



**CULTURAL RESOURCE MONITORING PLAN
GOWANUS CANAL SUPERFUND SITE
BROOKLYN, NEW YORK**

PREPARED FOR:

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AND

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APPENDIX A APE Map Book

1.0 INTRODUCTION

The United States Environmental Protection Agency (USEPA) issued a Record of Decision (ROD) for the Gowanus Canal Superfund Site in September 2013. The project site is located in Brooklyn, New York (Site) as shown on the Area of Potential Effect (APE) map books (Appendix A). This Cultural Resources Monitoring Plan will outline the basic protocol to be implemented for cultural resources encountered or anticipated during debris removal, dredging, and excavation activities related to the remediation efforts at the Site. The basic protocol may need to be expanded or modified depending on the specific locations, activities or conditions encountered during the implementation of the monitoring plan. This and any site-specific protocols will need to be reviewed and approved by the USEPA and the New York State Office of Parks Recreation and Historic Preservation (OPRHP aka SHPO) prior to implementation.

All work will be conducted in accordance the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, New York State Historic Preservation Act of 1980, section 14.09, Guidelines for the use of Archaeological Monitoring as an Alternative to Other Field Techniques* (adopted by the New York Archaeological Council (2002)) and *Landmarks Preservation Commission Guidelines for Archaeological Work in New York City* (2002). Qualified Archaeologists who meet or exceed the *Secretary of the Interiors (SOI) Professional Qualifications Standards* published in the Code of Federal Regulations, 36 CFR Part 61 will conduct the archaeological monitoring. This plan addresses project planning, cultural resource monitoring, methodology for monitoring, treatment of artifacts, reporting and curation.

Activities that could require monitoring are those with the potential to impact soils or structures located along the water ward side of the Gowanus Canal, the first 10 feet on the landward side of the bulkhead walls of properties included in the APE and potential staging areas for heavy equipment and/or soil stockpiles. This monitoring plan sets forth a general protocol. The plan may need to be altered or refined for activities in specific areas or activities not anticipated under this plan. Site-specific monitoring plans may need to be created based on this plan. In addition, a debris removal pilot study is planned for Turning Basin 4 of the Gowanus Canal. This plan may be updated to reflect lessons learned during the pilot study.

1.1 Project Description

The Gowanus Canal remediation involves three major strategies: 1) dredging, capping, and treatment/disposal, 2) source control, and 3) institutional controls. This includes the following activities:

- Dredging of accumulated sediments and capping of soft sediment columns;
- Off-site thermal treatment of dredged nonaqueous phase liquid (NAPL)-impacted sediments in the canal and existing turning basins;
- In-situ stabilization of native sediments with high levels of NAPL;
- Excavation and restoration of a portion of the filled-in former 1st Street and a portion of the 5th Street turning basin beginning underneath the 3rd Avenue bridge;
- Stabilization of sediments not impacted by NAPL with the potential for reuse off-Site; and,

- Institutional controls of combined sewer overflow (CSO) solids through the use of CSO retention tanks.

Remediation efforts within the APE with the potential to affect cultural resources are subject to archaeological monitoring. The goal of monitoring is to avoid or mitigate effects to cultural resources within the APE, described in the section below. It should be noted that some elements related to the Gowanus Canal remediation are not included in this effort. For example, restoration of Turning Basin 1 and installation of combined sewage overflow retention tanks are the responsibility of New York City and thus are not considered in the APE.

1.2 Area of Potential Effect (APE)

The APE includes any location where project-related activities are anticipated to be conducted. Areas of known cultural resources are depicted on the APE 1:120 scale map books for reference (Appendix A) and are discussed in Section 1.2. Some known cultural resources, including prehistoric sensitivity areas, colonial farmsteads and potential burials grounds, are located outside of the current APE and are depicted for planning purposes as the project progresses. Additional previously unidentified cultural resources may be encountered during the project. A professional archaeologist will review any potential cultural resource encountered during the project in order to determine if it qualifies as a cultural resource. As the project progresses, the current APE may need to be adjusted in areas where bulkheads are replaced and tieback anchors are installed or to achieve other unforeseen project needs.

Monitoring will be conducted within the APE on one of two levels as described in Section 2 of this plan. Archaeological monitoring potentially includes any sonar contacts that could be potential cultural resources on the water ward side, the bulkheads and the first 10 feet on the landward side of the bulkhead walls included in the APE or any equipment or supply staging areas not previously reviewed for cultural resources. Additionally, any excavation activities (e.g. trenching) used to mitigate possible adverse effects to known historic properties may also require monitoring.

1.3 Anticipated Cultural Resources

Several previous cultural resource studies have been conducted on the Gowanus Canal. They are the *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal* by Hunter Research, Raber Associates and Northern Ecological Associates, Inc. (Hunter Research et al, 2004), which defined the extents of the potential historic district that was determined eligible for the National Register of Historic Places (NRHP) by the State Historic Preservation Office (SHPO) in 2006. The *Gowanus Canal Preliminary Bulkhead Study* (McVarish, 2010) and *Side Scan Sonar Report* (Cox, 2010) identified possible historic bulkheads and submerged cultural resources in the canal. The *Archaeological Sensitivity Study; Gowanus Canal* (Lee et al, 2011) identified areas of archaeological sensitivity for the canal and adjacent areas.

A review and analysis of these reports identified the following known and potential cultural resources in the Area of Potential Effect (APE):

- The Gowanus Canal Historic District Boundary, which contains a list of contributing buildings and structures;
- Areas of Prehistoric Sensitivity – where prehistoric (Native American) artifacts and/or features could exist;
- Areas of Historic Mill Complexes consisting of minimally a mill building, water wheel and water race, but also might have multiple mills, a dwelling, outbuildings, wells and privies in the area;
- Locations of Colonial Farmsteads – mapped or recorded by other documentary means these locations could contain building foundations, wells, cisterns and privies, similar to those located at the mill complexes;
- Potential Burial Grounds – most likely historic and associated with the historic farmsteads, mill complexes or soldiers from Stirling’s and/or Sullivan’s retreat during the Revolutionary War; and,
- Stirling’s and Sullivan’s Avenue of Retreat during the Revolutionary War – these areas represent the path taken by retreating American soldiers under the command of Generals Stirling and Sullivan. Since the retreats were not organized, many historic artifacts (weapons, utensils, coins, buckles, buttons, saddles, etc.) and/or archaeological sites (hearths, burials, privies, etc.) from the retreating army may exist in these areas.

These known and potential cultural resources are depicted on APE map books (Appendix A) prepared for the project (AHRs 2016). Some of the known cultural resources, including the areas of prehistoric sensitivity, locations of colonial farmsteads and potential burial grounds, are outside of the current APE. There are no anticipated impacts to these areas, and they are depicted for project planning purposes only. Additional previously unidentified cultural resources may be encountered during the project. Any potential cultural resource encountered during the project will be reviewed by a professional archaeologist to determine if it qualifies as a cultural resource or not. Any debris removal, excavation or staging activities in or adjacent to these known or potential resources will be archaeologically monitored as needed.

1.4 Project Planning

Archaeological monitoring of debris removal/excavation requires careful and considered project planning. Monitoring may need to be conducted on both land and on water for submerged resources. This planning will include the methodology for cultural resource monitoring, the final reporting and the planning for the curation of artifacts, all of which will need to be performed prior to the start of debris removal/excavation.

Contingencies will be provided for unanticipated discoveries. If significant historic features, prehistoric and historic artifacts or prehistoric and historic artifact concentrations are present, we recommend consulting with USEPA, SHPO, National Grid and Geosyntec to determine the best way to proceed.

1.5 Contacts

The AHRS archaeological team will meet with the USEPA, SHPO, National Grid, Geosyntec and the excavation contractor, prior to the start of debris removal/excavation work to review the archaeological monitoring procedures. While on site Geosyntec and the excavation contractor will be verbally informed of the monitoring work and observations on a daily basis. Following is the list of Parties/Agencies involved and their contact information.

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TBD

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2.0 CULTURAL RESOURCE MONITORING

During cultural resource monitoring, historic properties will be avoided to the greatest extent possible. Historic properties are defined as districts, sites (including archaeological sites), buildings, structures and objects that are eligible for listing or listed in the National Register of Historic Places. Following the conditions set forth below, should minimize adverse effects to historic properties.

2.1 Levels of Monitoring

Potential cultural resources can be prehistoric (stone tools, pottery, animal remains, fire cracked rock, etc.) or historic (stone or brick foundations, structures, metal tools, weapons (bayonets, pistols, swords, rifles), ceramics (plates, cups, jars), glass bottles and jars, leather products (shoes, jackets, saddles), kitchen implements, building materials, etc.) The archaeological monitoring of all debris and sediment removal, both on land and in the water, shall be carried-out at one of two levels.

2.1.1 Training Onsite Personnel

As part of the monitoring, AHRS will conduct training briefings on the identification of archaeological materials. Training will be provided to contractor staff engaged in excavation activities and any other relevant personnel working on debris and sediment removal. Other staff identified by GCERT and EPA will also be trained. Training should occur approximately 5 to 10 business days prior to the start of excavation activities and will consist of a 30- to 60-minute discussion and PowerPoint presentation by a professional archaeologist reviewing the nature of potential archaeological materials and how to recognize them. The intent of this training is to assist non-archaeological staff in identifying potential cultural resources and to provide an understanding of their importance. The training will also convey the protocol to be followed in the event any potential cultural resources are encountered during remediation activities and level 1 monitoring.

2.1.2 Level 1 Monitoring

Level 1 monitoring of debris removal and excavation within the APE that is not adjacent to or within areas of known cultural resources will be conducted by remediation contractors trained in general archaeological protocols and recognition of potential resources noted in section 2.1.1. Furthermore, all manmade debris recovered on any given day will be photo-documented and sent/posted for AHRS archaeologists to review. In the event that an unanticipated discovery is encountered (such as a concentration of debris or feature) the staff will follow the unanticipated discovery protocol set forth in Section 2.5.

2.1.3 Level 2 Monitoring

Level 2 monitoring of debris removal will be conducted in areas within or adjacent to known or suspected cultural resources and for the sonar targets identified in the report entitled "Identification and Historical Assessment of Targets 37a, 37b, 37c, and 39, Located in the

6th Street Basin, and Targets 31 and 31b, Located in Turning Basin 4 of Gowanus Canal” (Flatt & Audin 2016). Level 2 monitoring will include timber bulkheads and any debris removal or dredging activity in areas where the APE intersects previously identified cultural resources, as indicated in the attached map books (**Appendix A**). Previously identified cultural resources will receive a 50-ft buffer to account for potential uncertainties in the mapped locations, and will include contributing resources to the proposed Gowanus Canal Historic District (the Independent Subway System 9th and 10th Street Viaducts, the Kentile Building & Sign, the Ice House/Brewery Complex, the Carroll St Bridge, Burn Brothers Coal Pockets, the 3rd Avenue Bridge and the Gowanus Canal Pumping Station), the possible Historic Mill Complexes by Huntington Street and just north of the Union Street Bridge, Stirling’s and Sullivan’s Avenues of Retreat, as well as the prehistoric sensitive area by Block 424 on Sheet 7 of the Area of Potential Effect Known Resources and Investigations map book. Level 2 monitoring will be conducted by a professional archaeologist for debris removal and screening (visual or physical). Level 2 monitoring will follow the following protocol as needed.

2.2 Debris Removal

For the purposes of this monitoring plan debris is defined as any man-made items that have been discarded. Depending on the age of the item (approximately 50 years of age or older), the debris could also be of archaeological significance. However, many debris items are not of archaeological value and can be discarded. These include modern items such as cars, tires, plastics, discarded pieces of wood, styrofoam, recent garbage and construction debris. In areas where no cultural resources are anticipated field monitoring may not be required at all times, or for restoration activities (driving sheet pile, back filling, grading back filled areas, etc.). The procedures outlined here for monitoring of debris removal will be included in the Debris Removal Plan and provided in advance to the contractor(s) retained to perform the debris removal activities.

Should the monitoring archaeologist note features of archaeological potential during excavation or debris removal activities, he or she may, per the agreed monitoring methodology, request the operator to:

- Stop excavation as necessary;
- Avoid working in the area of the potential resource; or
- Alter the way in which the machine is operated.

Where a machine operator is requested to stop, the monitoring archaeologist will log the time, the action taken, and the duration of the stoppage. This log will document work stoppages and record the impact of monitoring procedures and practices on the excavation.

For Man-Made Debris Removal Activities on Land:

1. When using heavy equipment, all work will be performed from hard or firm surfaces to the fullest extent possible, to avoid sinking into soft soils;

2. The Contractor will, to the fullest extent possible, ensure that soil disturbance is minimized when operating heavy equipment on wet soils (6 inches or less) in areas where excavation is not anticipated;
3. Identified resources may require additional investigation (by way of small scale, exploratory hand-excavation) to identify the nature and extent of potential cultural resources. Should an exploratory examination reveal the site to be non-archaeological, this should be documented and the area returned for debris removal;
4. If intact archaeological deposits or features are found, then hand excavation by additional archaeologists may be needed to determine the extent of the deposits and features. Once an initial determination is made, GCERT's Representative will be notified. The GCERT Representative is responsible for notifying USEPA and SHPO. The project team will work with EPA and SHPO to determine the best way to proceed; and,
5. For surface grading and site cleanup the Contractor will ensure, to the fullest extent possible, that site grading will be limited to the area of disturbance for that specific activity and to within the first six (6) inches of the existing surface elevation outside the area of disturbance.

For Man-Made Debris Removal Activities in the Water:

1. The SOI qualified archaeologist(s) will compare data related to the location(s) of known submerged historic properties/objects against debris removal target locations identified by side-scan sonar data;
2. The SOI qualified archaeologist(s) will utilize the side scan sonar and target evaluation reports to identify both known and unknown historic properties within the APE; and,
3. For unknown or unanticipated resources additional investigation may be needed. This may be accomplished by removing relevant debris for evaluation, if the deposit is small enough. For larger finds additional, side scan sonar or underwater archaeologists may be required to evaluate the potential resource in order to make a determination.

2.3 Sediment and Soil Removal Monitoring

The archaeological monitoring of soil and sediment removal (on land and in the water) shall be carried out in accordance with the protocol described in Section 2.2 for debris removal. The same two level approach for monitoring will be used for sediment and soil removal with trained contractors conducting the level 1 monitoring and professional archeologists performing the level 2 monitoring. The protocol below applies to any discoveries that could be cultural resources.

Given the risk to potential buried cultural resources during soil removal, and by the subsequent movements of heavy site traffic, it is imperative that once an area of potential cultural resources has been confirmed, it should be subject to the following protocol::

For Soil removal Activities on Land:

1. Affected areas will be appropriately fenced off and clearly marked with warning signs;
2. The area will be photographed, recording time and date;

3. Features will be logged, numbered sequentially (i.e. in order of their discovery) and their extent and location surveyed;
4. Identified resources may require additional investigation (by way of small scale, exploratory hand-excavation) to identify the nature and extent of potential cultural resources. Should an exploratory examination reveal the site to be non-archaeological, this should be documented and the area returned for soil removal; and,
5. If intact archaeological deposits or features are found, then additional hand excavation by additional archaeologists may be needed to determine the extent of the deposits and features. Once an initial determination is made GCERT's Representative will be notified. The GCERT Representative is responsible for notifying USEPA and SHPO. The project team will work with EPA and SHPO to determine the best way to proceed.

For Dredging Activities in the Water:

1. The SOI qualified archaeologist(s) will compare data related to the location(s) of known submerged historic properties against sediment removal target locations identified by the *Side Scan Sonar Report, Gowanus Canal Brooklyn, Kings County, New York* by J. Lee Cox 2010 of Dolan Research, Inc.;
2. If unanticipated historic properties are identified, the monitoring plan may need to be altered to investigate or mitigate the effect of the dredging on the historic property. Investigation can be completed by divers, additional side scan sonar or other appropriate underwater archaeological techniques;
3. Should unknown historic properties be disturbed during the sand removal process, the Unanticipated Discoveries or Unanticipated Effects Protocol will be followed;
4. Regarding equipment, staging and disposal of sand removal debris once it is placed on land: an SOI qualified archaeologist will identify known historic properties within areas identified for staging, sifting and/or stockpiling. Based on professional judgment, the qualified archaeologist will: 1) work with the contractor to identify suitable locations that meet the conditions set forth in this agreement, and/or 2) possibly establish a buffer zone around the historic property and enforce a no work zone.

2.4 Debris and Sediment Screening

The screening of potential cultural resources should be verified by professional archaeologist prior to disposal. In the event of Level 1 monitoring any potential finds should be separated from the obvious debris and sediment and photographed so that professional archaeologists can review the objects remotely and determine any possible cultural resource value. Materials identified as potential cultural resources should then be placed in a holding area until a professional archaeologist can visit the holding area and either establish its cultural resource value or determine that it is only debris and can be discarded. Professional archaeologists should either visit on at least a weekly basis if materials are present for review or when present for level 2 monitoring. For level 2 monitoring, the on-site archaeologist should make the determinations of cultural value for any new finds as well as any previously accumulated items

2.5 Unanticipated Discoveries or Unanticipated Effects Protocol

In the event of any unanticipated discovery of archaeological material (artifact concentration, building foundation, unknown structure, etc.) or effect (unanticipated damage to a historic property, building, structure, archaeological site, etc.), the archaeological monitor, the Contractor, and/or the Contractor's representative will follow the process outlined below:

1. Stop construction activities in the vicinity of the discovery or unanticipated effect;
2. Contact AHRS archaeologists if they are not already on site;
3. Take all reasonable measures to avoid or minimize harm to the historic property until documentation requirements are complete;
4. Document the historic property to include the following:
 - a. GPS coordinates in decimal/degrees
 - b. Photographs of the historic property
 - c. Written description of the historic property
 - d. Site forms created and filed with the New York State Museum as well as submitted to the SHPO.
5. Instruct the contractor to gently place the resources back into the general location from which they were removed; and,
6. In the event that an unexpected discovery or unanticipated effect is determined after retrieval of debris and the debris cannot be placed back in the general location from which it was removed, further consultation with USEPA, SHPO, and other consulting parties will be required.

2.5 Field Documentation

During monitoring, the monitoring archaeologist shall maintain the following standards and documentation:

1. Ensure a professional standard of recording;
2. Evaluate and document any isolated finds in the soil;
3. Recover any notable archaeological objects and record their location if possible;
4. Recover all finds associated with archaeological deposits which have been disturbed during excavation monitoring;
5. Maintain daily logs (including any discoveries);
6. Make daily verbal updates; and
7. Follow the agreed liaison framework.

2.6 Treatment of Human Remains

According to the Cultural Resource Standards Handbook (New York State Archaeological Council, 2000) human remains discovered unexpectedly on an archaeological site must be treated with the utmost dignity and respect. Work should immediately halt leaving the remains in place so that a determination can be made as to prehistoric or historic affiliation, as well as any modern conditions that could suggest a crime scene. This determination should be made by an expert, such as an archaeologist, physical anthropologist or coroner. Projects sponsored

by a federal agency must follow the Section 106 regulations for the National Historic Preservation Act, calling for consultations with all parties who may have an interest in discovered human remains. In the event that human remains are encountered during construction or archaeological investigations, the New York State Historic Preservation Office (SHPO) recommends the following protocol be implemented:

- At all times human remains must be treated with the utmost dignity and respect. Should human remains be encountered work in the general area of the discovery will stop immediately and the location will be immediately secured and protected from damage and disturbance.
- Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed. The county coroner/medical examiner, local law enforcement, the SHPO, the appropriate Indian Nations, and the involved agency will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archaeological.
- If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred choice of the SHPO and the Indian Nations. The involved agency will consult SHPO and appropriate Indian Nations to develop a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) guidance.
- If human remains are determined to be non-Native American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Please note that avoidance is the preferred choice of the SHPO. Consultation with the SHPO and other appropriate parties will be required to determine a plan of action

(State Historic Preservation Office/New York State Office of Parks, Recreation and Historic Preservation, Human Remains Discovery Protocol, November 2008).

If human remains are discovered, the following process should be followed:

1. Immediately stop work in the vicinity of the discovery.
2. Secure the site and protect the remains from damage and disturbance (e.g. looting)
3. Immediately notify the New York City Police Department and New York City Office of the Chief Medical examiner in accordance with applicable SHPO and state guidelines and await further guidance.
4. Immediately notify SHPO, USEPA and the team.
5. Ensure that the Contractor does not proceed with work in the area(s) of concern until consultation with SHPO, the USEPA, and other consulting parties, as appropriate.
6. Ensure that all applicable state and local laws, including New York Cemetery Law, are adhered to, and permission from all appropriate parties is obtained to remove remains.

7. Once a determination has been made by the medical examiner regarding the type of remains (forensic or archaeological), the USEPA, SHPO and the rest of the project team will be contacted to determine the next course of action.

2.7 Treatment of Finds

All artifacts will be cleaned and stored in the AHRS archaeological lab at Rock Tavern, NY, unless contaminated. In this event, a temporary storage area may be needed or the contaminated items may need to be recorded and properly disposed of. Artifacts to be prepared for curation will be determined in consultation with the USEPA and SHPO.

2.7.1 Treatment of Artifacts

All archaeological objects shall be cared for and curated in accordance with the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (Federal Register, vol. 48, no. 190) and SHPO guidelines for treatment of archaeological artifacts and features. Curation of artifacts will be conducted in accordance with 36 CFR Part 79, Curation of Federally Owned and Administered Archaeological Collections. Given the complexity of property boundaries, owners, and responsible parties throughout the project area, ownership of any recovered artifacts will be addressed on a case by case basis.

Artifacts and other finds of archaeological interest that need to be inspected by the archaeological team will fall into two different categories; those that can be inspected and documented in the field and those that need to go to the archaeological lab. The first category will only require the removal of sediment or other debris by hand tools or hand sprayers in the decontamination area. These items can then be documented and discarded. Those artifacts or materials that need to go to the archaeological lab will need to be decontaminated, if possible, before being transported to the archaeological lab. The archaeological monitoring staff will follow the decontamination process laid out in the site-specific Health and Safety Plan provided prior to the commencement of remediation activities.

2.7.2 Disturbance or Removal of Historic Properties

If it is determined that a historic property must be removed or may be affected by a project activity further consultation with the SHPO, USEPA and other consulting parties as appropriate will be required to complete the Section 106 review for that specific historic property. The USEPA will determine if any identification and evaluation efforts will be required to inform the consultation process. The project team will not proceed with removal or disturbance of the historic property until this consultation process is completed.

2.8 Health & Safety Issues

Any site specific Health and Safety Plans (HASPs) will be followed and normal field monitoring (trenching techniques, placement of monitors, etc.) and OSHA Health and Safety (training, medical monitoring, briefings, etc.) procedures are anticipated. Any HASPs will be provided to the archaeological monitoring team no later than 14 days prior to monitoring. All archaeological

monitoring personnel will follow the OSHA requirements for fieldwork and will be OSHA 40-hour HAZWOPER and 10-hour NYC Construction certified.

3.0 REPORTING

Information collected during monitoring will be analyzed and compiled into a final monitoring report. Based on the results of various remediation activities (i.e. bulkhead stabilization, debris removal, 4th Street Basin pilot study, etc.) it may also be appropriate for individual monitoring reports to be drafted prior to completion of the overall project. The need for these interim monitoring reports will be discussed between USEPA, SHPO, and the project team. All artifacts will be cleaned and logged. At a minimum a general statistical analysis will be conducted on the artifact collection. If the artifacts are determined to be significant then they will be prepared for permanent curation and a permanent curation facility will be identified.

3.1 Final Monitoring Report

A final monitoring report will be prepared in accordance with the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* and *Guidelines for the use of Archaeological Monitoring as an Alternative to Other Field Techniques (adopted by the New York Archaeological Council 2002)*. The report will address the following:

- An overview of the landscape (physical and archaeological) in which the project took place;
- A description of the monitoring plan;
- A description of the areas for debris and soil removal;
- The dates and duration of monitoring;
- The monitoring methodology, including the project team, machinery used and the hours worked;
- An overview of the ground, weather and overall monitoring conditions, particularly with respect to any problems encountered;
- A description of any archaeological artifacts and features uncovered, including provenience information, if available;
- Subsequent decisions made with regard to any archaeological sites or features discovered during the work, including the cross-referencing (where available) with any official number designation to a site subsequently excavated;
- An overview (including tables) of all registered finds/archaeological objects;
- A general statistical analysis of the artifacts identified;
- Conclusion and any recommendations;
- Bibliography and references;
- Supporting maps, plans, photographs and illustrations; and
- Details on the location and content of the monitoring archive.

The final report will be submitted within 120 days of the completion of fieldwork. Copies of the draft report will be submitted to Geosyntec for review and the final report will be submitted to the project team and all relevant state and local authorities.

3.2 Curation of Artifacts and Project Archive

If any artifacts require curation, they will be prepared in accordance with 36 CFR Part 79, Curation of Federally Owned and Administered Archaeological Collections. The project archive will contain the following:

- A copy of the this scope of work;
- All relevant mapping and photography;
- All correspondence relating to the archaeological monitoring;
- A catalogue of all artifacts and ecofacts;
- Final monitoring report; and
- All other registers, catalogues or listings, pertaining to the monitoring work.

4.0 REFERENCES

Archaeology & Historic Research Services, LLC (AHRS)

2016 Area of Potential Effect & Bulkhead Materials/Existing Data Map Books

Cox, J. Lee

2010 *Side Scan Sonar Report*. Prepared for HDR, Inc. and the USEPA by Dolan Research, Inc.

Hunter Research

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New York Archaeological Council, Standards Committee

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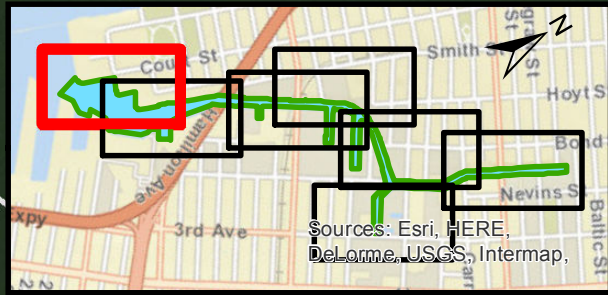
2002 *Guidelines for the use of Archaeological Monitoring as an Alternative to Other Field Techniques*. Adopted by the NYS Archaeological Council.

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APPENDIX A

APE & DATA MAP BOOKS

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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 NEW YORK CITY NEW YORK

Title
LEVEL 2 MONITORING PLAN

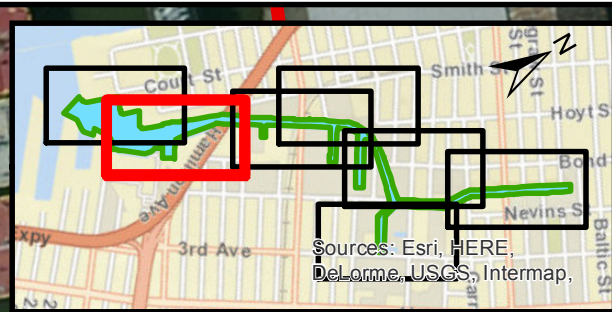
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 Drawn By: DF

Figure
 Sheet 1 of 7

Legend

- Area of Potential Effect (APE)
- Gowanus Historic District Areas
- Level 2 Monitoring Areas
- Sonar Potential Resource
- Tax Blocks
- Geosyntec Boring Locations
- Timber Bulkheads
- Stirling's Avenue of Retreat
- Sullivan's Avenue of Retreat
- Historic Mill Complexes

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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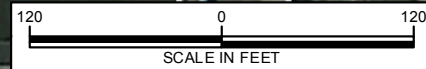
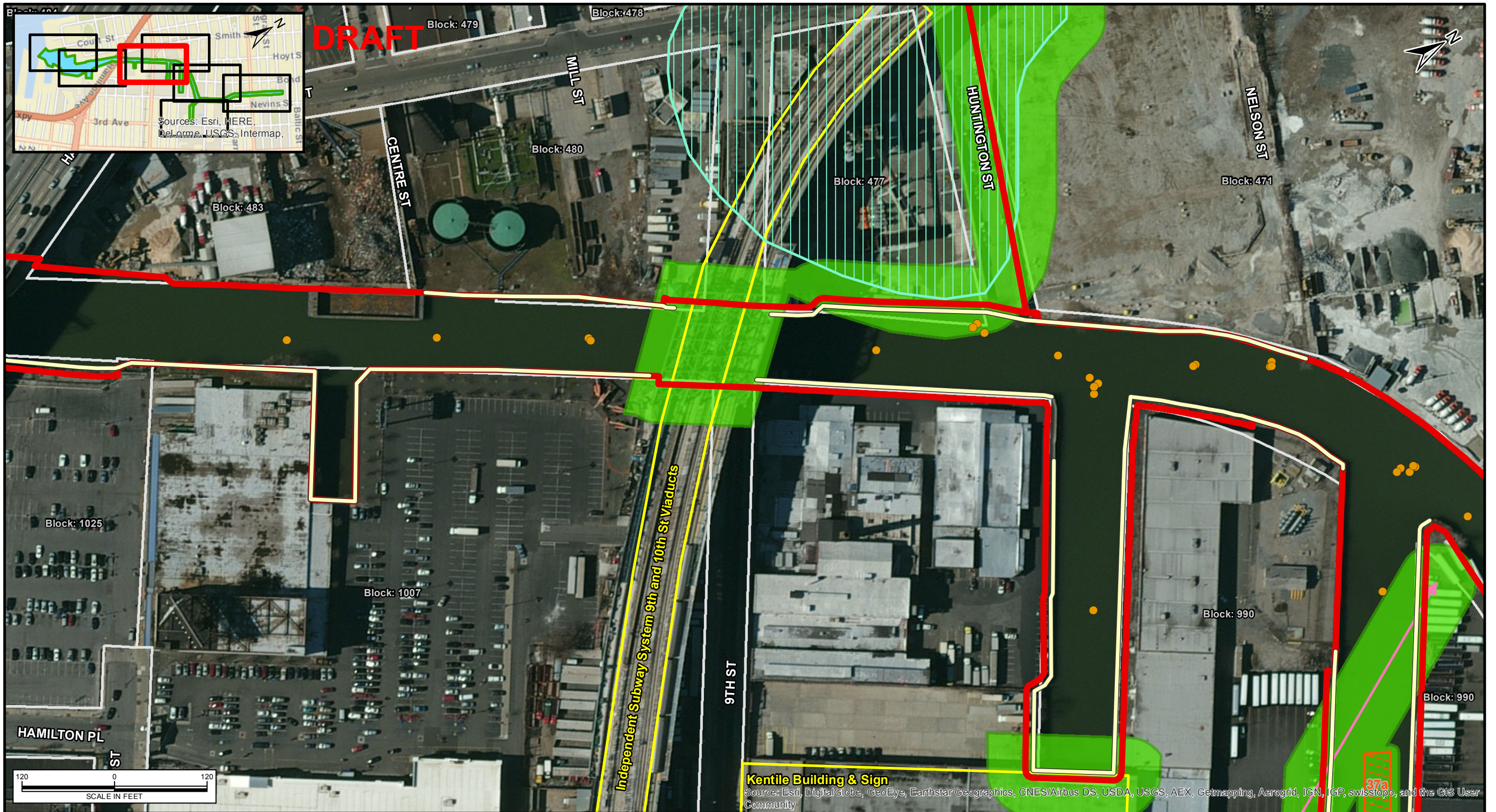
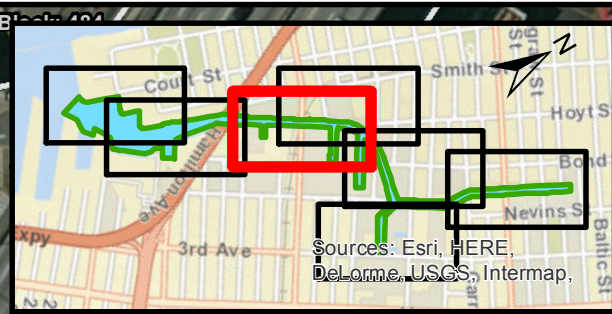
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Figure
Sheet 2 of 7

Legend

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Kentile Building & Sign

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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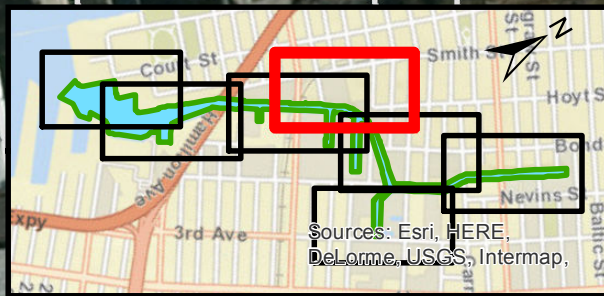
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Figure
Sheet 3 of 7

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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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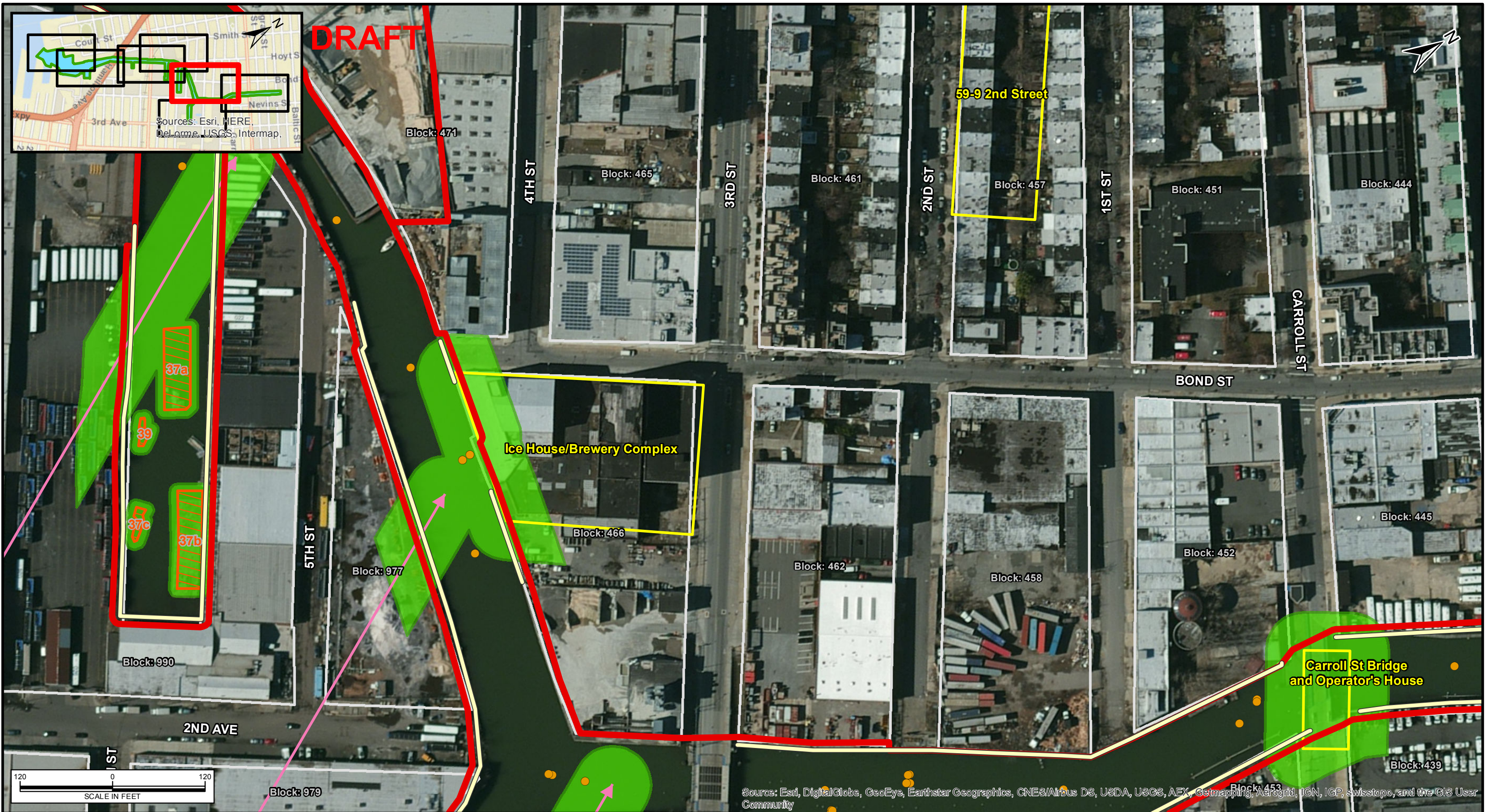
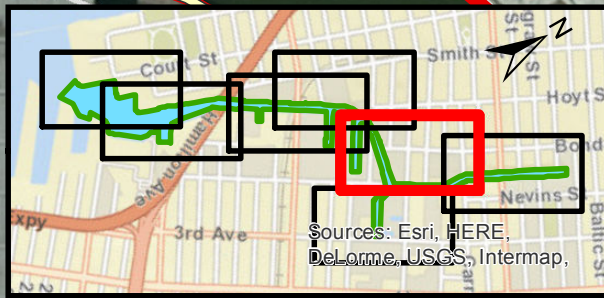
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Figure
Sheet 4 of 7

Legend

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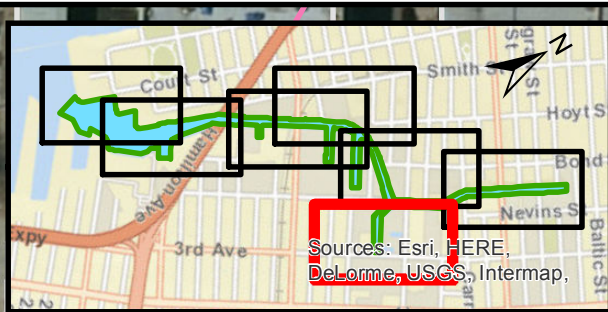
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Sheet 5 of 7

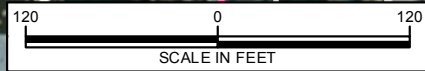
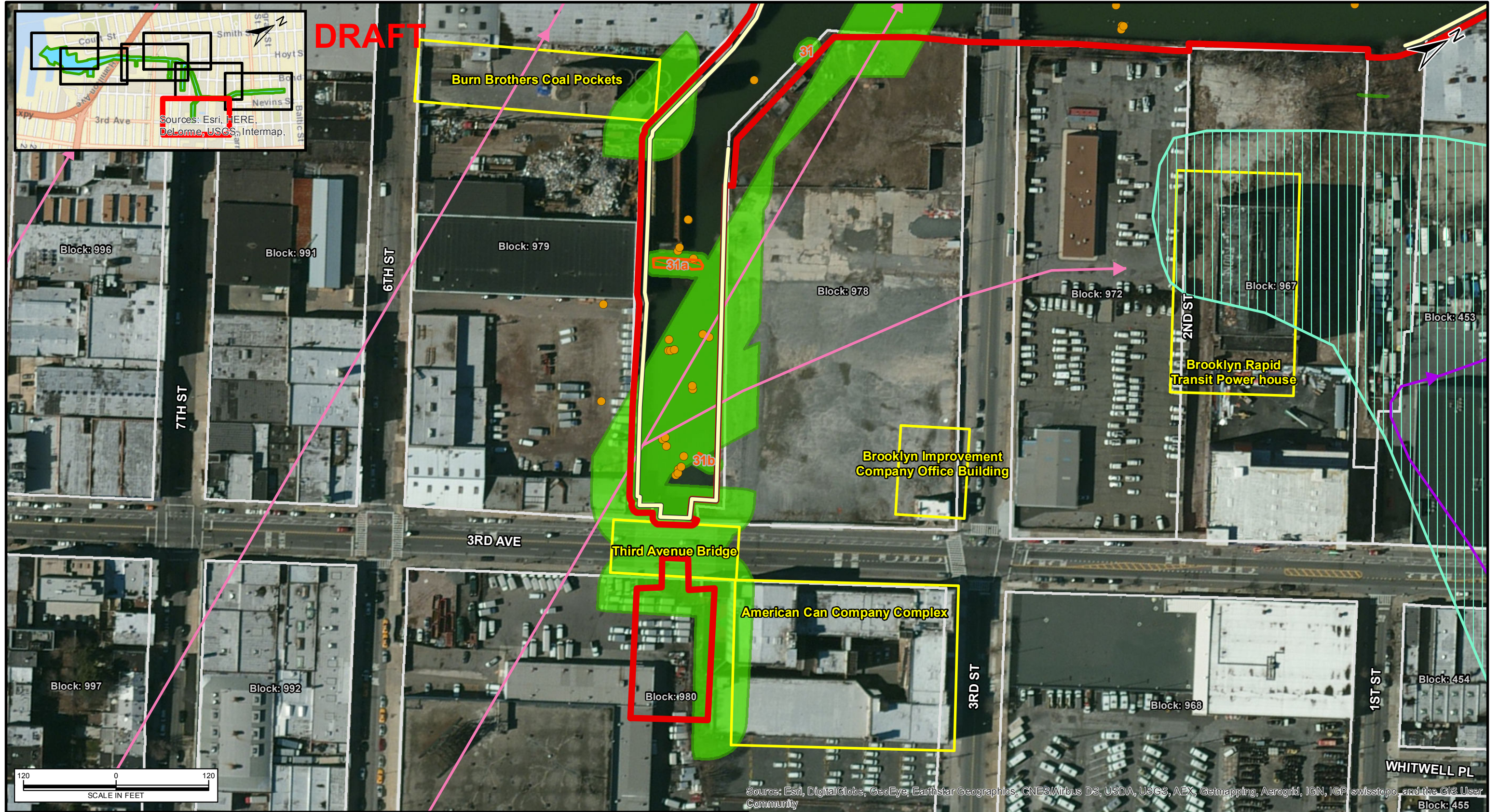
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Sources: Esri, HERE, DeLorme, USGS, Intermap,



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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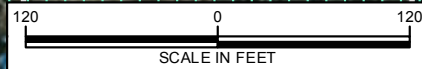
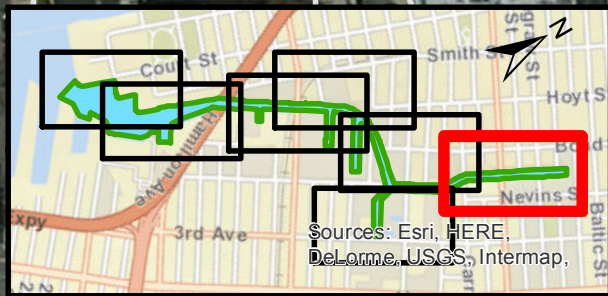
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Figure
 Sheet 6 of 7

Legend

- Area of Potential Effect (APE)
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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