981977

# TRANSPORTATION AND OFF-SITE DISPOSAL PLAN

USS Lead OU1 Modified Zone 1 | East Chicago, Indiana

**Revision 1.0**

**May 2023**

**Prepared for:**
Industrial Development Advantage
of East Chicago, LLC
2105 West 1800 North
Farr West, Utah 84404

**Prepared by:**
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# Contents



# Figures

# 1.0 Introduction

Verdantas LLC (Verdantas) has prepared this Transportation and Off-Site Disposal Plan (TOSD Plan) on behalf of Industrial Development Advantage of East Chicago, LLC (IDA) as a companion document to the November 2022 Remedial Design/Remedial Action (RD/RA) Work Plan. The purpose of this TOSD Plan is to present and describe the procedures for managing waste derived from remedial action (RA) activities within Operable Unit 1 (OU-1) Modified Zone 1 of the former U.S. Smelter and Lead Refinery, Inc. (USS Lead) Superfund Site located in East Chicago, Indiana (the Site). OU1 Modified Zone 1 is defined in Section III of the Administrative Settlement Agreement for Remedial Action by Prospective Purchaser ("Settlement"). For definition purposes throughout this document the term "Site" is used consistent with the definition in the Settlement to solely refer to "Modified Zone 1" in OU1, Figure 1. Figure 2 provides a layout of the subject Property. The RD/RA will be performed in accordance with the Settlement requirements, which incorporates the Record of Decision Amendment (RODA) and the Statement of Work (SOW) signed by U.S. Department of Justice on April 7, 2022. The SOW defines specific response activities and obligations that guide the preparation of this TOSD Plan and the execution of the work as described herein.

In accordance with the RODA and SOW, the former USS Lead facility in East Chicago requires the removal of impacted soil from OU1 Modified Zone 1 to a maximum depth of 12 inches. The soil removal will be conducted by a Remedial Action Contractor selected by IDA based on the RD/RA documents. The RD/RA document will identify the areas and corresponding depths of excavation in each area.

Based on November 2020 Decision Unit (DU) sampling data, 42 of the 55 DUs will be excavated to remove arsenic and/or lead impacted soils to a depth of 12 inches. Soils exceeding the toxicity characteristic leaching procedure (TCLP) regulatory limits for arsenic and/or lead, both 5.0 milligrams per liter (mg/L) will be stabilized in-situ to render the material non-hazardous prior to excavation. The horizontal and vertical limits of removal have been established in the RD/RA documents. IDA's Remedial Action Contractor will provide transportation and off-site disposal of soil to permitted disposal facilities.

## 1.1 Work Plan Organization

This TOSD Plan is organized as follows:

**Section 1.0 - Introduction** provides general information regarding the TOSD Plan.

**Section 2.0 – Waste Transport, Handling and Management** provides information defining the scope of work and entity performing work.

**Section 3.0 – Staging and Transport Routes**.

**Section 4.0 – Certification by Project Coordinator**

# 2.0 Waste Transport, Handling and Management

## 2.1 Overall Site Management

Verdantas will assist IDA with the selection of a remedial contractor who will be responsible for implementing the approved remedial action. Verdantas will provide environmental oversight of the remedial contractor during completion of the approved remedial action within OU1, Modified Zone 1.

## 2.2 Waste Characterization

Waste anticipated to be generated during implementation of the proposed remediation activities at the Site includes lead and arsenic contaminated soils. The types of contaminants present are based on knowledge of historical activities and soil sampling data. Pre-excavation sampling within the 55 DUs has determined that approximately 39,670 cubic yards of the total 71,445 cubic yards of soil to be excavated were characteristically hazardous for lead. Soils that are hazardous will be stabilized using super triple phosphate to render the material non-hazardous. Confirmation sampling of the stabilized soil will be performed during remediation and prior to transportation off-site for disposal.

## 2.3 Estimated Quantity of Waste

Following in-situ stabilization of the characteristically hazardous soils, it is estimated that approximately 71,445 cubic yards (approximately 107,168 tons using a conversation factor of 1.5 tons per cubic yard) of soil will be excavated and transported off-site as non-hazardous soils during remediation activities. The non-hazardous soil will be disposed of at Republic's Newton County Landfill in Brook, Indiana. Newton County landfill is an approved Subtitle D solid waste landfill facility and has been used for the disposal of soil from other zones of the larger USS Lead Site.

## 2.4 Waste Profiling

Additional characterization will be needed for final landfill approval to properly characterize the waste for disposal and obtain approval from the disposal facility. The disposal facility will require characterization of soil for every approximately 1,600 cubic yards (one per decision unit) for laboratory analysis of total arsenic and lead and TCLP arsenic and lead analysis, and pH. The data will be submitted to the disposal facility for their own evaluation. The analytical results along with a completed waste profile form will be submitted to the disposal facility for approval and disposal of waste. Once approval from the disposal facility is obtained, the waste will be eligible for transportation to the disposal facility.

## 2.5 Waste Handling and Management

The remedial contractor will provide transportation of the excavated soils from OU1, Modified Zone 1 to the permitted disposal facility. The trucks will be tarped and follow one of the two the routes (primary and secondary) shown on Figures 2 and 3, respectively.

Trucks will be directly loaded from the active remedial area by the remedial contractor using an excavator or similar equipment. The remedial contractor will be allowed to pull soil within reach

of the excavator so that the trucks may be efficiently direct-loaded. The soil stockpiles will be covered with plastic material when no transportation and disposal is occurring at the site. Trucks will be stationed by the active remedial area while being direct-loaded.

All vehicles and equipment will be cleaned of stray waste prior to leaving the work area. All stray waste material on vehicles, tires, etc., will be brushed off and/or sprayed off with water, if necessary. Care will be taken to avoid soil spillage during loading activities, and if spillage occurs, spilled material will be removed from the street and returned to the active work area. Any streets immediately adjacent to active excavation and loading areas will be cleaned daily using a street sweeper or similar. After loading, dump trucks will be covered with a tarp to prevent soil and/or dust from spilling out of the truck during transport to the disposal facility. Prior to leaving the loading area, each truck will be inspected by on-site personnel to ensure that the loads are adequately covered, the trucks are cleaned of any soil, and the shipment is properly documented.

Water spray or mist, as appropriate, will be applied during loading operations for dust control purposes. The aforementioned street sweeping will also ensure streets and curbs are clean and free of dust and debris.

Transportation routes for trucks transporting excavated waste materials will be on arterial streets and/or freeways approved for truck traffic to minimize any potential impact to the local neighborhood.

Verdantas anticipates that the majority of all traffic entering and exiting the Site will come from the south on East 151st Street to Gladiola Avenue along the east side of the Site. Proposed primary and secondary transportation routes are further described in Section 3.0. Transportation routes will be verified with local officials to prevent conflicts with road construction, weight limits, or other considerations.

## 2.6 Shipment Documentation

### 2.6.1 Non-Hazardous Waste Shipment

A nonhazardous waste shipping manifest or bill of lading will accompany and document each shipment of soils excavated and transported from the Site. The remedial contractor will maintain a copy of all shipping documents at the Site for each truckload until completion of the remedial action.

### 2.6.2 Hazardous Waste Shipment

In-situ stabilization is proposed to render characteristically hazardous soils as non-hazardous prior to shipment off-site for disposal. Generation of hazardous waste is not anticipated. However, in the event, any characteristically hazardous lead and/or arsenic material cannot be stabilized and rendered non-hazardous, a hazardous waste shipping manifest will accompany and document each shipment containing soils profiled as hazardous waste. The remedial contractor will maintain a copy of all shipping documents at the Site for each truckload until completion of the remedial action.

## 2.7 Off-Site Disposal Facilities

### 2.7.1 Non-Hazardous Disposal facility

Non-hazardous lead and arsenic impacted soil will be transported to the following facility for disposal:

Republic Services
Newton County Landfill
2266 E 500 S
Brook, IN 47922
Phone: 394-2808

### 2.7.2 Hazardous Waste Disposal Facility

Lead and/or arsenic impacted soils that are characteristically hazardous due to exceeding their TCLP threshold criteria of 5 milligrams per liter (mg/L) will be stabilized in accordance with the RD/RA documents to render the material non-hazardous. However, in the event, any characteristically hazardous lead and/or arsenic material cannot be stabilized and rendered non-hazardous, the hazardous material will be sent to the following facility for treatment:

US Ecology – Chicago
16435 Center Avenue Harvey, IL 60426-6078
Phone: (708) 596-7040 Fax: (708)596-7045
EPAID# ILD000666206

# 3.0 Staging and Transportation Routes

## 3.1 On-Site Staging Areas

Figure 2 provides a layout of OU1, Modified Zone 1. All of the former homes within OU1, Modified Zone 1 have been demolished. The former roadways have also been removed but the gravel base for each street remains. IDA currently plans to use as much of the former gravel road base as fill in other areas of the Site following excavation. To the extent possible, the former roadbeds will be utilized to stage trucks as closely to the active excavation area as possible. The presence of the trucks within the former streets will not impact any local traffic.

## 3.2 Transportation Routes

The proposed destination for all non-hazardous soils is the Republic Waste System's Newton County Landfill located at 2266 East County Road 500S in Brook, Indiana. The proposed Primary and Secondary Transportation Routes are those used during remedial activities previously completed within OU1, Modified Zone 2. Transportation routes for trucks transporting excavated waste materials will be on arterial streets and/or freeways approved for truck traffic to minimize any potential impact on the local neighborhood. Verdantas anticipates that the majority of all traffic entering and exiting the Site will come from the south on East 151st Street. Transportation routes will be confirmed with input from local officials and the receiving disposal facility, taking into account seasonal traffic conditions and weight restrictions, as necessary.

### 3.2.1 Primary Transportation Route

As shown on Figure 3, the Primary Transportation Route is as follows:

The trucks leaving the Site to the non-hazardous landfill will follow the former Gladiola Street south from the Site to 1.1. and then:

Option A: Trucks will turn right (west) onto E 151st Street for 0.4 miles to Railroad Avenue and then turn left (south) and proceed for 0.2 miles and turn right (west) on W 152nd Street for 0.25 miles, then turn a left (south) on Indianapolis Boulevard for 0.60 miles, then a left (east) onto Carrol Street/Michigan Street for 2.5 miles to Route 912/US 12 South. After turning south onto Indiana Route 912, the trucks will travel approximately 2.3 miles to Interstate I-94 East. After approximately 6.4 miles, the trucks will exit onto southbound Interstate I-65. The trucks will continue southbound on I-65 approximately 38.5 miles to exit 220, Indiana Route 14. The trucks will proceed west on Indiana Route 14 approximately 2.1 miles to Indiana Route 55/County Road 400E and then southbound approximately 6 miles to County Road 500S. After turning west onto County Road 500S, the trucks will proceed approximately 2 miles to the entrance of the Republic Waste facility located on the north side of the road at 2266 E 500 S. The approximately 60-mile trip takes approximately one hour depending on traffic conditions. **(Note this route could encounter railroad traffic near the Indiana Harbor Canal and on West Chicago Avenue near Huish Drive.**

Option B: Trucks will turn right (west) onto E 151st Street for 0.4 miles to Railroad Avenue and turn right (north) and proceed 0.5 miles and turn right onto W Chicago Ave. for 2.2 miles, then turn right onto Cline Ave. for 0.4 miles. The trucks will then merge onto Route 912/US 12 South. After merging onto Route 912/US 12 South, the trucks will travel approximately 3.5 miles to Interstate I-94 East. After approximately 6.4 miles, the trucks will exit onto southbound Interstate I-65. The trucks will continue southbound on I-65 approximately 38.5 miles to exit 220, Indiana Route 14. The trucks

will proceed west on Indiana Route 14 approximately 2.1 miles to Indiana Route 55/County Road 400E and then southbound approximately 6 miles to County Road 500S. After turning west onto County Road 500S, the trucks will proceed approximately 2 miles to the entrance of the Republic Waste facility located on the north side of the road at 2266 E 500 S. The approximately 60-mile trip takes approximately one hour depending on traffic conditions.

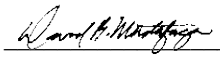
### 3.2.2 Secondary Transportation Route

As shown on Figure 4, the Secondary Transportation Route is as follows **(this route is an option if the primary route is not available)**:

The trucks leaving the Site to the non-hazardous landfill will follow the former Gladiola Street south from the Site to E 151st Street and then proceed west on 151st Street approximately 0.7 miles to southbound U.S. Highway 41/Indianapolis Boulevard. Trucks will proceed approximately 47.7 miles to Indiana Route 114 (County Road 400S). After turning east onto County Road 400S, trucks will proceed approximately 3.9 miles to County Road 150 and turn south. After approximately 1 mile the trucks will turn east onto County Road 500S and proceed approximately 0.8 miles to the entrance of the Republic Waste facility on the north side of the road. The approximately 55-mile trip takes approximately one hour and 20 minutes depending on traffic conditions.

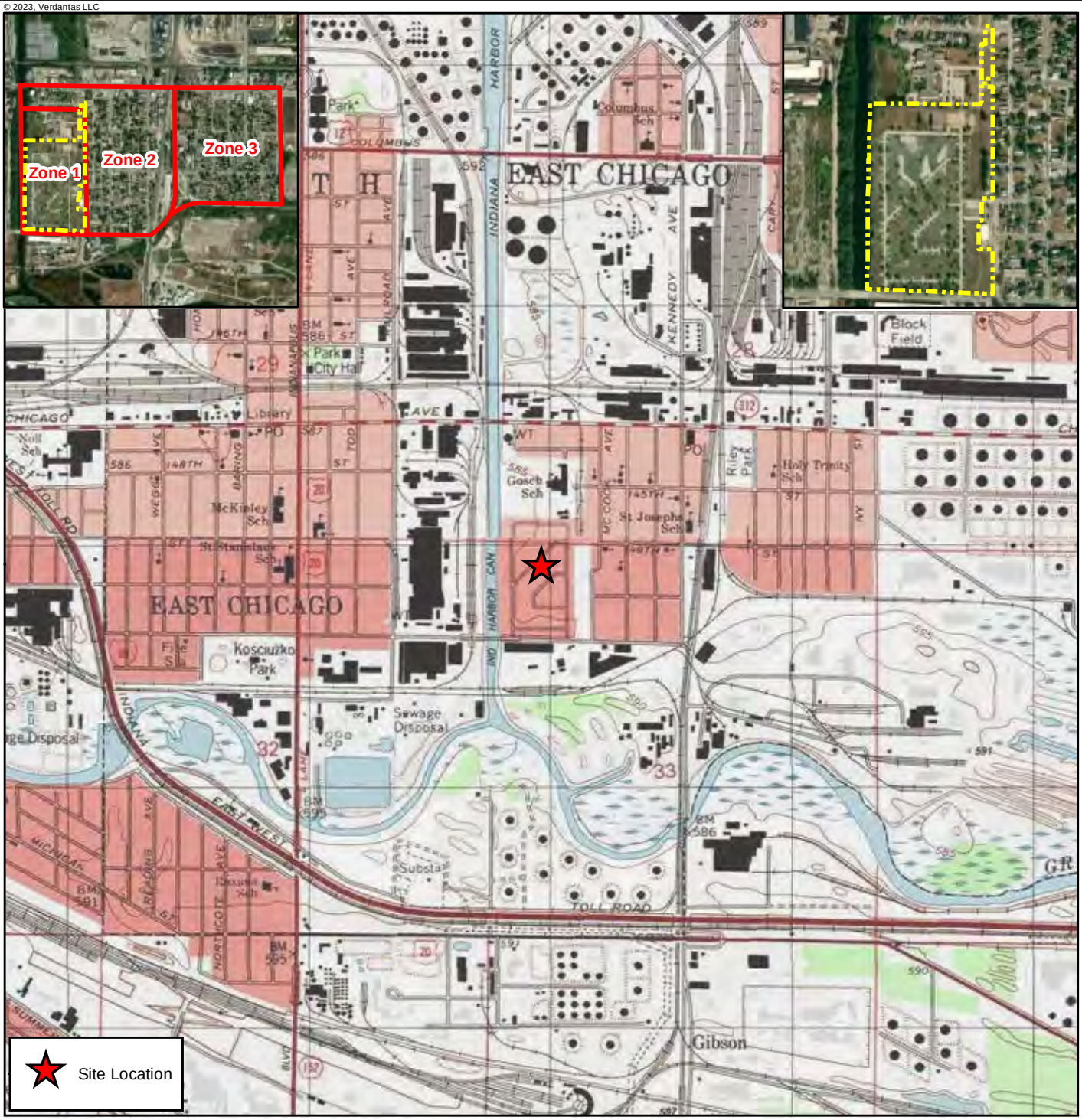
# 4.0 Certification by Project Coordinator

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



David B. Mustafaga, PG, CPG
Project Coordinator

# Figures

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0 1,000 2,000 4,000 Feet

1:24,000

Quadrangles: Whiting and Highland, IN

Source: The topographic map was acquired through the USGS Topographic Map web service.

The aerial photo was acquired through the Esri Imagery Web Service. Aerial photography dated 2020.

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Transportation and Off-Site Disposal Plan
OU1, Modified Zone 1, USS Lead Superfund Site

# Site Location Map

East Chicago, Lake County, Indiana

Date:
May 2023

File Name:
15773_09_Fig01_SLM.mxd

Edited: 2/1/2023 By: kyusuf

Figure
1

Produced Using Esri's ArcGIS Software

0 100 200 400 Feet

1:2,400

Former Goodman Park

Former WCHC Area

OU1MW6

OU1MW13

OU1MW14

OU1MW15

ECHA-MW-35

ECHA-MW-09

ECHA-MW-01

PRIVATE ST

VERNON AV

MUNICIPAL DR

148TH ST

MCCOOK AV

149TH ST

149TH PL

150TH ST

150TH PL

151ST PL

151ST ST

MAGNOLIA ST

LARKSPUR ST

ASTER ST

JONQUIL LN

GLADIOLA ST

Indiana Harbor Canal

**Notes:**
1) The aerial photo was acquired through the Esri Imagery Web Service. Aerial photography dated 2020.
2) Road names in gray have been vacated and removed.

Property Boundary
Parcel
2019 Remediated Soil Area
Existing Monitoring Wells

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Transportation and Off-Site Disposal Plan
OU1, Modified Zone 1, USS Lead Superfund Site

# Site Plan

East Chicago, Lake County, Indiana

Figure 2

Produced Using Esri's ArcGIS Software

File Name: 15773_09_Fig02_SitePlan.mxd

Edited: 2/1/2023 By: kyusuf

0 10,500 21,000 42,000 Feet

1:253,440

**Option B:**
1. Right onto E 151st St. (0.4mi)
2. Right onto Railroad St. (0.5mi)
3. Right onto W Chicago Ave. (2.2mi)
4. Right onto Cline Ave. (0.4mi) to Route 912/US 12 South

**Option A:**
1. Right onto E 151st St. (0.4mi)
2. Left onto Railroad St. (0.2mi)
3. Right onto W 152nd St. (0.25mi)
4. Left onto Indianapolis Blvd. (0.6mi)
5. Left onto Carrol/Michigan St. (2.5mi) to Route 912/US 12 South

Site Location

Republic Services Disposal Facility

Primary Route

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Transportation and Off-Site Disposal Plan
OU1, Modified Zone 1, USS Lead Superfund Site

# Transportation Route - Primary

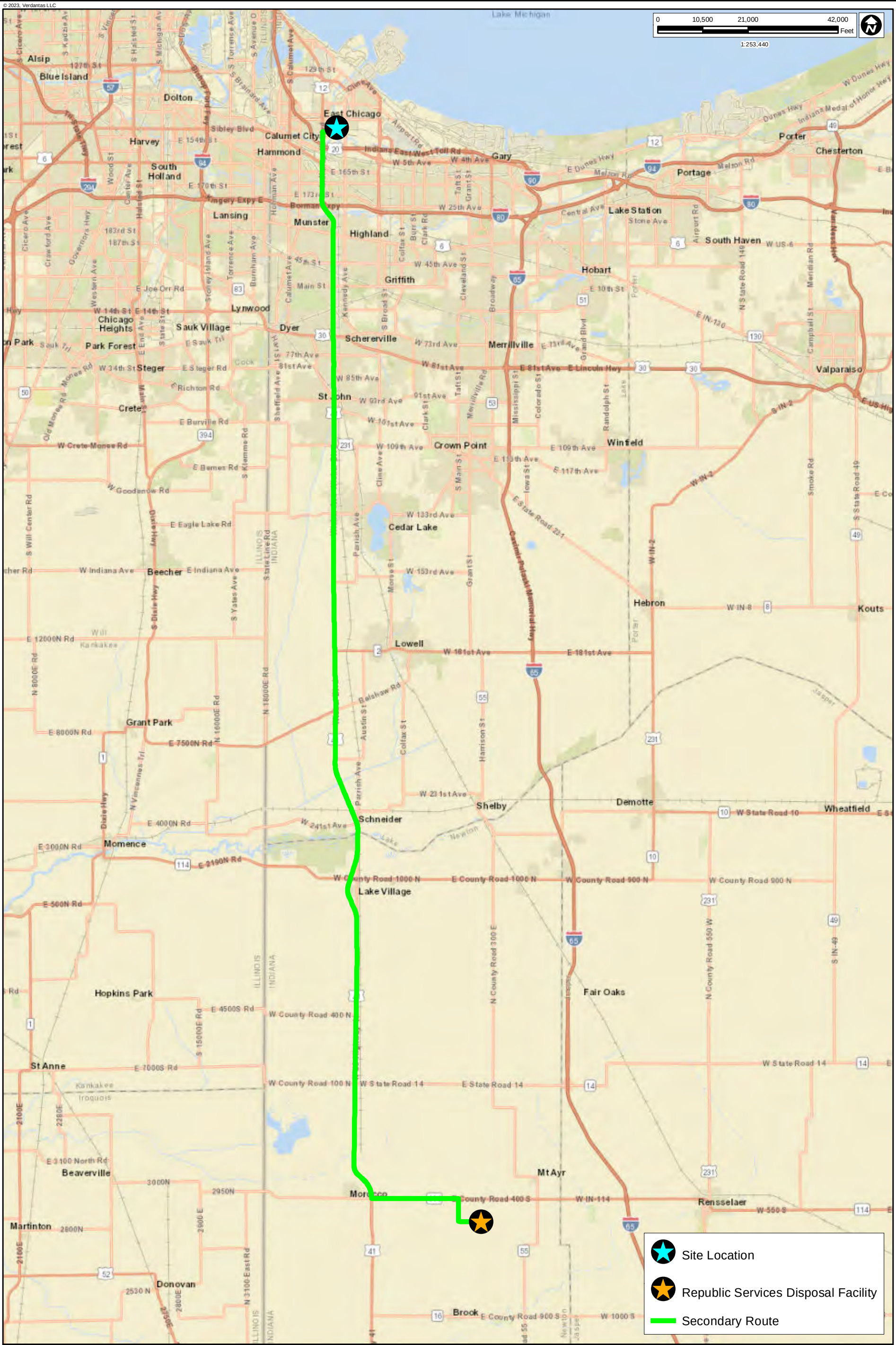
East Chicago, Lake County, Indiana

Figure 3

Produced Using Esri's ArcGIS Software

File Name: 15773_09_Fig03_PrimaryRoute.mxd

Edited: 5/26/2023 By: kyusuf

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OU1, Modified Zone 1, USS Lead Superfund Site

# Transportation Route - Secondary

East Chicago, Lake County, Indiana

Figure 4

Produced Using Esri's ArcGIS Software

File Name: 15773_09_Fig04_SecondaryRoute.mxd

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