



November 13, 2020

US Environmental Protection Agency, Region II  
290 Broadway  
New York, NY 10007-1866

Attn: Ms. Alison Devine, Project Officer

**RE: RLF EPA Cooperative Agreement – BF 62869814**  
Brownfields Cleanup Decision Memorandum  
Dominick Andujar Park  
Erie and Point Streets  
(Block 12, Lots 1, 3-9, 18-21 and Block 14, Lots 29-35 and 37)  
Camden, New Jersey

Dear Ms. Devine:

The Camden Redevelopment Agency (CRA) is pleased to submit this Brownfields Cleanup Decision Memorandum (Decision Memo) to the U.S. Environmental Protection Agency (USEPA), in accordance with the referenced Cooperative Agreement.

This memorandum presents the steps leading to the selection of a remedial approach at the referenced site. The memorandum is organized as follows:

Section 1 – an introduction,

Section 2 - a summary of the Analysis of Brownfields Cleanup Alternatives (ABCA),

Section 3 – a description of the selected remedial approach, and

Section 4 – a demonstration that the selected remedial approach achieves regulatory compliance and attains the cleanup goals.

## **1 INTRODUCTION**

### **1.1 Background**

Dominick Andujar Park is located at the intersection of Erie and Point Streets, comprising approximately 1.5 acres across Block 12, Lots 1, 3-9, 18-21 (the Northern Portion) and Block 14, Lots 29-35 and 37 (the Southern Portion) as described by the City of Camden for tax purposes. The subject site is a park containing a baseball field, basketball court, and play area located in a mixed use industrial and residential portion of North Camden owned by the City of Camden. The various tax parcels that comprise the park formerly operated as several industrial uses including boat building, bottling, and leather tanning, from prior to 1885 until the 1970s on the northern portion, and automotive repair operations from the 1920s until the 1990s on the

southern portions. The area also contains many vacant and blighted brownfield sites, owing to commercial and industrial uses historically located in the community.

The U.S. Environmental Protection Agency (USEPA) has awarded the City of Camden a \$200,000 EPA RLF Subgrant to assist with the environmental remediation of the site. The CRA has entered into an agreement with the USEPA (USEPA Cooperative Agreement No. BF 62869814) which provides the terms and conditions for use of the brownfields cleanup grant funds, including a commitment to provide for community involvement in the site remediation process.

In accordance with those terms and conditions, the City of Camden Redevelopment Agency (CRA) on behalf of the City produced a work plan describing cleanup tasks to be completed, including project deliverables. Project deliverables include the ABCA and this Decision Memo, among other documents. The CRA produced the draft ABCA, dated September 11, 2020 and the final on November 12, 2020, and submitted the document to the USEPA. A summary of the ABCA is presented below, in Section 2.

Based on the analyses provided in the ABCA, including the open public meeting held in November 2020; consultation with the State regulatory authority (NJDEP); and the entirety of the administrative record for the site, the City has selected a remedial approach for the site, as presented in this Decision Memo.

## **2 SUMMARY OF ABCA**

The purpose of the ABCA is to identify, evaluate, and compare the reasonable alternatives for addressing the contamination identified at the Site. The ABCA presents information regarding site description, site environmental conditions, applicable laws and standards, and an evaluation of selected remedial alternatives. These items are summarized in this section.

### **2.1 Site Description**

The various tax parcels that comprise the park formerly operated as several industrial uses including boat building, bottling, and leather tanning, from prior to 1885 until the 1970s on the northern portion, and automotive repair operations from the 1920s until the 1990s on the southern portions. The current remaining four (4) areas of concern include one Regulated Heating Oil UST, historic fill, historic site operations and the former coal yard.

### **2.2 Site Environmental Conditions**

The site is currently an active case with the New Jersey Department of Environmental Protection (NJDEP) Site Remediation Program (SRP) with Program Interest (PI) No. 782823 and has been subject to a Preliminary Assessment (PA) July 2018, which identified 18 AOCs with potential to adversely impact soil and groundwater at the site. A total of 17 of the AOCs required further investigation. A Site Investigation (SI) was completed in August 2019 to investigate the 17 AOCs. The results of studies are summarized in this section.

#### **2.2.1 Preliminary Assessment**

Historic manufacturing and industrial operations began onsite prior to 1874 and continued until 1977. Operations included a tannery, a machine shop, boat building, chain manufacturing, and bottling works. The majority of the industrial operations were located on the northern portion of the site on Block 12, Lot 1. Fire destroyed the Allied Kid Company tannery in the 1970s and the buildings were demolished.

### **2.2.2 Site Investigation (SI)**

A total of 17 of the AOCs required further investigation. A Site Investigation (SI) was completed in August 2019 to investigate the 17 AOCs.

The general subsurface conditions on the northern portion of the site consist of 0.5 feet of topsoil over a layer of ash, brick, timbers, and glass, which extends to a depth of approximately 5 feet below grade. The source of the ash, brick, timber, and glass layer is presumed to be from the former buildings that were onsite. The buildings were demolished, and the debris was buried under a shallow layer of topsoil. The ash, brick, timber, and glass material is being classified as historic fill material. The historic fill material is impacted with lead, mercury, arsenic, dieldrin, beryllium, benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene. Aroclor 1254 (PCB) exceedances were identified in samples collected in the former location of the former tannery. PCBs are considered a contaminant associated with historic fill in the geographic region where Andujar Park is located.

An approximately 10,000-gallon heating oil underground storage tank (UST) is located under the right field portion of the baseball field on Block 12, Lot 1. Stained soils and soils impacted with EPH ranging from 5,740 mg/kg to 28,700 mg/kg were identified adjacent to the UST. Individual contaminants related to the UST release include benzo(a)anthracene, benzo(a)pyrene, benzene, and 2-methylnaphthalene. Removal of the UST and petroleum impacted soils is necessary. A groundwater investigation has also been triggered due to the depth to groundwater at the site being within two (2) vertical feet of petroleum impacted soils.

Elevated levels of hexavalent chromium were detected below the former tannery building. Hexavalent chromium is not typically associated with historic fill in Camden. Hexavalent chromium is a known contaminant from tannery operations. Additional remedial investigation for hexavalent chromium impacts is necessary.

Surficial soils in the area of the former coal storage yard are impacted with lead, mercury, cadmium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene. Previous surficial samples returned elevated levels of dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, arsenic, and PCBs. Additional surficial investigation of soils is necessary.

Additional remedial investigation and remedial action will be required for four (4) of these Areas of Concern (AOCs) on the Northern Portion of the park as discussed below.

- AOC 1: Regulated Heating Oil UST – Soil sampling results and observations from the investigation of AOC 1 indicate that a release of petroleum product has occurred from the UST. EPH concentrations are above the NJDEP 8,000 mg/kg threshold for free product.

Individual contaminants of concern are consistent with petroleum associated with heating oil. It is unknown if the UST contained No. 2 heating oil or heavier petroleum distillates such as No. 4, 5, or 6 heating oils. Removal of the UST has been recommended. EPA subgrant funding will be used to perform the UST closure. A groundwater investigation has also been recommended as petroleum-impacted soils were encountered at the water table; however this will be performed using HDSRF funding.

- AOC 3: Historic Fill or any other Fill Material – Fill material consisting of brick, ash, timbers, and glass was encountered at several locations across the site. The fill material is most likely from the demolition of the former site buildings following a fire in the 1970s and is located below one to two feet of topsoil. The fill material is impacted with polycyclic aromatic hydrocarbons (PAHs) and metals. It has yet to be determined to what degree, if any, EPA subgrant funding will be used to address the historic fill AOC. This AOC will be addressed during Phase II of remediation efforts conducted by Camden County.
- AOC 8: Historic Site Operations – Chromium was detected at 2,230 mg/kg, which prompted analysis for hexavalent and trivalent chrome species. Hexavalent chromium analysis exhibited a result of 28.4 mg/kg, which exceeds the Non-Residential Direct Contact Soil Remediation Standard (NRDCSRS) of 20 mg/kg. Chromium is a known contaminant of concern at tannery remediation sites and not typically considered a contaminant in historic fill material in the City of Camden. EPA subgrant funding may be used for hot spot soil removal/disposal.
- AOC 9: Former Coal Yard – Aluminum, cadmium, mercury, benzo(a)anthracene, and benzo(b)fluoranthene were detected above default Impact to Groundwater Soil Screening Levels (IGWSSL). Dibenz(a,h)anthracene was detected above Residential Direct Contact Soil Remediation Standards (RDCSRS). Lead and Benzo(a)pyrene were both detected above IGWSSL and RDCSRS. EPA subgrant funding may be used for hot spot soil removal/disposal.

### **2.2.3 Ongoing Monitoring**

Following remediation, ongoing operation and maintenance of the engineered soil and vegetated cap conducted as part of a second phase of remediation to be conducted by Camden County will be required. Although limited contamination will still exist, the cap will significantly reduce the potential of human exposure. Future site owners, occupants, and the general public will be provided notice of site environmental conditions by means of the Deed Notice expected to be developed as part of Phase II of remedial activities.

### **2.2.4 Summary of Data**

The Camden Redevelopment Agency has received EPA approval for the use of brownfield Revolving Loan Fund (RLF) monies to extend a subgrant to the City of Camden. All work has been and will continue to be overseen by the LSRP of record for the site. Before any site work can be done the LSRP of record needs to file the PA and SI reports with DEP. However, these reports can't be filed until the EPA subgrant funding can be used to clear up underground storage tank (UST) registration fees and other administrative online filing issues. The Analysis of

Brownfields Cleanup Alternatives (ABCA) and Decision Memo (DM) needs to be in place before Camden Redevelopment Agency can use the EPA funding. This is the reason for submittal of an ABCA / DM prior to the completion (or even the beginning) of the remedial investigation that will further assess four (4) Areas of Concern (AOC) on the Northern Portion of the park.

The Camden Redevelopment Agency has been approved for HDSRF funding for the additional remedial investigation work and does not believe that the additional assessment will impact remedy selection. The remediation of the Northern Portion of the site will be done in two phases: in Phase I, EPA subgrant funds will be used to remediate known soil hot spots and the UST. In Phase II, Camden County will be addressing the historic fill AOC. It is anticipated that Phase II will NOT be using EPA subgrant funding. Delineated subsurface media shall be addressed by excavation and disposal. This approach will allow for eventual restricted use of the site using NJDEP Presumptive and Alternative Remedy Technical Guidance.

No further action (site closure) with unrestricted use has been recommended for the Southern Portion of the park. EPA subgrant funds will be used to develop the Response Action Outcome document for the Southern Portion of the site.

### **2.3 Applicable Laws and Cleanup Standards**

All site remediation to be performed under this grant would be conducted in accordance with the New Jersey Site Remediation Reform Act, N.J.S.A. 58:10C-1 et seq.; the Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12 and implementing regulations in the Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C; and the Technical Requirements for Site Remediation, N.J.A.C. 7:26E. The most current versions of the NJDEP Technical Guidance documents will be referenced, including:

- Soil SI/RI/RA
- Ground Water SI/RI/RA
- Capping of Sites Undergoing Remediation
- Presumptive and Alternative Remedy Technical Guidance

The reference remediation standards for soil will be NJDEP's published numeric values for Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS), NJDEP's Residential Direct Contact Soil Remediation Standards (RDCSRS), and Impact to Groundwater Soil Remediation Standard (IGWSRS).

If warranted upon completion of the additional assessment work, the reference remediation standards for groundwater will be the current version of Class II-A Groundwater Quality Criteria (GWQC) published in Groundwater Quality Standards (N.J.A.C 7:9C).

The effective implementation of the applicable laws and guidance will be managed and overseen by a Licensed Site Remediation Professional (LSRP) to be retained for the site. Any Response Action Outcome (RAO, i.e., NFA-equivalent) for the site will be issued by the LSRP. Project

reports, RAOs, etc. will be submitted on behalf of the City to the NJDEP, which retains the authority to audit the project and/or review and potentially reject any documents submitted.

The expected outcome of the Northern Portion of the site is Restricted Use, while the Southern Portion of the site will be Unrestricted Use as the LSRP has determined that no active remediation activities are required on the Southern Portion.

#### **2.4 Analysis of Cleanup Alternatives**

The ABCA presents an evaluation of several potential cleanup scenarios for the site. The following evaluation criteria were considered in comparing the remedial alternatives:

- Effectiveness in providing compliance with NJDEP regulations and increased protectiveness to public health and the environment;
- Implementability of the considered alternative; and
- Cost of the considered alternative.

Based on these criteria and giving consideration to site characteristics, surrounding environment, land-use restrictions, potential future uses, and cleanup goals, the City selected UST Removal and Targeted Remediation with Engineered Cap as the preferred remedial approach. The preferred remedial approach is described in Section 3 of this Decision Memo.

Subsequent to the publication of a Draft ABCA, the City solicited and received public comment (as documented in the Final ABCA). A summary of the public comments received is appended to the Final ABCA document. No public comments expressed objection to, or disagreement with, the preferred remedial action.

### **3 SELECTED ENVIRONMENTAL CLEANUP PLAN**

#### **3.1 Remedial Approach: UST Removal with Hot Spot Soil Removal (Northern Portion)**

Prior to refurbishing the Northern Portion of the park, the City must perform a Remedial Investigation of four (4) Areas of Concern (AOCs) and then remediate observed soil and groundwater contamination. The work is being streamlined with assessment and remediation performed in parallel. The remedial investigation will delineate the hot spot soil areas and historic fill as well as assess the groundwater likely impacted from the leaking UST. HDSRF funding will be used for all further assessment and investigative work.

Under this alternative, the remedial action will include registering the UST for closure; removal of the UST; and remediation of petroleum impacted and other contaminated soils on the Northern Portion (approximately 0.81 acres with ballfield and former foundations).

Remediation is going to be taking place in two phases. EPA grant funds will be used for the Phase I, which is anticipated to consist of hot spot soil removal and UST removal.

Phase II of remediation will involve emplacement of the cap to address historic fill in the Northern Portion of the site. This is being done in conjunction with the ballfield improvements at a later date. Camden County will be performing the capping work and use of EPA funding for this effort is not currently planned. This second, future phase of remediation will include an Engineering Control, recording of a deed notice. A virtual groundwater classification exemption area (CEA) as Institutional Controls may be conducted under either phase of remediation (to be determined).

This combination of remedies will prevent exposure to residual site contaminants. Further details of the remediation plan would include:

- The UST shall be removed from the excavation following cleaning activities. The UST shall be made unusable by cutting a hole through the metal top and hauled to a scrap facility for recycling.
- Approximately 350 tons of petroleum impacted soil will be removed and disposed of off-site and will include vacuuming and disposal of 3,000 gallons of oil, sludge and water from the tank interior.
- An unknown quantity of PCB and Hexavalent Chromium contaminated soil will be removed and disposed of off-site. This hot spot soil removal will address contaminated soil that needs to be addressed separately from the historic fill material.
- Groundwater encountered during tank and soil removal will be pumped from the excavation cavity to an onsite holding tank for characterization analysis and disposal off-site.
- Excavated soils will be sampled and characterized in accordance with the requirements of the designated disposal facility. The tasks will also include post-excavation sampling and analysis, and the emplacement of clean backfill.
- Restore site with topsoil and seed.
- In addition, an indefinite duration groundwater Classification Exception Area (CEA) may be established to prohibit groundwater use on the site (to be determined).

Selection of this alternative will result, upon completion of the Phase II remediation activities, in restricted future use of the site.

### **3.2 Selection Rationale**

This approach complies with restricted-use remediation standards and achieves project remediation goals by:

- Achieving compliance with the NJDEP Rules.
- Significantly reducing the potential for human exposure to residual site soil contaminants.

## **4 Regulatory Compliance and Achievement of Cleanup Goals**

### **4.1 Regulatory Framework**

The site will be remediated under the oversight of the New Jersey Department of Environmental Protection (NJDEP), the state environmental authority, as per regulations as set forth in the Technical Requirements for Site Remediation (TRSR) N.J.A.C. 7:26E.

The reference remediation standards for soil will be NJDEP's published numeric values for Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS), NJDEP's Residential Direct Contact Soil Remediation Standards (RDCSRS), and Impact to Groundwater Soil Remediation Standard (IGWSRS).

If groundwater contamination is to be addressed, the reference remediation standards for groundwater will be the current version of Class II-A Groundwater Quality Criteria (GWQC) published in Groundwater Quality Standards (N.J.A.C 7:9C).

The effective implementation of the applicable laws and guidance will be managed and overseen by the Licensed Site Remediation Professional (LSRP) currently retained for the site. Any Response Action Outcome (RAO, i.e., NFA-equivalent) for the site will be issued by the LSRP. Project reports, RAOs, etc. will be submitted on behalf of the City to the NJDEP, which retains the authority to audit the project and/or review and potentially reject any documents submitted.

The objective of the site remediation activities is to have an AOC specific RAO issued by the LSRP.

#### **4.2 Achievement of Cleanup Goals**

It is expected that UST closure, removal of contaminated soil, abandonment of the monitoring wells, and capping the site will result in the site meeting restricted use standards and allow for refurbishment of the property and re-opening of this portion of the park.

#### **4.3 Limitations**

Following remediation, limited contamination will still exist, though the cap and CEA will significantly reduce the potential for human exposure. Future site owners, occupants, and the general public will be provided notice of site environmental conditions by means of the Deed Notice.

### **5 Closing**

This Decision Memo was prepared with the assistance of the City's technical consultant, Brownfield Redevelopment Solutions, Inc. (BRS). Please contact the BRS project managers listed below, or the undersigned, with any questions regarding this document.

BRS Project contacts:

Alicia Flammia  
AFlammia@brsinc.com  
(856) 964-6456

Michele Christina, Principal  
Michele@brsinc.com  
(856) 964-6456

Sincerely,

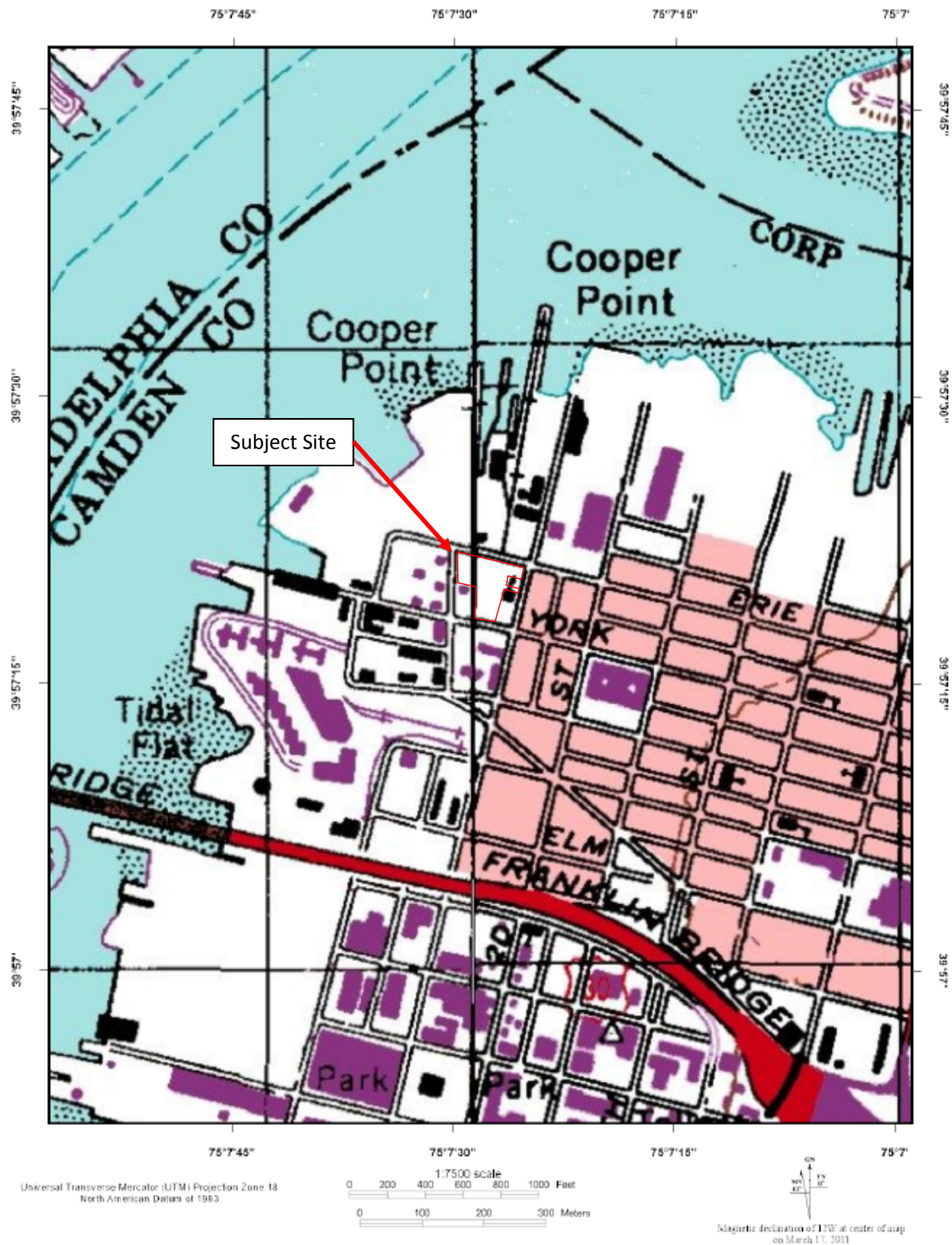
Olivette Simpson,  
Interim Executive Director, Camden Redevelopment Agency



Attachment

cc: Michele Christina, BRS  
Alicia Flammia, BRS  
Jennifer Taylor, BRS  
Katie-Rose Imbriano, BRS

**Attachment A – Site Location Map**



**Figure 1.0:**

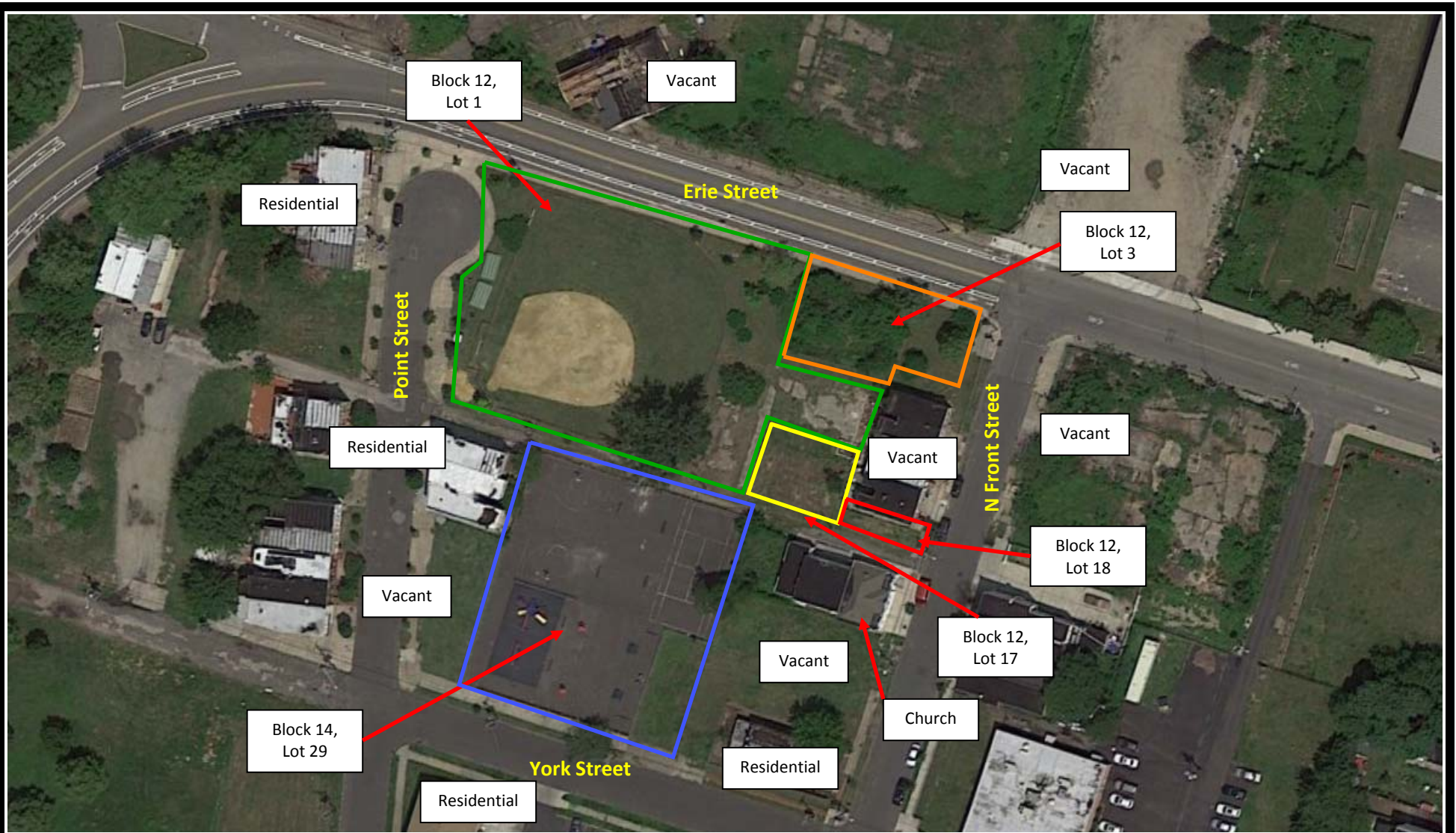
**Regional Site Location Map**

Andujar Park  
Erie and Point Street  
Block 12, Lots 1, 3, 17 & 18  
Block 14, Lot 29  
Camden, Camden County, New Jersey 08102



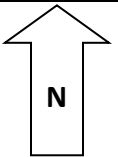
**TTI Environmental, Inc.**  
[www.ttienv.com](http://www.ttienv.com)

SCALE As Shown	DRAWN BY USGS	DATE 6/2018
PROJECT 18-360	APP'D BY DD	DRAWING NO. 1.0



**Figure 2.0:**  
**Site Diagram**

Andujar Park  
 Erie and Point Street  
 Block 12, Lots 1, 3, 17 & 18  
 Block 14, Lot 29  
 Camden, Camden County, New Jersey 08102



**TTI Environmental, Inc.**  
[www.ttienv.com](http://www.ttienv.com)

SCALE	As Shown
PROJECT	18-360

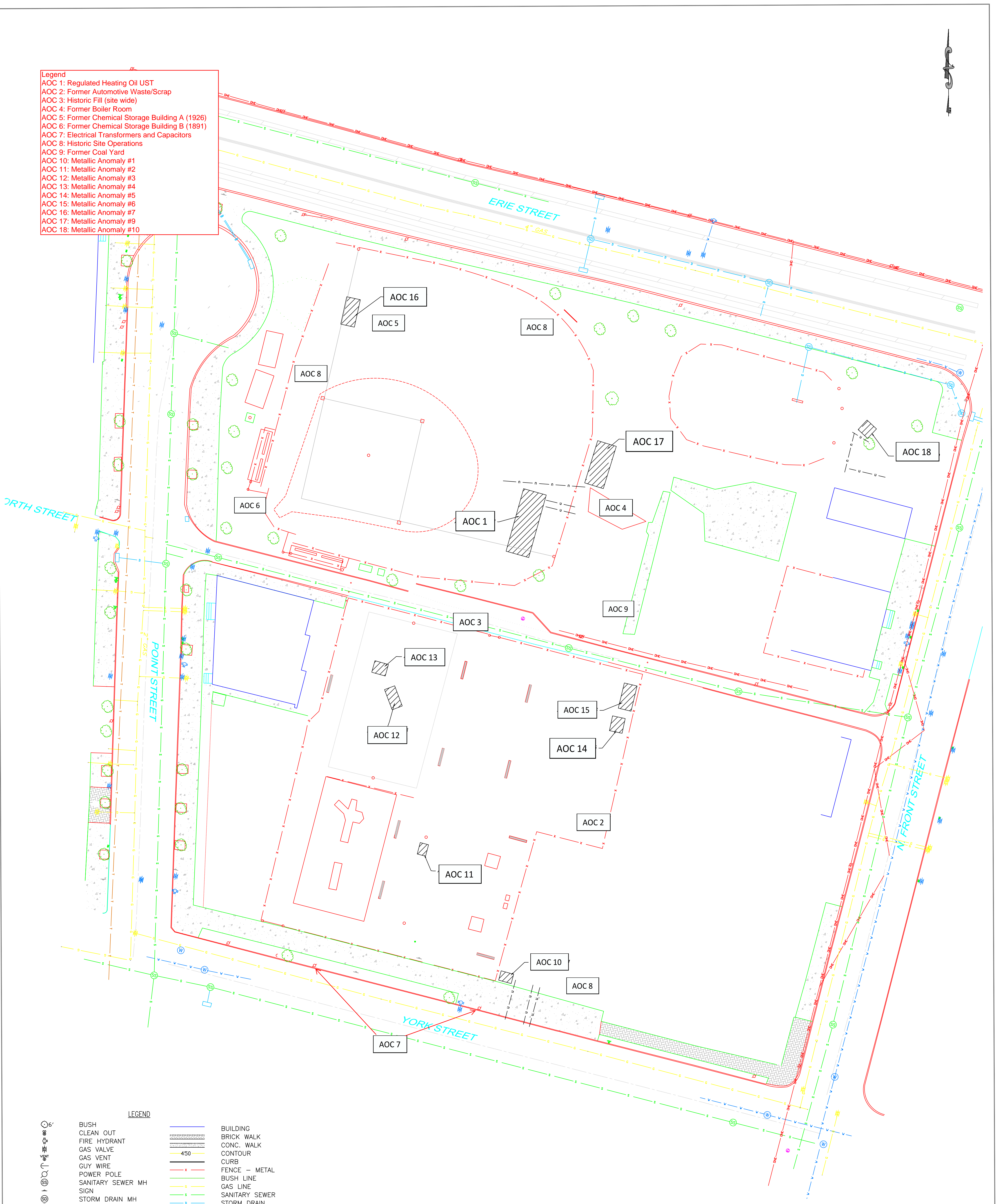
DRAWN BY	DD
APP'D BY	DD

DATE	6/2018
DRAWING NO.	2.0





- Legend**
- AOC 1: Regulated Heating Oil UST
  - AOC 2: Former Automotive Waste/Scrap
  - AOC 3: Historic Fill (site wide)
  - AOC 4: Former Boiler Room
  - AOC 5: Former Chemical Storage Building A (1926)
  - AOC 6: Former Chemical Storage Building B (1891)
  - AOC 7: Electrical Transformers and Capacitors
  - AOC 8: Historic Site Operations
  - AOC 9: Former Coal Yard
  - AOC 10: Metallic Anomaly #1
  - AOC 11: Metallic Anomaly #2
  - AOC 12: Metallic Anomaly #3
  - AOC 13: Metallic Anomaly #4
  - AOC 14: Metallic Anomaly #5
  - AOC 15: Metallic Anomaly #6
  - AOC 16: Metallic Anomaly #7
  - AOC 17: Metallic Anomaly #9
  - AOC 18: Metallic Anomaly #10

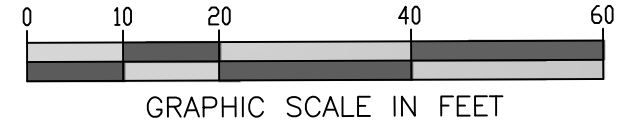


**LEGEND**

- |                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li> BUSH</li> <li> CLEAN OUT</li> <li> FIRE HYDRANT</li> <li> GAS VALVE</li> <li> GAS VENT</li> <li> GUY WIRE</li> <li> POWER POLE</li> <li> SANITARY SEWER MH</li> <li> SIGN</li> <li> STORM DRAIN MH</li> <li> TELEPHONE MH</li> <li> TRAVERSE</li> <li> TREE</li> <li> UNKNOWN MANHOLE</li> <li> WATER MANHOLE</li> <li> WATER VALVE</li> </ul> | <ul style="list-style-type: none"> <li> BUILDING</li> <li> BRICK WALK</li> <li> CONC. WALK</li> <li> CONTOUR</li> <li> CURB</li> <li> FENCE - METAL</li> <li> BUSH LINE</li> <li> GAS LINE</li> <li> SANITARY SEWER</li> <li> STORM DRAIN</li> <li> TELEPHONE LINE</li> <li> WATER LINE</li> <li> UNKNOWN UTILITY</li> </ul> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
- BC - BOTTOM OF CURB  
 EP - EDGE OF PAVEMENT  
 CONC - CONCRETE  
 INV - INVERT  
 PVMT. - PAVEMENT  
 TC - TOP OF CURB

NOTES

This site plan was prepared from data furnished by approved GPS measurements collected in the field. Due to the above, accuracy is not guaranteed. The accuracy of the information is not warranted. The user of this information is advised that the information is not to be used for any purpose other than that intended. The user of this information is advised that the information is not to be used for any purpose other than that intended. The user of this information is advised that the information is not to be used for any purpose other than that intended.



PROJECT NO.	
SHEET NO.	1 OF 1
DRAWING NO.	052918
SCALE	1" = 20'
DATE	05-28-18
DESIGNED BY	
DRAWN BY	
CHECKED BY	
DATE	

**GEOPHYSICAL INVESTIGATION**  
**ANDUJAR PARK, NORTH STREET AND FRONT STREET, CAMDEN, NJ**  
 FOR  
**TTI ENVIRONMENTAL, INC.**

**DELTA Geophysics Inc.**  
 738 Front Street, Calasauqua, PA 18032  
 Phone: (610) 231-73012

DATE	DESCRIPTION	REV.