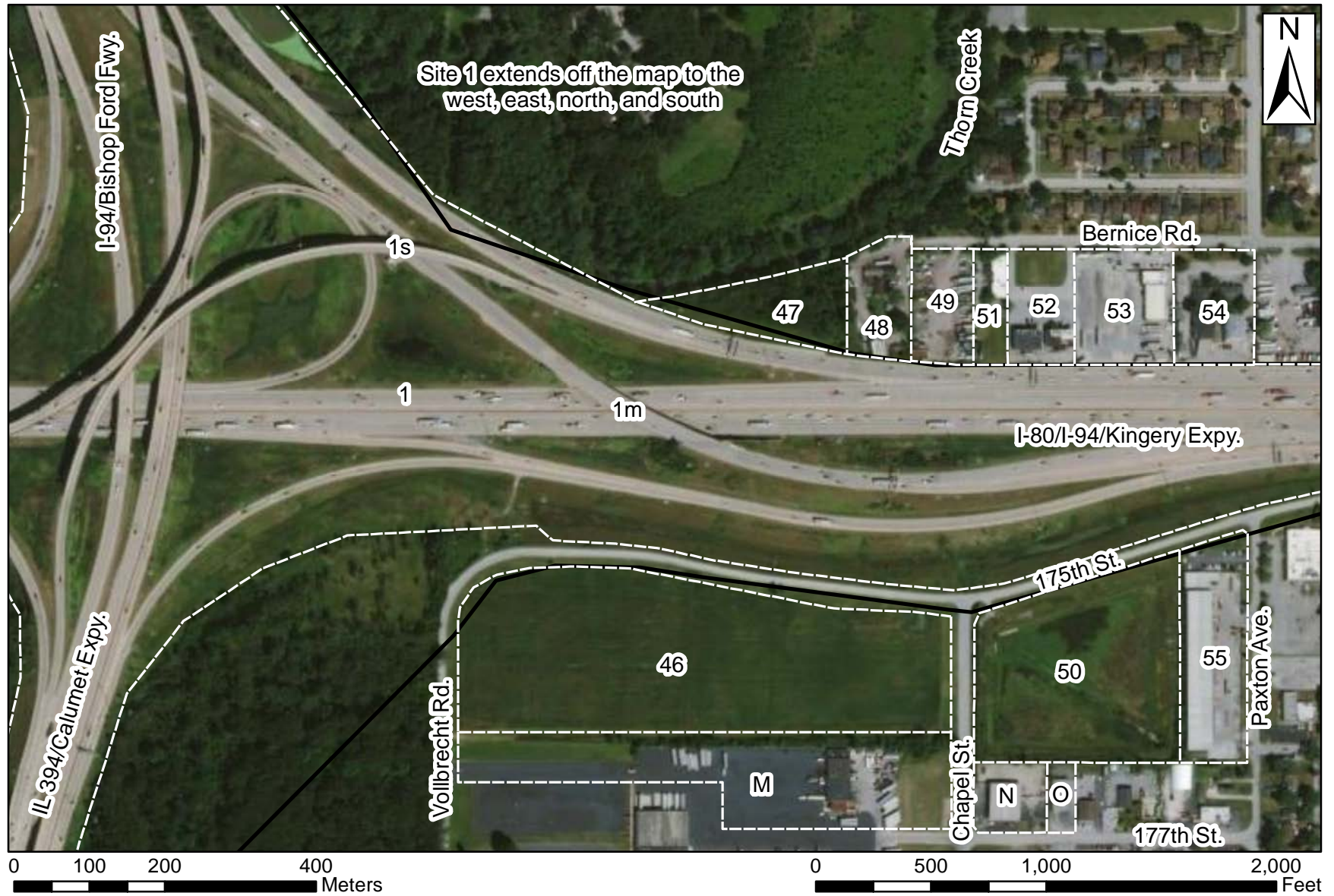
NA = No parcel number was supplied by IDOT for this site.

Although potential natural hazards and undermining, if present, are described in this report, they are not considered as RECs or de minimis conditions for the purposes of this report, and are therefore not listed in the tables above. Wetlands and flooding hazards are not evaluated as part of this report.

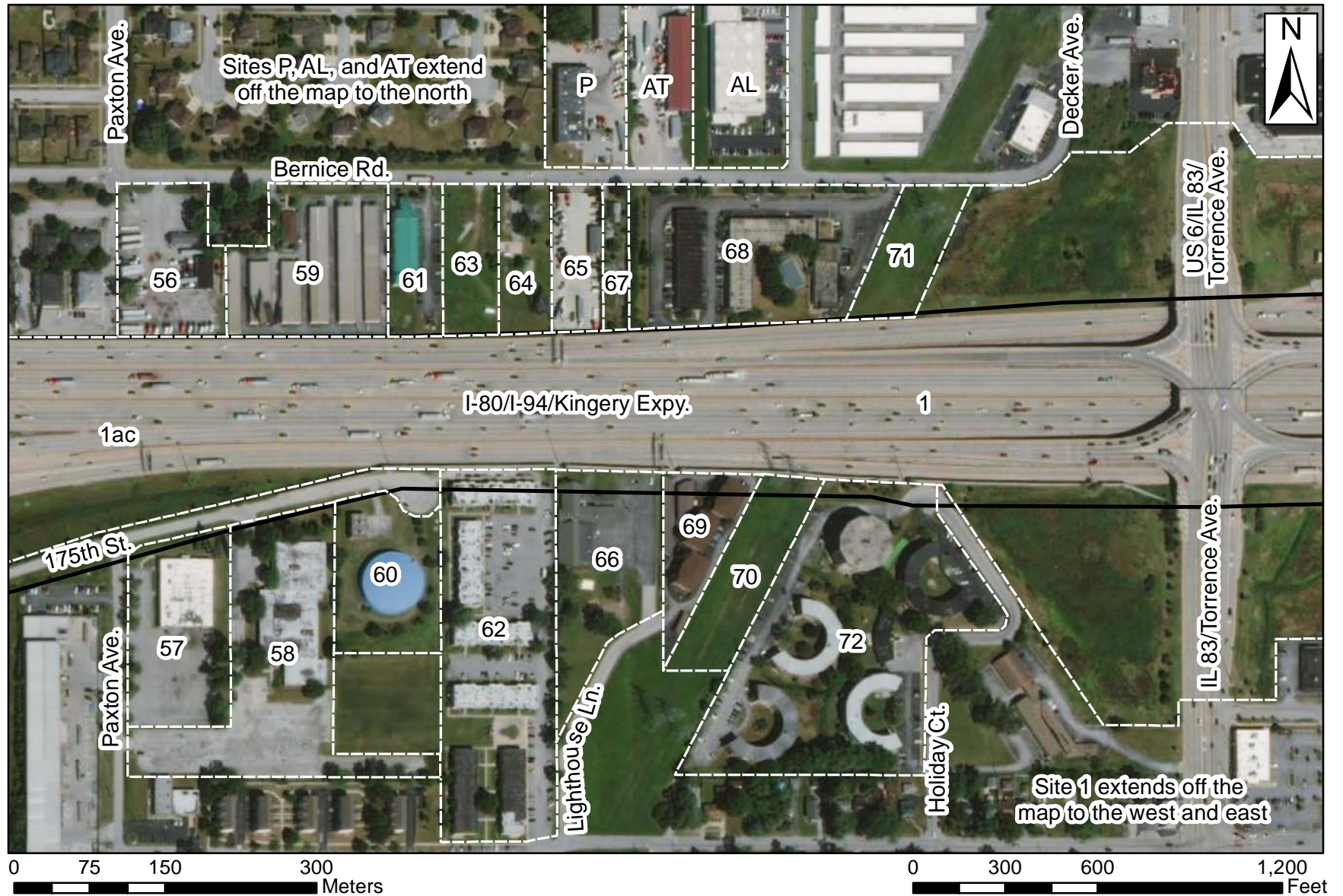
Attachment 2, page 6. Site location map, Sites 4227-1 and 4227-41 through 4227-45.  
All site boundaries are approximate and should not be used as actual parcel boundaries.



Attachment 2, page 7. Site location map, Sites 4227-1 and 4227-46 through 4227-55. All site boundaries are approximate and should not be used as actual parcel boundaries.



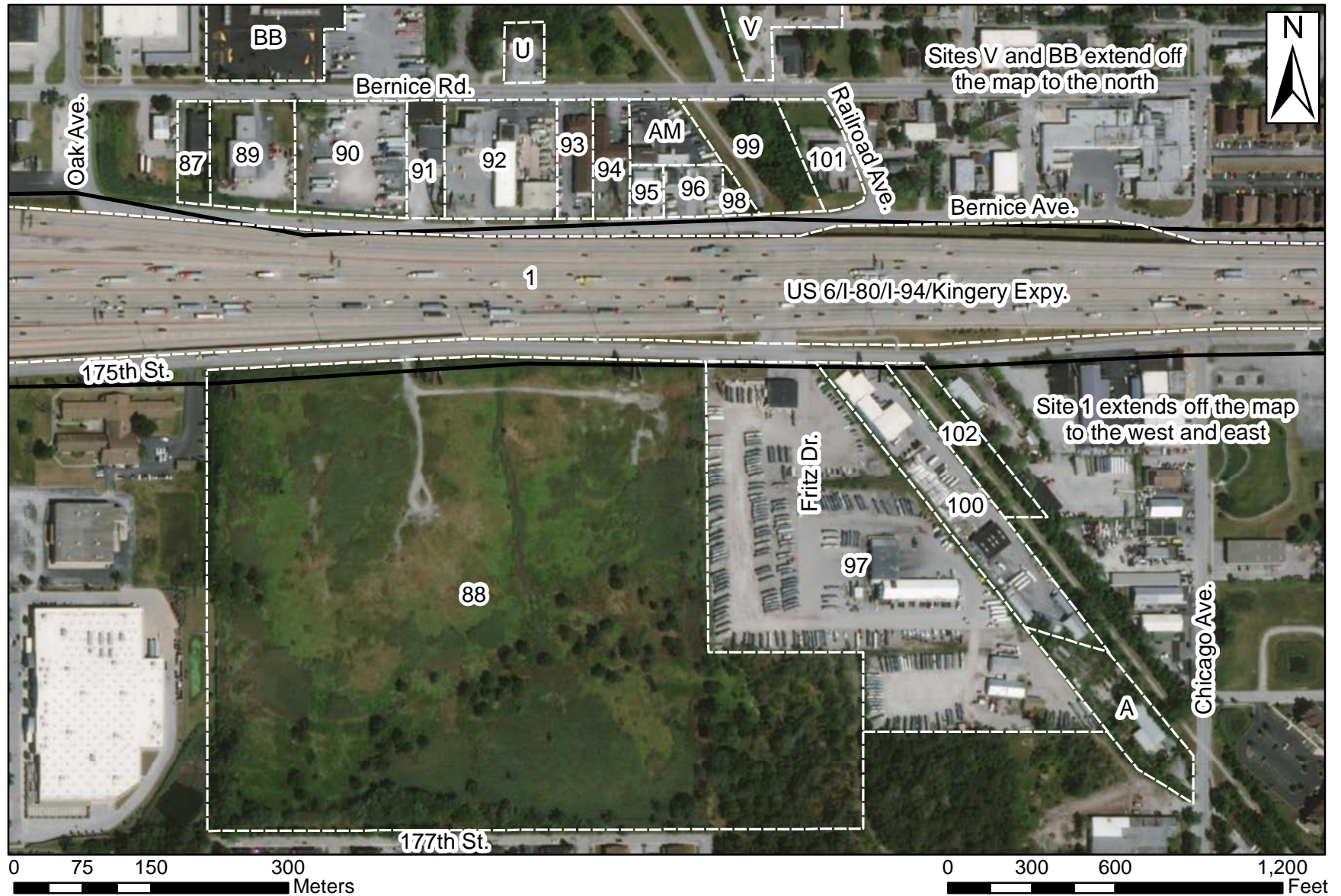
Attachment 2, page 8. Site location map, Sites 4227-1 and 4227-56 through 4227-72.  
All site boundaries are approximate and should not be used as actual parcel boundaries.



Attachment 2, page 9. Site location map, Sites 4227-1 and 4227-73 through 4227-86. All site boundaries are approximate and should not be used as actual parcel boundaries.



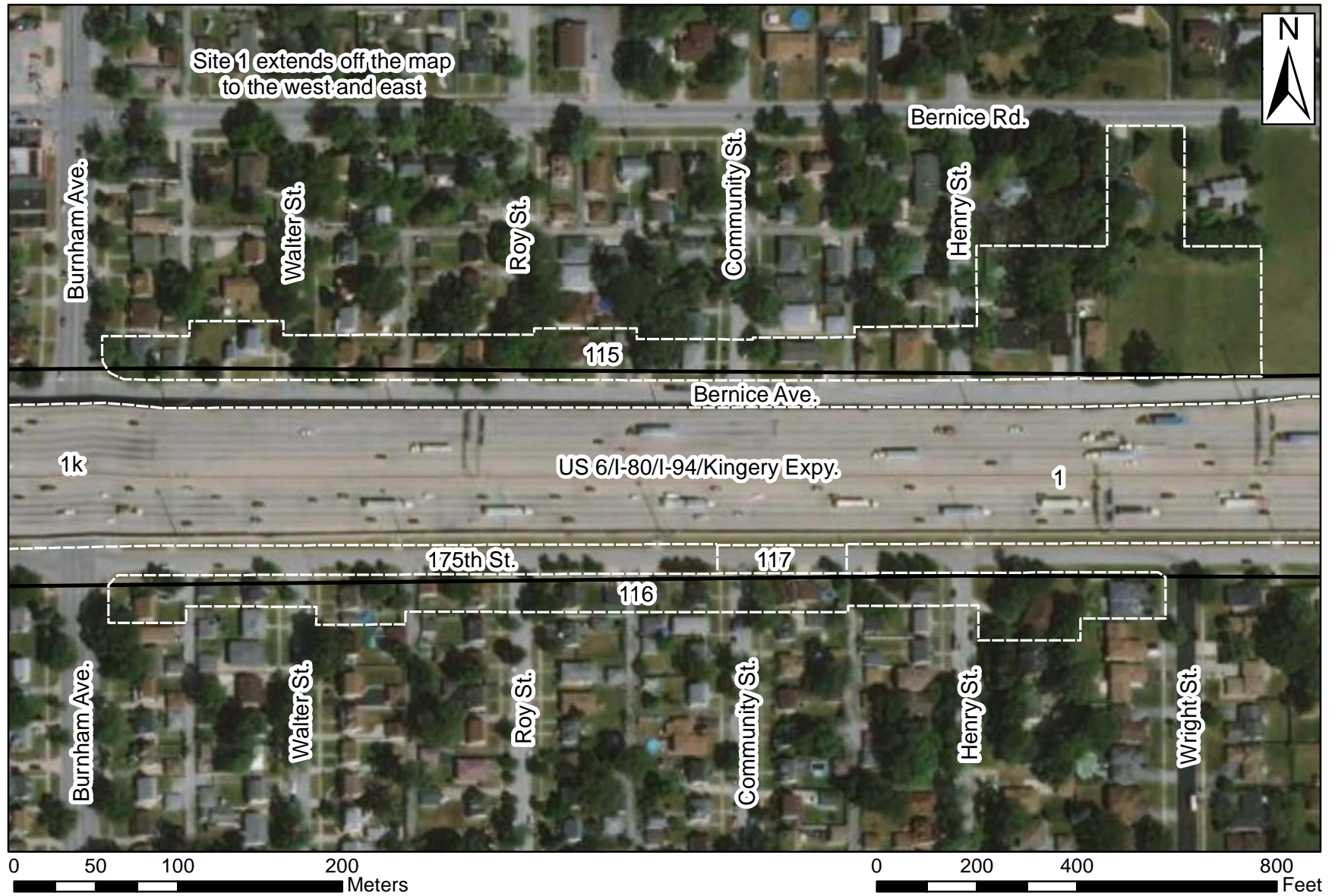
Attachment 2, page 10. Site location map, Sites 4227-1 and 4227-87 through 4227-102.  
All site boundaries are approximate and should not be used as actual parcel boundaries.



Attachment 2, page 11. Site location map, Sites 4227-1 and 4227-103 through 4227-114.  
All site boundaries are approximate and should not be used as actual parcel boundaries.



Attachment 2, page 12. Site location map, Sites 4227-1 and 4227-115 through 4227-117.  
All site boundaries are approximate and should not be used as actual parcel boundaries.



Attachment 2, page 13. Site location map, Sites 4227-1 and 4227-120 through 4227-127.  
All site boundaries are approximate and should not be used as actual parcel boundaries.

