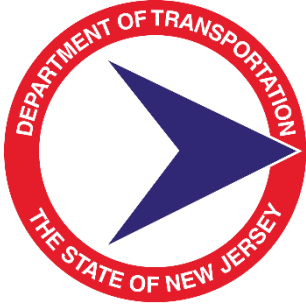


CONCEPT DEVELOPMENT REPORT



FY 2022 Camden County Local Concept Development Project for
County Route 551 Broadway



Prepared for:

Camden County and
the Delaware Valley Regional Planning Commission

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I. INTRODUCTION

A. FOREWORD

Camden County in coordination with the Delaware Valley Regional Planning Commission (DVRPC) and the New Jersey Department of Transportation (NJDOT) performed a Local Concept Development (LCD) study to address chronic flooding on County Route (CR) 551 Broadway between MP 29.46 to 29.61 and MP 30.08 to 30.21. The project is located in the Borough of Brooklawn and City of Gloucester, Camden County, New Jersey. The purpose of the project is to address the chronic flooding along CR 551 Broadway while minimizing environmental, historical, utility, right of way, and traffic impacts. The project location for this CD is shown in **Figure 1**.



Figure 1: Project Location Map

CR 551 Broadway suffers from chronic flooding more than eight times a year. This flooding traps nearby residents between the flooded areas. Much of the existing drainage system is undersized, and during high tides and storm surge events, the systems experience either tidal backflow and/or inability to drain. Current climate studies, as well as State guidance, also predict flooding severity and frequency to increase in the future.

B. SUCCESSOR/ADJACENT PROJECTS

The NJDOT Route 130 Bridge over Big Timber Creek project, designed by McCormick Taylor, is immediately adjacent to Project Area 2 in Brooklawn Borough. The project will replace the existing bridge with a 3-span continuous for live load bridge. The new bridge will include four 12-foot travel lanes, 3-foot inside shoulders, 8-foot outside shoulders and 6-foot sidewalks. The project also includes installation of ADA-compliant sidewalks and curb ramps, guiderail upgrades, access upgrades, as well as new drainage and stormwater management system improvements including approximately a 500' flood wall to mitigate

flooding in the vicinity of the West Brooklawn Circle and beneath the railroad bridge. The Plans Specifications & Estimate (PS&E) submission for this project was recently submitted in September 2022.

Additionally, the Camden County Municipal Utilities Authority (CCMUA) is currently conducting a Feasibility Study for the Newton, Big/Little Timber Creek and Delaware River Front Towns, Gloucester City, Brooklawn, Bellmawr, Mt. Ephraim and Westville, New Jersey. The Brooklawn site overlaps portions of the LCD project area and Michael Baker has been coordinating with the county and the conceptual designer of the feasibility project, CDM Smith, to share information.

C. DATA REVIEWED

As part of the data collection phase of the project, available data were requested and reviewed to assess the existing conditions of the corridor. This information was evaluated to determine areas of nonconformance with current design standards.

- Both project locations fall within FEMA's coastal AE zone at elevation 10 (indicates areas that have at least a 1%-annual-chance of being flooded, but where wave heights are less than 3 feet).
- Available As-built Plans are found in Appendix B.
- Crash Data - Reportable crash data for the most recent three years (2017-2019) were obtained from New Jersey Department of Transportation's (NJDOT) Safety Voyager database and are included in Appendix G.

In addition to existing data collection, field investigations were performed to verify existing conditions.

D. DESIGN STANDARDS

The following design standards and guidance were used in the analysis of existing conditions and development of the project alternatives:

- AASHTO - A Policy of Geometric Design of Highways and Streets, 7th Ed. (2018)
- FHWA Bikeway Selection Guide, 2019
- FHWA Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts (2016)
- AASHTO Guide for the Development of Bicycle Facilities, 4th Ed. (2012)
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2nd Ed. (2022)
- NJDOT Roadway Design Manual (2015)
- NJDOT Design Exception Manual (2019)
- NJDOT Complete Streets Policy No. 703, December 3, 2009
- NJDOT Complete Streets Design Guide, 2017
- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), FHWA, 2009 Edition, Rev. 2
- NJDOT Construction Cost Estimating Guide, 2019
- N.J.A.C. 7:8 NJDEP Stormwater Management Rules (amended March 2020)
- N.J.A.C. 7:13 NJDEP Flood Hazard Area Control Act Rules (amended October 2021)
- N.J.A.C. 7:7 NJDEP Coastal Zone Management Rules (amended October 2021)
- NJDOT Standards for Soil Erosion and Sediment Control in New Jersey (amended July 2017)

E. CHARACTERISTICS OF THE ROADWAY AND SURROUNDING AREA

The project consists of two sites along CR 551. Project Area 1 is in the Borough of Brooklawn and City of Gloucester between MP 30.08 and 30.21. Project Area 1 features industrial areas to the northwest with a freight railroad running across CR 551 along the northern end. Additionally, a scrap yard exists to the east, adjacent to Little Timber Creek. Commercial properties and residential properties exist on the southern edge of Project Area 1. Project Area 2 is in the Borough of Brooklawn between MP 29.46 and 29.61. Project Area 2 features residential properties to the northwest, commercial properties to the east and southwest, and the Brooklawn Traffic Circle to the south. A railroad runs parallel to CR 551 within Project Area 2. Residential properties are present along CR 551 between the two project areas. Within the project limits, CR 551 Broadway is classified as an Urban Minor Arterial.

The stretch of roadway is an undivided two-lane roadway, with one 12-foot travel lane and a varying shoulder in each direction. According to the NJDOT Straight-Line Diagram, the CR 551 roadway posted speed limit is 25 MPH in both directions of travel. There are no stop controls within the project limits of CR 551 roadway. The Average Annual Daily Traffic (AADT) volume along this corridor is approximately 8,200 vehicles per day according to the 2020 bridge re-evaluation survey report and approximately 8,000 vehicles per day according to a 2007 Camden County traffic count. CR 551 Broadway Straight Line Diagrams are included in Appendix A.

F. CD PUBLIC INVOLVEMENT ACTION PLAN

A CD Public Involvement Action Plan (PIAP) was prepared in September 2021. Community outreach meetings held throughout the project are listed below. Meeting summaries and correspondence records may be found in Appendix D.

- Local Officials Meeting No. 1: September 28, 2021 via Virtual Meeting
- Stakeholders & Public Information Center Meeting No. 1: January 27, 2022 via Virtual Meeting
- NJDOT Subject Matter Meeting: June 21, 2022 via Virtual Meeting
- Local Officials Meeting No. 2: July 12, 2022 via Virtual Meeting
- Stakeholders & Public Information Center Meeting No. 2: September 13, 2022 via Virtual Meeting

Subsequent public meetings are anticipated to be performed during Preliminary Engineering (PE) and Final Design (FD).

II. PURPOSE AND NEED

The purpose of the project is to address chronic flooding along CR 551 Broadway, while minimizing utility, right of way, and traffic impacts.

Additional needs within the study limits were identified by reviewing existing conditions, feedback from Stakeholders, and performing field investigations. The following sections summarize the existing needs identified within the study limits.

A. DRAINAGE NEEDS

Based on field investigations and hydraulic modeling, there are drainage system deficiencies along both project areas. During high tide, both project areas experience tidal backflow, preventing the systems from providing positive drainage from upstream inlets. During low tide the drainage systems have insufficient drainage capacities, surcharging inlets in the project limits. In addition, Project Area 1 does not have a tide check valve while Project Area 2 does. Both project areas do experience ponding at inlets observed during rain events.

Project Area 1 has a higher tidal water elevation than that of the roadway which causes severe flooding along the roadway. With anticipated future increases in intensity and total precipitation depth for certain recurrence interval design storms, the primary concern is the flooding of the roadway. Both project locations fall within the Federal Emergency Management Agency (FEMA) tidal AE zone at elevation 10 which indicates areas that have at least a 1% annual chance of being flooded, but where wave heights are less than 3 feet.

B. ROADWAY NEEDS

Specific roadway needs were not identified, and the roadway meets standard design elements.

C. SYSTEM LINKAGE

The CR 551 Broadway roadway spans Little Timber Creek and Big Timber Creek and is an important north-south roadway that connects Brooklawn Borough and Gloucester City in Camden County. Functionally classified as an urban minor arterial, the roadway is utilized by local/regional vehicular traffic. CR 551 Broadway is located near residential properties, a scrap yard, local businesses, and the West Jersey & Seahorse Railroad/Pennsylvania Reading Seashore Line.

D. GOALS AND OBJECTIVES

The project goals and objectives have been developed based on the project's Purpose and Need (described above). While the project may not be able to completely satisfy all goals and objectives listed herein, the alternatives and selected Preliminary Preferred Alternative (PPA) will be designed to address them the greatest practical extent. The project goals and objectives are as follows:

- Minimize present day flooding while implementing a resilient design to account for future flooding conditions
- Minimize and/or mitigate environmental impacts
- Minimize or avoid impacts to adjacent historic properties and historic district
- Minimize right-of-way impacts
- Minimize utility impacts and relocations
- Minimize impacts to traffic and driveway access during construction

III. EXISTING INVENTORY AND CONDITION

A field inventory and investigation into the existing conditions of the project corridor was performed. Data collection teams investigated various aspects of the project area and roadway elements including existing pavement, utilities, drainage, roadway and roadside conditions, and socioeconomic data. A detailed summary of the project area existing conditions data is summarized in the Project Fact Sheet, included in Appendix F.

A. EXISTING DRAINAGE AND STORMWATER INVENTORY AND CONDITION

The existing drainage and stormwater condition have been evaluated based on the available information. The evaluation includes existing hydrology and watershed delineation, land use and soil classification, and existing drainage deficiency identification.

HYDROLOGY

Both project areas are within the Watershed Management Area 18 – Lower Delaware Watershed Management Area (WMA 18). Project Area 1 falls within the Hydrologic Unit Codes (HUC); Little Timber Creek (Gloucester City) (02040202120070) and Project Area 2 falls within the Big Timber Creek (02040202120080). Refer to Appendix I for a HUC-14 Map. Within the immediate vicinity of both project areas, the land use is categorized as residential and commercial. The topography within the Project Area 1 has level to moderate slopes along the roadway, impervious surfaces, and an open grass field. All pipes and roadway runoff discharges to Little Timber Creek. For Project Area 2 the topography has level to moderate slopes along the roadway, impervious surfaces; however, the residential areas and embankment by the Big Timber Creek are vegetated.

The current NRCS Web Soils Survey identifies the soil within the project area as Urban Land (UR) and Water. A map identifying soil types for the project can be found in Appendix I.

The United States Geological Survey (USGS) weighted Regional Regression equations were used to predict storm flows to CR 551. The drainage area is approximately 52.2 square miles. The regional regression equation estimates annual peak flows based on drainage area, main channel slope, percentage of lake and wetland areas, population density, and the flood-frequency region at a 95 percent confidence level.

Overall, the topography and characteristics of the watershed will remain unchanged in the proposed condition. For that reason, the same drainage areas and points of interest described in the existing conditions were used to evaluate the proposed alternatives. The existing watershed will be maintained and all stormwater within the project limits will continue to drain into the Little Timber Creek for Project Area 1 and Big Timber Creek for Project Area 2.

STORMWATER MANAGEMENT

Certain design criteria must be met based on project location, land disturbance, impervious area added, regulated motor vehicle surface (MVS) added, and structural opening design. New Jersey's stormwater management (SWM) regulations (N.J.A.C. 7:8) define a "Major Development" as any project that results in one-quarter (0.25) acre increase in net new impervious surface, MVS, a combination of both, or has a disturbance area that exceeds one (1) acre. "Major Developments" must comply with the SWM regulations for stormwater quality, stormwater quantity, and groundwater recharge. The limit of disturbance for the project area is not anticipated to exceed one (1) acre or result in more than 0.25 acre in new impervious surface or MVS. However, if the project scope changes such that the proposed area of net new impervious or earth disturbance exceeds the threshold for a major development, the design will comply with all applicable stormwater regulations for stormwater quantity, quality and recharge.

Proposed alternatives will be designed in accordance with the NJDOT Design Manual and the NJ Standards for Soil Erosion and Sediment Control for both temporary and permanent conditions.

EXISTING DRAINAGE EVALUATION

As part of the drainage evaluation, information from survey, NJDOT maintenance logs, NJDOT video logs, Google Earth, and Google Maps Street View Imagery were reviewed to identify flooding concerns, standing water and structure conditions in preparation for the field visit. This field investigation documented the existing drainage conditions, drainage structure deficiencies, lack of flooding prevention, and noted whether ponding was observed.

Field investigations were conducted in dry weather conditions in July of 2021, approximately twelve (12) hours after rainfall. Clogged drainage structures, erosion issues, ponding at inlets, and tidal back flow were all observed during the field visit. Drainage systems should not have standing water, as they can become breeding grounds for mosquitos after 72 hours. A complete list of findings and recommendations are listed below:

- No travel way or shoulder contained ponding or rutted pavements that could create ponding.
- A tide check valve was located at Project Area 2, but Project Area 1 did not have one on the outfall pipe.
- All drainage pipes should be flowing in a positive direction and no water should be standing within the drainage structure.

A stormwater analysis was conducted to determine if the existing drainage system in both Project Area 1 and Project Area 2 were up to design standards. The analysis used to determine this was the Rational Method Theory and the Storm Water Management Model (SWMM). In both instances a few stormwater pipes within the project areas were considered substandard. Specifically, in Project Area 1 the drainage system south of the West Jersey & Seahorse Railroad/Pennsylvania Reading Seashore Line which outfalls to Little Timber Creek and in Project Area 2 the drainage system south of the intersection of CR 551 Broadway and Town Center. The drainage calculations and models can be found in Appendix N.

In August 2022, the Borough of Brooklawn contacted Camden County requesting insight into the algae-filled pond/basin near Project Area 2. As illustrated in **Figure 2**, the pond is bounded by Broadway to the west, railroad to the east, a traffic circle to the south, and Ray-Bets Liquors to the north. The Borough of Brooklawn observed that the pond water level, which typically recedes with the tides in Big Timber Creek, had not drained back into Big Timber Creek for approximately one month. The Borough wanted to know whether the pond's outlet pipe connected to two storm drains in Broadway that discharge to the outfall on Big Timber Creek.



Figure 2: Algae-Filled Pond Adjacent to CR 551 Broadway

In August 2022, Camden County visited the site, opened inlet grates, and confirmed the drainage system configuration. The two storm inlets in Broadway drain the roadway from the east side of the road to the west side of the road and out to Big Timber Creek. The storm pipe is 15" diameter ductile iron with inverts approximately 24" below the inlet grates. Camden County confirmed that the storm drainage system at this location does not connect to the pond/basin currently filled with algae. Therefore, it is not within the scope of this LCD study to solve the pond drainage issue. Camden County's field markup of the site is provided in Appendix O.

B. EXISTING ROADWAY INVENTORY AND CONDITION

According to the Straight Line Diagram, the posted speed limit at both project areas is 25 MPH. Within both project areas, CR 551 Broadway is classified as an Urban Minor Arterial with one-travel lane in the

north/south direction ranging in width from 12 ft. (with ~9 ft outside shoulder) to 22 ft. (no shoulder) in each direction.

The roadway section in both project areas meet NJDOT standards. Average Annual Daily Traffic (AADT) volume along this corridor is approximately 8,200 vehicles per day according to the 2019 bridge re-evaluation survey report and approximately 8,000 vehicles per day according to the 2007 Camden County traffic count. CR 551 Broadway Straight Line Diagrams are included in Appendix A.

C. EXISTING UTILITIES

Field investigations and topographic survey confirm that utility poles are located along both sides of the roadway, and there are numerous utility companies with overhead and underground facilities within the project limits.

Utility Contact Letters were distributed to utility companies to verify the existing facilities within the project limits. Responses were received from the utility companies listed below:

- Public Service Electric & Gas (Gas Services)
- Public Service Electric & Gas (Electric Services)
- Teleport Communications America, LLC (AT&T)
- Camden County Municipal Utilities Authority
- Brooklawn - Westville Public Works
- Comcast Cable Communications Management, LLC -
- Verizon New Jersey, Inc.
- Crown Castle Fiber, LLC
- Conrail

A summary of utility contacts and Preliminary Engineering (PE) utility funding information is included in Appendix K.

D. SUMMARY OF EXISTING DEFICIENCIES

The local and regional communities noted the following drainage deficiencies throughout the project areas:

- During high tide, both project areas have tidal backflow and/or inability to drain.
- During low tide, the drainage pipe system has insufficient drainage capacities.
- The outfall at Project Area 2 has a tide check valve installed, while there is no tide check valve at the outfall at Project Area 1.
- At Project Area 1, tidal waters have a higher elevation than that of the roadway at the project site.
- Ponding was observed near the surrounding inlets at both project areas upon field visit.

E. LIST OF SUBSTANDARD DESIGN ELEMENTS

The local and regional communities and the engineer noted that there are no substandard design elements identified.

F. AS-BUILT PLANS, RIGHT OF WAY MAPS AND JURISDICTIONAL MAPS

As-built plans were provided by NJDOT and are included in Appendix B.

IV. TRAFFIC AND CRASH SUMMARY

A. TRAFFIC DATA

Within both project areas, CR 551 Broadway has one-travel lane in the north/south direction ranging in width from 12 ft. (with 9 ft. outside shoulder) to 22 ft. (no shoulder) in each direction. Level of Service (LOS) shall remain unchanged, due to no improvements to the roadway or signals. Table 1 shows the AADTs within the project area.

Table 1: Annual Average Daily Traffic (AADT) (NJDOT and DVRPC data)

Year	NB AADT	SB AADT	Total AADT
2017	4213	3786	7999
2019	4217	3790	8007
2021	4302	3866	8168

B. CRASH DATA ANALYSIS AND CRASH DIAGRAM

Crash data were obtained from the Safety Voyager which was evaluated from the year 2017 to 2019. The data included reported crashes along CR 551 Broadway in Project Area 1 (MP 30.08 to 30.21) and Project Area 2 (MP 29.46 to 29.61). There were no crashes identified within Project Area 1 between 2017-2019. In total five (5) crashes occurred within Project Area 2 between 2017-2019, including three (3) property damage crashes and, two (2) moderate injury crashes.

V. SOCIAL, ECONOMIC, ENVIRONMENTAL, AND CULTURAL RESOURCES SCREENING

As part of the social, economic, environmental, and cultural resources screening, three documents were prepared: the Public Action Plan (and Community Profile, Appendix C), Environmental Screening Report in Appendix I and Cultural Resources Screening in Appendix J.

Environmental parameters related to the project were assessed by performing a review of available information, which included maps and publications, by various government agencies and non-government organizations. Constraints examined include cultural resources, open space and parkland, air and noise sensitive receptors, threatened and endangered species habitat, wetlands, surface water resources, floodplains, environmental justice communities, and hazardous materials.

A. COMMUNITY OUTREACH

Public meetings were held throughout the project to keep local officials and stakeholders, as well as the general public, informed and to gather public opinion. The following community outreach activities were held:

- Local Officials Meeting No. 1: September 28, 2021 via Virtual Meeting
- Stakeholders & Public Information Center Meeting No. 1: January 27, 2022 via Virtual Meeting
- NJDOT Subject Matter Meeting: June 21, 2022 via Virtual Meeting
- Local Officials Meeting No. 2: July 12, 2022 via Virtual Meeting
- Stakeholders & Public Information Center Meeting No. 2: September 13, 2022 via Virtual Meeting

Available demographic and economic data from the U.S. Census Bureau's American Community Survey (ACS) (2014-2018) 5-year estimates were used to develop a Community Profile to determine the presence or absence of minority and/or low-income populations within the study area. Numerous data sources were examined to determine the presence of environmental justice communities, including the ACS 2014-2018 5-year estimates, Environmental Protection Agency (EPA) Environmental Justice Screening (EJ Screen) Tool, the New Jersey Environmental Justice Mapping Tool. The Community Profile can be found within the Public Action Plan in Appendix C.

B. NOISE AND AIR QUALITY

Although there are some sensitive receptors, including schools and residences, the project will not provide for a change in vehicle operating speed, geometry, or number of travel lanes, therefore air quality or noise concerns are not anticipated.

C. SOCIOECONOMICS

It is not anticipated that the proposed project will affect farmland or community facilities. Further evaluation, once the PPA is selected, will need to be conducted to determine if the project will result in the acquisition or relocation of any residential or commercial properties. Coordination with property and business owners is recommended during the design phase of the project to maintain access during construction.

D. CULTURAL RESOURCES

Since the project is federally funded by the Federal Highway Administration (FHWA), consultation with the New Jersey Historic Preservation Office (NJSHPO) under Section 106 of the National Historic Preservation Act will be required. Section 106 requires Federal agencies to consider the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Archaeological and architectural surveys in compliance with the *Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation* will be completed as part of PE.

Background research, including review of the New Jersey Department of Environmental Protection (NJDEP) GeoWeb, NJDEP DataMiner online data, and other available site files, was performed to determine if previously identified historic properties listed in the New Jersey Register of Historic Places (NJR) and/or National Register of Historic Places (NRHP) or eligible for listing in the NRHP are in the study areas. Research was not performed at the NJSHPO or the New Jersey State Museum (NJSMD) due to COVID-19 restrictions. The findings were compiled into a cultural resources screening performed by Michael Baker in September 2021. Table 2 identifies the historic resources within the study areas.

Table 2. Historic Resources within the Study Areas

Site	Name	Status
Project Area 1	West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District	Recommended NRHP-Eligible
	500-510 New Broadway	Recommended NRHP-not Eligible
Project Area 2	Noreg Village Historic District	NJR and NRHP Eligible
	Brooklawn Traffic Circle	NJR and NRHP Eligible
	West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District	Recommended NRHP-Eligible
	Ray-Bets Liquor Store at 114 South New Broadway	Recommended NRHP-Not Eligible
	New Jersey Archaeological Site Grid (Cell AV204)	NRHP-Identified

In addition to the resources identified in Table 2, six (6) registered archaeological sites were identified within one mile of the study areas, but none within the study areas. Research found a high probability of encountering pre-Contact archaeological sites and a moderate to high probability for encountering historic archaeological deposits. Research also found three (3) newly identified unevaluated buildings 50 years or older that may be affected by the proposed undertaking and will require survey and evaluation for NRHP eligibility. The buildings are located at 549 South Broadway, Gloucester City, 609 New Broadway, Brooklawn Borough, and 601 New Broadway, Brooklawn Borough.

Further review under Section 106 of the National Historic Preservation Act will be required during PE. Encroachments into properties listed on the NJ Register of Historic Places will also require Project Authorization under the NJ Register of Historic Places Act. Refer to Appendix J for the cultural resources screening and the West Jersey and Seashore Railroad Spur (Gloucester City) NJSHOP Base Form.

E. SECTION 4(F) PROPERTIES

The Department of Transportation Act of 1966 included a special provision which stipulated that the Federal Highway Administration cannot approve the use of land from public owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historic sites unless there is no feasible and precedent alternative to the use of land and the action includes all possible planning to minimize harm to the property resulting from use. No impacts to Section 4(f) designated properties are anticipated.

F. HIGHLANDS/PINELANDS

The project is not located within the Highlands Planning Area or Pinelands Management Area.

G. WETLANDS

Activities proposed in wetlands and their associated transition areas are regulated by the NJDEP Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A), NJDEP Coastal Zone Management Rules (N.J.A.C. 7:7), and the Clean Water Act as administered by the USACE. In New Jersey, the USACE regulates fill and dredging of wetlands located within 1,000 feet of the mean high water line. Any work proposed within wetlands or waters of the United States will be regulated by the USACE. A wetland delineation is recommended during PE to establish wetland and water boundaries.

H. REFORESTATION

The New Jersey No Net Loss Reforestation Act (N.J.S.A. 13:1L-14.1 et seq.) requires that for any state project or any project constructed on state land removing 0.5 acres or more of forest, the state agency must develop and execute a reforestation plan. Based on the location and nature of the project activities, it is not anticipated that the project will result in more than 0.5 acre of contiguous deforestation. County projects are not subject to the requirements of the Act.

I. FLOODPLAIN

All regulated waters with drainage areas of 50 acres or more have flood hazard areas (FHA) regulated by the NJDEP Flood Hazard Area Control Act Rules (N.J.A.C. 7:13). Available Federal Emergency Management (FEMA) Flood Insurance Rate Map (FIRM) data were reviewed to determine if project activities are proposed within the regulated FHA. FEMA FIRM Panel No. 34007C0038F (Effective Date: 08/17/2016) depicts the 1% annual chance floodplain at an elevation of 9 and 10 feet NAVD 88 at Project Area 1 and 10 feet NAVD 88 at Project Area 2.

As per Method 2 of the NJDEP Flood Hazard Area Control Act Rules (N.J.A.C. 7:13-3.4(d)), the FHA design flood elevation for a tidal floodplain shall be equal to the FEMA 1% annual chance floodplain elevation. Additionally, the FEMA FIRM does not depict the floodway limit. Per N.J.A.C. 7:13-3.4(d)2ii, the floodway limit is equal to the top of bank along the regulated water.

Project activities may occur in the regulated FHA and floodway and will need to comply with the NJDEP Flood Hazard Area Control Act Rules through a NJDEP Waterfront Development permit application. Per the NJDEP Coastal Zone Management Rules, development in flood hazard areas shall conform to the applicative design and construction standards set forth in the NJDEP Flood Hazard Area Control Act Rules, potentially Section 11.3 (regulated activity in a floodway), 11.4 (regulated activity in a flood fringe), and/or 12.7 (requirements for a bridge or culvert). Project activities that occur within a tidal floodway and tidal FHA are not subject to flood storage volume displacement limits (N.J.A.C. 7:13-11.4(d)1).

J. SOLE SOURCE AQUIFER

The project areas are underlain by the Coastal Plain Sole Source Aquifer. However, a Groundwater Quality Assessment (GQA) is not required since this type of project does not meet the criteria set forth in the USEPA and FHWA Memorandum of Understanding on Sole Source Aquifers (1984) that would require review.

K. THREATENED/ENDANGERED SPECIES

Species of special status include those species that are rare in the State of New Jersey and are listed on the State and/or federal lists of threatened and endangered species. The NJDEP Landscape Project data (Version 3.3) identifies threatened and endangered species habitat based on documented wildlife locations and land use/land cover data. Additionally, the United States Fish and Wildlife Service (USFWS) Information for Planning and Conservations (IPaC) identifies threatened, endangered, proposed, and candidate species that may occur in the project area and/or may be affected by the proposed project. Species identified by the NJDEP Landscape Project and USFWS IPaC (dated August 8, 2021) are listed in Table 3 below:

Table 3. Endangered, Threatened and Special Concern Species within the Project Areas

Common Name	Scientific Name	Status	Notes
NJDEP Landscape Project Data			
Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	Federally Endangered State Endangered	Migration Corridor (Juvenile Sighting)
Bald Eagle	<i>Haliaeetus leucocephalus</i>	State Endangered	Foraging
Great Blue Heron	<i>Ardea herodias</i>	State Special Concern	Foraging
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Federally Endangered State Endangered	Migration Corridor (Adult Sighting)
USFWS IPaC			
Red Knot	<i>Calidris canutus rufa</i>	Federally Threatened	-
Sensitive Joint-vetch	<i>Aeschynomene virginica</i>	Federally Threatened	-

Data identified bald eagle and great blue heron habitat within the study areas. Avian species are highly mobile and during construction, would be able to access alternative foraging habitat that exists in the area. Therefore, adverse impacts to bald eagle and great blue heron are not anticipated.

The NJDEP Landscape Project identified migration corridors for Atlantic sturgeon and shortnose sturgeon adjacent to Project Area 1. Proposed work will likely remain within the existing roadway; however, if the PPA proposes in-water work, best management practices, such as turbidity barriers, will be used during construction to maintain water quality and prevent harm to fish species. As per Table 5.7 in N.J.A.C. 7:7A-5.7, in-water work will result in timing restrictions from March 1st through June 30th and September 1st

through November 30th. Additionally, Section 7 consultation with the National Marine Fisheries Service may be warranted.

According to the USFWS IPaC, there is critical habitat for red knot proposed for red knot; however, USFWS consultation is only needed for proposed new or changed petroleum product storage or transport and for spill response since no other activity types are expected to affect red knots in this area. Additionally, red knots are traditionally found along mudflats and Atlantic/bay beaches on the east coast of the state. According to the New Jersey Fish and Wildlife Service (NJFWS) distribution map, red knots are not identified in Camden County; therefore, adverse impacts to red knot are not anticipated.

Sensitive joint-vetch inhabits intertidal zones of fresh to brackish tidal rivers, typically in areas with sediment accumulation and marshes. Areas with bare or sparsely vegetated substrate is favored by this plant species. According to the NJFWS distribution map, sensitive joint-vetch is not identified within the Borough of Brooklawn or City of Gloucester. Additionally, the observed tidal marshes and *Phragmites australis* dominant wetlands within the study areas are heavily vegetated. Therefore, it is unlikely sensitive joint-vetch is within the study areas.

Consultation per Section 7 of the USFWS Endangered Species Act may be necessary to confirm the absence or presence of threatened and endangered species and to provide guidance on appropriate actions if listed species are affected. Timing restrictions on tree clearing are not required; however, timing restrictions on in-water construction will likely be required to protect fish species. If the selected PPA remains within the existing right-of-way, adverse impacts to threatened or endangered species habitat are not anticipated.

Refer to Figure 5 in Appendix I for the NJDEP Landscape Project map identifying threatened and endangered species habitat in the study areas. Additionally, refer to Appendix I for a copy of the USFWS IPaC report.

L. CATEGORY 1 WATERS

There are no identified category 1 waters within the project study area.

M. VERNAL POOLS

There are no identified vernal pools within the project study area.

N. STORMWATER

According to the NJDEP Stormwater Management Rules (N.J.A.C. 7:8), stormwater management compliance must be demonstrated for a project considered a “Major Development”. “Major Development” is defined as an individual development, as well as multiple developments that individually or collectively result in: (1) the disturbance of one or more acres of land; (2) the creation of one-quarter acre or more of regulated impervious surface; (3) the creation of one-quarter acre or more of regulated motor vehicle surface; or (4) a combination of (2) and (3) above that totals an area of one-quarter acre or more. The limit of disturbance for the project area is not anticipated to exceed one (1) acre or result in

more than 0.25 acre in new impervious surface or MVS. If compliance with water quantity, quality and groundwater recharge is not met due to the post design conditions, the project will be required to incorporate green infrastructure Best Management Practices to the Design. However, the design, as currently proposed, will comply with applicable stormwater regulations for stormwater quantity, quality, and recharge.

O. HAZARDOUS WASTE

Historic, federal, and state records pertaining to hazardous waste activities were reviewed. Available geospatial data from the NJDEP was reviewed for any known deed notice areas, currently known extent of groundwater contamination (CKE), classification exception areas for groundwater contamination (CEA), and known contaminated sites within the study areas. One (1) deed notice area, three (3) CEAs, and two (2) known contaminated sites were identified within the study areas. Refer to Table 4 below for the hazardous material sites identified from NJDEP geospatial data.

Table 4: NJDEP Identified Hazardous Areas within the Project Areas

Site	Name	ID Number	Known Contaminated Site	Classification Exception Area (CEA)	Deed Notice Area
Project Area 1	Liquid Carbonic Specialty Gas Corporation	G000013534	X	X	-
Project Area 2	Borough of Brooklawn Water Works	012128	-	X	X
	D'Andrea Tire Inc.	016792	X	X	-

In addition, a search of environmental records in government databases was completed using the services of Environmental Data Resources, Inc. (EDR). These databases document the occurrence, use, disposal, discharge, and/or transport of hazardous materials and petroleum hydrocarbons. The records search focuses on identifying sites with the potential for environmental concerns near the subject property and at more distant locations. Based on the results of the EDR report for Project Area 1, five (5) properties were identified within the immediate study area and 13 properties within 1/8 mile of the study area are associated with hazardous materials. Additionally, for Project Area 2, nine (9) properties were identified within the immediate study area and 12 properties within 1/8 mile of the study area are associated with hazardous materials. The identified properties and the search database that identified the property are listed in Table 5 below.

Table 5: EDR Results for Sites Located within 1/8 mile of the Project Areas

Map ID	Name	Address	Database ¹
Project Area 1			
A1 ² , A2 ²	Liquid Carbonic Specialty Gas Corp	560 S Broadway	NJ ISRA, NJ SHWS, NJ HIST HWS, NJ INST CONTROL, NJ BROWNFIELDS, NJ NJEMS, NJ Financial Assurance
A3 ²	Carpenter Realty Corp	549 S Broadway	NJ SHWS, NJ HIST HWS, NJ LUST, NJ HIST LUST, NJ UST, NJ BROWNFIELDS, NJ SPILLS

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A4 ²	Rutter, Howard J	558 S Broadway	EDR Hist Auto
A5 ²	Woodland Oxygen Co.	560 S Broadway	NJ UST, NJ NJEMS, NJ Financial Assurance
6 ²	East Coast Collision	609 New Broadway	RCRA NonGen / NLR
B7	Gloucester Iron & Metal, Inc.	Brick & Stinsman St	RCRA NonGen / NLR, NY MANIFEST
B8	Letzgus, Geo F	532 S Broadway	EDR Hist Auto
9	Dantes Auto Body	502 New Broadway	RCRA NonGen / NLR
B10	DJB Realty	522 S Broadway	NJ HIST LUST, NJ UST
B11	Former Sewage Treatment Site	Foot of Brick St	NJ BROWNFIELDS
B12	Dwyn Char Inc.	518 S Broadway	EDR Hist Cleaner
C13	Gloucester City Wastewater Treatment Plant	Brick St	NJ HIST HWS, NJ BROWNFIELDS
D14, D15	Interstate Pallet Company	541 Brick St	NJ SHWS, NJ Release, NJ ENG CONTROLS, NJ VCP, NJ BROWNFIELDS
C16	Gloucester City Department of Public Works – Wastewater Treatment Plant	615 Brick St	NJ SHWS, NJ NJEMS
E17	Schillinger Metal Spinning Company	937 Jersey Ave	NJ ISRA
E18, E19, E20	CVS Pharmacy #0864	455 S Broadway	NJ NJEMS, NJ MANIFEST, RCRA-VSQG, PA MANIFEST
E21	Acme Store #1168	445 S Broadway	RCRA NonGen / NLR
22	South Jersey Automatic Laundry	456 S Broadway	EDR Hist Cleaner
Project Area 2			
A1 ² , A4 ²	D’Andrea Tire, Inc.	100 New Broadway	NJ HIST LUST, NJ SHWS, NJ HIST HWS, NJ UST, NJ INST CONTROL, NJ BROWNFIELDS
A2 ²	Brooklawn Borough Public Works	101 New Broadway	NJ SHWS
A3 ²	Readers Auto Accessories, Inc.	100 New Broadway	EDR Hist Auto
A5 ²	Brooklawn Dry Cleaners	104 New Broadway	EDR Hist Cleaner
A6 ²	Brooklawn Borough Public Works	101 S New Broadway	NJ ENG CONTROLS, NJ INST CONTROL
A7 ²	D’Qandrea Tire, Inc.	100 New Broadway	NJ HIST LUST
B8 ²	Gaskill-Brooklawn Landfill	Brooklawn Circle & Timber Blvd	NJ HIST LF
A9 ²	Reader, John L	100 New Broadway	EDR Hist Auto
B10 ²	Brooklawn Borough Public Works	Haakon Rd	NJ HIST HWS, NJ UST
11	Garage Equipment Sales & Service	226 Chestnut Ave	NJ SHWS, NJ NJEMS
12	South Jersey Container Corporation	267 New Freedom New Brooklyn	NJ HWS RE-EVAL
C13	C & G Auto Body	Rt 130 & Brooklawn	RCRA NonGen / NLR
C14	Merit	Brooklawn Circle & Rt 30	NJ HIST LUST
15	Unknown	202 Paris Ave	NJ SHWS, NJ Release
C16	South Jersey Body Shops, Inc.	218 Crescent Blvd & Rt 130	RCRA-VSQG
17	Hess Corp Station #3	342 Brooklawn Circle	NJ HIST HWS, NJ LUST, NJ UST, NJ Release, NJ SPILLS, RCRA NonGen / NLR, NJ AIRS, NJ NPDES
D18, D19, D21	Brooklawn Citgo	299 Crescent Blvd	NJ SHWS, NJ Release, EDR Hist Auto, NJ HIST HWS, NJ LUST

D20	Brooklawn Circle Conoco	299 Crescent Blvd S & Rt 130 S	NJ LUST
D22	Mobil - B & L Friend	Rt 130 & Horton Rd	RCRA NonGen / NLR, US AIRS
E23	Sals Cleaners	150 W Browning Rd	EDR Hist Cleaner
E24	Belmar Sanco	168 Browning Rd	EDR Hist Auto
¹ A description of each of the databases is detailed in the EDR Report located in Appendix I			
² Sites located exclusively within the study area			

Once the limit and extent of the project impacts are known, further investigation may be warranted to determine the nature of the contamination at some of the sites and the potential implications during construction. Also, should any properties be acquired and demolished or disturbed by construction activities, contaminated material containment, cleanup, and removal measures may be required.

P. ANTICIPATED ENVIRONMENTAL PERMITS OR APPROVALS

Federal:

- Compliance with the National Environmental Policy Act of 1969
- Compliance with Procedures for Abatement of Highway Traffic Noise and Construction Noise Section 4(f) of the US Department of Transportation Act for Federally funded projects that result in a noise impact as defined by 23 CFR § 772
- Compliance with the Federal Clean Air Act
- Consultation under Section 106 of the National Historic Preservation Act to assess effects of federal undertakings on cultural resources
- Consultation for Section 7 of the Endangered Species Act of 1970 with the USFWS for freshwater and terrestrial species and the NMFS for marine species
- United States Army Corps of Engineer Nationwide Permit for impacts to waters of the US, including wetlands regulated under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act
- United States Coast Guard bridge permit if project activities impact the CR 551 bridge over Little Timber Creek

State:

- NJDEP Freshwater Wetlands Protection Act Permit for regulated activities within freshwater wetlands, their transition areas, and State open waters
- NJDEP Coastal Wetlands Permit for regulated activities within coastal wetlands
- NJDEP Waterfront Development In-Water Permit for regulated activities below mean high water and an Upland Permit for up to 500 feet landward
- NJDEP Tidelands Conveyance for occupying areas currently or formerly flowed by the mean high tide
- Compliance with the Flood Hazard Area Control Act Rules through the Coastal Zone Management Rules
- Compliance with the NJDEP Stormwater Management Rules (N.J.A.C. 7:8)
- Soil Erosion and Sediment Control Certification for projects with ground disturbance greater than 5,000 ft²
- NJ Pollutant Discharge Elimination System (NJPDES) General Stormwater Permit for Construction (5G3) if the project exceeds one (1) acre of ground disturbance
- Compliance with Technical Requirement for Site Remediation and Licensed Site Remediation

Q. ENVIRONMENTAL SUMMARY WITH PROBABLE NEPA DOCUMENT REQUIRED

Based on the current proposed improvements and baseline environmental screening, it is anticipated that the project will result in minimal adverse impacts to regulated resources. The project satisfies the Categorical Exclusion (CE) definition outlined in 23 CFR 771.117 (a) and will not result in significant environmental impacts. The project is categorized as CE under Modernization of a highway by resurfacing, restoration, and rehabilitation.

VI. ALTERNATIVE ANALYSIS

CR 551 Broadway suffers from chronic flooding more than eight times a year, and this flooding traps nearby residents between the flooded areas. Current climate studies, as well as State guidance, also predict flooding severity and frequency to increase in the future. Per the hydrologic and hydraulic modeling, during high tide, both sites experience tidal backflow and/or inability to drain. Furthermore, during low tide, many pipes within the project limits have insufficient drainage capacities. Based on the elevations of the project locations, drainage systems, and outfalls, high tides, storm surge, and sea level rise are the primary flooding concern, with flooding intensified during rain events, especially those with high volumes. While the project may not be able to completely satisfy all goals and objectives stated, the alternatives and selected Preliminary Preferred Alternative (PPA) have been designed to address them to the greatest practical extent. There were six (6) alternatives assessed for each project location.

A. PROJECT AREA 1 ALTERNATIVE ANALYSIS DESIGN

The low point of Project Area 1 is located south of the intersection of CR 551 Broadway and West Jersey & Seahorse Railroad/Pennsylvania Reading Seashore Line. The project area experiences chronic flooding, with reported flooding of over one foot for certain flood events, making the roadway difficult to pass through. The existing condition within the 16" Ductile Iron Pipe (DIP) has persistent standing water in the inlet box located in the shoulder of the westbound CR 551, which does not properly drain to the outfall. This is due to a very flat pipe slope of 0.5%. There is only a 3" difference between the upstream and downstream pipe inverts. In addition, the existing drainage system capacities are hampered by tidal backflow into the system causing insufficient drainage during low tide events and roadway flooding during high tide events.

For the purposes of analysis, the proposed improvements were organized into five (5) build alternatives. A sixth, "No Build" alternative was investigated but does not address the Purpose and Need of the project in mitigating flooding along the project area corridor.

B. CONCEPTUAL ALTERNATIVES FOR PROJECT AREA 1

Aside from Alternative 1 – No Build, the following five (5) distinct build alternatives were developed and analyzed:

- Alternative 2 – Drainage System Improvements
- Alternative 3 – Drainage System Improvements and Stormwater Best Management Practice (BMP)
- Alternative 4 – Drainage System Improvements, Stormwater BMP, and Pump Station
- Alternative 5 – Drainage System Improvements and Raising of Roadway Profile
- **Alternative 6 (PPA) - Drainage System Improvements, Pump Station, and Raising of Roadway Profile**

A description of each alternative and the advantages and disadvantages of each alternative are summarized as follows:

ALTERNATIVE 1 – NO BUILD

This alternative would keep the roadway in the current state of repair. The overall condition of the existing roadway is fair; however, the flooding of the roadway is considered critical. The No Build alternative will not address the flooding issue. The roadway would continue to be maintained as needed.

The advantages and disadvantages of this alternative are as follows:

Advantages

- No distinct advantages

Disadvantages

- Does not address Purpose & Need
- Could result in future road closure
- During smaller rainfall events, surge events, and sea level rise scenarios, the drainage system will exceed capacity limits and lead to potential flooding along roadway.

ALTERNATIVE 2 – DRAINAGE SYSTEM IMPROVEMENTS

This alternative would upgrade drainage system performance by raising the inverts of the 16" DIP and increasing the pipe slope, to provide positive drainage to a system that is currently failing. This will also correct the issues at the inlet in the westbound shoulder, with the upstream invert now being higher than the downstream invert. Additionally, the existing 14" x 20" Reinforced Concrete Elliptical Pipe (RCEP) is proposed to be upsized to a 24" Reinforced Concrete Pipe (RCP) to provide additional flow capacity. This alternative will provide sufficient capacity and flow through the drainage system during a 10-year storm event. It also includes the installation of a tide check valve at the outfall which will prevent tidal backflow into the system and surcharging inlets during smaller rain events (10-year event and lesser).

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 10-year storm event, avoiding inlet surcharge and roadway flooding due to insufficient drainage.

Disadvantages

- During larger rainfall events, larger surge events, and sea level rise, the drainage system will exceed capacity limits and lead to potential flooding along roadway.

GOALS AND OBJECTIVES

Alternative 2 satisfies the 10-year storm event. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in a regulated water, riparian zone, 1% annual chance floodplain, tidelands, and a known contaminated site. No adverse impacts to wetlands, threatened or endangered species habitat, air/noise sensitive receptors, or cultural resources are anticipated. Due to the proposed outfall improvements, a New Jersey Department of Environmental Protection (NJDEP) Waterfront Development permit, NJDEP Tidelands License, and United States Army Corps of Engineers (USACE) permit may be required.

RIGHT-OF-WAY

This will require an acquisition of (0.045 AC +/-) for the outfall within the tidelands area.

UTILITIES

Alternative 2 may impact the known existing underground telephone cables, fiber optic cables, sewer main, and existing duct bank. The existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase. Test holes will be required during the design phase to identify depths to confirm conflicts

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 2 is \$148,000 and the estimated construction duration is approximately one (1) month. The estimated total project cost is \$453,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

ALTERNATIVE 3 – DRAINAGE SYSTEM IMPROVEMENTS AND STORMWATER BMP

This alternative is the same as Alternative 2 but also includes the installation of a tide check valve at the outfall which will prevent tidal backflow into the system and surcharging inlets during smaller rain events (10-year event and lesser). Additionally, this alternative also proposes a Stormwater Best Management Practice (BMP) basin to the west of CR 551. The Stormwater BMP will provide storage to alleviate the

roadway flooding and reduce the peak flow to the outfall during large rain events such as 100-year storm events, in addition will provide protection against high tide and surge events up to 4'. This scenario results in an increase of maximum storage to alleviate the ponding water on the roadway and provide a decrease in peak flow compared to the existing conditions during each of the modeled rain events.

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 10-year storm event, avoiding inlet surcharge and roadway flooding due to insufficient drainage.
- Provides protection against high tide and surge events up to 4' in elevation.
- With the addition of the BMP this will alleviate the ponding along the roadway and decrease the peak flow to the existing outfall. This will also allow for the area to accommodate a 10-year rainfall event.

Disadvantages

- Will not protect against surge events from the expected model of 5.7' in elevation.

GOALS AND OBJECTIVES

Alternative 3 satisfies the 100-year storm event, alleviates the ponding along the roadway, and decreases the peak flow to the existing outfall. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in a regulated water, riparian zone, 1% annual chance floodplain, tidelands, and a known contaminated site. No adverse impacts to wetlands, threatened or endangered species habitat, air/noise sensitive receptors, or cultural resources are anticipated. Due to the proposed outfall improvements, a New Jersey Department of Environmental Protection (NJDEP) Waterfront Development permit, NJDEP Tidelands License, and United States Army Corps of Engineers (USACE) permit may be required.

RIGHT-OF-WAY

To accommodate the basin, fee acquisition from two properties (0.58 AC +/-), a temporary construction easement (0.113 AC +/-) and a tidelands impact acquisition of (0.045 AC +/-) will be needed.

UTILITIES

The drainage system improvements may impact the known existing underground telephone cables, fiber optic cables, sewer main, and existing duct bank. The existing underground utilities may require

relocations if potential conflicts cannot be mitigated in the design phase. Test holes will be required during the design phase to identify depths to confirm conflicts.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 3 is \$815,000 and the estimated construction duration is approximately two (2) months. The estimated total project cost is \$1,432,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

ALTERNATIVE 4 – DRAINAGE SYSTEM IMPROVEMENTS, STORMWATER BMP, AND PUMP STATION

This alternative is the same as Alternative 3 with an added pump station. The pump station is to be placed downstream of the BMP to expedite the roadway drainage during high tide and surge events.

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 10-year storm event, avoiding inlet surcharge and roadway flooding due to insufficient drainage.
- With the addition of the BMP this will alleviate the ponding along the roadway and decrease the peak flow to the existing outfall.
- The pump station will expedite the roadway drainage and reduce roadway flooding during high tide and surge events.
- Provides protection against high tide and surge events up to 4' in elevation.

Disadvantages

- The costliest option.
- Will not protect against surge events from the expected model of 5.7' in elevation.

GOALS AND OBJECTIVES

Alternative 4 satisfies the 100-year storm event, alleviates the ponding along the roadway, and decreases the peak flow to the existing outfall. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in a regulated water, riparian zone, 1% annual chance floodplain, tidelands, and a known contaminated site. No adverse impacts to wetlands, threatened or endangered species habitat, air/noise sensitive receptors, or cultural resources are anticipated. Due to the proposed outfall

improvements, a New Jersey Department of Environmental Protection (NJDEP) Waterfront Development permit, NJDEP Tidelands License, and United States Army Corps of Engineers (USACE) permit may be required.

RIGHT-OF-WAY

Accommodating the basin and pump station, a fee acquisition of (0.58 AC +/-), a temporary construction easement (0.113 AC +/-) and a tidelands impact acquisition of (0.045 AC +/-) will be needed.

UTILITIES

The drainage system improvements may impact the known existing underground telephone cables, fiber optic cables, sewer main, and existing duct bank. The existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase. Test holes will be required during the design phase to identify depths to confirm conflicts. Additionally, a new electrical utility service and utility meter will be required from Public Service Electric & Gas.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 4 is \$1,388,000 and the estimated construction duration is approximately three (3) months. The estimated total project cost is \$2,261,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

ALTERNATIVE 5 – DRAINAGE SYSTEM IMPROVEMENTS AND RAISING OF ROADWAY PROFILE

This alternative prevents tidal backflow into the system and prevents certain surge events and sea level rise scenarios from flooding the roadway. In addition to drainage system improvements, this alternative proposes to raise the roadway profile up to 1.5 ft from between the Little Timber Creek Bridge and the railroad. (Note: the proposed design ties into existing grade before encountering the bridge or the railroad). For the 100-year rainfall event (with 25% increase in rainfall) at high tide, the roadway is no longer inundated with flood waters and the roadway elevation is above modeled maximum water surface elevation (5.7'). Under existing conditions, the maximum roadway flood depth for this event is approximately 1.43 feet. For comparable surge and sea level rise events (as well as lesser tidal and rainfall events) this alternative prevents roadway flooding. Raising the roadway profile brings the roadway out of the 100 year + 25% rainfall floodplains.

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 10-year storm event, avoiding inlet surcharge
- Raising of the roadway will place the roadway elevation above predicted flood

and roadway flooding due to insufficient drainage.

- Provides protection against high tide and surge events up to 5.7' in elevation.

water elevations removing it from impacts of the 100 year + 25% rainfall floodplain.

Disadvantages

- May require road closures and traffic detours to complete construction. Staged construction will be investigated to avoid road closures if possible.

GOALS AND OBJECTIVES

Alternative 5 satisfies the 100-year + 25% rainfall floodplain storm event. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in a regulated water, riparian zone, 1% annual chance floodplain, tidelands, and a known contaminated site. No adverse impacts to wetlands, threatened or endangered species habitat, air/noise sensitive receptors, or cultural resources are anticipated. Due to the proposed outfall improvements, a New Jersey Department of Environmental Protection (NJDEP) Waterfront Development permit, NJDEP Tidelands License, and United States Army Corps of Engineers (USACE) permit may be required.

RIGHT-OF-WAY

This will require an acquisition of (0.045 AC +/-) for the outfall within the tidelands area. A temporary easement for grading adjacent to the roadway areas due to raising the roadway profile will also be needed.

UTILITIES

Alternative 5 may impact the known existing underground telephone cables, fiber optic cables, sewer main, and existing duct bank. The existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase. Test holes will be required during the design phase to identify depths to confirm conflicts.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 5 is \$721,000 and the estimated construction duration is approximately six (6) months. The estimated total project cost is \$1,254,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD),

and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

ALTERNATIVE 6 – DRAINAGE SYSTEM IMPROVEMENTS, PUMP STATION, AND RAISING OF ROADWAY PROFILE (PPA)

This alternative is the same as alternative 5 but includes the pump station which will provide for faster system drainage during high tide and surge events. However, in the future and for more extreme events, a pump station may become warranted and provide additional benefit. The pump station can be installed at this location and the water elevation sensors will be set to turn the pump on for more extreme storm events as needed, providing an additional level of protection for the project area. (Note: For the most extreme storm events, the water elevation sensors will be triggered to turn the pump off as it will no longer be effective until waters recede.)

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 10-year storm event, avoiding inlet surcharge and roadway flooding due to insufficient drainage.
- Raising of the roadway will place the roadway elevation above predicted flood water elevations removing it from impacts of the 100 year + 25% rainfall floodplain.
- The pump station will expedite roadway drainage and reduce roadway flooding duration during higher tide and surge events.
- Provides protection against high tide and surge events up to 5.7' in elevation.

Disadvantages

- May require road closures and traffic detours to complete construction. Staged construction will be investigated to avoid road closures if possible.

GOALS AND OBJECTIVES

Alternative 6 will satisfy the 100-year + 25% rainfall floodplain storm event. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in a regulated water, riparian zone, 1% annual chance floodplain, tidelands, and a known contaminated site. No adverse impacts to wetlands, threatened or endangered species habitat, air/noise sensitive receptors, or cultural resources are anticipated. Due to the proposed outfall improvements, a New Jersey Department of Environmental Protection (NJDEP) Waterfront Development

permit, NJDEP Tidelands License, and United States Army Corps of Engineers (USACE) permit may be required.

RIGHT-OF-WAY

This alternative will require an acquisition of (0.04 AC +/-) for the installation and maintenance of the pump station and an acquisition of (0.04 AC +/-) for the outfall within the tidelands area.

UTILITIES

The drainage system improvements may impact the known existing underground telephone cables, fiber optic cables, sewer main, and existing duct bank. The existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase. Test holes will be required during the design phase to identify depths to confirm conflicts. Additionally, a new electrical utility service and utility meter will be required from Public Service Electric & Gas.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 6 is \$1,301,000 and the estimated construction duration is approximately six (6) months. The estimated total project cost is \$2,116,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

C. PROJECT AREA 2 ALTERNATIVE ANALYSIS DESIGN

This project area experiences frequent road closures due to flooding events, and to allow traffic flow to continue, the Borough of Brooklawn maintains an emergency bypass route over the railroad to the east of CR 551. Several pipes in the drainage system are substandard. In addition, the existing drainage system capacities are hampered by tidal backflow into the system, causing insufficient drainage during low tide events and roadway flooding during high tide events. Due to the low elevation of the roadway adjacent to the Brooklawn Circle, the roadway is often overtopped by the adjacent inlet during high tide and surge events. Additionally, the span of CR 551 just north of the inlet (intersection of Town Center Road and CR 551) experiences frequent flooding, preventing the adjacent neighborhood residents from roadway access and evacuation routes.

For the purposes of analysis, the proposed improvements were organized into four (4) build alternatives. A fourth, “No Build” alternative was investigated but does not address the Purpose and Need of the project in mitigating flooding along the project area corridor.

D. CONCEPTUAL ALTERNATIVES PROJECT AREA 2

Aside from Alternative 1 – No Build, the following four (4) distinct build alternatives were developed and analyzed:

- Alternative 2 – Drainage System Improvements
- Alternative 3 – Drainage System Improvements and Flood Wall Extension
- **Alternative 4 (PPA) – Drainage System Improvements and Pump Station**
- Alternative 5 – Drainage System Improvements, Flood Wall Extension, and Pump Station

A description of each alternative and the advantages and disadvantages of each alternative are summarized as follows:

ALTERNATIVE 1 – NO BUILD

This alternative would keep the roadway in the current state of repair. The overall condition of the existing roadway is fair; however, the flooding of the roadway is considered critical. The No Build alternative will not address the flooding issue. The roadway would continue to be maintained as needed.

The advantages and disadvantages of this alternative are as follows:

Advantages

- No distinct advantages

Disadvantages

- Does not address Purpose & Need
- Could result in future road closure
- During smaller rainfall events, surge events, and sea level rise scenarios, the drainage system will exceed capacity limits and lead to potential flooding along roadway.

ALTERNATIVE 2 – DRAINAGE SYSTEM IMPROVEMENTS

This alternative would upgrade the drainage system performance by increasing the 18" DIP capacity (by increasing the size and or slope) which is already being completed as part of the NJDOT's Route 130 Over Big Timber Creek Project. The alternative also proposes to upsize the 8" Vitrified Clay Pipe (VCP) to a 15" Ductile Iron Pipe (DIP), the 15" VCP to a 24" RCP, the 18" VCPs to 24" RCPs, thus providing sufficient capacity in the stormwater drainage system. For the 100-year rainfall event (with 25% increase in rainfall) at high tide, the roadway is no longer inundated with flood waters and the roadway elevation is above modeled maximum water surface elevation. This alternative also includes the installation of a tide check valve at the outfall which will prevent tidal backflow into the system and surcharging inlets during smaller rain events (10-year event and lesser).

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 100-year storm event + 25% rainfall + high tide event.

Disadvantages

- Does not provide protection against high tide and surge events up to 5.5' in elevation.

GOALS AND OBJECTIVES

Alternative 2 satisfies the 10-year storm event. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in regulated waters, riparian zones, the 1% annual chance floodplain, tidelands, potential wetlands, threatened or endangered species habitat, and a known contaminated site. No adverse impacts to air/noise sensitive receptors or cultural resources are anticipated. Due to the proposed outfall, flood wall, and drainage system improvements, a NJDEP Coastal Wetlands permit, NJDEP Waterfront Development permit, NJDEP tidelands license, and USACE permit may be required.

RIGHT-OF-WAY

This alternative will require a permanent easement of (0.06 +/- AC.) for the drainage system improvements and an acquisition of (0.03 AC +/-) for the outfall within the tidelands area.

UTILITIES

Alternative 2 may impact the existing underground sanitary sewer, water main and gas main. Vertical and horizontal clearance will need to be considered during design to avoid both physical conflicts and proximity conflicts with utilities. Existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 2 is \$216,000 and the estimated construction duration is approximately one (1) month. The estimated total project cost is \$611,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

ALTERNATIVE 3 – DRAINAGE SYSTEM IMPROVEMENTS AND FLOODWALL EXTENSION

This alternative is the same as alternative 2 but is proposing to extend the current flood wall north to the end of the marsh area. Based on existing topography at the end of the marsh area, the current wall extents proposed for the Route 130 over Big Timber Creek Project appear to be sufficient. Extending the flood

wall further is likely unnecessary as the ground elevation naturally begins to rise (above 6') at the currently proposed flood barrier limits.

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 100-year storm event + 25% rainfall + high tide event.
- Provides protection against high tide and surge events up to 5.5' in elevation.

Disadvantages

- The extension of the flood barrier is unnecessary as the ground elevation rises above 5.5' elevation

GOALS AND OBJECTIVES

Alternative 3 satisfies the 100-year + 25% rainfall storm event and high tide/surge events up to 5.5'. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in regulated waters, riparian zones, the 1% annual chance floodplain, tidelands, potential wetlands, threatened or endangered species habitat, and a known contaminated site. No adverse impacts to air/noise sensitive receptors or cultural resources are anticipated. Due to the proposed outfall, flood wall, and drainage system improvements, a NJDEP Coastal Wetlands permit, NJDEP Waterfront Development permit, NJDEP tidelands license, and USACE permit may be required.

RIGHT-OF-WAY

This alternative will require an acquisition of (0.025 +/- AC) for the extension of the floodwall, temporary easements (0.089 +/- AC) on two properties to perform minor regrading related to the considered installation, a permanent easement of (0.06 +/- AC) for the drainage system improvements, and (0.03 AC +/-) for the outfall within the tidelands area.

UTILITIES

The drainage system improvements may impact the existing underground sanitary sewer, water main and gas main. Vertical and horizontal clearance will need to be considered during design to avoid both physical conflicts and proximity conflicts with utilities. Existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 3 is \$1,237,000 and the estimated construction duration is approximately five (5) months. The estimated total project cost is \$1,940,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

ALTERNATIVE 4 – DRAINAGE SYSTEM IMPROVEMENTS AND PUMP STATION (PPA)

This alternative is the same as Alternative 2 with the addition of a pump station. However, if the roadway does not flood during this event or lesser events, a pump station will not provide additional benefit for these storms. Therefore, a pump station is not required to protect the roadway for these storm events at this time. However, in the future and for more extreme events, a pump station may become warranted and provide additional benefit. The pump station can be installed at this location and the water elevation sensors will be set to turn the pump on for more extreme storm events as needed, providing an additional level of protection for the project area. (Note: For the most extreme storm events, the water elevation sensors will be triggered to turn the pump off as it will no longer be effective until waters recede.)

The advantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 100-year storm event + 25% rainfall + high tide event.
- Provides protection against high tide and surge events up to 5.5' in elevation.
- The pump station will expedite roadway drainage and reduce roadway flooding duration during higher tide and surge events.

GOALS AND OBJECTIVES

Alternative 4 satisfies the 100-year storm event + 25% rainfall + high tide event. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in regulated waters, riparian zones, the 1% annual chance floodplain, tidelands, potential wetlands, threatened or endangered species habitat, and a known contaminated site. No adverse impacts to air/noise sensitive receptors or cultural resources are anticipated. Due to the proposed outfall, flood wall, and drainage system improvements, a NJDEP Coastal Wetlands permit, NJDEP Waterfront Development permit, NJDEP tidelands license, and USACE permit may be required.

RIGHT-OF-WAY

This alternative will require a permanent easement of (0.06 +/- AC) for the drainage system improvements and (0.03 AC +/-) for the outfall within the tidelands area.

UTILITIES

The existing underground sanitary sewer, water main and gas main may be impacted. Vertical and horizontal clearance will need to be considered during design to avoid both physical conflicts and proximity conflicts with utilities. Existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase. Additionally, a service drop is needed for the pump station and 3-Phase Service.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 4 is \$781,000 and the estimated construction duration is approximately two (2) months. The estimated total project cost is \$1,316,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

ALTERNATIVE 5 – DRAINAGE SYSTEM IMPROVEMENTS, EXTENSION OF THE FLOOD WALL, AND INSTALLATION OF A PUMP STATION

This alternative is the same as Alternative 3 with the addition of a pump station. However, if the roadway does not flood during this event or lesser events, a pump station will not provide additional benefit for these storms. Therefore, a pump station is not required to protect the roadway for these storm events at this time. However, in the future and for more extreme events, a pump station may become warranted and provide additional benefit. The pump station can be installed at this location and the water elevation sensors will be set to turn the pump on for more extreme storm events as needed, providing an additional level of protection for the project area. (Note: For the most extreme storm events, the water elevation sensors will be triggered to turn the pump off as it will no longer be effective until waters recede.)

The advantages and disadvantages of this alternative are as follows:

Advantages

- Provides sufficient capacity and flow through the drainage system during a 100-year storm event + 25% rainfall + high tide event.
- Provides protection against high tide and surge events up to 5.5' in elevation.
- The pump station will expedite roadway drainage and reduce roadway flooding duration during higher tide and surge events.

Disadvantages

- The costliest option.
- Based on existing topography, the current wall extents proposed for the Route 130 over Big Timber Creek Project are

sufficient. Extending the flood wall further is likely unnecessary.

GOALS AND OBJECTIVES

Alternative 5 satisfies the 100-year storm event + 25% rainfall + high tide/ surge events up to 5.5'. More information is available in the Alternatives Matrix, Appendix L.

ENVIRONMENTAL

Project activities are proposed in regulated waters, riparian zones, the 1% annual chance floodplain, tidelands, potential wetlands, threatened or endangered species habitat, and a known contaminated site. No adverse impacts to air/noise sensitive receptors or cultural resources are anticipated. Due to the proposed outfall, flood wall, and drainage system improvements, a NJDEP Coastal Wetlands permit, NJDEP Waterfront Development permit, NJDEP tidelands license, and USACE permit may be required.

RIGHT-OF-WAY

This alternative will require an acquisition for (0.025 +/- AC) for the extension of the floodwall, temporary easements (0.089 +/- AC) on two properties to perform minor regrading related to the considered installation, a permanent easement of (0.06 +/- AC) for the drainage system improvements, and (0.03 AC +/-) for the outfall within the tidelands area.

UTILITIES

The existing underground sanitary sewer, water main and gas main may be impacted. Vertical and horizontal clearance will need to be considered during design to avoid both physical conflicts and proximity conflicts with utilities. Existing underground utilities may require relocations if potential conflicts cannot be mitigated in the design phase. Additionally, a service drop is needed for the pump station and 3-Phase Service.

CONSTRUCTION/COST ESTIMATE

The estimated construction cost for Alternative 5 is \$1,913,000 and the estimated construction duration is approximately six (6) months. The estimated total project cost is \$2,848,000, which includes construction cost as well as utility relocation, right-of-way acquisition, Preliminary Engineering (PE), Final Design (FD), and Construction Engineering/Construction Inspection (CE/CI) costs. A breakdown of all estimated project costs is provided in the Alternatives Matrix, Appendix L.

E. TRAFFIC REGULATION ORDERS

The need for Traffic Regulation Orders (TROs) in the PPA was investigated and determined not necessary for this project.

F. RIGHT-OF-WAY IMPACTS AND REVIEW

Existing right-of-way limits and property information are based on available as-built plans and GIS data; therefore, all plotted lines are approximate and subject to changes and revisions. In PE, when detailed survey, right-of-way maps of record, file maps, subdivisions, other available maps and deed information is obtained and reviewed, existing line placement can be adjusted, and some improvements may be refined such that they are within the right-of-way and do not impact private properties.

Alternatives 3 and 4 at Project Area 1 requires acquisition of two (2) properties and a temporary easement. This will accommodate the installation of the proposed stormwater BMP and pump station installation. For Alternative 5, an acquisition of 0.04 acres is needed for the pump station installation. All alternatives for Project Area 1 will require a tideland impact for the outfall.

Alternatives 3 and 5 at Project Area 2 will requires an acquisition of land for the floodwall extension and a temporary easement on two (2) properties to perform minor regrading. All alternatives for Project Area 2 will require a tideland impact for the outfall and a permanent easement for the drainage system improvements.

G. CONSTRUCTABILITY AND STAGING PLANS AND DETOUR PLANS

There are two (2) project areas on County Route (CR) 551 Broadway between MP 29.46 to 29.61 and MP 30.08 to 30.21. Project Area 1 will include replacement of drainage features, raising of the roadway profile, and installation of a pump station. Project Area 2 will include replacement of drainage features and installation of a pump station. The proposed construction staging and durations will be dependent on the design methodology and construction techniques adopted in preliminary/final design.

Conceptually, the proposed construction would consist of the following basic stages for the PPA for each project area.

Project Area 1:

Alternative 6: Replacement of Pipes, Raising of the Roadway Profile, and Installation of a Pump Station

Stage 1: (Maintain 1-lane of traffic, via one-way detour; Detour SB Traffic and maintain NB Traffic)

- Install proposed pump station, construct new outfall location, replace drainage features, and reconstruct roadway (raise roadway profile) for southbound half of CR 551.

Stage 2: (Maintain 1-lane of traffic, via one-way detour; Detour SB Traffic and maintain and shift NB Traffic south)

- Installation of drainage features and profile raise/roadway improvements for northbound half of CR 551.

Project Area 2:

Alternative 4: Replacement of Pipes, and Installation of a Pump Station

The improvements to Project Area 2 can be completed concurrently with Project Area 1 staging concepts or completed independently as noted below.

Stage 1: (Maintain 1-lane of traffic, via flagging operation (alternating traffic))

- Install pump station and drainage system improvements for north half of CR 551.

Stage 2: (Maintain 1-lane of traffic, via flagging operation (alternating traffic))

- Install drainage system improvements and profile raise/roadway improvements for south half of CR 551.

H. ALTERNATIVES MATRIX

A comparison matrix of the developed alternatives, along with a no-build alternative, is available in Appendix L.

I. RISK ANALYSIS SUMMARY

The Risk Management Process prioritizes risks for further analysis or action by assessing and combining their probability of occurrence and magnitude of impact. The project Risk Register was completed during CD and will require updates during the design phases. The Risk Register for the project is provided in Appendix H.

J. NJDOT SUBJECT MATTER EXPERT (SME) MEETING

Coordination with NJDOT Subject Matter Experts (SMEs) was arranged through NJDOT Local Aid and conducted at a virtual meeting on June 21, 2021, following meetings with the County. Comments provided were in support of the design decision made to date, and general support of the recommended PPA was provided. A meeting summary is available in Appendix D.

VII. CONCEPT DEVELOPMENT RECOMMENDATION

The recommended PPA addresses the established purpose and need, was viewed favorably by the Core Group and received general support from the public. No fatal flaws have been identified with the PPA. For Project Area 1, the recommended PPA is Alternative 6, which includes replacement of drainage features, raising of the roadway profile, and installation of a pump station. For Project Area 2, the recommended PPA is Alternative 4, which includes replacement of drainage features and installation of a pump station.

A. INTERAGENCY REVIEW COMMITTEE RECOMMENDATION AND APPROVAL

See Appendix Q for the Interagency Review Committee (IRC) recommendation and approval letter dated March 20, 2023.

B. MUNICIPAL RESOLUTIONS OF SUPPORT

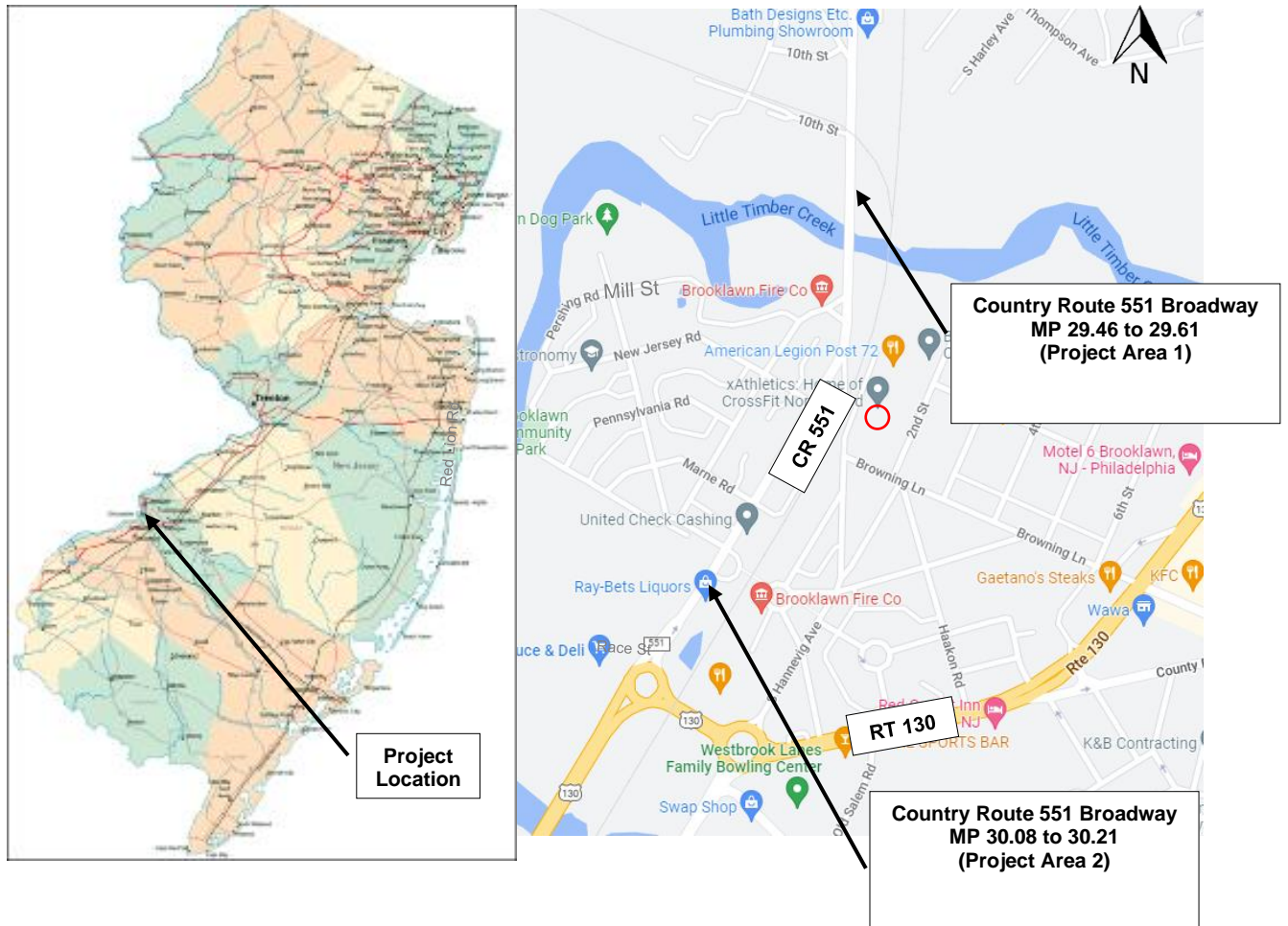
The City of Gloucester City passed a Resolution of Support for the Preliminary Preferred Alternative at Project Area 1 on December 22, 2022. The Borough of Brooklawn passed a Resolution of Support for the Preliminary Preferred Alternative at Project Area 2 on December 19, 2022. Both Resolutions of Support are included in Appendix P.

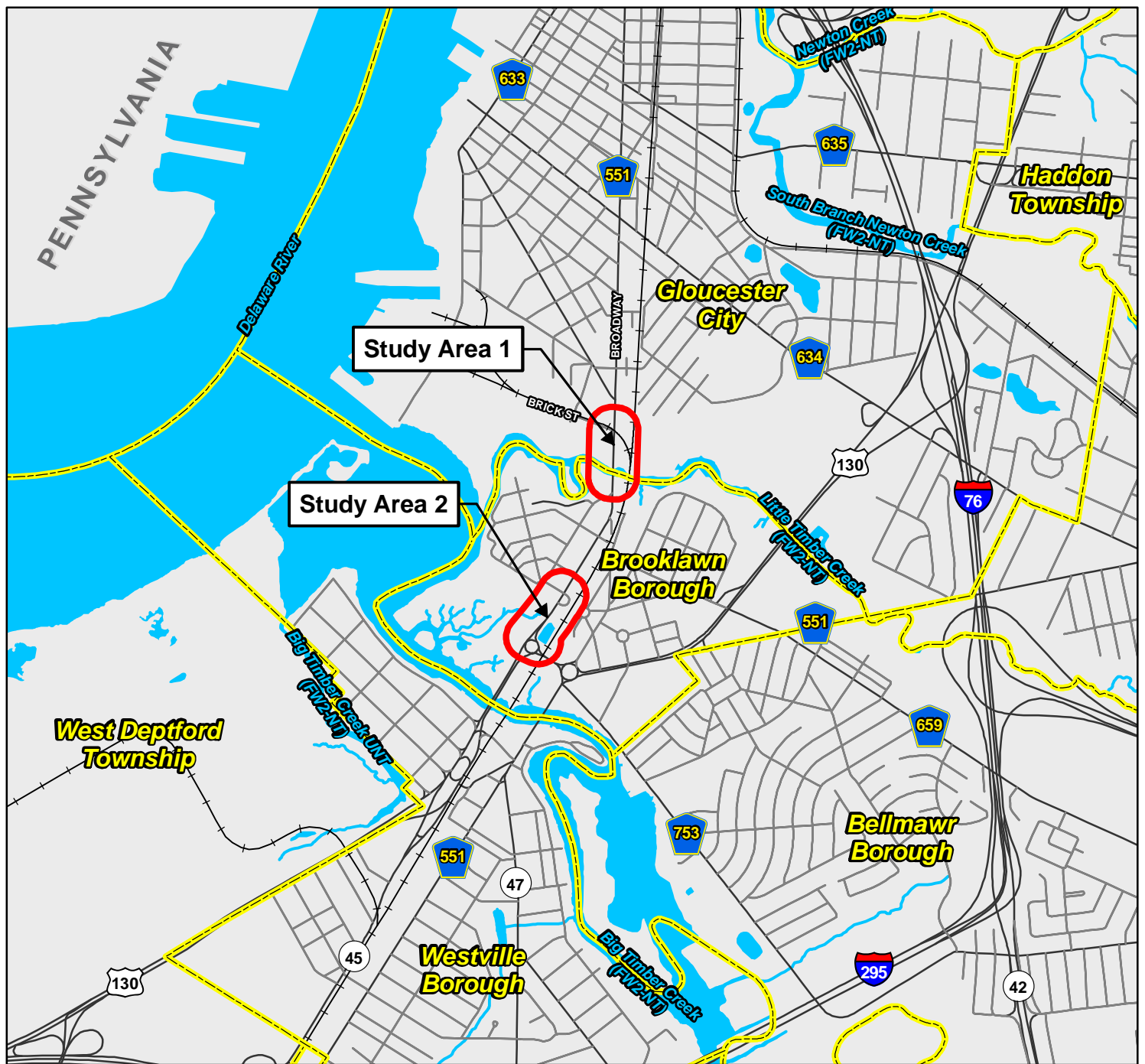
APPENDIX A – LOCATION MAP AND STRAIGHT LINE DIAGRAM



PROJECT LOCATION MAP

Local Concept Development Study for County Route 551 Broadway Borough of Brooklawn and City of Gloucester, New Jersey





Data Source: NJ Department of Transportation New Jersey Roads (2020), NJ Department of Environmental Protection (NJDEP), Office of Information Resources Management (OIRM), Bureau of Geographic Information Systems (BGIS), Municipalities of New Jersey (2009), National Hydrography Dataset (NHD) Waterbody 2002, Surface Water Quality Standards of New Jersey, Edition 20200327 (2020), NJ Office of Information Technology (NJ OIT), NJ TRANSIT Rail, Light Rail, and Subway Currently Operated Right-of-Way lines, with connecting PATH and PATCO Rail, 2016 (NAD83, NJSP feet), (01/09/2016)

LEGEND

- Study Area
- Surface Water
- Municipal Boundary
- Major Road
- Minor Road
- Railroad



2,000 1,000 0 2,000
Feet

Delaware Valley Regional Planning Commission

Figure 1
Project Location

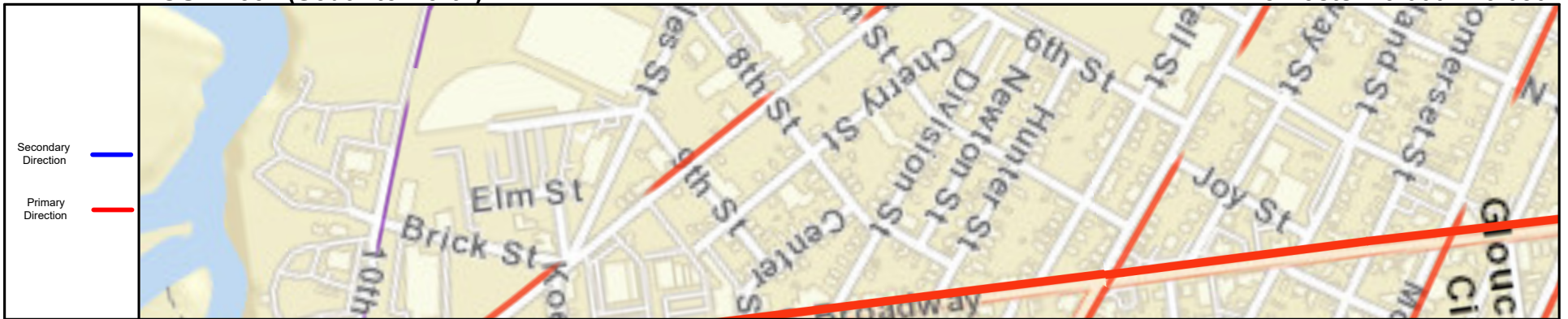
FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ

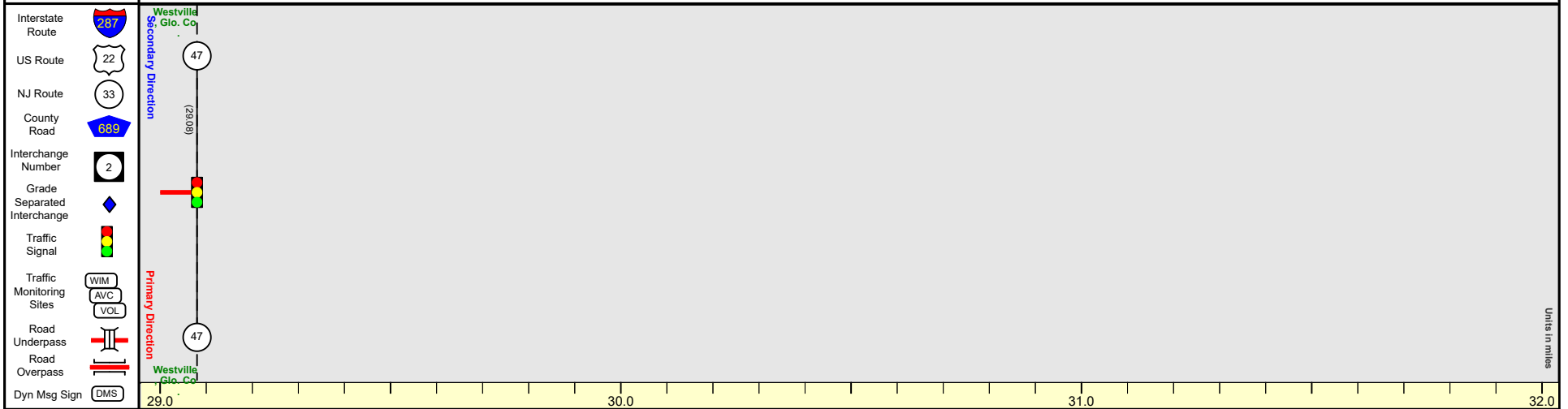


ROUTE 551 (South to North)

Mile Posts: 29.000 - 29.080



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	Broadway
Jurisdiction	County
Functional Class	Urban Minor Arterial
Federal Aid - NHS Sy	STP
Control Section	
Speed Limit	30
Number of Lanes	2
Med. Type	None
Med. Width	
Pavement	24
Shoulder	8
Traffic Volume	5,349 (2019)
Traffic Sta. ID	7-4450
Structure No.	
Enlarged Views	

SRI = 00000551__

Date last inventoried: June 2012

APPENDIX B – AS-BUILT PLANS

APPENDIX C – PUBLIC ACTION PLAN

PUBLIC ACTION PLAN
Local Concept Development Study for
County Road 551 Broadway
Borough of Brooklawn, Camden County, New Jersey



INTRODUCTION

Engaging the local and regional communities as part of the Local Concept Development (LCD) Study phase enables awareness and information sharing in the identification and development of proposed transportation improvements with community insight. Coordination of community outreach efforts early in the study provides an opportunity to obtain input on project needs and deficiencies and aids in creating conceptual alternatives that could be understood by the local communities and contribute to building broad-based support for drainage improvements.

The purpose of the public involvement effort for the County Road 551 Broadway LCD Study is to involve and inform the public by providing access to the planning approach and decision-making process. The Public Action Plan (PAP), as described in the following sections, aims to provide opportunities for public comment regarding the identification and development of proposed improvements. The intention of the PAP document is to:

- Establish a public involvement approach, which can evolve as the project progresses;
- Keep the public involved and informed; and
- Maintain broad-based support for the flood mitigation study with consideration for context sensitive design solutions, which meet the purpose and need for improvements.

Community outreach efforts will be documented for the duration of the LCD study, including meeting summaries, presentation materials, and written public comments. For the LCD Study phase, a public outreach summary will be provided as part of the final report including documentation of the Resolutions of Support from the Borough of Brooklawn and Camden County. Public meeting procedures, advertisements, and notices overseen by the Delaware Valley Regional Planning Commission (DVRPC) will comply with Federal guidelines and standards.

Public Action Plan: The Public Action Plan (PAP) will include strategies for communicating project information to stakeholders and soliciting project feedback. The PAP will be relevant to the project and developed in consultation with the Project Team and other appropriate parties. The purpose of the plan is to solicit public involvement, as early as possible, within the LCD phase and to continue throughout Local Preliminary Engineering (LPE), Final Design (FD), and Construction.

It will be noted that the PAP is a “living” document that shall be amended in consultation with the Project Team as the project advances through LCD phase. The Consultant shall submit the PAP to the Project Team for their review, records, and distribution. The final deliverable including number of copies and media type shall be as directed by the Project Team. The PAP will identify the stakeholders and outline the number of Public Information Centers (PIC) required.

ANTICIPATED OUTREACH

Local Concept Development: The LCD phase for this project will include the collection, review and analysis of background data and existing physical features; the development of alternatives; and the selection of the PPA. During the LCD Phase, up to three (3) local official meetings, two (2) stakeholders meetings, and two (2) PICs are anticipated. The LCD phase public involvement activities are described in detail below:

Local Officials Meetings: Michael Baker will serve as the liaison between the Local Officials and the Project Team.

Public Action Plan County Road 511 Broadway LCD Study

Local Officials Contacts:

Borough of Brooklawn

Mayor Theresa Branella

Clerk & Administration

Township Administrator/Clerk, Ryan Giles, RMC/CMFO/CMR
(856) 456-0750 Ext. 106, boroclerk@brooklawn-nj.com

Up to three Local Officials Meetings are anticipated during the LCD phase. These follow the same schedule and format as the Stakeholders Meetings listed below.

Stakeholders Meetings: Michael Baker will serve as the liaison between the stakeholders and the Project Team. The anticipated stakeholders list with contact information is included in the **Key Project Stakeholders** section within this document. Two Stakeholder meetings are anticipated in Local Concept Development.

Stakeholders Meeting No. 1 is tentatively scheduled for October 2021 and will review the developed Purpose & Need and solicit stakeholder feedback.

Stakeholders Meeting No. 2 is tentatively scheduled for March 2022 and will review the draft Preliminary Preferred Alternative and solicit stakeholder feedback.

Public Information Centers: Michael Baker will serve as the liaison between the public and the Project Team. Public mailings will be sent to properties within a given distance from the project location, assumed to be 1,000 feet. Two PIC meetings are anticipated during the LCD phase.

PIC Meeting No. 1 is tentatively scheduled for November 2021 and will review the developed Purpose & Need and solicit feedback.

PIC Meeting No. 2 is tentatively scheduled for June 2022 and will review the developed Preliminary Preferred Alternative and solicit feedback.

All meetings will be held virtually until further notice. The 2 PIC meetings will have translation provided.

PAP DELIVERABLES

Meeting Summaries: Summaries will be prepared for all public involvement meetings. The summaries will be comprehensive and include an action item list. The summaries will be completed within five (5) business days of the meeting and distributed to the Project Team and meeting attendees.

Project Fact Sheet: A Project Fact Sheet will be prepared and distributed at all meetings with local officials. The Project Fact Sheet will include a brief project history, project issues, project location map, and other information obtained during the data collection period.

Project Displays: Displays will be utilized to illustrate existing conditions and the proposed improvements to the local officials and the public. Project displays may include project aerials, a project process display, environmental constraints display, alternatives displays and a PPA display. The displays will be electronic and shared via virtual meeting software, or display boards will be created for in-person meetings.

Public Action Plan

County Road 511 Broadway LCD Study

LOCAL PRELIMINARY ENGINEERING (LPE) PHASE

LPE Public Outreach: The LPE phase for this project will include the development of engineering plans, technical environmental studies, and environmental documentation. During the LPE Phase, the following activities are anticipated:

- Update to the Stakeholders list
- One (1) Local Officials Meeting
- One (1) Public Information Center

The purpose of the Local Officials meeting and the LPE PIC is to present the current design and construction staging plans and solicit comments from the public, especially residents and business owners in the project area. The PIC will have a refined design of the PPA, where the stakeholders and public can gain a better understanding of the degree of impact required, major benefits provided, and potential trade-offs required.

FINAL DESIGN (FD) PHASE

FD Public Outreach: The FD phase for this project will include development of engineering plans, Environmental Permits, and Access/ROW Plans as needed. During the FD Phase, the following activities are anticipated:

- Update to the Stakeholders list
- One (1) Local Officials Meeting
- One (1) Public Information Center

The purpose of the Local Officials Meeting and FD PIC is to present the project and solicit comments from the public, especially residents and business owners in the project area, and to inform them of project schedule, and expected impacts during construction, including detours as needed during construction. Stakeholders and Local Officials coordination will take place in preparation for the above PIC, as needed.

CONSTRUCTION PHASE

Construction Public Outreach: The Construction phase for this project will include flood mitigation measures and drainage improvements. During the Construction Phase, a Pre-Construction meeting is anticipated, and if long-term detours are identified, further public outreach will be established in LPE/FD phases. Stakeholders and Local Officials coordination will take place in preparation for the above Pre-Construction meeting, as needed.

COMMUNITY PROFILE

Available demographic and economic data from the U.S. Census Bureau's American Community Survey (ACS) (2014-2018) 5-year estimates were used to develop a community profile to determine the presence or absence of minority and/or low-income populations within the study area. Numerous data sources were examined to determine the presence of environmental justice communities, including the ACS 2014-2018 5-year estimates, Environmental Protection Agency (EPA) Environmental Justice Screening (EJ Screen) Tool, the New Jersey Environmental Justice Mapping Tool. When noted in this section only, the

Public Action Plan County Road 511 Broadway LCD Study

“Study Area” is defined as the area within 1,000 feet of the project areas. Refer to Table 1 below for the results of the analysis.

Table 1. Race and Ethnicity Breakdown

Race/Ethnicity	New Jersey	Camden County	Tract 6110 Block Group 1	Tract 6110 Block Group 6	Tract 6053 Block Group 1	Tract 6053 Block Group 2	Within 1,000 feet of Study Area
Total Population	8,881,845	507,367	840	1,293	1,240	783	1,564
Population within Race							
White	67.9%	63%	84%	89%	77%	92%	87%
Black or African American	13.5%	19%	2%	4%	8%	2%	4%
American Indian and Alaska Native	0.2%	0%	0%	0%	0%	0%	0%
Asian	9.4%	6%	6%	6%	4%	0%	2%
Native Hawaiian and Other Pacific Islander	0%	0%	0%	0%	0%	0%	0%
Some Other Race	6.4%	8%	0%	0%	9%	4%	4%
Two or More Races	2.6%	3%	8%	0%	2%	2%	2%
Population within Ethnicity							
Hispanic or Latino	19.9%	16%	0%	0%	8%	4%	4%
Non-Hispanic or Non-Latino	80.1%	84%	100%	100%	91%	96%	96%
<i>Source: U.S. Census Bureau 2014-2018 American Community Survey 5-year estimates</i>							

The ACS estimates a total population of 1,564, 13% being a member of a racial minority (non-white), and 4% of the total population identifying as Hispanic within 1,000 feet of the study area. Based on the statistics, the population of racial minorities do not exceed the State averages within the study area; therefore, racial minorities are not present within the study area.

Additional demographic data from the U.S. Census Bureau’s ACS (2014-2018) 5-year estimates were used to evaluate Environmental Justice Factors within the study area. Refer to Table 2 below for the results of the analysis.

Table 2. Environmental Justice Factors and Civil Rights Authorities

Environmental Justice Factor	New Jersey	Camden County	Tract 6110 Block Group 1	Tract 6110 Block Group 6	Tract 6053 Block Group 1	Tract 6053 Block Group 2	Within 1,000 feet of Study Area
Male	48.8%	48%	25%	50%	47%	49%	49%
Female	51.2%	52%	75%	50%	53%	51%	51%
Age Under 18 years	22.2%	29%	20%	36%	30%	21%	26%
Age 18+	77.8%	77%	81%	68%	77%	82%	78%
Age 65+	15.5%	15%	19%	13%	8%	11%	10%
Age 25+ and No High School Diploma	9.5%	12%	16%	12%	13%	13%	13%
Age 5+ and Speaks English “Less Than Very Well”	12.0%	8%	6%	6%	8%	2%	4%
Household Income < \$15,000	7.6%	11%	13%	5%	9%	11%	8%
Household Income > \$75,000	39.2%	45%	14%	29%	41%	40%	39%
<i>Source: U.S. Census Bureau 2014-2018 American Community Survey 5-year estimates</i>							

Public Action Plan County Road 511 Broadway LCD Study

According to the Department of Housing and Urban Development, a New Jersey household (family of four) in 2018 is considered low-income if they make less than \$71,900 annually. Of the 621 households within the study area, only 39% make more than \$75,000 per year, thus 61% of households are low-income; however, the number of low-income households within the study area are at the State average. Additionally, 91% of the population over five years old reportedly speaks only English, with only 9% of the population that do not speak English at home. Based on the statistics, the study area shows populations above the State average for people over 25 years of age with no high school diploma, below the State average for people over 5 years old who speak English “less than very well,” and at the State average for households with annual incomes below \$75,000. Results show that study area has an average amount of impoverished or non-English speaking people. Although there are 3.5% more people over 25 years of age with no high school diploma, it has not affected the poverty levels of the area.

DVRPC Indicators of Potential Disadvantage (IPD)

Under Title IV of the Civil Rights Act and E.O. 12898, the DVRPC was directed to create a method for ensuring that equity issues are investigated and evaluated for transportation projects. The DVRPC identifies populations of interest using ACS 2015-2019 five-year estimates and examines nine (9) IPDs of which include youth, older adults, females, racial minority, ethnic minority, foreign-born, limited English proficiency, disabled, and low-income populations. The IPD analysis generates an “IPD score” ranging from 0 to 36, with 0 having IPDs well below average and 36 have IPDs well above average. According to the DVRPC IPD analysis tool, Census Tract 6053 in Brooklawn Borough has an IPD score of 17 and Census Tract 6110 in Gloucester City has an IPD score of 18. Both IPD scores are considered to have an average concentration of IPDs. Based on the DVRPC IPD analysis tool, the study area does not contain an overwhelming presence of environmental justice communities.

KEY PROJECT MEMBERS, LOCAL OFFICIALS, STAKEHOLDERS, COMMUNITY

The following is a list of the Project members, local officials, stakeholders, and the community *as of September 2021*:

Project Team Members:

Camden County - Project Sponsor

Department of Engineering

County Engineer, Kevin Becica, Liaison, Al Dyer
2311 Egg Harbor Road, Lindenwold, NJ 08021
856-566-2971

Delaware Valley Regional Planning Commission – Metropolitan Planning Organization

Office of Project Implementation

John J. Coscia Jr.
Manager, Office of Project Implementation
Delaware Valley Regional Planning Commission
190 N. Independence Mall West, Philadelphia, PA 19106-1520
215-238-2859

**Public Action Plan
County Road 511 Broadway LCD Study**

New Jersey Department of Transportation

Bureau of Local Aid

Tom Berryman, Alka Shah
Local Aid, District 4, Cherry Hill
One Executive Campus Route 70 West, 3rd Floor Cherry Hill, NJ 08002
Tom 856-414-8413; Alka 856-486-6710

Local Officials / Key Stakeholders:

Borough of Brooklawn

Mayor Theresa Branella

Clerk & Administration

Borough Administrator/Clerk, Ryan Giles, RMC/CMFO/CMR
301 Christiana Street, Brooklawn NJ, 08030
856-456-0750 Ext. 106, boroclerk@brooklawn-nj.com

Gloucester City

Mayor Patrick Keating

Clerk & Administration

Clerk/Registrar of Vital Statistics, Vanessa L. Parent, RMC/CMR
151 Monmouth Street, Gloucester City, NJ, 08030
856-456-0205 Ext. 203, vanessa@cityofgloucester.org

Parks & Recreation Department

Board Secretary, Todd Twichell
301 Christiana Street, Brooklawn, NJ 08030
856-456-0750 Ext. 103

Shade Tree Commission

Board Secretary, Todd Twichell
301 Christiana Street, Brooklawn, NJ 08030
856-456-0750 Ext. 103

Board of Health

Board Secretary, Todd Twichell
301 Christiana Street, Brooklawn, NJ 08030
856-456-0750 Ext. 103

Brooklawn Police Department

Chief, Shamus Ellis
325-225 Tommy MacAdams Way, Brooklawn, NJ 08030
856-456-0750 Ext. 111

Brooklawn Volunteer Fire Department

Chief, John McKinney III
110 South Wilson Avenue, Brooklawn, NJ 08030
856-465-2102

Public Action Plan County Road 511 Broadway LCD Study

Public Works

Superintendent, Martin Finger
301 Christiana Street, Brooklawn, NJ 08030
856-456-0750 Ext. 157

Office of Emergency Management (EMS)

Direct Fire Chief & Director/OEM, Jim Burleigh Sr.
29 Lewis Avenue, Bellmawr, New Jersey 08031
856-933-0400

Camden County Municipal Utilities Authority (MUA)

Executive Director, Scott Schreiber
1645 Ferry Avenue, Camden New Jersey 08104
856-541-3700

Schools and Educational Facilities:

Brooklawn Public School District

Superintendent/Principal, Samuel A. Rosetti
301 Haakon Rd, Brooklawn, NJ 08030
(856) 456-4039

Civic, Cultural & Spiritual Organizations:

Brooklawn United Methodist Church
Brooklawn American Legion

Businesses:

Empire Diner
Verchio's Produce & Deli
Ray-Bets Liquors
Jalapeno's Pizza
Brooklawn Water Works
Term Automotive & Tire Center
Lipkins Pharmacy
United Check Cashing
Diamond Auto Body & Repair
RolFerry's Imprint & Award Specialties, Inc.
BSE Keystone Food Service Equipment
Gloucester Iron & Metal
xAthletics Home of CrossFit NorthWood

Utility Owners:

Verizon (Phone)

Ryan Lochonic
10 Tansboro Road, Berlin, NJ 08009
856-306-8611

Public Action Plan
County Road 511 Broadway LCD Study

AT&T (Phone)

Dennis Smith
400 Hamilton Ave, White Plains, NY 10601
609-807-9504

PSE&G (Gas & Electric)

Ralph Alan Brown
410 Rt 130 S, Bordentown, NJ 08505
609-239-2405

Brooklawn Water Works

Charlier Diguglielmo
410 Rt 130 S, Bordentown, NJ 08505
856-778-6888

Stakeholders may be added throughout the project process as pertinent individuals/groups become evident.

Location: Camden County
Ring (buffer): 0-mile radius
Description:

Summary of ACS Estimates		2014 - 2018	
Population		507,367	
Population Density (per sq. mile)		2,292	
People of Color Population		217,338	
% People of Color Population		43%	
Households		187,158	
Housing Units		206,013	
Housing Units Built Before 1950		54,673	
Per Capita Income		34,280	
Land Area (sq. miles) (Source: SF1)		221.35	
% Land Area		97%	
Water Area (sq. miles) (Source: SF1)		6.07	
% Water Area		3%	
	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	507,367	100%	0
Population Reporting One Race	492,268	97%	6,054
White	320,830	63%	1,885
Black	97,896	19%	1,173
American Indian	1,172	0%	370
Asian	29,045	6%	412
Pacific Islander	230	0%	77
Some Other Race	43,095	8%	2,137
Population Reporting Two or More Races	15,099	3%	1,387
Total Hispanic Population	83,057	16%	0
Total Non-Hispanic Population	424,310		
White Alone	290,029	57%	523
Black Alone	92,935	18%	974
American Indian Alone	541	0%	165
Non-Hispanic Asian Alone	28,946	6%	406
Pacific Islander Alone	167	0%	45
Other Race Alone	1,885	0%	702
Two or More Races Alone	9,807	2%	995
Population by Sex			
Male	245,068	48%	92
Female	262,299	52%	92
Population by Age			
Age 0-4	31,246	6%	79
Age 0-17	116,637	23%	1,437
Age 18+	390,730	77%	2,578
Age 65+	75,995	15%	1,409

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Camden County
Ring (buffer): 0-mile radius
Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	347,459	100%	81
Less than 9th Grade	15,717	5%	863
9th - 12th Grade, No Diploma	24,499	7%	1,193
High School Graduate	104,485	30%	1,817
Some College, No Degree	92,295	27%	1,917
Associate Degree	24,438	7%	1,009
Bachelor's Degree or more	110,463	32%	2,018
Population Age 5+ Years by Ability to Speak English			
Total	476,121	100%	75
Speak only English	377,722	79%	1,663
Non-English at Home ¹⁺²⁺³⁺⁴	98,399	21%	2,021
¹ Speak English "very well"	58,504	12%	2,013
² Speak English "well"	18,314	4%	1,160
³ Speak English "not well"	16,066	3%	1,181
⁴ Speak English "not at all"	5,515	1%	680
³⁺⁴ Speak English "less than well"	21,581	5%	1,362
²⁺³⁺⁴ Speak English "less than very well"	39,895	8%	1,789
Linguistically Isolated Households*			
Total	9,400	100%	631
Speak Spanish	6,135	65%	512
Speak Other Indo-European Languages	1,340	14%	221
Speak Asian-Pacific Island Languages	1,776	19%	286
Speak Other Languages	149	2%	74
Households by Household Income			
Household Income Base	187,158	100%	1,125
< \$15,000	20,609	11%	1,027
\$15,000 - \$25,000	17,237	9%	964
\$25,000 - \$50,000	34,857	19%	1,301
\$50,000 - \$75,000	29,786	16%	1,206
\$75,000 +	84,669	45%	1,809
Occupied Housing Units by Tenure			
Total	187,158	100%	1,125
Owner Occupied	124,840	67%	1,654
Renter Occupied	62,318	33%	1,569
Employed Population Age 16+ Years			
Total	404,141	100%	470
In Labor Force	266,763	66%	1,781
Civilian Unemployed in Labor Force	18,876	5%	1,133
Not In Labor Force	137,378	34%	1,837

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Camden County

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	476,121	100%	75
English	377,722	79%	1,987
Spanish	59,440	12%	1,382
French	2,486	1%	853
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	1,071	0%	287
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	12,058	3%	1,179
Chinese	4,820	1%	703
Japanese	N/A	N/A	N/A
Korean	1,891	0%	465
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	3,577	1%	818
Other Asian	2,660	1%	541
Tagalog	3,226	1%	486
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	1,567	0%	517
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	2,792	1%	567
Total Non-English	98,399	21%	1,988

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076110001

Ring (buffer): 0-mile radius

Description:

Summary of ACS Estimates		2014 - 2018	
Population		840	
Population Density (per sq. mile)		1,343	
People of Color Population		134	
% People of Color Population		16%	
Households		361	
Housing Units		361	
Housing Units Built Before 1950		280	
Per Capita Income		25,139	
Land Area (sq. miles) (Source: SF1)		0.63	
% Land Area		62%	
Water Area (sq. miles) (Source: SF1)		0.38	
% Water Area		38%	
	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	840	100%	304
Population Reporting One Race	777	93%	454
White	706	84%	301
Black	18	2%	29
American Indian	0	0%	12
Asian	53	6%	88
Pacific Islander	0	0%	12
Some Other Race	0	0%	12
Population Reporting Two or More Races	63	8%	96
Total Hispanic Population	0	0%	12
Total Non-Hispanic Population	840		
White Alone	706	84%	301
Black Alone	18	2%	29
American Indian Alone	0	0%	12
Non-Hispanic Asian Alone	53	6%	88
Pacific Islander Alone	0	0%	12
Other Race Alone	0	0%	12
Two or More Races Alone	63	8%	96
Population by Sex			
Male	207	25%	106
Female	633	75%	237
Population by Age			
Age 0-4	8	1%	18
Age 0-17	156	19%	105
Age 18+	684	81%	221
Age 65+	157	19%	99

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076110001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	684	100%	248
Less than 9th Grade	51	7%	51
9th - 12th Grade, No Diploma	64	9%	48
High School Graduate	219	32%	113
Some College, No Degree	197	29%	117
Associate Degree	15	2%	28
Bachelor's Degree or more	153	22%	93
Population Age 5+ Years by Ability to Speak English			
Total	832	100%	303
Speak only English	696	84%	274
Non-English at Home ¹⁺²⁺³⁺⁴	136	16%	107
¹ Speak English "very well"	85	10%	76
² Speak English "well"	18	2%	32
³ Speak English "not well"	0	0%	12
⁴ Speak English "not at all"	33	4%	57
³⁺⁴ Speak English "less than well"	33	4%	57
²⁺³⁺⁴ Speak English "less than very well"	51	6%	65
Linguistically Isolated Households*			
Total	15	100%	28
Speak Spanish	0	0%	12
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	15	100%	25
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	361	100%	112
< \$15,000	47	13%	43
\$15,000 - \$25,000	50	14%	48
\$25,000 - \$50,000	46	13%	47
\$50,000 - \$75,000	166	46%	111
\$75,000 +	52	14%	41
Occupied Housing Units by Tenure			
Total	361	100%	112
Owner Occupied	248	69%	101
Renter Occupied	113	31%	61
Employed Population Age 16+ Years			
Total	701	100%	255
In Labor Force	382	54%	144
Civilian Unemployed in Labor Force	28	4%	32
Not In Labor Force	319	46%	152

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076110001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076110006

Ring (buffer): 0-mile radius

Description:

Summary of ACS Estimates		2014 - 2018	
Population		1,293	
Population Density (per sq. mile)		9,501	
People of Color Population		136	
% People of Color Population		11%	
Households		478	
Housing Units		478	
Housing Units Built Before 1950		336	
Per Capita Income		20,630	
Land Area (sq. miles) (Source: SF1)		0.14	
% Land Area		100%	
Water Area (sq. miles) (Source: SF1)		0.00	
% Water Area		0%	
	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	1,293	100%	498
Population Reporting One Race	1,293	100%	754
White	1,157	89%	501
Black	52	4%	86
American Indian	0	0%	12
Asian	84	6%	131
Pacific Islander	0	0%	12
Some Other Race	0	0%	12
Population Reporting Two or More Races	0	0%	12
Total Hispanic Population	0	0%	12
Total Non-Hispanic Population	1,293		
White Alone	1,157	89%	501
Black Alone	52	4%	86
American Indian Alone	0	0%	12
Non-Hispanic Asian Alone	84	6%	131
Pacific Islander Alone	0	0%	12
Other Race Alone	0	0%	12
Two or More Races Alone	0	0%	12
Population by Sex			
Male	641	50%	299
Female	652	50%	270
Population by Age			
Age 0-4	58	4%	64
Age 0-17	413	32%	219
Age 18+	880	68%	284
Age 65+	164	13%	99

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076110006

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	726	100%	242
Less than 9th Grade	36	5%	51
9th - 12th Grade, No Diploma	50	7%	49
High School Graduate	381	52%	168
Some College, No Degree	147	20%	97
Associate Degree	19	3%	33
Bachelor's Degree or more	112	15%	79
Population Age 5+ Years by Ability to Speak English			
Total	1,235	100%	472
Speak only English	1,115	90%	384
Non-English at Home ¹⁺²⁺³⁺⁴	120	10%	107
¹ Speak English "very well"	40	3%	64
² Speak English "well"	44	4%	70
³ Speak English "not well"	36	3%	51
⁴ Speak English "not at all"	0	0%	12
³⁺⁴ Speak English "less than well"	36	3%	51
²⁺³⁺⁴ Speak English "less than very well"	80	6%	86
Linguistically Isolated Households*			
Total	0	0%	12
Speak Spanish	0	0%	12
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	478	100%	140
< \$15,000	22	5%	42
\$15,000 - \$25,000	62	13%	76
\$25,000 - \$50,000	169	35%	105
\$50,000 - \$75,000	87	18%	98
\$75,000 +	138	29%	95
Occupied Housing Units by Tenure			
Total	478	100%	140
Owner Occupied	255	53%	131
Renter Occupied	223	47%	98
Employed Population Age 16+ Years			
Total	949	100%	351
In Labor Force	469	49%	186
Civilian Unemployed in Labor Force	27	3%	42
Not In Labor Force	480	51%	240

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076110006

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076053002

Ring (buffer): 0-mile radius

Description:

Summary of ACS Estimates		2014 - 2018	
Population		783	
Population Density (per sq. mile)		3,541	
People of Color Population		60	
% People of Color Population		8%	
Households		305	
Housing Units		351	
Housing Units Built Before 1950		320	
Per Capita Income		31,036	
Land Area (sq. miles) (Source: SF1)		0.22	
% Land Area		89%	
Water Area (sq. miles) (Source: SF1)		0.03	
% Water Area		11%	

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	783	100%	117
Population Reporting One Race	768	98%	191
White	723	92%	120
Black	14	2%	11
American Indian	0	0%	12
Asian	0	0%	12
Pacific Islander	0	0%	12
Some Other Race	31	4%	24
Population Reporting Two or More Races	15	2%	11
Total Hispanic Population	34	4%	25
Total Non-Hispanic Population	749		
White Alone	723	92%	120
Black Alone	14	2%	11
American Indian Alone	0	0%	12
Non-Hispanic Asian Alone	0	0%	12
Pacific Islander Alone	0	0%	12
Other Race Alone	0	0%	12
Two or More Races Alone	12	2%	10
Population by Sex			
Male	386	49%	77
Female	397	51%	56
Population by Age			
Age 0-4	20	3%	12
Age 0-17	140	18%	50
Age 18+	643	82%	86
Age 65+	83	11%	33

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076053002

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	560	100%	85
Less than 9th Grade	14	3%	15
9th - 12th Grade, No Diploma	54	10%	34
High School Graduate	220	39%	53
Some College, No Degree	135	24%	35
Associate Degree	42	8%	16
Bachelor's Degree or more	137	24%	39
Population Age 5+ Years by Ability to Speak English			
Total	763	100%	115
Speak only English	725	95%	127
Non-English at Home ¹⁺²⁺³⁺⁴	38	5%	24
¹ Speak English "very well"	22	3%	18
² Speak English "well"	0	0%	12
³ Speak English "not well"	9	1%	14
⁴ Speak English "not at all"	7	1%	14
³⁺⁴ Speak English "less than well"	16	2%	16
²⁺³⁺⁴ Speak English "less than very well"	16	2%	16
Linguistically Isolated Households*			
Total	4	100%	13
Speak Spanish	4	100%	5
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	305	100%	42
< \$15,000	33	11%	19
\$15,000 - \$25,000	22	7%	17
\$25,000 - \$50,000	66	22%	29
\$50,000 - \$75,000	61	20%	24
\$75,000 +	123	40%	38
Occupied Housing Units by Tenure			
Total	305	100%	42
Owner Occupied	251	82%	45
Renter Occupied	54	18%	27
Employed Population Age 16+ Years			
Total	677	100%	102
In Labor Force	499	74%	89
Civilian Unemployed in Labor Force	50	7%	31
Not In Labor Force	178	26%	49

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076053002

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076053001

Ring (buffer): 0-mile radius

Description:

Summary of ACS Estimates		2014 - 2018	
Population		1,240	
Population Density (per sq. mile)		4,638	
People of Color Population		305	
% People of Color Population		25%	
Households		393	
Housing Units		459	
Housing Units Built Before 1950		288	
Per Capita Income		25,246	
Land Area (sq. miles) (Source: SF1)		0.27	
% Land Area		95%	
Water Area (sq. miles) (Source: SF1)		0.01	
% Water Area		5%	

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	1,240	100%	167
Population Reporting One Race	1,212	98%	392
White	949	77%	151
Black	102	8%	59
American Indian	0	0%	12
Asian	48	4%	59
Pacific Islander	0	0%	12
Some Other Race	113	9%	99
Population Reporting Two or More Races	28	2%	24
Total Hispanic Population	105	8%	76
Total Non-Hispanic Population	1,135		
White Alone	935	75%	148
Black Alone	87	7%	65
American Indian Alone	0	0%	12
Non-Hispanic Asian Alone	48	4%	59
Pacific Islander Alone	0	0%	12
Other Race Alone	48	4%	74
Two or More Races Alone	17	1%	22
Population by Sex			
Male	583	47%	95
Female	657	53%	101
Population by Age			
Age 0-4	82	7%	46
Age 0-17	281	23%	69
Age 18+	959	77%	121
Age 65+	93	8%	31

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076053001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	825	100%	120
Less than 9th Grade	52	6%	26
9th - 12th Grade, No Diploma	58	7%	30
High School Graduate	401	49%	79
Some College, No Degree	200	24%	52
Associate Degree	38	5%	18
Bachelor's Degree or more	114	14%	48
Population Age 5+ Years by Ability to Speak English			
Total	1,158	100%	146
Speak only English	975	84%	140
Non-English at Home ¹⁺²⁺³⁺⁴	183	16%	84
¹ Speak English "very well"	91	8%	56
² Speak English "well"	67	6%	52
³ Speak English "not well"	25	2%	25
⁴ Speak English "not at all"	0	0%	12
³⁺⁴ Speak English "less than well"	25	2%	25
²⁺³⁺⁴ Speak English "less than very well"	92	8%	57
Linguistically Isolated Households*			
Total	18	100%	22
Speak Spanish	0	0%	12
Speak Other Indo-European Languages	18	100%	18
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	393	100%	47
< \$15,000	35	9%	21
\$15,000 - \$25,000	26	7%	18
\$25,000 - \$50,000	81	21%	33
\$50,000 - \$75,000	88	22%	32
\$75,000 +	163	41%	45
Occupied Housing Units by Tenure			
Total	393	100%	47
Owner Occupied	272	69%	48
Renter Occupied	121	31%	34
Employed Population Age 16+ Years			
Total	1,004	100%	133
In Labor Force	679	68%	117
Civilian Unemployed in Labor Force	100	10%	49
Not In Labor Force	325	32%	73

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076053001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: User-specified polygonal location
Ring (buffer): 0-miles radius
Description: Camden County LCD

Summary of ACS Estimates		2014 - 2018	
Population		1,564	
Population Density (per sq. mile)		4,772	
People of Color Population		201	
% People of Color Population		13%	
Households		621	
Housing Units		693	
Housing Units Built Before 1950		542	
Per Capita Income		27,805	
Land Area (sq. miles) (Source: SF1)		0.33	
% Land Area		90%	
Water Area (sq. miles) (Source: SF1)		0.04	
% Water Area		10%	

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	1,564	100%	498
Population Reporting One Race	1,540	98%	841
White	1,368	87%	501
Black	66	4%	86
American Indian	0	0%	12
Asian	36	2%	131
Pacific Islander	0	0%	12
Some Other Race	70	4%	99
Population Reporting Two or More Races	24	2%	96
Total Hispanic Population	70	4%	76
Total Non-Hispanic Population	1,495		
White Alone	1,363	87%	501
Black Alone	61	4%	86
American Indian Alone	0	0%	12
Non-Hispanic Asian Alone	36	2%	131
Pacific Islander Alone	0	0%	12
Other Race Alone	17	1%	74
Two or More Races Alone	17	1%	96
Population by Sex			
Male	759	49%	299
Female	805	51%	270
Population by Age			
Age 0-4	68	4%	64
Age 0-17	342	22%	219
Age 18+	1,223	78%	284
Age 65+	159	10%	99

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: User-specified polygonal location

Ring (buffer): 0-miles radius

Description: Camden County LCD

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	1,050	100%	248
Less than 9th Grade	45	4%	51
9th - 12th Grade, No Diploma	90	9%	54
High School Graduate	459	44%	168
Some College, No Degree	254	24%	117
Associate Degree	59	6%	33
Bachelor's Degree or more	202	19%	93
Population Age 5+ Years by Ability to Speak English			
Total	1,496	100%	472
Speak only English	1,368	91%	384
Non-English at Home ¹⁺²⁺³⁺⁴	128	9%	107
¹ Speak English "very well"	62	4%	76
² Speak English "well"	34	2%	70
³ Speak English "not well"	25	2%	51
⁴ Speak English "not at all"	6	0%	57
³⁺⁴ Speak English "less than well"	32	2%	57
²⁺³⁺⁴ Speak English "less than very well"	66	4%	86
Linguistically Isolated Households*			
Total	10	100%	28
Speak Spanish	4	35%	12
Speak Other Indo-European Languages	7	64%	18
Speak Asian-Pacific Island Languages	0	1%	25
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	621	100%	140
< \$15,000	51	8%	43
\$15,000 - \$25,000	52	8%	76
\$25,000 - \$50,000	151	24%	105
\$50,000 - \$75,000	126	20%	111
\$75,000 +	241	39%	95
Occupied Housing Units by Tenure			
Total	621	100%	140
Owner Occupied	450	72%	131
Renter Occupied	172	28%	98
Employed Population Age 16+ Years			
Total	1,286	100%	351
In Labor Force	863	67%	186
Civilian Unemployed in Labor Force	92	7%	49
Not In Labor Force	423	33%	240

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: User-specified polygonal location

Ring (buffer): 0-miles radius

Description: Camden County LCD

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	907	100%	137
English	803	88%	143
Spanish	22	2%	23
French	0	0%	52
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	0	0%	12
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	64	7%	86
Chinese	0	0%	12
Japanese	N/A	N/A	N/A
Korean	0	0%	12
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	0	0%	12
Other Asian	0	0%	12
Tagalog	0	0%	12
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	1	0%	4
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	1	0%	4
Total Non-English	104	12%	198

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

APPENDIX D – COMMUNITY OUTREACH AND MEETING SUMMARIES

Meeting Summary

Project: CR 551 Broadway Local Concept Development Study	
Subject: Local Officials Meeting No. 1 Summary	
Meeting Date & Time: September 28, 2021, 1:00 pm	Prepared By: Katie Daly
Meeting Location: Virtual via Microsoft Teams	Date of Distribution: October 11, 2021

Attendees

- Kevin Becica – Camden County, County Engineer
- Andrew Levecchia – Camden County, County Director of Planning
- John Coscia, Jr. – DVRPC Project Manager
- Sylvester (Sly) Fryc – Michael Baker International, Project Manager
- Katie Daly – Michael Baker International, Deputy Project Manager
- Lori Wade – Michael Baker International, Drainage Engineer
- Bob Johnston – Michael Baker International, Civil Engineer
- Rebecca Lyne – Michael Baker International, Environmental Specialist
- Marty Wade – Michael Baker International, Outreach Specialist
- Sam Mody – Keller Engineers of New Jersey, LLC
- Teri Branella – Mayor, Borough of Brooklawn
- Gregory B. Fusco – Engineer, Borough of Brooklawn/Kei Engineering
- Mike Ostrom – Deputy Superintendent, Brooklawn DPW
- Pat Keating – Mayor, City of Gloucester
- Dayl Baile – Council at Large, City of Gloucester
- John Hutchinson – Council at Large, City of Gloucester
- Vanessa Parent – Clerk, City of Gloucester

Discussion Notes:

- The project team presented the included PowerPoint presentation that covered the Project Location & Overview, the Project Delivery & Local Concept Development Process, the Project Information and Purpose & Need, the Goals and Objectives, the Potential Alternatives, the Community & Public Outreach, and Next Project Steps.
- Gloucester City asked for Gloucester City Water and Sewer and Gloucester City Police be added to the list of project stakeholders.
- Brooklawn Borough asked if a percentage of minimization post project has been completed. Michael Baker stated that they are still working through the proposed alternatives and associated models.
- Gloucester City noted that the proposed detour will increase amount of traffic into the town and create a bottle neck in the City. A different route may be preferred. Camden County noted that this route may not accommodate people who are transit dependent. Is there a population that is transit dependent? Michael Baker noted that at this point, they have not selected a preferred alternative. It is likely that the proposed improvements would be constructed with a staged construction maintaining current traffic patterns. However, if the detour will be needed additional studies will be conducted to evaluate traffic impacts and also investigate impacts on transit dependent populations.

Meeting Summary

- Brooklawn Borough emphasized to coordinate with adjacent construction contracts. Michael Baker agreed and will take that into consideration by reaching out to DOT and others to find out the schedules of their projects.
- Brooklawn Borough hopes that this project will correct the dip in the road between the bridge and railroad and take all of CR 551 out of the floodplain. Michael Baker stated that raising the existing roadway profile is one of the options being investigated.
- Brooklawn Borough mentioned that Timber and Marne Roads also typically experience flooding and want to make sure this project doesn't make it worse. Michael Baker will be investigating and minimizing impacts to adjacent properties in relation to the proposed work.
- DVRPC asked Michael Baker to please highlight the timeline needed on design and construction and Michael Baker noted that it will be at least 4-5 years until construction completion based on typical project delivery durations. Construction duration is dependent on the preferred alternative selected.
- Camden County mentioned that the public information center (PIC) will be a nighttime virtual meeting. Is there a better day to host the meeting? The Local Officials will get back to the project team. Brooklawn does one public meeting the third Monday of the month and a Planning and Zoning meeting the second Wednesday of every month. Gloucester has three council meetings a month. The date of the PIC will be coordinated with the County and local officials.

Action Items

- Project Team to provide meeting summary and presentation materials
- Local Officials to provide preferred dates/times for public information centers.

Michael Baker believes the foregoing record to be an accurate summary of discussions during the project kickoff meeting. Comments on this summary are requested within five (5) working days of distribution, otherwise Michael Baker will consider this document to be a final record of the meeting.

Project: CR 551 Broadway Local Concept Development Study	
Subject: Public Information Meeting No. 1 Summary	
Meeting Date & Time: January 27, 2022, 6:00 pm	Prepared By: Katie Daly
Meeting Location: Virtual via Microsoft Teams	Date of Distribution: 2/11/2022

Attendees

- Andrew Levecchia – Camden County, County Director of Planning
- Kevin Becica - Camden County, County Engineer
- John Coscia, Jr. – DVRPC Project Manager
- Sylvester (Sly) Fryc – Michael Baker International, Project Manager
- Katie Daly – Michael Baker International, Deputy Project Manager
- Lori Wade – Michael Baker International, Drainage Engineer
- Rebecca Lyne – Michael Baker International, Environmental Specialist
- Marty Wade - Michael Baker International, Public Outreach Specialist
- Sam Mody – Keller Engineers of New Jersey, LLC
- Theresa Branella – Mayor, Borough of Brooklawn
- Jerry Granstrom- Councilman, Borough of Brooklawn
- Patrick Moses – Councilman, Borough of Brooklawn
- Frank Harris – Pennoni Associates, City of Gloucester
- Xin (Cindy) Huang – CDM Smith
- Patricia McConnell – Councilwoman, Borough of Brooklawn
- Thomas Schevtchuk – CDM Smith
- Ted Howarth – Commander, Brooklawn American Legion
- Colin – Affiliation Unknown
- Maria M. – Affiliation Unknown

Discussion Notes:

- The project team presented the included PowerPoint presentation that described the Community & Public Outreach, the Project Location & Overview, the Project Delivery & Local Concept Development Process, the completed Existing Conditions Analysis, the Project Information and Purpose & Need, the Goals and Objectives, Potential Detour Routes, the Potential Alternatives, and Next Project Steps.
- Gloucester City brought up concerns regarding the regional flood study and asked if the City would be responsible for the improvements recommended from this project. Camden County stated that the funding for the project is for CD, PE, and FD. The Federal Government will pay for construction.
- It was noted that there was a Gloucester City Council meeting the same night.

Meeting Minutes

- Camden County asked if in any of the alternatives, will the design render the emergency access unnecessary? The project team stated that is being assessed and noted that in a previous meeting, the continued maintenance of the emergency access was identified as a disadvantage by Brooklawn.
- CDM Smith asked if the flood models shown were a FEMA model or did you develop it from scratch. The project team stated that it was developed specifically for this area.
- Residents from Brooklawn asked if flooding of the neighborhoods that may occur from the flood wall is being examined. The project team said that potential impacts of design alternatives are being examined.
- Brooklawn Borough noted that the County had plans to pave CR 551 between the two project areas. Residents are annoyed with truck vibrations due to aging pavement. The road has been on the books to be repaved the last couple of years and it was asked when this would be completed. Camden County agreed to look into this further.
- Residents stated that they are excited for the project and that it might be helpful if people share short videos of observed flooding.
- CDM Smith stated that they are working on Camden County MUA project. They thanked the project team for the presentation and look forward to future coordination. They will send the meeting presentation from their municipalities meeting for the project team's information.

Action Items

- Project team to provide copy of presentation and minutes to meeting attendees.

Michael Baker believes the foregoing record to be an accurate summary of discussions during the project kickoff meeting. Comments on this summary are requested within five (5) working days of distribution, otherwise Michael Baker will consider this document to be a final record of the meeting.

Project: CR 551 Broadway Local Concept Development Study	
Subject: NJDOT SME Meeting	
Meeting Date & Time: June 21, 2022, 1:00 pm	Prepared By: Katie Daly
Meeting Location: Virtual via Microsoft Teams	Date of Distribution: 6/30/2022

Attendees

- Andrew Levecchia – Camden County, County Director of Planning
- Kevin Becica - Camden County, County Engineer
- John Coscia, Jr. – DVRPC Project Manager
- Sylvester (Sly) Fryc – Michael Baker International, Project Manager
- Katie Daly – Michael Baker International, Deputy Project Manager
- Lori Wade – Michael Baker International, Drainage Engineer
- Rebecca Lyne – Michael Baker International, Environmental Specialist
- Bob Johnston - Michael Baker International, Roadway Engineer
- Arthur Wawiernia - Michael Baker International, Drainage Engineer
- Edward Andrescavage – DOT, District 4
- Lauren Coe – DOT, District 4
- Grace Faughnan – DOT, Safety
- Barbara Foran -DOT, Railroad engineering
- Nenebert Gonzales – DOT, Local Aid
- Mark Hauske – DOT, Jurisdictional Control Unit
- Jess Mandenhall – DOT, Structural Engineering
- Nicolas Quintero – DOT, Construction Services
- Joseph Rapp – DOT, Bike and Pedestrian Safety
- Hung Tang – DOT, Geometrics
- Victor Akpu – DOT, Right-of-way

Discussion Notes:

- The project team presented the included PowerPoint presentation that described the Project Delivery & Local Concept Development Process, the Project Location & Overview, the completed Existing Conditions Analysis, the Project Information and Purpose & Need, the Goals and Objectives, the Proposed Alternatives and PPA, Potential Detour Routes, the Potential Alternatives, and Next Project Steps.
- Following the presentation Design Team opened the meeting to follow up discussions and questions:
 - The NJDOT asked what the speed limit was and if Annual Average Daily Traffic (ADT) data was collected for the locations. The Project Team stated that the speed limit is 25mph for both locations and AADT was collected for both sites:

Meeting Minutes

	NB AADT	SB AADT	Total AADT	AM Peak	PM Peak
2017	4213	3786	7999	519	875
2019	4217	3790	8007	520	876
2021	4302	3866	8168	530	894

- The NJDOT asked if the circle can be turned into a roundabout? The project team responded that this is not within the scope of this project. The circle is under NJDOT's jurisdiction and it is within NJDOT's project limits, which is currently being authorized for construction.
- The Project Team stated that the improvements presented are very important to the residents that live in this area. This section of Broadway floods, cutting off the evacuation route for residents near Project Area 1 and Project Area 2. Residents north of Area 2 are forced to use the emergency exit over the railroad during the flooding event.
- The NJDOT stated that the railroad will need to be contacted to determine if the change in the roadway profile impacts the grade crossing for Project Area 1. The Project Team stated that the railroad will not be impacted and that the design ties into the existing roadway profile south the railroad crossing.
- The NJDOT asked for clarification on construction/extension of the floodwall. The Project Team stated that based on our analysis, extending the wall will not provide an additional benefit because the currently proposed NJDOT wall ties into where the existing grade increases.

Action Items

- Project team to provide copy of presentation and minutes to meeting attendees.

Michael Baker believes the foregoing record to be an accurate summary of discussions during the project kickoff meeting. Comments on this summary are requested within five (5) working days of distribution, otherwise Michael Baker will consider this document to be a final record of the meeting.

Project: CR 551 Broadway Local Concept Development Study	
Subject: Local Officials Meeting #2	
Meeting Date & Time: July 12, 2022, 6:00 pm	Prepared By: Katie Daly
Meeting Location: Virtual via Microsoft Teams	Date of Distribution: 7/15/2022

Attendees

- Andrew Levecchia – Camden County, County Director of Planning
- Kevin Becica - Camden County, County Engineer
- John Coscia, Jr. – DVRPC Project Manager
- Sylvester (Sly) Fryc – Michael Baker International, Project Manager
- Katie Daly – Michael Baker International, Deputy Project Manager
- Lori Wade – Michael Baker International, Drainage Engineer
- Bob Johnston - Michael Baker International, Roadway Engineer
- Arthur Wawiernia - Michael Baker International, Drainage Engineer
- Sam Mody - Keller Engineers of New Jersey, LLC
- Teri Branella – Mayor, Borough of Brooklawn
- Jerry Granstrom- Councilman of Brooklawn, Borough of Brooklawn

Discussion Notes:

- The County Engineer started the meeting and introduced the project team. The project team informed the participants that the meeting would be recorded. They presented the included PowerPoint presentation that provided a summary and synopsis of the Public Outreach process, described the Project Delivery & Local Concept Development Process, the Project Location & Overview, the completed Existing Conditions Analysis, the Project Information and Purpose & Need, the Goals and Objectives, the Proposed Alternatives and Preliminary Preferred Alternative (PPA) for each project area, Potential Detour Routes, and Next Project Steps.
- Following the presentation, the project team opened the meeting to follow up discussions and questions:
 - The County Engineer requested the project team to highlight the recommended PPA for each project area.
 - The Mayor of Brooklawn Borough expressed concern regarding traffic impacts caused by the potential overlap of construction between this project, the NJDOT's Route 130 Over Big Timber Creek Project and another project. The project team stated that NJDOT's Route 130 project is at the final phase of the design, submitting Plans, Specifications and Estimates (PS&E). NJDOT is planning to have the project advertised for construction after receiving required permits while this project is in Concept Development. Because there will likely be about 3 years' time between construction of the two projects, there should be

Meeting Minutes

no construction overlap impacting traffic. Additionally, the construction of the PPA for project area #2 can likely be completed in stages with minimal roadway closures.

- The County Engineer stated that the municipalities would be responsible for pump station maintenance. The Mayor of Brooklawn Borough stated that she would follow up with their public works department.
- The Councilman of Brooklawn Borough asked if the project team considered raising the roadway profile along project area #2, as well as dredging along the roadway. He mentioned the area which is now water was farmland years back. The project team stated that raising the profile was considered but given the project limits/scope and the proposed grading at the Brooklawn Circle within NJDOT's project, raising the profile is not feasible for this location. Additionally, dredging is not feasible within these project limits without causing impacts offsite. The County mentioned that there is an ongoing CCMUA flood mitigation study which covers a larger flooding area. The County suggested Brooklawn Borough attend future meetings to continue conversations regarding the area-wide flooding. The Michael Baker Project Team has been coordinating with the design team on that project as well.

Action Items

- Project team to provide copy of the recorded meeting, PPT presentation and minutes to meeting attendees and invitees.
- Project team to confirm whether there are any other NJDOT projects in the immediate vicinity, aside from Route 130 Over Big Timber Creek, and confirm the timing.

Michael Baker believes the foregoing record to be an accurate summary of discussions during the project kickoff meeting. Comments on this summary are requested within five (5) working days of distribution, otherwise Michael Baker will consider this document to be a final record of the meeting.

Project: CR 551 Broadway Local Concept Development Study	
Subject: Public Information Meeting No. 2 Summary	
Meeting Date & Time: September 13, 2022, 6:00 pm	Prepared By: Art Wawiernia
Meeting Location: Virtual via Microsoft Teams	Date of Distribution: 9/27/2022

Attendees

- Andrew Levecchia – Camden County, County Director of Planning
- Kevin Becica - Camden County, County Engineer
- John Coscia, Jr. – DVRPC Project Manager
- Sylvester (Sly) Fryc – Michael Baker International, Project Manager
- Art Wawiernia – Michael Baker International, Deputy Project Manager
- Lori Wade – Michael Baker International, Drainage Engineer
- Rebecca Lyne – Michael Baker International, Environmental Specialist
- Marty Wade - Michael Baker International, Public Outreach Specialist
- Sam Mody – Keller Engineers of New Jersey, LLC
- Ryan Giles – Borough of Brooklawn, Borough Administrator/Municipal Clerk
- Christina Rubino – Borough of Brooklawn, Planning & Zoning Chairperson
- Xin (Cindy) Huang – CDM Smith
- Anne Forline – South Jersey Observer, Photographer
- Wyatt Parrish – Comcast
- “RoIFerry’s” – RoIFerry’s Imprint & Award Specialties, Inc., Property Owner
- Janel Miller – Affiliation Unknown
- Peg – Affiliation Unknown
- 717-512-7453 – Affiliation Unknown

Discussion Notes:

- The project team presented the included PowerPoint presentation that described the Community & Public Outreach, the Project Location & Overview, the Project Delivery & Local Concept Development Process, the completed Existing Conditions Analysis, the Project Information and Purpose & Need, the Goals and Objectives, the Analyzed Alternatives, Potential Detour Routes, Upcoming Meetings, and Next Project Steps.
- There were no questions or comments from meeting attendees.

Action Items

- Project team to provide copy of presentation and minutes to meeting attendees.

Meeting Minutes

Michael Baker believes the foregoing record to be an accurate summary of discussions during the project kickoff meeting. Comments on this summary are requested within five (5) working days of distribution, otherwise Michael Baker will consider this document to be a final record of the meeting.

APPENDIX E – PURPOSE AND NEED

DRAFT PURPOSE AND NEED STATEMENT
Local Concept Development Study for
CR 551 Broadway
Borough of Brooklawn and City of Gloucester, New Jersey

PURPOSE

The purpose of the project is to address chronic flooding along CR 551 Broadway, while minimizing utility, right of way, and traffic impacts. The project consists of two sites along CR 551 in Brooklawn Borough and Gloucester City, Camden County, NJ, between MP 30.08 to 30.21 (Project Area 1) and MP 29.46 to 29.61 (Project Area 2).

NEED

CR 551 Broadway suffers from chronic flooding more than eight times a year, and this flooding traps nearby residents between the flooded areas. Current climate studies, as well as State guidance, also predict flooding severity and frequency to increase in the future. Per hydrologic and hydraulic modeling performed, during high tide, both sites experience tidal backflow and/or inability to drain. Furthermore, during low tide, many pipes within the project limits have insufficient drainage capacities. Based on the elevations of the project locations, drainage systems, and outfalls, high tides, storm surge, and sea level rise are the primary flooding concern, with flooding intensified during rain events, especially those with high volumes.

GOALS AND OBJECTIVES

The project goals and objectives have been developed based on the project's Purpose and Need described above, findings from previous reports, and inputs obtained from data collection efforts. While the project may not be able to completely satisfy all goals and objectives listed herein, Camden County will strive to address them, where feasible and to the greatest practical extent. The project goals and objectives are as follows:

- Minimize present day flooding while implementing a resilient design to account for future flooding conditions
- Minimize and/or mitigate environmental impacts
- Minimize or avoid impacts to adjacent historic properties and historic district
- Minimize right-of-way impacts
- Minimize utility impacts and relocations
- Minimize impacts to traffic and driveway access during construction

APPENDIX F – PROJECT FACT SHEET

PROJECT FACT SHEET

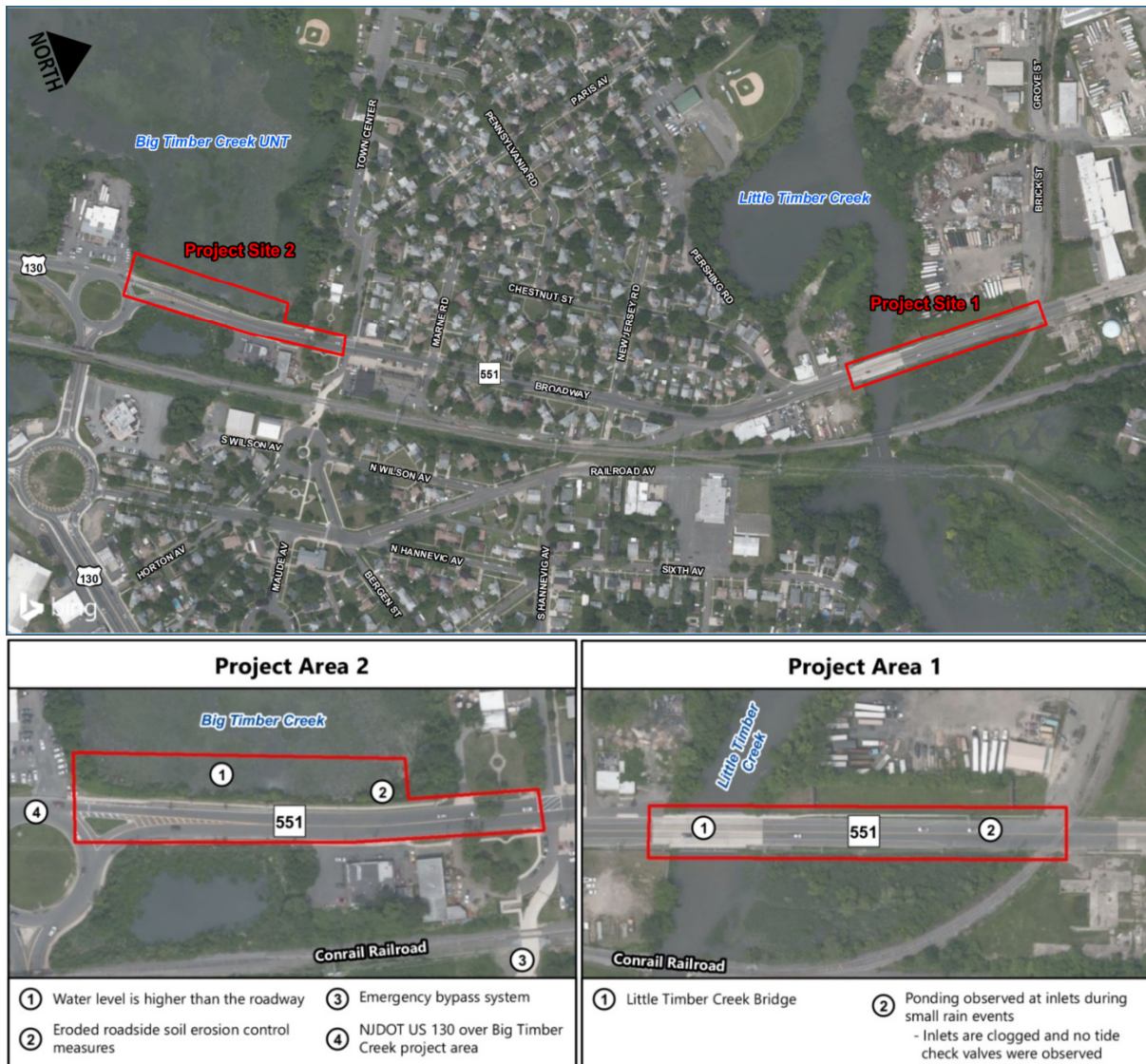
Local Concept Development Study for CR 551 Broadway Borough of Brooklawn and City of Gloucester, New Jersey

Introduction

The purpose of the project is to address and alleviate chronic flooding along CR 551 Broadway for both present day and future flooding events, while minimizing environmental, historic, utility, Right of Way and traffic impacts. The project consists of two sites along CR 551 in Brooklawn Borough and Gloucester City, Camden County, NJ, between MP 30.08 to 30.21 (Project Area 1) and MP 29.46 to 29.61 (Project Area 2).

This LCD Study will focus on performing data collection and analysis necessary to develop alternatives for flood mitigation of the project areas with consideration of the surrounding communities and their assets. Tasks to be performed during the study include: Existing data collection; analysis of the substandard roadway elements; Environmental, Cultural Resources, and Architectural screening and documentation; and the selection of a Preliminary Preferred Alternative and preparation of a Concept Development Report.

The maps of the study areas are shown below.



Project Fact Sheet

CR 551 Broadway LCD Study

General Information

A. Funding Source: DVRPC

B. Type of Project: Flood Mitigation

C. Highway Classification: Urban Minor Arterial – CR 551 Broadway

D. Project Limits: The project consists of two sites along CR 551 between MP 30.08 to 30.21 (Project Area 1) in Brooklawn Borough, NJ and MP 29.46 to 29.61 (Project Area 2) in Gloucester City, NJ.

E. Project Origin: The need to perform this project is that CR 551 Broadway suffers from chronic flooding more than eight times a year, and this flooding traps nearby residents between the flooded areas. Much of the existing drainage system is undersized, and during high tides and storm surge events, the systems experience either tidal backflow and/or inability to drain. Current climate studies, as well as State guidance, also predict flooding severity and frequency to increase in the future.

F. Existing Conditions:

Drainage

- During high tide, both sites experience tidal backflow and/or inability to drain.
- During low tide, many system pipes have insufficient drainage capacities.
- Tides/surge/SLR are the primary flooding concern, with flooding intensified during rain events, especially those with high volumes.
- The outfall at Project Area 2 has a tide check valve installed, while there is no tide check valve at the outfall at Project Area 1.
- At Project Area 2, the roadside erosion control measure on the southbound side of CR 551 that has since eroded away.
- At Project Area 1, tidal waters have a higher elevation than that of the roadway at the project site.
- Ponding at inlets observed at both locations during rain events.
- Both project locations fall within FEMA's coastal AE zone at elevation 10 (indicates areas that have at least a 1%-annual-chance of being flooded, but where wave heights are less than 3 feet).

Roadway

- One - travel lane in the north/south direction ranging in width from 12 ft. (with ~9 ft outside shoulder) to 22 ft. (no shoulder) in each direction.
- No substandard design elements.

Environmental Screening

- The study area is located within several historic resources, of which include the following:
 - Noreg Village Historic District
 - Brooklawn Traffic Circle
 - West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District

Project Fact Sheet

CR 551 Broadway LCD Study

- Ray-Bets Liquor Store at 114 South New Broadway
- 500-510 New Broadway
- Six registered archaeological sites
- Presence of sensitive receptors to air and noise
- In-water timing restrictions for anadromous waters are required
- Wetlands, waterways, flood hazard areas, and riparian zones are present
- Presence of tidelands claims associated with Little Timber Creek and Big Timber Creek
- Presence of environmental justice communities
- Presence of known contaminated sites and historic fill
- Numerous environmental permits may be required

NJDOT Crash Data

- Crash data (2017-2019, SafetyVoyager):
 - Five (5) total crashes within Project Area 2 (milepost 29.46 to 29.61). Three (3) property damage crashes, two (2) moderate injury crash.
 - There were no crashes identified within Project Area 1 (milepost 30.08 to 30.21).

Utilities

The following utility companies have facilities within the project limits:

- Public Service Electric and Gas – Electric
- Public Service Electric and Gas – Gas
- Verizon New Jersey, Inc.
- Teleport Communications America, LLC (AT&T)
- Crown Castle Fiber
- Camden County Municipal Utilities Authority
- Brooklawn – Westville Public Works
- Comcast Cable Communications Management LLC (*Pending Confirmation*)
- Conrail

G. Proposed Improvements:

- Update Drainage System and Add Tide Check Valves
- Update Drainage System, Add Flood Barrier, Add BMPs and/or Green Infrastructure
- Raise Road and Install Pump Station

H. Roadway Section: Existing roadway section to meet final roadway width and alignment within the project limits.

I. AADT: (via available NJDOT and DVRPC data)

	NB AADT	SB AADT	Total AADT	AM Peak	PM Peak
2017	4213	3786	7999	519	875
2019	4217	3790	8007	520	876
2021	4302	3866	8168	530	894

J. Posted Speed: 25 MPH

K. Design Speed: 25 MPH

APPENDIX G – CRASH DATA COLLECTION

Local Concept Development Study for
County Road 551 Broadway
Borough of Brooklawn, Camden County, New Jersey

Crash Data

- Crash data (2017-2019, SafetyVoyager): Five (5) total crashes within Project Area 2 (milepost 29.46 to 29.61). Three (3) property damage crashes, two (2) moderate injury crash. There were no crashes identified within Project Area 1 (milepost 30.08 to 30.21).







LEGEND

- ←← SAME DIRECTION - REAR END
- ←← SAME DIRECTION - SIDE SWIPE
- ↙ LEFT TURN/U-TURN
- ↔ OPPOSITE DIRECTION - SIDE SWIPE
- ↗ OPPOSITE DIRECTION - HEAD ON/ANGULAR

- E← ENCROACHMENT
- B← PEDALCYCLIST
- ← FIXED OBJECT
- ↔ BACKING
- ⊥ RIGHT ANGLE
- A← ANIMAL
- ☒← NON-FIXED OBJECT
- P← PEDESTRIAN
- ▣← STRUCK PARKED VEHICLE
- O← OTHER

Crash Locations (2017-2019)

County Road 551 Broadway
Local Concept Development Study
Borough of Brooklawn, Camden County

Location	MP 29.46 - 29.61
	July 2021
	

APPENDIX H – RISK REGISTER



NJDOT RISK MANAGEMENT
PROJECT RISK REGISTER

Project Manager:	Kevin Becica (Camden County); John Coscia (DVRPC);	Municipality(ies):	Brooklawn, Gloucester City
Designer:	Michael Baker International, Inc.	County(ies):	Camden
NJDOT Job No.:	N/A	Initial Register Date:	9/19/2022
NJDOT UPC #:	N/A	Last Register Update:	9/19/2022

Project Name:	CR 551 Broadway
---------------	-----------------

Risk Rank & ID		Risk Statement & Category			Risk Analysis Matrix						Risk Response Strategy & Response Planning				
Risk Rank	Unique ID #	Risk Statement	Risk Category		Risk Probability	Risk Impact		Schedule Score	Cost Score	Final Score	Risk Response Strategy	Risk Response Action Plan	Final Risk Owner	Action Plan Status	Risk Last Updated
			Initial Risk Owner	Risk May Occur In		Schedule	Cost								
1	1	Utility coordination is required to mitigate impacts to underground utilities.	Utilities	Construction	3 - Moderate	7 - High	4 - Moderate	21	12	33	Mitigate Threat	Coordinate with utilities and perform test pits in future phases.	Designer, County	Plan To Be Developed	9/19/2022
2	2	The PPA for each site requires approximately 0.04 acres of property acquisition and a temporary easement for a pump station, which must be coordinated during future project phases.	Right of Way	Preliminary Engineering	3 - Moderate	4 - Moderate	4 - Moderate	12	12	24	Mitigate Threat	Coordinate ROW Acquisitions and Easements during LPE.	Designer, County	Plan To Be Developed	9/19/2022
3	3	Activities in regulated resources are anticipated including wetlands and Water of the US which will require authorizations from the NJ Department of Environmental Protection and US Army Corps of Engineers.	Environmental	Preliminary Engineering	3 - Moderate	4 - Moderate	2 - Low	12	6	18	Mitigate Threat	Coordinate environmental impacts/mitigation during LPE.	Designer, County	Plan To Be Developed	9/19/2022
4	4	Known historic fill and regulated material have been identified near the project areas, which will require testing, handling, and disposal.	Environmental	Construction	4 - High	2 - Low	2 - Low	8	8	16	Mitigate Threat	Identify areas of concern on environmental plans and incorporate items and specifications.	Contractor, County	Plan To Be Developed	9/19/2022
5	5	Temporary Traffic Control during construction is required for Project Area 1 and 2, which is anticipated to require an single-lane, alternating traffic operation using flaggers or a temporary traffic signal.	Construction	Construction	2 - Low	4 - Moderate	2 - Low	8	4	12	Avoid Threat	Coordinate traffic impacts during construction with local officials and stakeholders in future phases.	Designer, Contractor, County	Plan To Be Developed	9/19/2022

APPENDIX I – ENVIRONMENTAL SCREENING REPORT

Wawiernia, Arthur

From: Gendek, Jeffrey [DOT] <Jeffrey.Gendek@dot.nj.gov>
Sent: Monday, December 5, 2022 10:55 AM
To: Gonzales, Nenebert [DOT]; John Coscia
Cc: Warren, Sean [DOT]
Subject: DVRPC Camden County CR 551 Broadway - Alternatives Discussion

Follow Up Flag: Follow up
Flag Status: Flagged

Bert,
I have reviewed the Environmental Screening Report prepared by Baker. A CED will be the appropriate environmental document. The screening correctly captured the existing environmental conditions as well as identified the potential permits necessary once an alternative is chosen. Keep me posted on future meetings as the project advances.

Jeff

CONFIDENTIALITY NOTICE: This email message and all attachments transmitted with it may contain State of New Jersey legally privileged and confidential information intended solely for the use of the addressee only. If the reader of this message is not the intended recipient, you are hereby notified that any reading, dissemination, distribution, copying, or other use of this message or its attachment(s) is prohibited. If you have received this message in error, please notify the sender immediately and delete this message. If the disclaimer can't be applied, take no action.

FY 2021 Camden County Local Concept Development Project for County Route 551 Broadway

Borough of Brooklawn & City of Gloucester
Camden County, New Jersey

Environmental Screening Report



September 2021

Prepared by:

Michael Baker
INTERNATIONAL

Michael Baker International, Inc.
300 American Metro Boulevard, Suite 154
Hamilton, NJ 08619

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ATTACHED SEPARATELY

Environmental Data Resources Report (via eFTP)

Environmental Screening Report

1.0 INTRODUCTION

The Delaware Valley Regional Planning Commission (DVRPC) and Camden County has retained Michael Baker International, Inc. (Michael Baker) to perform a Local Concept Development (LCD) study to address chronic flooding on County Route (CR) 551 Broadway between MP 29.46 to 29.61 and MP 30.08 to 30.21. The project is located in the Borough of Brooklawn and City of Gloucester, Camden County, New Jersey. Refer to **Figures 1 and 2 in Appendix A** for a project location and USGS 7.5' topographic map, respectively, and refer to **Appendix B** for photos of the study areas.

CR 551 is a minor arterial roadway carrying traffic through residential and commercial areas. Observations have identified flooding during storm events along the roadway which restricts traffic movement. To eliminate existing flooding concerns, various alternatives will be examined, including cleaning the drainage system, upgrading the drainage system, raising the roadway profile, designing green infrastructure, flood barriers, and pump stations. Two (2) locations along CR 551 have been reviewed as part of this study.

The major objectives of the LCD Phase are to develop a Purpose and Need Statement focused on the flood prevention improvements and identify a reasonable number of prudent and feasible replacement alternatives and no-build alternatives. Following a rigorous alternatives development, evaluation, and public outreach process, the effort will culminate in the selection of a Preliminary Preferred Alternative (PPA). As part of the LCD Phase, an environmental screening was performed to identify regulated resources within the vicinity of the project areas. When noted in this report, the "study area" is defined as the area within 300 feet of the project sites. The northern project site located between MP 29.46 and 29.61 will be known as "Study Area 1" and the southern project site located at MP 30.08 to 30.21 will be known as "Study Area 2."

Environmental parameters related to the project were assessed by performing a review of available information, which included maps and publications by various government agencies and non-government organizations. Constraints examined include cultural resources, open space and parkland resources, air and noise sensitive receptors, protected species habitat, wetlands, surface waters, floodplains, environmental justice communities, and hazardous materials.

The purpose of this report is to provide an inventory of existing environmental conditions that the alternative concepts should take into consideration. The information presented will assist the DVRPC and Camden County in evaluating the concepts and the potential environmental implications of each alternative. Although regulated resources were identified within the study area, it is not anticipated that any of the identified resources pose an overwhelming environmental challenge that would preclude the project from advancing through Preliminary Engineering (PE), the environmental documentation process, and construction.

2.0 ZONING AND LAND USE

Study Area 1 features industrial areas to the northwest with a freight railroad running across CR 551 along the northern end. Additionally, a scrap yard exists to the east, adjacent to Little Timber Creek. Commercial properties and residential properties exist on the southern edge of Study Area 1. Study Area 2 features residential properties to the northwest, commercial properties to the east and southwest, and the Brooklawn Traffic Circle to the south. A railroad runs parallel to CR 551 within Study Area 2. Residential properties are present along CR 551 between the two study areas.

Environmental Screening Report

According to a land use and zoning map provided by the Borough of Brooklawn, both study areas have properties immediately east of the roadway classified as ‘Commercial’ and properties west of the roadway classified as ‘Redevelopment Area Overlay Zone.’

According to a land use and zoning map provided by the City of Gloucester, Study Area 1 is located within the Retail and Commercial Services (RC) and Port Planned Industrial Development (PPI). The PPI is located within the Rehabilitation and Redevelopment District.

The project consists of addressing current and future flooding conditions and is anticipated to be consistent with the existing land use. It will not create a conflict with zoning regulations, change the intensity of the land use, or impact the character or quality of the existing community. As such, zoning and land use are not considered a potential constraint.

Refer to **Figures 3A and 3B** in **Appendix A** for the municipal zoning maps.

3.0 CULTURAL RESOURCES

Since the project is federally funded by the Federal Highway Administration (FHWA), consultation with the New Jersey Historic Preservation Office (NJSHPO) under Section 106 of the National Historic Preservation Act will be required. Section 106 requires Federal agencies to consider the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. Archaeological and architectural surveys in compliance with the *Secretary of Interior’s Standards and Guidelines for Archeology and Historic Preservation* will be completed as part of PE.

Background research, including review of the New Jersey Department of Environmental Protection (NJDEP) GeoWeb, NJDEP DataMiner online data, and other available site files, was performed to determine if previously identified historic properties listed in the New Jersey Register of Historic Places (NJR) and/or National Register of Historic Places (NRHP) or eligible for listing in the NRHP are in the study areas. Research was not performed at the NJSHPO or the New Jersey State Museum (NJSM) due to COVID-19 restrictions. The findings were compiled into a cultural resources screening performed by Michael Baker in September 2021. Table 1 identifies the historic resources within the study areas.

Table 1. Historic Resources within the Study Areas

Site	Name	Status
Study Area 1	West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District	Recommended NRHP-Eligible
	500-510 New Broadway	Recommended NRHP-not Eligible
Study Area 2	Noreg Village Historic District	NJR and NRHP Eligible
	Brooklawn Traffic Circle	NJR and NRHP Eligible
	West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District	Recommended NRHP-Eligible
	Ray-Bets Liquor Store at 114 South New Broadway	Recommended NRHP-Not Eligible
	New Jersey Archaeological Site Grid (Cell AV204)	NRHP-Identified

Environmental Screening Report

In addition to the resources identified in Table 1, six (6) registered archaeological sites were identified within one mile of the study areas, but none within the study areas. Research found a high probability of encountering pre-Contact archaeological sites and a moderate to high probability for encountering historic archaeological deposits. Research also found three (3) newly identified unevaluated buildings 50 years or older that may be affected by the proposed undertaking and will require survey and evaluation for NRHP eligibility. The buildings are located at 549 South Broadway, Gloucester City, 609 New Broadway, Brooklawn Borough, and 601 New Broadway, Brooklawn Borough.

Further review under Section 106 of the National Historic Preservation Act will be required during PE. Encroachments into properties listed on the NJ Register of Historic Places will also require Project Authorization under the NJ Register of Historic Places Act. Refer to **Appendix C** for the cultural resources screening.

4.0 SECTION 4(f) PARKLAND PROPERTIES

Available geospatial data from the NJDEP Green Acres Program, Recreational and Open Space Inventory (ROSI), as well as aerial photography, were reviewed to identify public parkland, including recreational facilities, publicly owned open space, wildlife refuge or wildlife management areas, school athletic fields, or community parks within the study areas. Based on this review, no parkland resources are present.

5.0 AIR QUALITY

Air sensitive receptors are identified as exterior locations outside the mixing zone of uniform emissions and turbulence, which typically includes residences, bus stops, parks, and other public places to which the public has access. Based on aerial photograph interpretation, it was determined that sensitive receptors for air quality are located within the study areas. The sensitive receptors to air quality identified within each study area are listed in Table 2 below.

Table 2. Sensitive Receptors to Air within the Study Areas

Site	Type	Name
Study Area 1	Bus Stop	Broadway at Chestnut Street – Stop ID: 14985
	Single-family residences	Various
Study Area 2	Bus Stop	New Broadway at Town Center Sq – Stop ID: 14982
	Bus Stop	New Broadway at Town Center Sq – Stop ID: 14988
	Bus Stop	Broadway at Marne Rd – Stop ID: 14983
	Bus Stop	Broadway at Marne Rd – Stop ID: 14987
	Single-family residences	Various

One of the alternatives being examined for Study Area 1 is to raise the profile of the roadway; however, changes to the vertical or horizontal alignment will not be determined until a PPA is selected. The project is not expected to provide a significant increase in vehicle operating speeds or roadway capacity. The study areas are not located in a non-attainment area for fine particulate matter (PM-2.5) or PM-10; however, the study areas are within a maintenance area for carbon monoxide (CO) with moderate levels

Environmental Screening Report

of CO. The proposed project will likely be exempt under Table 2 – Safety Improvement Program of the Transportation Conformity Rule in the Clean Air Act Amendments (CAAA) if no additional lanes will be developed as per the selected PPA. As such, the proposed project is exempt from the conformity requirement of the CAAA including PM 2.5 analysis, per 40 CFR § 93.126, and the project is not anticipated to have adverse air quality impacts.

6.0 NOISE

Noise sensitive receptors are locations where people reside or where the presence of unwanted sound or increased levels of air pollution could adversely affect the use of the land. For noise, a sensitive receptor is generally an exterior location of a property, which is considered to contain a noise sensitive land use such as picnic areas, recreation areas, playgrounds, active sports areas, residences, guest lodges, schools, churches, libraries, and hospitals. Based on aerial photograph interpretation, it was determined that sensitive receptors for noise quality are located within the study areas, of which include several single-family residential properties within both study areas.

Depending on the selected PPA, the project could be classified as a Type I project under 23 CFR § 772.5 if there is substantial alteration to the horizontal or vertical alignment or if the PPA results in the addition of through-traffic lanes. Type I projects under the FHWA highway traffic noise standard (23 CFR § 772) require highway traffic noise analysis; however, if the selected PPA does not propose to increase capacity or change the alignment then the project would be classified as a Type III project and a highway traffic noise analysis will not be required. This will be further evaluated as part of the alternatives analysis.

7.0 ECOLOGY

The potential presence for ecologically resources were evaluated within the study areas, of which include soils, protected species and their habitat, wetlands and their transition areas, surface waters, floodplains, and water quality considerations. The areas surrounding the study areas are primarily commercial with some residential properties.

7.1 Soils

The Natural Resource Conservation Service (NRCS) Soil Survey Geographic (SSURGO) database for Camden County was used to identify the soils within the study area. Available data identified only one (1) soil type and water. The study areas are entirely with urban land (UR) soil, which has an unranked hydric soil rating and has parent material consisting of surfaces covered by pavement, concrete, buildings, and other structures underlain by disturbance and natural soil material.

Refer to **Figure 4** in **Appendix A** for the USDA soils map.

7.2 Protected Species and Habitat

7.2.1 Threatened and Endangered Species

Species of special status include those species that are considered to be rare in the State of New Jersey and are listed on the State and/or federal lists of threatened and endangered species. The NJDEP Landscape Project data (Version 3.3) identifies threatened and endangered species habitat based on documented wildlife locations and land use/land cover data. Additionally, the United States Fish and Wildlife Service (USFWS) Information for Planning and Conservations (IPaC) identifies threatened,

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endangered, proposed, and candidate species that may occur in the project area and/or may be affected by the proposed project. Species identified by the NJDEP Landscape Project and USFWS IPaC (dated August 8, 2021) are listed in Table 3 below:

Table 3. Endangered, Threatened and Special Concern Species within the Study Areas

Common Name	Scientific Name	Status	Notes
NJDEP Landscape Project Data			
Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	Federally Endangered State Endangered	Migration Corridor (Juvenile Sighting)
Bald Eagle	<i>Haliaeetus leucocephalus</i>	State Endangered	Foraging
Great Blue Heron	<i>Ardea herodias</i>	State Special Concern	Foraging
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Federally Endangered State Endangered	Migration Corridor (Adult Sighting)
USFWS IPaC			
Red Knot	<i>Calidris canutus rufa</i>	Federally Threatened	-
Sensitive Joint-vetch	<i>Aeschynomene virginica</i>	Federally Threatened	-

Data identified bald eagle and great blue heron habitat within the study areas. Avian species are highly mobile and during construction, would be able to access alternative foraging habitat that exists in the area. Therefore, adverse impacts to bald eagle and great blue heron are not anticipated.

The NJDEP Landscape Project identified migration corridors for Atlantic sturgeon and shortnose sturgeon adjacent to Study Area 1. Proposed work will likely remain within the existing roadway; however, if the PPA proposes in-water work, best management practices, such as turbidity barriers, will be used during construction to maintain water quality and prevent harm to fish species. As per Table 5.7 in N.J.A.C. 7:7A-5.7, in-water work will result in timing restrictions from March 1st through June 30th and September 1st through November 30th.

According to the USFWS IPaC, there is critical habitat for red knot proposed for red knot; however, USFWS consultation is only needed for proposed new or changed petroleum product storage or transport and for spill response since no other activity types are expected to affect red knots in this area. Additionally, red knots are traditionally found along mudflats and Atlantic/bay beaches on the east coast of the state. According to the New Jersey Fish and Wildlife Service (NJFWS) distribution map, red knots are not identified in Camden County; therefore, adverse impacts to red knot are not anticipated.

Sensitive joint-vetch inhabits intertidal zones of fresh to brackish tidal rivers, typically in areas with sediment accumulation and marshes. Areas with bare or sparsely vegetated substrate is favored by this plant species. According to the NJFWS distribution map, sensitive joint-vetch is not identified within the Borough of Brooklawn or City of Gloucester. Additionally, the observed tidal marshes and *Phragmites australis* dominant wetlands within the study areas are heavily vegetated. Therefore, it is unlikely sensitive joint-vetch is within the study areas.

Consultation per Section 7 of the USFWS Endangered Species Act may be necessary to confirm the absence or presence of threatened and endangered species and to provide guidance on appropriate actions if listed species are affected. Timing restrictions on tree clearing are not required; however, timing

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restrictions on in-water construction will likely be required to protect fish species. If the selected PPA remains within the existing right-of-way, adverse impacts to threatened or endangered species habitat are not anticipated.

Refer to **Figure 5** in **Appendix A** for the NJDEP Landscape Project map identifying threatened and endangered species habitat in the study areas. Additionally, refer to **Appendix D** for a copy of the USFWS IPaC report.

7.2.2 Natural Heritage Grid

The study areas are located within NJDEP Natural Heritage Grids #2351 and 2461. Grids #2351 and 2461 are noted to be a location of a rare plant species or ecological community occurrence, but the precise location is not known ("M" precision plant record) and there may be up to 1.5 miles of uncertainty in the mapped location. The NJDEP Natural Heritage Grid identified the potential presence of marsh water-starwort (*Callitriche palustris*), awl-leaf arrowhead (*Sagittaria subulata*), and smooth hedge-nettle (*Stachys tenuifolia*). None of the identified plant species are considered State or federally threatened or endangered.

Marsh water-starwort prefers still or slow-moving waters and is found in lacustrine areas, shores of rivers or lakes, and swamp habitats. Awl-leaf arrowhead usually only occur in wetlands and is found in brackish or salt marshes and flats, floodplains, fresh tidal marshes or flats, or the shores of rivers or lakes. Smooth hedge-nettle is found forested floodplains, moist meadows along river or woodlands, swamps, ditches, wetlands, and other saturated habitats. Study Area 1 features forested areas and potential wetlands to the east and floodplains and saturated habitats along Little Timber Creek. Study Area 2 features a tidal marsh along Big Timber Creek and a basin and saturated habitats to the east. Based on the habitat surrounding the study areas, there is a potential for all three (3) species to be present. A field assessment should be completed to confirm the presence of marsh water-starwort, awl-leaf arrowhead, and smooth hedge-nettle. If the species are identified in the study areas, further coordination from the NJDEP will be required.

7.2.3 Essential Fish Habitat

The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) Essential Fish Habitat (EFH) mapper was used to determine the extent of EFH within the study areas. According to the EFH mapper, the study areas have been designated EFH for the species listed in Table 4 below.

Table 4. Designated Essential Fish Habitat within the Study Areas

Common Name	Scientific Name	Egg	Larvae	Juvenile	Adult
Atlantic Butterfish	<i>Peprilus triacanthus</i>		X		X
Atlantic Herring	<i>Clupea harengus</i>			X	X
Black Sea Bass	<i>Centropristis striata</i>			X	X
Bluefish	<i>Pomatomus saltatrix</i>			X	X
Clearnose Skate	<i>Raja eglanteria</i>			X	X
Little Skate	<i>Leucoraja erinacea</i>			X	X
Longfin Inshore Squid	<i>Doryteuthis pealeii</i>	X			
Red Hake	<i>Urophycis chuss</i>				X
Scup	<i>Stenotomus chrysops</i>			X	X
Summer Flounder	<i>Paralichthys dentatus</i>			X	X
Windowpane Flounder	<i>Scophthalmus aquosus</i>			X	X
Winter Skate	<i>Leucoraja ocellate</i>			X	X

The Magnuson-Steven Fishery Conservation and Management Act requires an assessment of impacts to EFH after a federal permitting agency, such as the United States Army Corps of Engineers (USACE), has determined that there is potential for a significant adverse effect to an EFH. In-water work can potentially cause minor short-term impacts to fish habitat through displacement, and turbidity caused by potential sediment suspension can act as a temporary barrier to fish passage. If in-water work is proposed, best management practices will be instituted during construction to prevent any impact to water quality that may harm resident anadromous fish. Turbidity barriers can be placed to reduce impacts to fish movement. Furthermore, to protect these fish during their spawning runs, in-water construction activities will be restricted from March 1st through June 30th and September 1st through November 30th, as determined by Table 5.7 in N.J.A.C. 7:7A-5.7. Depending on the selected PPA, consultation with the NMFS may be necessary.

Refer to **Appendix D** for a copy of the NMFS EFH report.

7.2.4 Vernal Habitat

Vernal pool geospatial data provided by the NJDEP Division of Fish and Wildlife was examined to determine the potential for vernal pools within the study areas. Geospatial data identified one (1) potential vernal habitat approximately 1,700 feet east of Study Area 1 and 2,300 feet east of Study Area 2. Due to no mapped potential vernal habitat within the study areas, impacts to vernal habitat are not anticipated.

7.3 Wetlands

Activities proposed in wetlands and their associated transition areas are regulated by the NJDEP Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A), NJDEP Coastal Zone Management Rules

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(N.J.A.C. 7:7), and the Clean Water Act as administered by the USACE. In New Jersey, the USACE regulates fill and dredging of wetlands located within 1,000 feet of the mean high water line. Any work proposed within wetlands or waters of the United States will be regulated by the USACE. A wetland delineation is recommended during PE to establish wetland and water boundaries.

7.3.1 Freshwater Wetlands

The NJDEP Freshwater Wetlands (FWW) and USFWS National Wetlands Inventory (NWI) geospatial data were reviewed to identify potential wetlands within the study areas. The NJDEP FWW geospatial data identified *Phragmites australis* dominate interior wetlands immediately east of CR 551 and deciduous wooded wetlands are identified immediately west of the roadway for Study Area 1. Freshwater tidal marshes and herbaceous wetlands were identified near the outer edge of Study Area 1. Data identified a large freshwater tidal marsh immediately west of CR 551 as well as deciduous scrub/shrub wetlands and *Phragmites australis* dominant coastal/interior wetlands to the east of Study Area 2.

The USFWS NWI geospatial data identified a palustrine scrub-shrub wetland immediately east of the roadway and riverine wetland running along Little Timber Creek near Study Area 1. Aerial imagery suggests potential wetlands along the banks of Little Timber Creek. Additionally, a freshwater pond is located southeast of the roadway and a palustrine emergent wetland is located to the west of the roadway near Study Area 2. Aerial imagery suggests a large wetland is likely present to the west of the roadway in Study Area 2.

The New Jersey Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A-3.2) classifies wetlands into three general categories based on their resource value to determine the size of the transition area and to assess necessary mitigation. According to the NJDEP Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A-3.2), a freshwater wetland of exceptional resource value discharges into FW1 or FW2 trout production waters or their tributaries, is present habitat for threatened or endangered species, or is a documented habitat for threatened or endangered species, which remains suitable for breeding, nesting, or feeding. A freshwater wetland of ordinary resource value includes isolated wetlands smaller than 5,000 ft², ditches, swales, and detention facilities created by humans in an area that was previously uplands. A freshwater wetland of intermediate resource value is any wetland that does not meet the definition of exceptional or ordinary.

As stated in Section 7.2.1 above, the NJDEP Landscape Project data identified threatened and endangered species habitat at both study areas; therefore, all wetlands delineated within the study areas will likely have a 150-foot wetland transition area. Impacts to freshwater wetlands and their associated wetland transition areas are regulated under the NJDEP Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A).

Refer to **Figures 6 and 7** in **Appendix A** for a NJDEP FWW and USFWS NWI map, respectively.

7.3.2 Coastal Wetlands

The NJDEP upper wetland coastal boundary was reviewed to determine if the identified wetlands were classified as coastal wetlands per the Wetlands Act of 1970. According to the 1970 Wetlands Basemap, Study Area 1 is located within grid #378-1872 and Study Area 2 is located within grid #378-1866, both of which are promulgated by the Wetlands Act of 1970. Therefore, all wetlands waterward of the upper wetland coastal boundary will be regulated by the NJDEP Coastal Zone Management Rules (N.J.A.C. 7:7) and all other wetlands will be regulated by the NJDEP Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A). Impacts to coastal wetlands may require an NJDEP Coastal Wetlands permit under the NJDEP Coastal Zone Management Rules (N.J.A.C. 7:7).

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Refer to **Figures 8 in Appendix A** for a map of the upper coastal wetland boundary.

7.4 Water Resources

Study Area 1 spans Little Timber Creek, and Big Timber Creek UNT flows adjacent to Study Area 2. Little Timber Creek and Big Timber Creek UNT are tidal and navigable waterways designated as freshwater non-trout 2 (FW2-NT) by the NJDEP. The study areas are located within the Lower Delaware Watershed Management Area (WMA 18). Study Area 1 is within the Little Timber Creek (Gloucester City) (02040202120070) HUC-14 watershed, and Study Area 2 is within the Big Timber Creek (below NB/SB confl) (02040202120080) HUC-14 watershed. No Category One waters were identified downstream of either HUC-14 watershed.

Section 10 of the Rivers and Harbors Act (33 U.S.C. 403) requires authorization from the USACE for regulated activities conducted below the ordinary high water elevation of navigable waters of the United States. Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway. If the selected PPA results in work within the tidal waterway, a USACE nationwide permit may be required. Since the Little Timber Creek and Big Timber Creek UNT are both tidal, navigable waterways coordination with the United States Coast Guard is required.

7.4.1 Waterfront Development Area

Little Timber Creek and Big Timber Creek UNT are tidally flowed waterways. According to the NJDEP Coastal Zone Management Rules (N.J.A.C 7:7-2.4), the regulated waterfront area for areas outside of both the CAFRA area and the Hackensack Meadowlands District shall include the following:

- i. All tidal waterways and lands lying thereunder, up to and including the mean high water line; and
- ii. Adjacent upland areas within 100 feet of the mean high water line. For properties within 100 feet of the mean high water line that extend inland beyond 100 feet from the mean high water line, the regulated waterfront area shall extend inland to the lesser of the following distances:
 - (1) 500 feet from the mean high water line; or
 - (2) To the first paved public road, railroad, or surveyable property line that:
 - (A) Existed on September 26, 1980; and
 - (B) Generally parallels the waterway.

As such, the areas immediately adjacent to the roadway for both project sites are within the regulated waterfront area. If the selected PPA proposes in-water work up to the mean high water line within the regulated waterfront development area, construction may require a Waterfront Development In-Water Individual Permit. Additionally, if the selected PPA proposes upland work within 100 feet of the mean high water line within the regulated waterfront development area, construction may require a Waterfront Development Upland Individual Permit.

7.4.2 Riparian Zones

Riparian zones are defined as the land and vegetation within and adjacent to a regulated water. As established in the NJDEP Flood Hazard Area Control Act Rules (N.J.A.C. 7:13), a riparian zone exists along both sides of every regulated water. The width of a riparian zone is dependent on the attribute of the water as follows:

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1. The width of the riparian zone along any regulated water designated as a Category One water, and all upstream tributaries situated within the same HUC-14 watershed is 300 feet;
2. Except for the regulated waters listed above, the width of the riparian zone along the following regulated waters is 150 feet:
 - a. Any trout production water and all upstream waters (including tributaries);
 - b. Any trout maintenance waters and all upstream waters (including tributaries) located within one mile of a trout maintenance water; and
 - c. Any segment of a regulated water flowing through an area that contains endangered or threatened wildlife or plant species habitat, which is critically dependent on regulated waters for survival located within one mile of such habitat.
3. For all other regulated waters not identified above, the width of the riparian zone is 50 feet.

As previously stated, no Category One waters are present within the study area's HUC-14 watersheds. Additionally, available GIS data does not identify any trout production waters near the study areas nor trout maintenance waters within one mile of the study areas. Moreover, NJDEP Landscape Project data does not show species critically dependent on regulated waters for survival; therefore, Little Timber Creek and Big Timber Creek UNT will likely have a 50-foot riparian zone.

7.4.3 Floodplains

All regulated waters with drainage areas of 50 acres or more have flood hazard areas (FHA) regulated by the NJDEP Flood Hazard Area Control Act Rules (N.J.A.C. 7:13). Available Federal Emergency Management (FEMA) Flood Insurance Rate Map (FIRM) data were reviewed to determine if project activities are proposed within the regulated FHA. FEMA FIRM Panel No. 34007C0038F (Effective Date: 08/17/2016) depicts the 1% annual chance floodplain at an elevation of 9 and 10 feet NAVD 88 at Study Area 1 and 10 feet NAVD 88 at Study Area 2.

As per Method 2 of the NJDEP Flood Hazard Area Control Act Rules (N.J.A.C. 7:13-3.4(d)), the FHA design flood elevation for a tidal floodplain shall be equal to the FEMA 1% annual chance floodplain elevation. Additionally, the FEMA FIRM does not depict the floodway limit. Per N.J.A.C. 7:13-3.4(d)2ii, the floodway limit is equal to the top of bank along the regulated water.

Project activities may occur in the regulated FHA and floodway and will need to comply with the NJDEP Flood Hazard Area Control Act Rules through a NJDEP Waterfront Development permit application. Per the NJDEP Coastal Zone Management Rules, development in flood hazard areas shall conform to the applicative design and construction standards set forth in the NJDEP Flood Hazard Area Control Act Rules, potentially Section 11.3 (regulated activity in a floodway), 11.4 (regulated activity in a flood fringe), and/or 12.7 (requirements for a bridge or culvert). Project activities that occur within a tidal floodway and tidal FHA are not subject to flood storage volume displacement limits (N.J.A.C. 7:13-11.4(d)1).

Refer to **Figure 9** in **Appendix A** for the FEMA FIRM Panels.

7.4.4 Tidelands

Tidelands, as defined by the NJDEP, are all lands now or formerly flowed by the mean high tide of a natural waterway. Tidelands are owned by all the people of the State of New Jersey and require permission from the State for the primary use of these lands in the form of a tidelands license, lease, or grant. Study Area 1 spans Little Timber Creek and Big Timber Creek UNT runs adjacent to Study Area 2, both of which are tidal waterways claimed by the Tidelands Bureau of New Jersey. Tidelands claims are areas that are

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currently or have previously been flowed by tidal waterbodies. Projects or structures built or proposed in a tidally flowed waterway anywhere in New Jersey require a Waterfront Development Permit and a NJDEP Bureau of Tidelands issued Tidelands Conveyance.

The tidelands conveyance map shows an existing riparian grant at the CR 551 bridge over Little Timber Creek in Study Area 1, but no riparian grant/license in Study Area 2. Depending on the selected PPA, a riparian interim license may be needed prior to construction.

Refer to **Appendix E** for the official tidelands conveyance map of the area.

7.5 Stormwater Management and Water Quality

The NJDEP Stormwater Management Rules (N.J.A.C. 7:8) require all projects classified as a major development meet certain standards for water quality, water quantity, and groundwater recharge. A major development is defined as an individual “development” or multiple developments that individually or collectively result in:

1. The disturbance of one or more acres of land since February 2, 2004;
2. The creation of one-quarter acre or more of “regulated impervious surface” since February 2, 2004;
3. The creation of one-quarter acre or more of “regulated motor vehicle surface” since March 2, 2021; or
4. A combination of 2 and 3 above that totals an area of one-quarter acre or more.

Projects that qualify as a major development must implement Best Management Practices (BMPs) to reduce adverse effects to water quality, water quantity control, and groundwater recharge. The project is located in Metropolitan Planning Area 1 (PA 1) and as such, compliance with the groundwater recharge requirements is not required. If the selected PPA results in an additional one-quarter acre of regulated impervious surface, then the stormwater management measures for water quality control per N.J.A.C. 7:8-5.5 are required.

If the project results in more than 5,000 ft² of ground disturbance, water quality degradation concerns during construction will be addressed by implementing soil erosion and sediment control measures designed in accordance with *The Standards for Soil Erosion and Sediment Control in New Jersey*. A Soil Erosion and Sediment Control application will be submitted to the Camden Soil Conservation District for certification. Upon receipt of the certification, Request for Authorization under the New Jersey Pollution Discharge Elimination System (NJPDES) General Stormwater Permit for Construction (5G3) will be required if the project exceeds the one-acre threshold for ground disturbance.

8.0 SOCIOECONOMICS

It is not anticipated that the proposed project will affect farmland or community facilities. Further evaluation, once the PPA is selected, will need to be conducted to determine if the project will result in the acquisition or relocation of any residential or commercial properties. Coordination with property and business owners is recommended during the design phase of the project to maintain access during construction.

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9.0 ENVIRONMENTAL JUSTICE

The study areas are located within four (4) census block groups: Census Tract 6110 Block Group 1, Census Tract 6110 Block Group 6, Census Tract 6053 Block Group 1, and Census Tract 6053 Block Group 2. Available demographic and economic data from the United States Census Bureau's American Community Survey (ACS) (2014-2018) 5-year estimates were used to develop a community profile to determine the presence or absence of minority and/or low-income populations within the study areas. In addition to the ACS 2014-2018 5-year estimates, the United States Environmental Protection Agency (EPA) Environmental Justice Screening (EJ Screen) Tool and the New Jersey Environmental Justice Mapping Tool were reviewed. Refer to Table 5 below for the results of the analysis.

Table 5. Race and Ethnicity Breakdown

Race/Ethnicity	New Jersey	Camden County	Tract 6110 Block Group 1	Tract 6110 Block Group 6	Tract 6053 Block Group 1	Tract 6053 Block Group 2	Within 1,000 feet of Study Areas 1 and 2
<i>Total Population</i>	<i>8,881,845</i>	<i>507,367</i>	<i>840</i>	<i>1,293</i>	<i>1,240</i>	<i>783</i>	<i>1,564</i>
Population within Race							
White	67.9%	63%	84%	89%	77%	92%	87%
Black or African American	13.5%	19%	2%	4%	8%	2%	4%
American Indian and Alaska Native	0.2%	0%	0%	0%	0%	0%	0%
Asian	9.4%	6%	6%	6%	4%	0%	2%
Native Hawaiian and Other Pacific Islander	0%	0%	0%	0%	0%	0%	0%
Some Other Race	6.4%	8%	0%	0%	9%	4%	4%
Two or More Races	2.6%	3%	8%	0%	2%	2%	2%
Population within Ethnicity							
Hispanic or Latino	19.9%	16%	0%	0%	8%	4%	4%
Non-Hispanic or Non-Latino	80.1%	84%	100%	100%	91%	96%	96%

Source: United States Census Bureau 2014-2018 American Community Survey 5-year estimates

The ACS estimates a total population of 1,564 within Study Areas 1 and 2 with 13% being a member of a racial minority (non-white) and 4% of the total population identifying as Hispanic. Based on the statistics, minority and Hispanic populations are below the State and county averages.

Additional demographic data from the United States Census Bureau's ACS (2014-2018) 5-year estimates were used to evaluate Environmental Justice Factors within the study areas. Refer to Table 6 below for the results of the analysis.

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Table 6. Environmental Justice Factors and Civil Rights Authorities

Environmental Justice Factor	New Jersey	Camden County	Tract 6110 Block Group 1	Tract 6110 Block Group 6	Tract 6053 Block Group 1	Tract 6053 Block Group 2	Within 1,000 feet of Study Areas 1 and 2
Total Population	8,881,845	507,367	840	1,293	1,240	783	1,564
Male	48.8%	48%	25%	50%	47%	49%	49%
Female	51.2%	52%	75%	50%	53%	51%	51%
Age Under 18 years	22.2%	29%	20%	36%	30%	21%	26%
Age 18+	77.8%	77%	81%	68%	77%	82%	78%
Age 65+	15.5%	15%	19%	13%	8%	11%	10%
Age 25+ and No High School Diploma	9.5%	12%	16%	12%	13%	13%	13%
Age 5+ and Speaks English "Less Than Very Well"	12.0%	8%	6%	6%	8%	2%	4%
Household Income < \$50,000	33%	39%	40%	53%	37%	40%	40%
Household Income > \$75,000	52%	45%	14%	29%	41%	40%	39%

Source: United States Census Bureau 2014-2018 American Community Survey 5-year estimates

According to the United States Census Bureau, the 2018 poverty thresholds for a four-person family was \$25,701. Households are defined as low-income if household income is less than twice the federal poverty threshold, therefore households are considered low-income if they make less than \$51,402 annually. Of the 621 households within the study areas, 40% make less than \$50,000 annually. Results show that all census tracts have at least 35% of households making less than \$15,000 annually (below the poverty threshold).

Additionally, only 4% of the population over five years old reportedly speaks only English "less than very well." Based on the statistics, the study areas show populations above the State average for people over 25 years of age with no high school diploma, below the State average for people over 5 years old who speak English "less than very well," and below the State average for households with annual incomes below \$75,000.

DVRPC Indicators of Potential Disadvantage (IPD)

Under Title IV of the Civil Rights Act and E.O. 12898, the DVRPC was directed to create a method for ensuring that equity issues are investigated and evaluated for transportation projects. The DVRPC identifies populations of interest using ACS 2015-2019 five-year estimates and examines nine (9) IPDs of which include youth, older adults, females, racial minority, ethnic minority, foreign-born, limited English proficiency, disabled, and low-income populations. The IPD analysis generates an "IPD score" ranging from 0 to 36, with 0 having IPDs well below average and 36 have IPDs well above average. According to the DVRPC IPD analysis tool, Census Tract 6053 in Brooklawn Borough has an IPD score of 17 and Census Tract 6110 in Gloucester City has an IPD score of 18. Both IPD scores are considered to have an average concentration of IPDs. Based on the DVRPC IPD analysis tool, the study area does not contain an overwhelming presence of environmental justice communities.

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New Jersey's Environmental Justice Law

New Jersey's Environmental Justice Law, N.J.S.A. 13:1D-157, requires the NJDEP to evaluate the contributions of certain facilities to existing environmental and public health stressors in overburdened communities when reviewing certain permit applications. An overburdened community is defined as any census block group, as determined in accordance with the most recent United States Census, in which:

1. At least 35 percent of the households qualify as low-income households (at or below twice the poverty threshold as determined by the United States Census Bureau);
2. At least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or
3. At least 40 percent of the households have limited English proficiency (without an adult that speaks English "very well" according to the United States Census Bureau).

According to the New Jersey Environmental Justice Mapping Tool, Census Tract 6110 Block Group 1 in the City of Gloucester, located the northwest corner of Study Area 1, is classified as an overburdened community due to at least 35 percent of the households qualifying as low-income households according to latest United States Census data. The project proposes to implement drainage system improvements at the two project sites to prevent future flooding along the roadway, thus improving the safety of residents and drivers and overall benefiting the communities around the project sites. Based on the project objective, the project will not introduce environmental or public health stressors. Therefore, the proposed project will not adversely impact overburdened communities.

Based on the census data, environmental justice communities are not present within 1,000 feet of the study areas and overburdened communities will not be disproportionately impacted by the project. Refer to **Appendix F** for the census block group map, United States Census data, and summaries of the demographic and economic data generated by the EJ Screen Tool.

10.0 HAZARDOUS MATERIAL

Historic, federal, and state records pertaining to hazardous waste activities were reviewed. Available geospatial data from the NJDEP was reviewed for any known deed notice areas, currently known extent of groundwater contamination (CKE), classification exception areas for groundwater contamination (CEA), and known contaminated sites within the study areas. One (1) deed notice area, three (3) CEAs, and two (2) known contaminated sites were identified within the study areas. Refer to Table 7 below for the hazardous material sites identified from NJDEP geospatial data.

Table 7. NJDEP Identified Hazardous Areas within the Study Areas

Site	Name	ID Number	Known Contaminated Site	Classification Exception Area (CEA)	Deed Notice Area
Study Area 1	Liquid Carbonic Specialty Gas Corporation	G000013534	X	X	-
Study Area 2	Borough of Brooklawn Water Works	012128	-	X	X
	D'Andrea Tire Inc.	016792	X	X	-

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Available NJDEP geospatial data identifies mapped historic fill within the study areas. Historic fill is typically characterized as non-hazardous or ID-27 waste and requires handling according to *NJDEP Site Remediation Program Historic Fill Material Technical Guidance* (April 2013). Additionally, the West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines bisects Study Area 1 north of the CR 551 bridge over Little Timber Creek. Testing should be performed to confirm the presence of regulated material near the railroad, identify historic fill, and to delineate the area. In accordance with the NJDEP's *Linear Construction Technical Guidance*, if the areas of historic fill are not delineated, all excavated soils not reused as back-fill must be properly disposed. Refer to **Figure 10** in **Appendix A** for a figure depicting NJDEP mapped hazardous materials.

In addition, a search of environmental records in government databases was completed using the services of Environmental Data Resources, Inc. (EDR). These databases document the occurrence, use, disposal, discharge, and/or transport of hazardous materials and petroleum hydrocarbons. The records search focuses on identifying sites with the potential for environmental concerns near the subject property and at more distant locations. Based on the results of the EDR report for Study Area 1, five (5) properties were identified within the immediate study area and 13 properties within 1/8 mile of the study area are associated with hazardous materials. Additionally, for Study Area 2, nine (9) properties were identified within the immediate study area and 12 properties within 1/8 mile of the study area are associated with hazardous materials. The identified properties and the search database that identified the property are listed in Table 8 below.

Table 8. EDR Results for Sites Located within 1/8 mile of the Study Areas

Map ID	Name	Address	Database ¹
Study Area 1			
A1 ² , A2 ²	Liquid Carbonic Specialty Gas Corp	560 S Broadway	NJ ISRA, NJ SHWS, NJ HIST HWS, NJ INST CONTROL, NJ BROWNFIELDS, NJ NJEMS, NJ Financial Assurance
A3 ²	Carpenter Realty Corp	549 S Broadway	NJ SHWS, NJ HIST HWS, NJ LUST, NJ HIST LUST, NJ UST, NJ BROWNFIELDS, NJ SPILLS
A4 ²	Rutter, Howard J	558 S Broadway	EDR Hist Auto
A5 ²	Woodland Oxygen Co.	560 S Broadway	NJ UST, NJ NJEMS, NJ Financial Assurance
6 ²	East Coast Collision	609 New Broadway	RCRA NonGen / NLR
B7	Gloucester Iron & Metal, Inc.	Brick & Stinsman St	RCRA NonGen / NLR, NY MANIFEST
B8	Letzgus, Geo F	532 S Broadway	EDR Hist Auto
9	Dantes Auto Body	502 New Broadway	RCRA NonGen / NLR
B10	DJB Realty	522 S Broadway	NJ HIST LUST, NJ UST
B11	Former Sewage Treatment Site	Foot of Brick St	NJ BROWNFIELDS
B12	Dwyn Char Inc.	518 S Broadway	EDR Hist Cleaner
C13	Gloucester City Wastewater Treatment Plant	Brick St	NJ HIST HWS, NJ BROWNFIELDS
D14, D15	Interstate Pallet Company	541 Brick St	NJ SHWS, NJ Release, NJ ENG CONTROLS, NJ VCP, NJ BROWNFIELDS

Environmental Screening Report

Map ID	Name	Address	Database ¹
C16	Gloucester City Department of Public Works – Wastewater Treatment Plant	615 Brick St	NJ SHWS, NJ NJEMS
E17	Schillinger Metal Spinning Company	937 Jersey Ave	NJ ISRA
E18, E19, E20	CVS Pharmacy #0864	455 S Broadway	NJ NJEMS, NJ MANIFEST, RCRA-VSQQ, PA MANIFEST
E21	Acme Store #1168	445 S Broadway	RCRA NonGen / NLR
22	South Jersey Automatic Laundry	456 S Broadway	EDR Hist Cleaner
Study Area 2			
A1 ² , A4 ²	D’Andrea Tire, Inc.	100 New Broadway	NJ HIST LUST, NJ SHWS, NJ HIST HWS, NJ UST, NJ INST CONTROL, NJ BROWNFIELDS
A2 ²	Brooklawn Borough Public Works	101 New Broadway	NJ SHWS
A3 ²	Readers Auto Accessories, Inc.	100 New Broadway	EDR Hist Auto
A5 ²	Brooklawn Dry Cleaners	104 New Broadway	EDR Hist Cleaner
A6 ²	Brooklawn Borough Public Works	101 S New Broadway	NJ ENG CONTROLS, NJ INST CONTROL
A7 ²	D’Qandrea Tire, Inc.	100 New Broadway	NJ HIST LUST
B8 ²	Gaskill-Brooklawn Landfill	Brooklawn Circle & Timber Blvd	NJ HIST LF
A9 ²	Reader, John L	100 New Broadway	EDR Hist Auto
B10 ²	Brooklawn Borough Public Works	Haakon Rd	NJ HIST HWS, NJ UST
11	Garage Equipment Sales & Service	226 Chestnut Ave	NJ SHWS, NJ NJEMS
12	South Jersey Container Corporation	267 New Freedom New Brooklyn	NJ HWS RE-EVAL
C13	C & G Auto Body	Rt 130 & Brooklawn	RCRA NonGen / NLR
C14	Merit	Brooklawn Circle & Rt 30	NJ HIST LUST
15	Unknown	202 Paris Ave	NJ SHWS, NJ Release
C16	South Jersey Body Shops, Inc.	218 Crescent Blvd & Rt 130	RCRA-VSQQ
17	Hess Corp Station #3	342 Brooklawn Circle	NJ HIST HWS, NJ LUST, NJ UST, NJ Release, NJ SPILLS, RCRA NonGen / NLR, NJ AIRS, NJ NPDES
D18, D19, D21	Brooklawn Citgo	299 Crescent Blvd	NJ SHWS, NJ Release, EDR Hist Auto, NJ HIST HWS, NJ LUST
D20	Brooklawn Circle Conoco	299 Crescent Blvd S & Rt 130 S	NJ LUST
D22	Mobil - B & L Friend	Rt 130 & Horton Rd	RCRA NonGen / NLR, US AIRS
E23	Sals Cleaners	150 W Browning Rd	EDR Hist Cleaner
E24	Belmar Sanco	168 Browning Rd	EDR Hist Auto
¹ A description of each of the databases is detailed in the EDR Report located in Appendix G			
² Sites located exclusively within the study area			

Once the limit and extent of the project impacts are known, further investigation may be warranted to determine the nature of the contamination at some of the sites and the potential implications during construction. Also, should any properties be acquired and demolished or disturbed by construction activities, contaminated material containment, cleanup, and removal measures may be required.

Environmental Screening Report

Refer to **Appendix G** for excerpts of the EDR report and the associated map.

11.0 ANTICIPATED APPROVALS AND AUTHORIZATIONS

Projects that are granted federal funding by the FHWA are subject to the regulations pursuant to the National Environmental Policy Act (NEPA) and the Environmental Impact and Related Procedure Regulations (23 CFR § 771). Numerous regulated resources including cultural resources, potential threatened or endangered species habitat, wetlands, surface waters, floodplains, and hazardous materials were identified within the study areas. Depending on the selected PPA, project activities may occur within identified regulated resources. Potential authorizations and approvals from regulatory agencies that may be required are listed below.

Federal Permits/Approvals/Coordination

- Compliance with the National Environmental Policy Act of 1969
- Compliance with Procedures for Abatement of Highway Traffic Noise and Construction Noise Section 4(f) of the US Department of Transportation Act for Federally funded projects that result in a noise impact as defined by 23 CFR § 772
- Compliance with the Federal Clean Air Act
- Consultation under Section 106 of the National Historic Preservation Act to assess effects of federal undertakings on cultural resources
- Consultation for Section 7 of the Endangered Species Act of 1970 with the USFWS for freshwater and terrestrial species and the NMFS for marine species
- United States Army Corps of Engineer Nationwide Permit for impacts to waters of the US, including wetlands regulated under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act
- United States Coast Guard bridge permit if project activities impact the CR 551 bridge over Little Timber Creek

State Permits/Approvals/Coordination

- NJDEP Freshwater Wetlands Protection Act Permit for regulated activities within freshwater wetlands, their transition areas, and State open waters
- NJDEP Coastal Wetlands Permit for regulated activities within coastal wetlands
- NJDEP Waterfront Development In-Water Permit for regulated activities below mean high water and an Upland Permit for up to 500 feet landward
- NJDEP Tidelands Conveyance for occupying areas currently or formerly flowed by the mean high tide
- Compliance with the Flood Hazard Area Control Act Rules through the Coastal Zone Management Rules
- Compliance with the NJDEP Stormwater Management Rules (N.J.A.C. 7:8)
- Soil Erosion and Sediment Control Certification for projects with ground disturbance greater than 5,000 ft²
- NJ Pollutant Discharge Elimination System (NJPDES) General Stormwater Permit for Construction (5G3) if the project exceeds one (1) acre of ground disturbance
- Compliance with Technical Requirement for Site Remediation and Licensed Site Remediation Program (LSRP)

Environmental Screening Report

12.0 CONCLUSION

The overall purpose of the environmental screening report was to identify potential environmental constraints within the areas surrounding CR 551 Broadway between MP 29.46 to 29.61 and MP 30.08 to 30.21. The information presented will assist the DVRPC and Camden County in evaluating concept design alternatives in order to understand the potential environmental implications of each alternative. Based on the available information, regulated resources within the study areas include cultural resources, protected species and habitats, wetlands, regulated waters, floodplains, and potential involvement with hazardous materials. It is not anticipated that any of the identified resources pose an overwhelming environmental challenge that would preclude the project from advancing through PE and the environmental documentation process. Depending on the selected alternative, project activities may occur within identified regulated resources.

Environmental Screening Report

13.0 REFERENCES

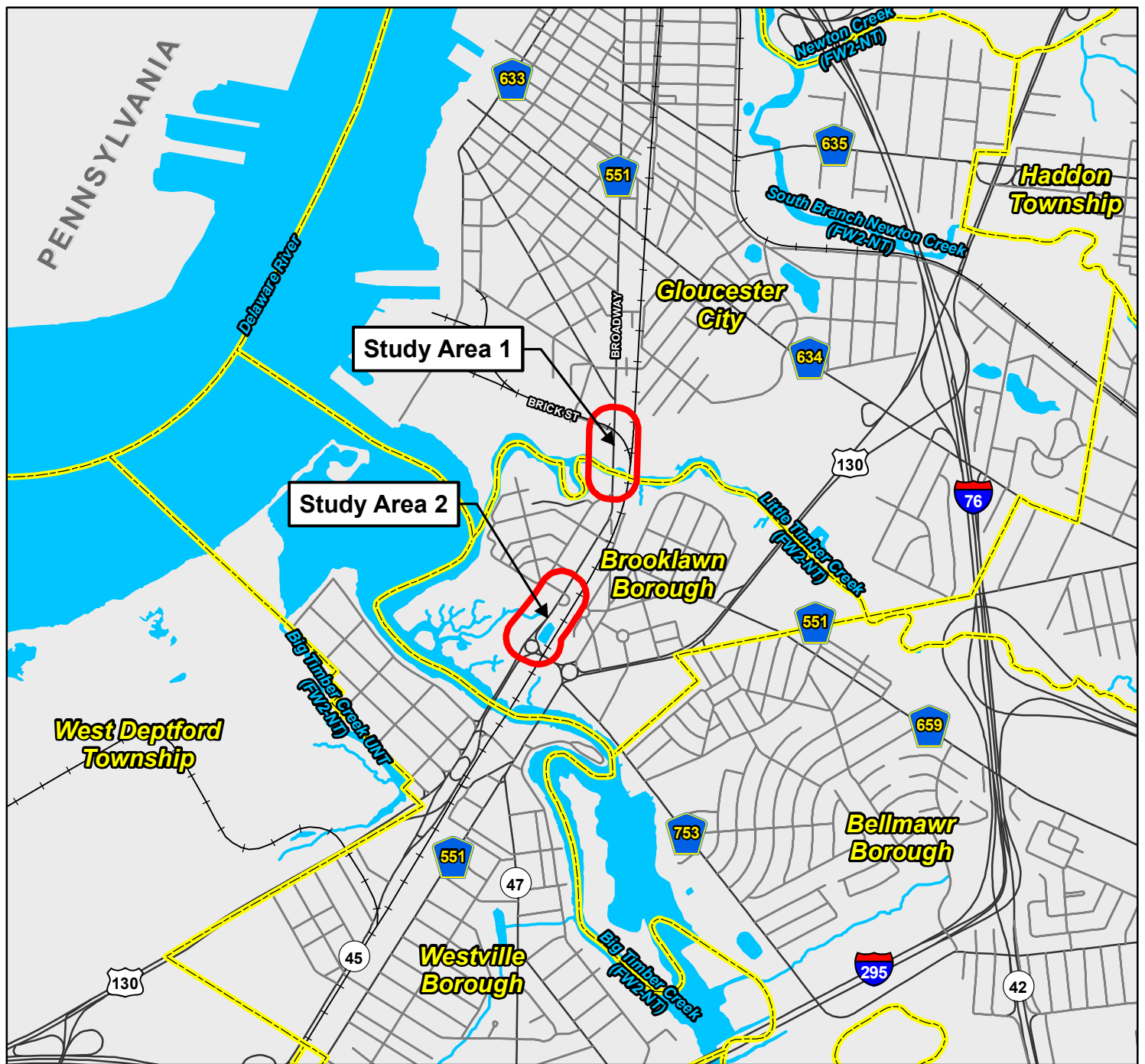
- New Jersey Department of Environmental Protection. *Coastal Zone Management Rules (N.J.A.C. 7:7)*. 2021.
- New Jersey Department of Environmental Protection. *Flood Hazard Area Control Act Rules (N.J.A.C. 7:13)*. 2021.
- New Jersey Department of Environmental Protection. *Freshwater Wetland Protection Act Rules (N.J.A.C. 7:7A)*. 2020.
- New Jersey Department of Environmental Protection. *Stormwater Management (N.J.A.C. 7:8)*. 2020.
- New Jersey Department of Environmental Protection. *Surface Water Quality Standards (N.J.A.C. 7:9B)*. 2020.
- New Jersey Department of Environmental Protection. Bureau of Geographic Information and Analysis. *Species Based Habitat Data for NJDEP Landscape Project, Piedmont Plains Region, Version 3.3*. 2017.
- New Jersey Department of Environmental Protection, Division of Land Use Regulation. *List of Threatened and Endangered Species that are Critically Dependent on Regulated Waters for Survival*. 2008.
- New Jersey Department of Environmental Protection, Green Acres Program. *Green Acres Recreation & Open Space Inventory*. 2021.
- New Jersey Department of Environmental Protection, New Jersey Geological Survey. *NJDEP 14 Digit Hydrologic Unit Code delineation for New Jersey (DEPHUC14)*. 2006.
- New Jersey Department of Environmental Protection, Office of Information Resources Management, Bureau of Geographic Information and Analysis. *NJDEP Wetlands of Camden County, New Jersey 1986*. 1999.
- United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey. *Soil Survey of Camden County, New Jersey*. 2015.
- United States Census Bureau, American Community Survey (ACD) 2014-2018. *EJ Screen Tool*. 2021.
- United States Census Bureau. *Poverty Thresholds (2018)*. <https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>. 2021.
- United States Department of Homeland Security, Federal Emergency Management Agency. *Flood Insurance Rate Map Panel No. 34007C0038F*. 2021.
- United States Fish and Wildlife Service, New Jersey Field Office. *Rufa Red Knot (Calidris canutus rufa) [threatened]*. <https://www.fws.gov/northeast/njfieldoffice/endangered/redknot.html>. 2021.

Environmental Screening Report

United States Fish and Wildlife Service, New Jersey Field Office. *Sensitive Joint-vetch Aeschynomene virginica* [threatened]. <https://www.fws.gov/northeast/njfieldoffice/endangered/jointvetch.html>. 2021.

APPENDIX A

FIGURES



Data Source: NJ Department of Transportation New Jersey Roads (2020), NJ Department of Environmental Protection (NJDEP), Office of Information Resources Management (OIRM), Bureau of Geographic Information Systems (BGIS), Municipalities of New Jersey (2009), National Hydrography Dataset (NHD) Waterbody 2002, Surface Water Quality Standards of New Jersey, Edition 20200327 (2020), NJ Office of Information Technology (NJ OIT), NJ TRANSIT Rail, Light Rail, and Subway Currently Operated Right-of-Way lines, with connecting PATH and PATCO Rail, 2016 (NAD83, NJSP feet), (01/09/2016)

LEGEND

- Study Area
- Surface Water
- Municipal Boundary
- Major Road
- Minor Road
- Railroad

Delaware Valley Regional Planning Commission

Figure 1 Project Location

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ



Michael Baker
INTERNATIONAL



2,000 1,000 0 2,000
Feet



Data Source: USGS 7.5' Topographic Quads:
 - Camden NJ-PA (10/29/2019)
 - Philadelphia PA-NJ (09/13/2019)
 - Runnemede NJ (10/29/2019)
 - Woodbury NJ (10/29/2019)

LEGEND

Study Area

Delaware Valley Regional Planning Commission

Figure 2
USGS 7.5' Topography

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ



2,000 1,000 0 2,000
Feet



Michael Baker
INTERNATIONAL

Figure 3B Zoning Map

Study Area 1

Study Area 2

REDEVELOPMENT AREA MAP OVERLAY PREPARED
BY KEI ASSOCIATES.

REDEVELOPMENT AREA DESIGNATIONS BASED ON PRELIMINARY
INVESTIGATION AUTHORIZED BY RESOLUTION #63-01 ADOPTED
BY THE GOVERNING BODY OF THE BOROUGH OF BROOKLAWN
ON APRIL 18, 2001 AND ADOPTION OF A REDEVELOPMENT
PLAN BY THE GOVERNING BODY

LEGEND

-  A- RESIDENTIAL
-  B- COMMERCIAL
-  C- LIGHT INDUSTRIAL
-  D- SHOPPING CENTER
-  E- PARK PLAYGROUND
-  REDEVELOPMENT AREA OVERLAY ZONE

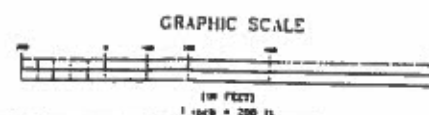
NUMBERS REFER TO BLOCK NUMBERS
FROM BOROUGH OF BROOKLAWN TAX MAPS.

FIGURE C-8
ZONING MAP
BROOKLAWN BOROUGH

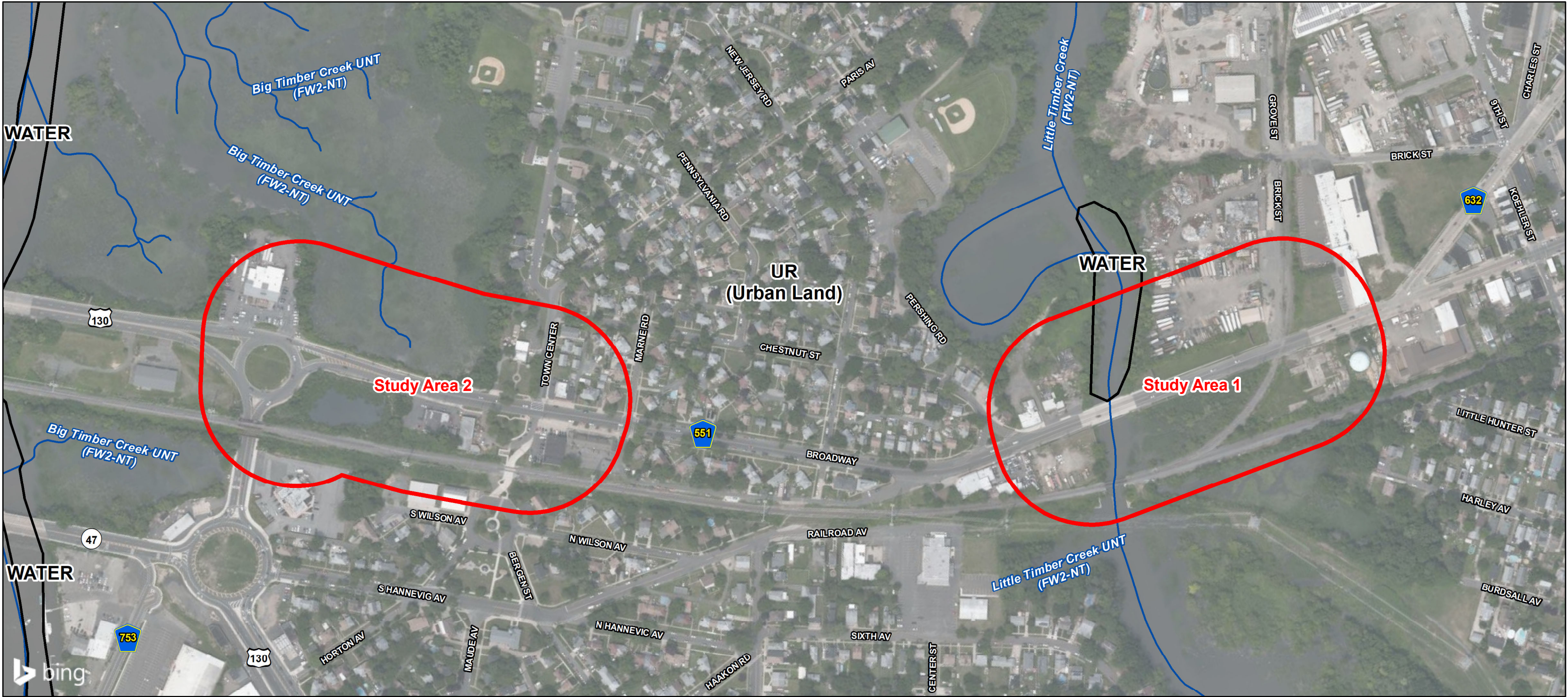
CAMDEN COUNTY NEW JERSEY
SCALE 1" = 200' DATE: 10/1/92

CRAIG F. REMINGTON L.S. 23924

REMINGTON AND VERNICK ENGINEERS
232 KINGS HIGHWAY EAST
HADDONFIELD, NEW JERSEY






KEI ASSOCIATES, P.A.
PROFESSIONAL ENGINEERS, LAND SURVEYORS AND PLANNERS
80 E. STATE STREET, SUITE 200, NEW JERSEY 07102-4301
TEL: (201) 733-1000 FAX: (201) 733-1001 WWW.KEIASSOCIATES.COM

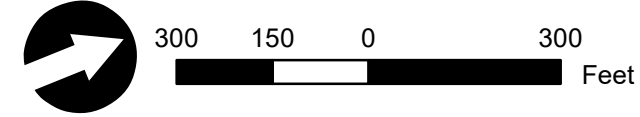


Data Source: NJ Department of Transportation New Jersey Roads (2020), US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Soil Survey Geographic Database for Camden County, New Jersey, 2016, Surface Water Quality Standards of New Jersey, Edition 20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation, 2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

-  Study Area
-  Soil Boundary
-  NJDEP Stream



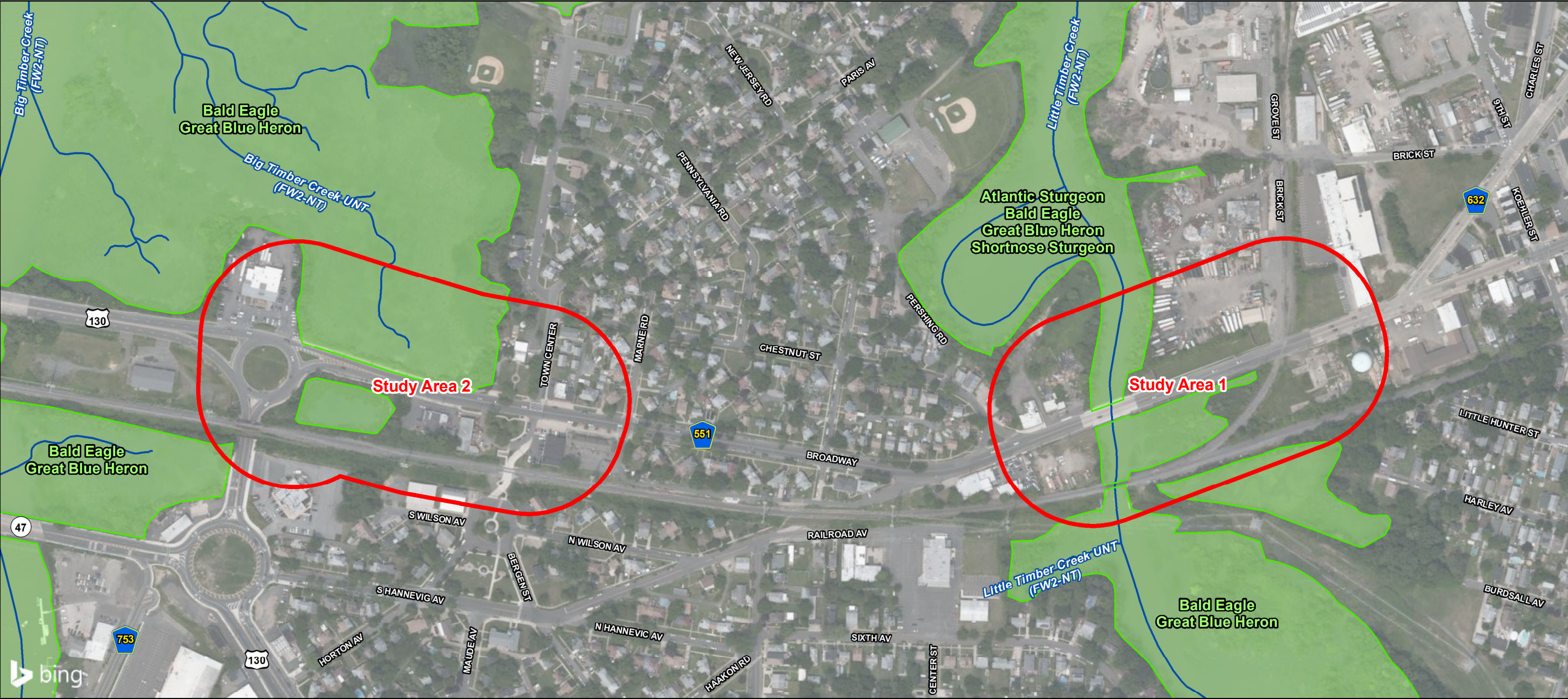
**Delaware Valley
Regional Planning Commission**

Figure 4
USDA Soils

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ





Data Source: NJ Department of Transportation New Jersey Roads (2020), NJ Department of Environmental Protection (NJDEP), Division of Fish and Wildlife (DFW), Endangered Nongame Species Program (ENSP), NJDEP Species Based Habitat, Piedmont Plains Region, Version 3.3 (2017), Surface Water Quality Standards of New Jersey, Edition 20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation, 2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

- Study Area
- Threatened and Endangered Species Habitat
- NJDEP Stream

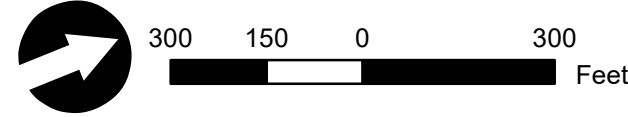
Common Name	Scientific Name	Status
Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	State Endangered Federally Endangered
Bald Eagle	<i>Haliaeetus leucocephalus</i>	State Endangered
Great Blue Heron	<i>Ardea herodias</i>	State Special Concern
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	State Endangered Federally Endangered

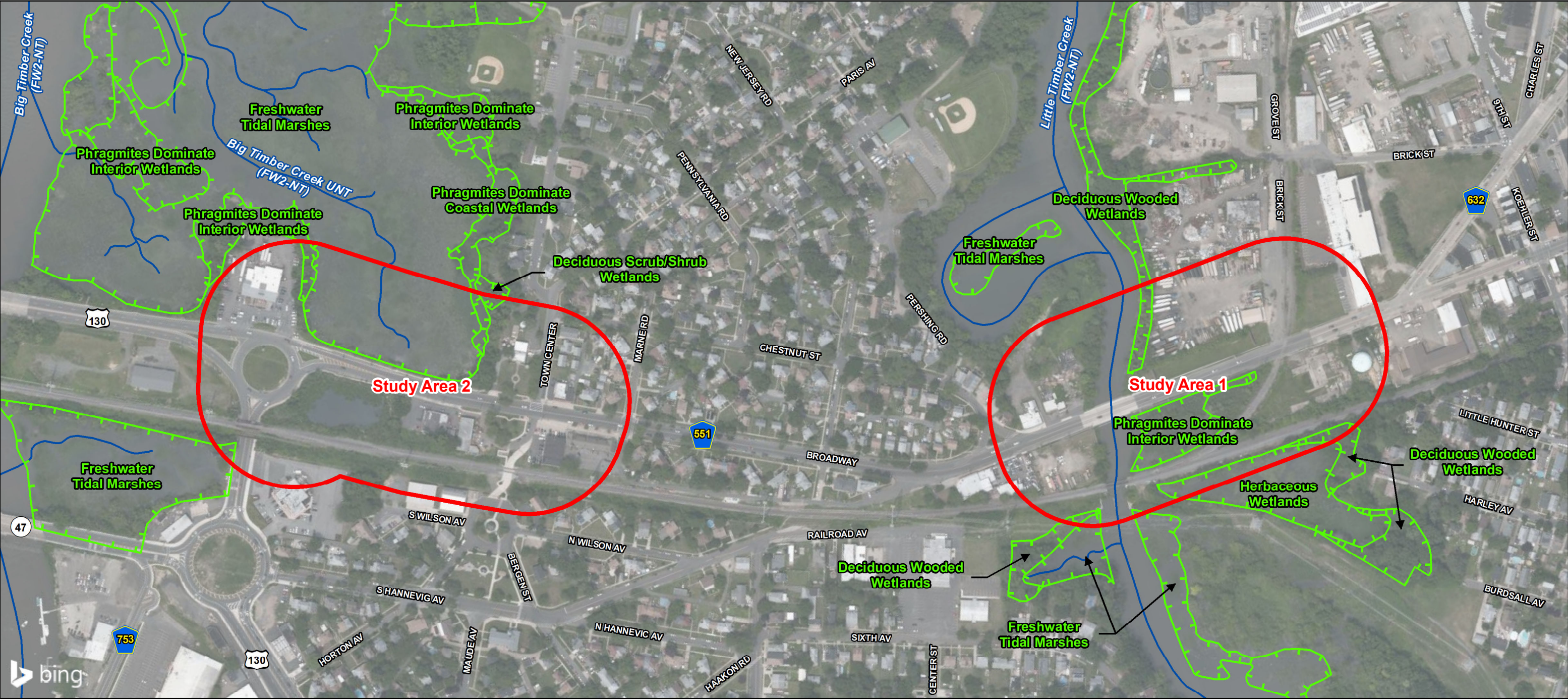
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Regional Planning Commission**

Figure 5
NJDEP Landscape Project

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ








Data Source: NJ Department of Transportation New Jersey Roads (2020), NJDEP Land Use/Land Cover 2012 Update, Office of Information Resources Management (OIRM), Bureau of Geographic Information Systems (BGIS), NJDEP Wetlands of Camden County, New Jersey (1986), Surface Water Quality Standards of New Jersey, Edition 20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation, 2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

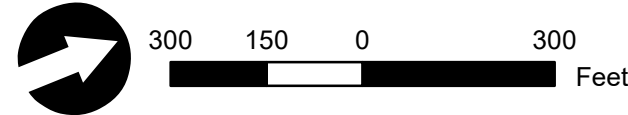
-  Study Area
-  Mapped Wetland Boundary
-  NJDEP Stream

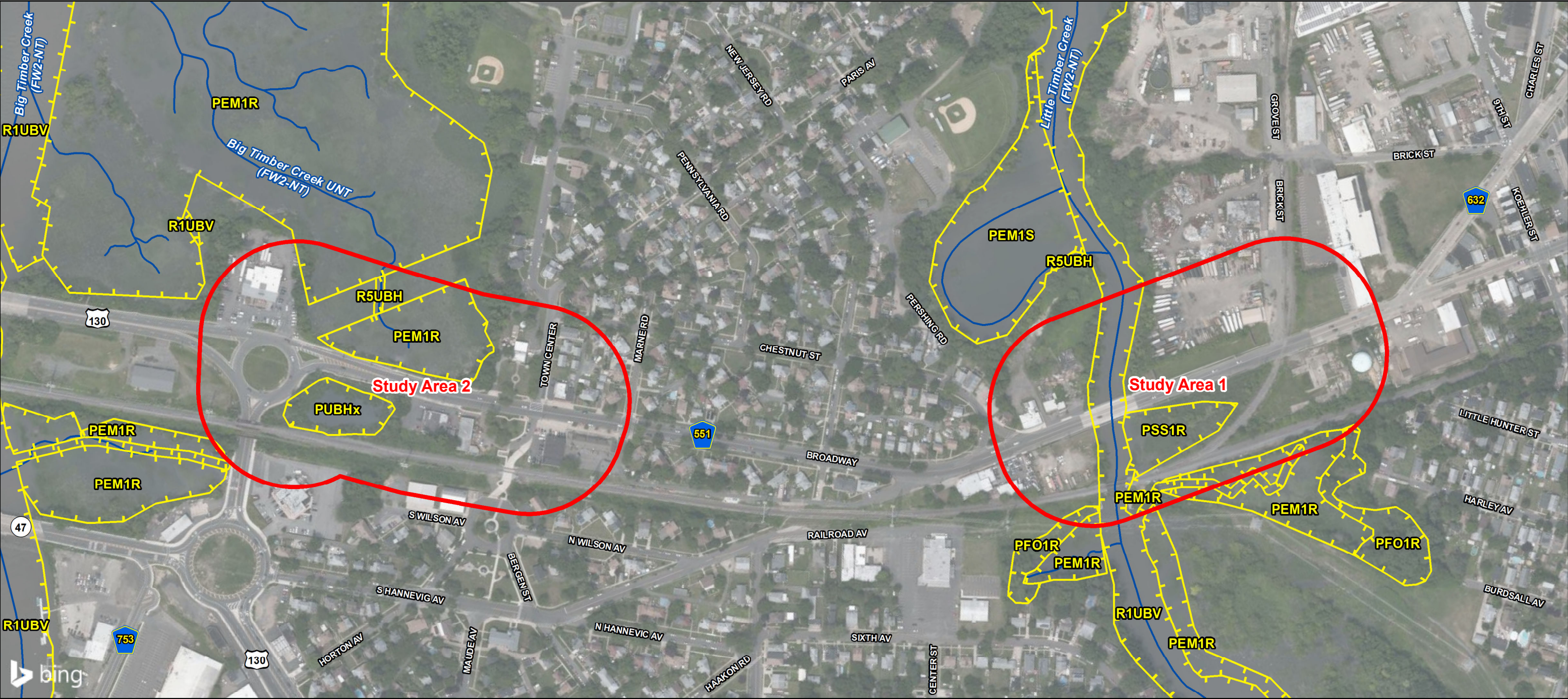
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Figure 6
NJDEP Freshwater Wetlands

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ





Data Source: NJ Department of Transportation New Jersey Roads (2020), NJDEP Land Use/ Land Cover 2012 Update, Office of Information Resources Management (OIRM), Bureau of Geographic Information Systems (BGIS), USFWS National Wetlands Inventory, CONUS Wet Poly (2016), Surface Water Quality Standards of New Jersey, Edition 20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation, 2021 Maxar, CNES (2021) Distribution Airbus DS

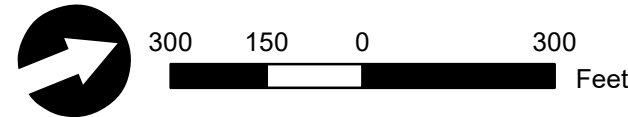
LEGEND

Study Area

Mapped Wetland Boundary

NJDEP Stream

Symbol	Description
PEM1R	Palustrine, Emergent, Persistent, Seasonally Flooded-Tidal
PFO1R	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Flooded-Tidal
PSS1R	Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Flooded-Tidal
PUBHx	Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated
R1UBV	Riverine, Tidal, Unconsolidated Bottom, Permanently Flooded-Tidal
R5UBH	Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded



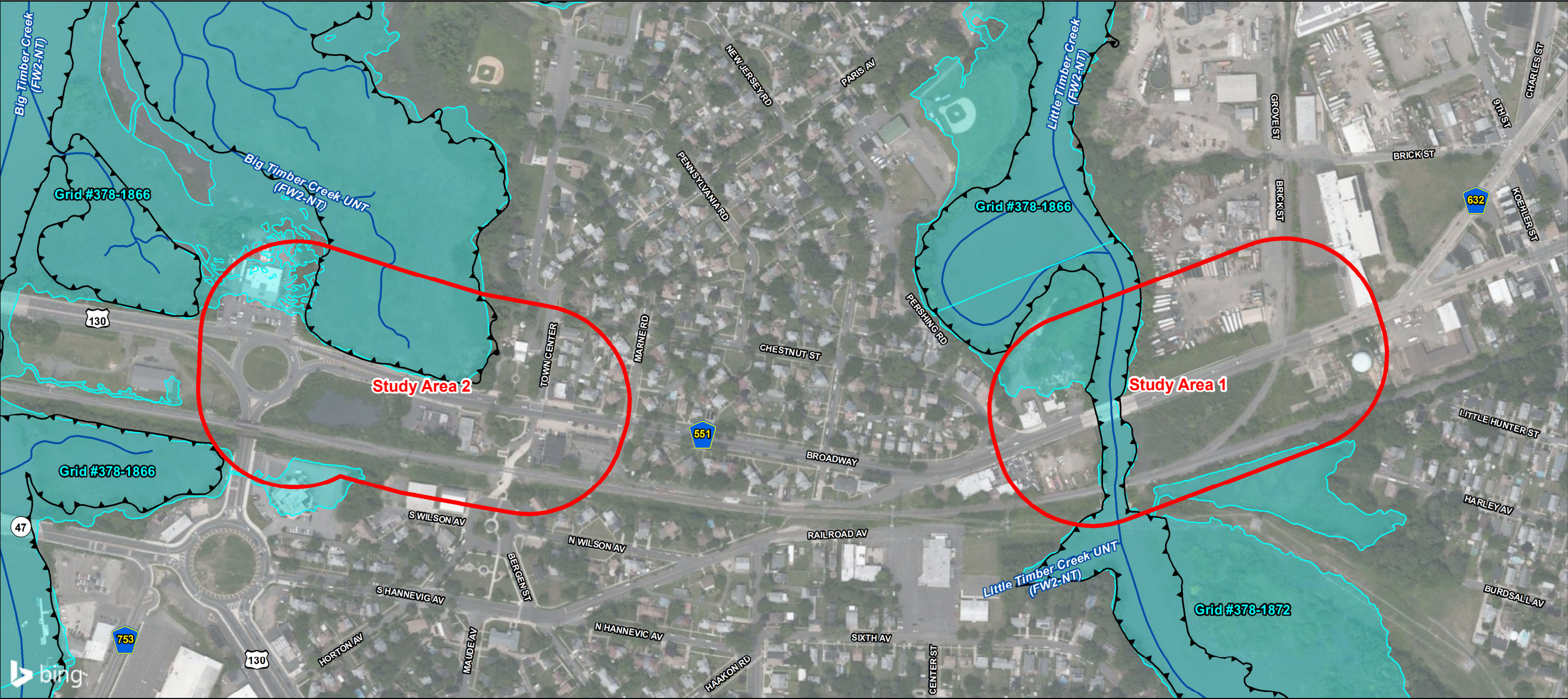
Delaware Valley
Regional Planning Commission

Figure 7
USFWS National Wetlands Inventory

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ







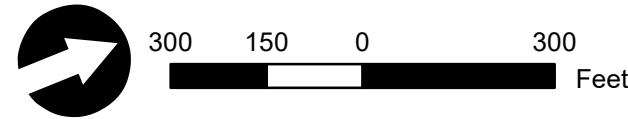


Data Source: NJ Department of Transportation New Jersey Roads (2020), NJ Department of Environmental Protection (NJDEP), Office of Information Resources Management (OIRM), Bureau of Geographic Information Systems (BGIS), NJDEP Upper Wetlands Boundary (UWB) (2018), NJDEP Bureau of Tideland Management, NJDEP Tideland (2004), Surface Water Quality Standards of New Jersey, Edition 20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation, 2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

-  Study Area
-  Claimed Tideland
-  Upper Coastal Wetland Boundary
-  NJDEP Stream



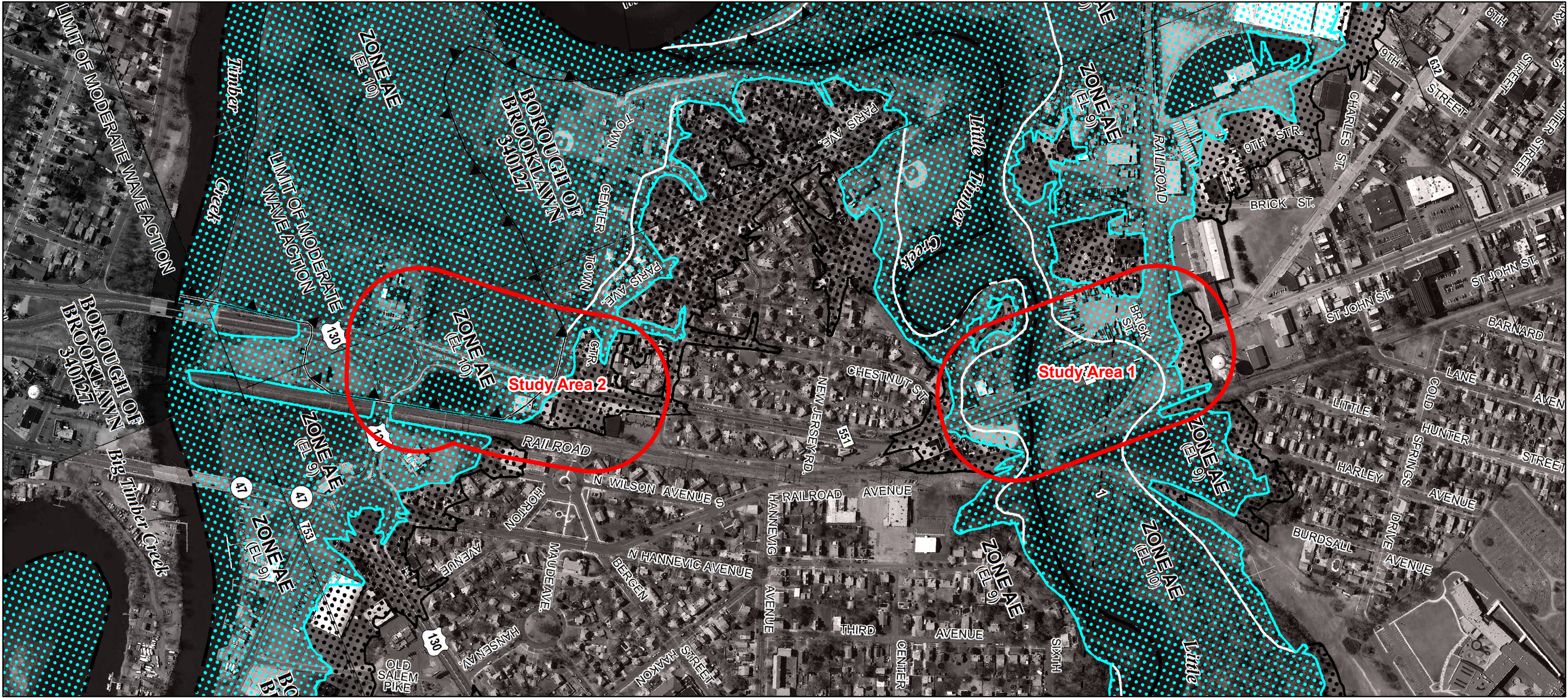
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Regional Planning Commission**

Figure 8
Coastal Resources

FY 2021 Camden County LCD
for County Road 551 Broadway




Gloucester City & Brooklawn Borough
Camden County, NJ

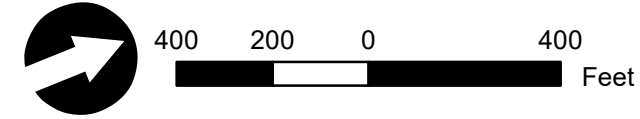




Data Source: Federal Emergency Management Agency (FEMA), Flood Map Service Center, FEMA Flood Insurance Rate Map
- 34007C0019F (Effective Date: 08/17/2016)
- 34007C0038F (Effective Date: 08/17/2016)
- 34007C0082F (Effective Date: 08/17/2016)
- 34007C0101F (Effective Date: 08/17/2016)

LEGEND

-  Study Area
-  1% Annual Chance Floodplain
-  0.2% Annual Chance Floodplain



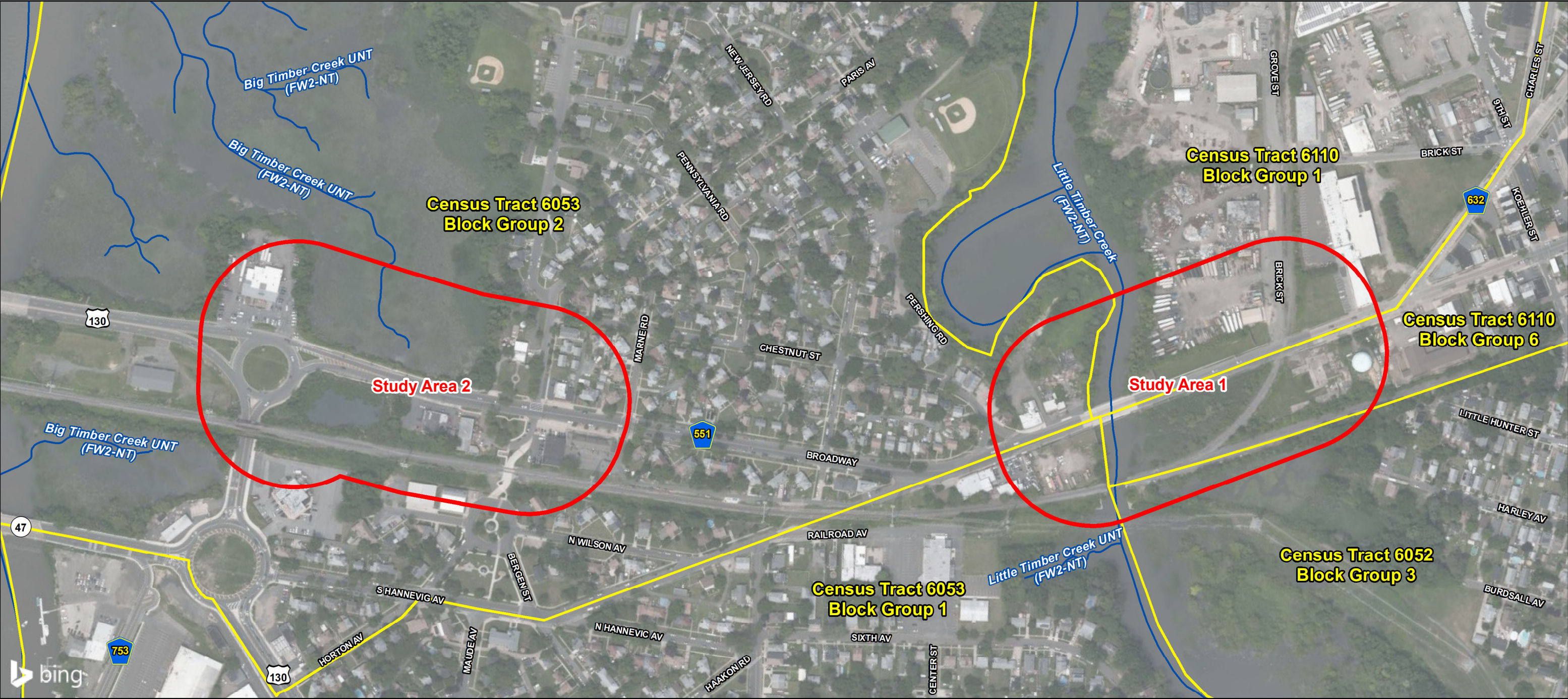
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Figure 9
FEMA FIRM Panels

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ





Data Source: NJ Department of Transportation New Jersey Roads (2020), US Department of Commerce, US Census Bureau, NJ Office of Information Technology (NJGIT), Office of Geographic Information Systems, TIGER/Line Shapefile, 2010, New Jersey, 2010 Census Block Group State-based, NAD83 NJ State Plane feet, NJ Department of Environmental Protection (NJDEP), Surface Water Quality Standards of New Jersey, Edition 20200327 (2020)

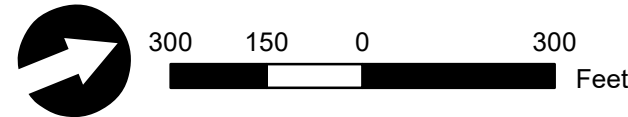
Base Layer: Bing Aerial, 2021 Microsoft Corporation, 2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

Study Area

Census Block Group

NJDEP Stream



Delaware Valley
Regional Planning Commission

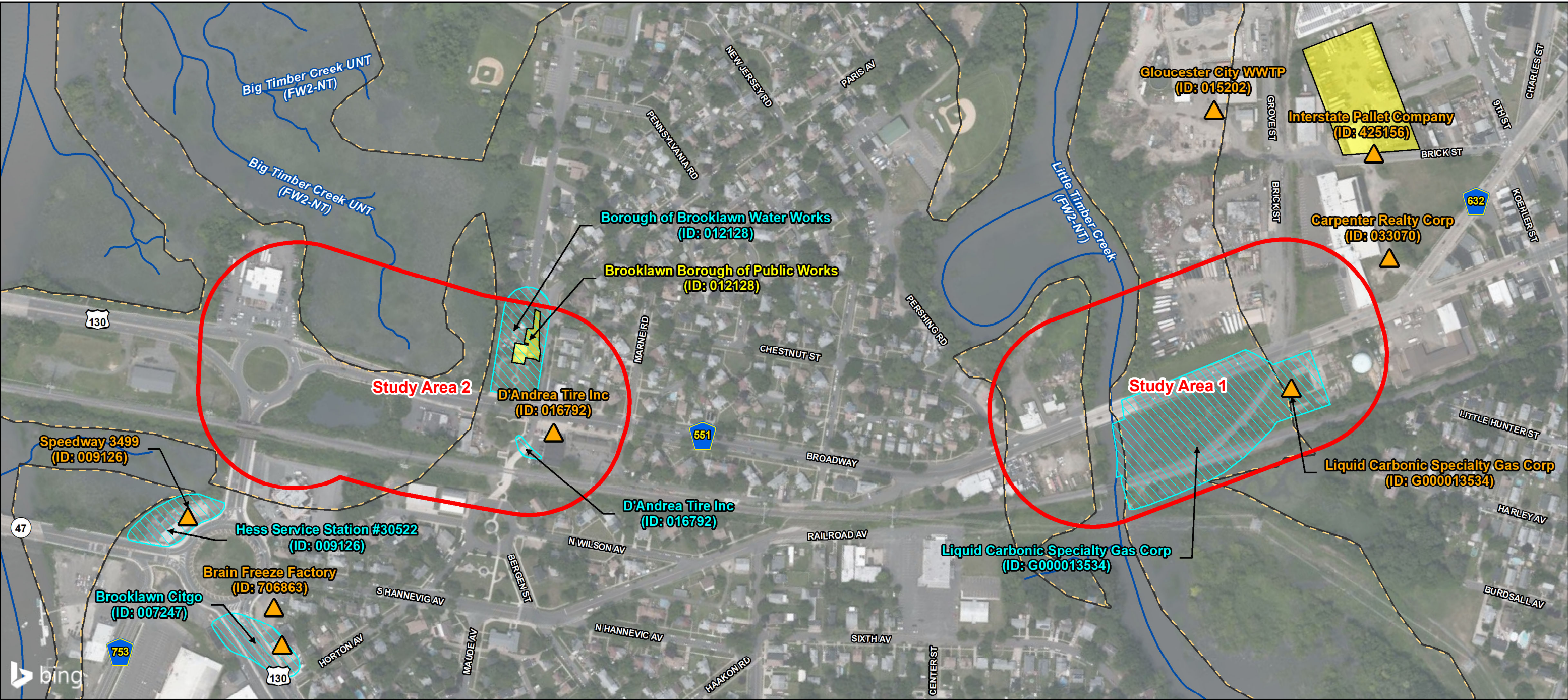
Figure 10
U.S. Census Block Groups

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ

DELAWARE VALLEY
REGIONAL
PLANNING COMMISSION

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Data Source: NJ Department of Transportation New Jersey Roads (2020), NJ Department of Environmental Protection (NJDEP), New Jersey Geological and Water Survey, Historic Fill for New Jersey as of March 2018 (2018), Known Contaminated Site List for New Jersey (Envr_NJEMS_KCSL) (2021/03/03), Classification Exception Areas-Well Restriction Areas for New Jersey (Envr_mon_gw_CEA) (2020/02/04), Surface Water Quality Standards of New Jersey, Edition 20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation, 2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

- Study Area
- NJGS Historic Fill
- Classification Exception Areas
- Deed Notice Extent
- NJDEP Stream
- NJDEP Known Contaminated Site

Delaware Valley
Regional Planning Commission

Figure 11
NJDEP Hazardous Materials

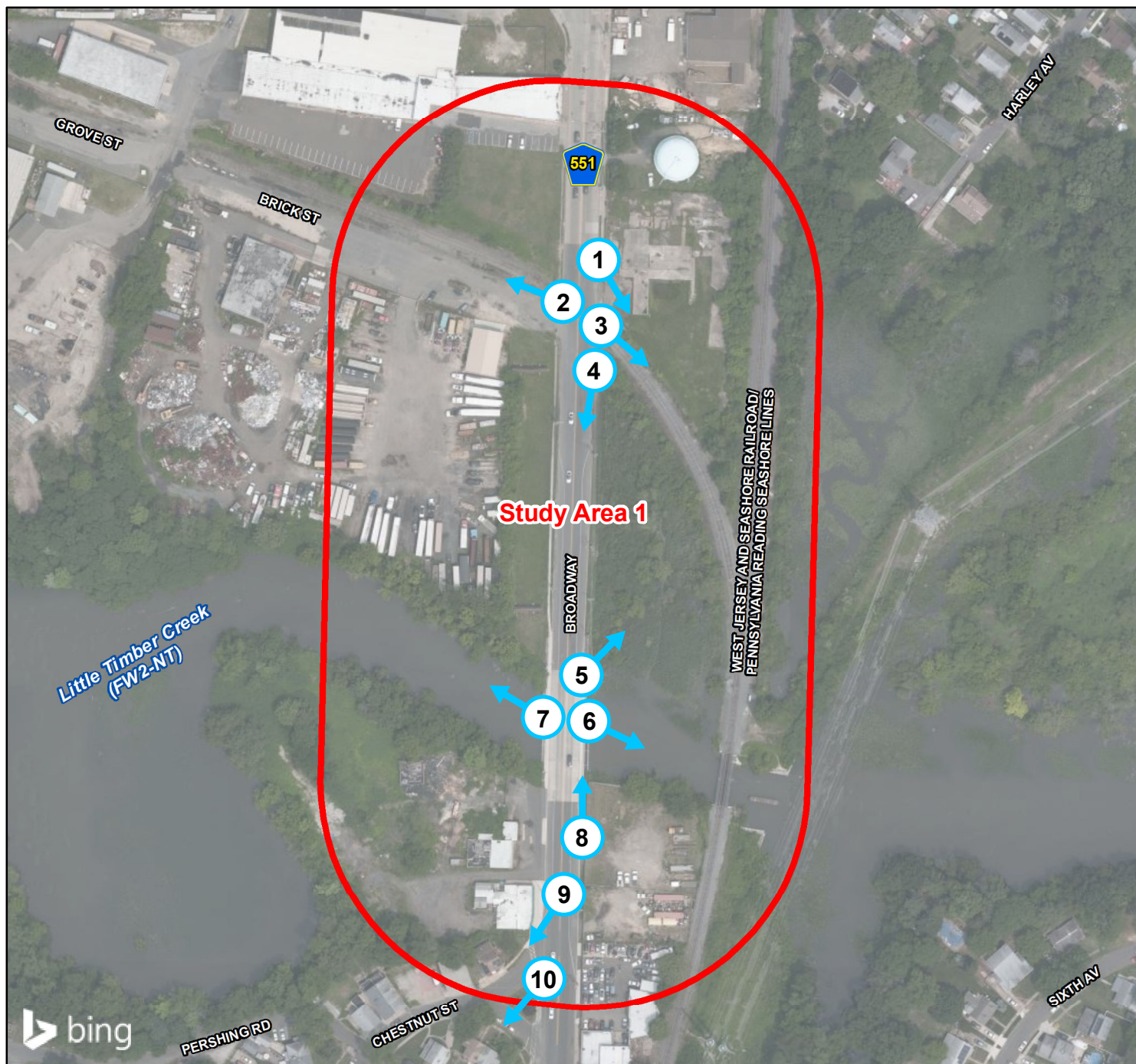
FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ



APPENDIX B

PHOTOGRAPH LOG



Data Source: NJ Department of Transportation
New Jersey Roads (2020), NJ Department of
Environmental Protection (NJDEP), Surface
Water Quality Standards of New Jersey, Edition
20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation,
2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

- Study Area
- Photograph Log

Delaware Valley Regional Planning Commission

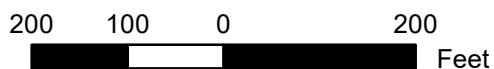
Photograph Log
Map 1 of 2

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ



Michael Baker
INTERNATIONAL





Data Source: NJ Department of Transportation
New Jersey Roads (2020), NJ Department of
Environmental Protection (NJDEP), Surface
Water Quality Standards of New Jersey, Edition
20200327 (2020)

Base Layer: Bing Aerial, 2021 Microsoft Corporation,
2021 Maxar, CNES (2021) Distribution Airbus DS

LEGEND

- Study Area
- ←○ Photograph Log

Delaware Valley Regional Planning Commission

Photograph Log
Map 2 of 2

FY 2021 Camden County LCD
for County Road 551 Broadway

Gloucester City & Brooklawn Borough
Camden County, NJ



Michael Baker
INTERNATIONAL



200 100 0 200
Feet

Photograph Log



Photograph 1: View of Liquid Carbonic Specialty Gas Corporation contaminated site
Adjacent to CR 551 in Study Area 1 looking southeast



Photograph 2: View of West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines running
across CR 551 and adjacent industrial complex in Study Area 1 looking northwest

Photograph Log

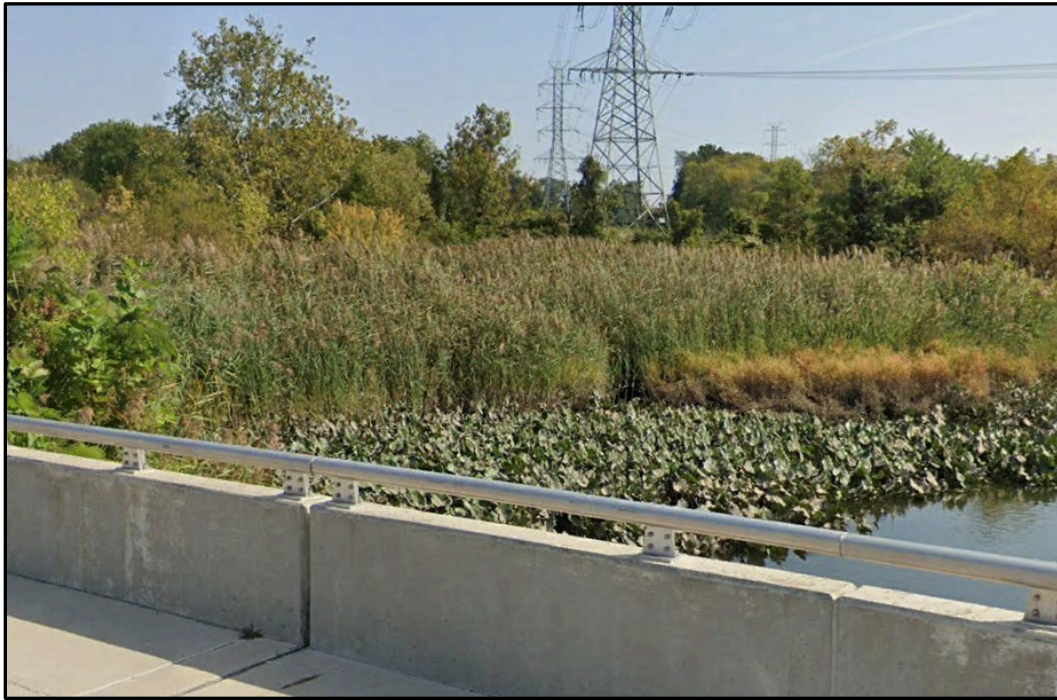


Photograph 3: View of West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines running across CR 551 in Study Area 1 looking southeast



Photograph 4: View of CR 551 at the West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines in Study Area 1 looking south

Photograph Log



Photograph 5: View of vegetated floodplain from the CR 551 bridge
along Little Timber Creek in Study Area 1 looking northeast



Photograph 6: View of West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines
from the CR 551 bridge along Little Timber Creek in Study Area 1 looking southeast

Photograph Log



Photograph 7: View of Little Timber Creek from the CR 551 bridge in Study Area 1 looking northwest



Photograph 8: View of CR 551 roadway and roadside in Study Area 1 looking north

Photograph Log



Photograph 9: View of the bus stop at CR 551 and Chestnut Street in Study Area 1 looking southwest



Photograph 10: View of residential properties along Chestnut Street near CR 551
in Study Area 1 looking southwest

Photograph Log



Photograph 11: View of the bus stop at CR 551 and Marne Road in Study Area 2 looking northwest



Photograph 12: View of the bus stop at CR 551 and Marne Road in Study Area 2 looking east

Photograph Log



Photograph 13: View of the D'Andrea Tire Inc. contaminated site
at CR 551 and Town Center in Study Area 2 looking east



Photograph 14: View of the bus stop shelter and Borough of Brooklawn Public Works building
at CR 551 and Town Center in Study Area 2 looking west

Photograph Log



Photograph 15: View of the bus shelter at CR 551 and Town Center in Study Area 2 looking southwest



Photograph 16: View of the Borough of Brooklawn Public Works building adjacent to Big Timber Creek UNT along CR 551 in Study Area 2 looking northwest

Photograph Log



Photograph 17: View of the Brooklawn Fire Company building
along South Wilson Avenue in Study Area 2 looking west



Photograph 18: View of the pond between CR 551 and the railroad
near the Brooklawn Traffic Circle in Study Area 2 looking south

Photograph Log



Photograph 19: View of Big Timber Creek UNT along CR 551 in Study Area 2 looking north



Photograph 20: View of the Brooklawn Traffic Circle along CR 551 in Study Area 2 looking southwest

Photograph Log



Photograph 21: View of the railroad overpass at US 130 near the Brooklawn Traffic Circle in Study Area 2 looking southwest



Photograph 22: View of the Big Timber Creek UNT along US 130 in Study Area 2 looking west

See Appendix J of LCD Report

APPENDIX C

CULTURAL RESOURCES SCREENING

**(PREPARED BY MICHAEL BAKER
INTERNATIONAL ON SEPTEMBER 2021)**

APPENDIX D

AGENCY CORRESPONDENCE



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New Jersey Ecological Services Field Office
4 E. Jimmie Leeds Road, Suite 4
Galloway, NJ 08205
Phone: (609) 646-9310 Fax: (609) 646-0352

<http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

In Reply Refer To:
Consultation Code: 05E2NJ00-2021-SLI-1452
Event Code: 05E2NJ00-2021-E-03575
Project Name: DVRPC Camden County LCD

August 08, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species that may occur in your proposed action area and/or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*)

If the enclosed list indicates that any listed species may be present in your action area, please visit the New Jersey Field Office consultation web page as the next step in evaluating potential project impacts: <http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

On the New Jersey Field Office consultation web page you will find:

- habitat descriptions, survey protocols, and recommended best management practices for listed species;
- recommended procedures for submitting information to this office; and
- links to other Federal and State agencies, the Section 7 Consultation Handbook, the Service's wind energy guidelines, communication tower recommendations, the National Bald Eagle Management Guidelines, and other resources and recommendations for protecting wildlife resources.

The enclosed list may change as new information about listed species becomes available. As per Federal regulations at 50 CFR 402.12(e), the enclosed list is only valid for 90 days. Please return to the ECOS-IPaC website at regular intervals during project planning and implementation to obtain an updated species list. When using ECOS-IPaC, be careful about drawing the boundary of your Project Location. Remember that your action area under the ESA is not limited to just the footprint of the project. The action area also includes all areas that may be indirectly affected

through impacts such as noise, visual disturbance, erosion, sedimentation, hydrologic change, chemical exposure, reduced availability or access to food resources, barriers to movement, increased human intrusions or access, and all areas affected by reasonably foreseeable future that would not occur without ("but for") the project that is currently being proposed.

We appreciate your concern for threatened and endangered species. The Service encourages Federal and non-Federal project proponents to consider listed, proposed, and candidate species early in the planning process. Feel free to contact this office if you would like more information or assistance evaluating potential project impacts to federally listed species or other wildlife resources. Please include the Consultation Tracking Number in the header of this letter with any correspondence about your project.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Jersey Ecological Services Field Office

4 E. Jimmie Leeds Road, Suite 4

Galloway, NJ 08205

(609) 646-9310

Project Summary

Consultation Code: 05E2NJ00-2021-SLI-1452

Event Code: 05E2NJ00-2021-E-03575

Project Name: DVRPC Camden County LCD

Project Type: TRANSPORTATION

Project Description: Drainage improvements to alleviate documented flooding.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.8778499,-75.12384243784808,14z>



Counties: Camden County, New Jersey

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ This activity area is upstream of red knot habitat. Consultation is needed ONLY for proposed new or changed petroleum product storage or transport, and for spill response planning. No other activity types are expected to affect red knots in this area. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Flowering Plants

NAME	STATUS
Sensitive Joint-vetch <i>Aeschynomene virginica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/855	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black Skimmer <i>Rynchops niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15

NAME	BREEDING SEASON
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler <i>Vermivora pinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Hudsonian Godwit <i>Limosa haemastica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere

NAME	BREEDING SEASON
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

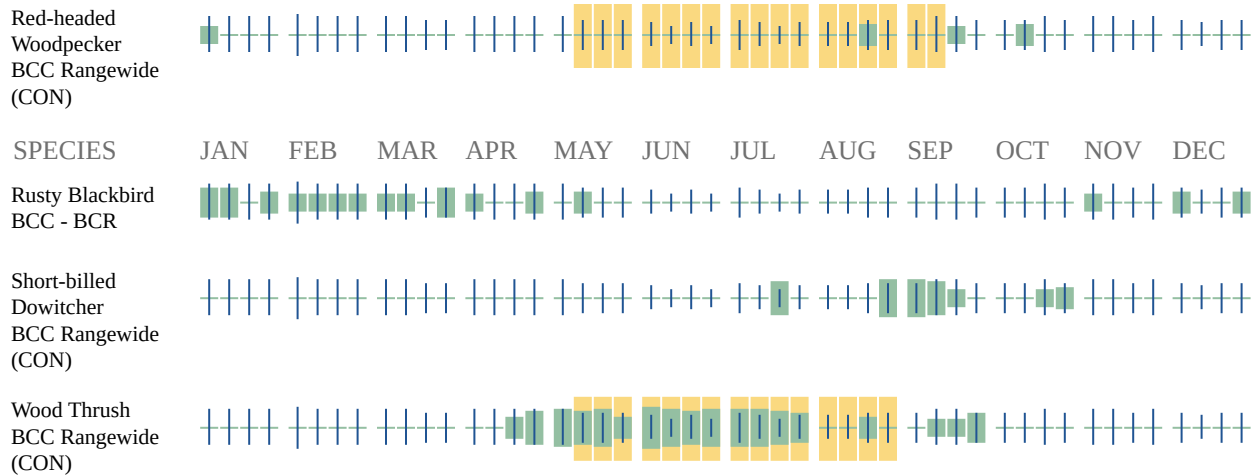
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as

warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- [PEM1R](#)

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1R](#)
- [PSS1R](#)

FRESHWATER POND

- [PUBHx](#)

RIVERINE

- [R5UBH](#)
 - [R1UBV](#)
-

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Greater Atlantic Regional Office](#)
[Atlantic Highly Migratory Species Management Division](#)

Query Results

Degrees, Minutes, Seconds: Latitude = 39° 53' 0" N, Longitude = 76° 52' 45" W

Decimal Degrees: Latitude = 39.883, Longitude = -75.121









The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

*** WARNING ***

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Little Skate	Juvenile Adult	New England	Amendment 2 to the Northeast Skate Complex FMP
		Atlantic Herring	Juvenile Adult	New England	Amendment 3 to the Atlantic Herring FMP
		Red Hake	Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Windowpane Flounder	Adult Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Adult Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Clearnose Skate	Adult Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Longfin Inshore Squid	Eggs	Mid-Atlantic	Atlantic Mackerel, Squid, & Butterfish Amendment 11
		Bluefish	Adult Juvenile	Mid-Atlantic	Bluefish

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Butterfish	Larvae Adult	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Scup	Juvenile Adult	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Summer Flounder	Juvenile Adult	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Black Sea Bass	Juvenile Adult	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass

Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

HAPCs

No Habitat Areas of Particular Concern (HAPC) were identified at the report location.

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.

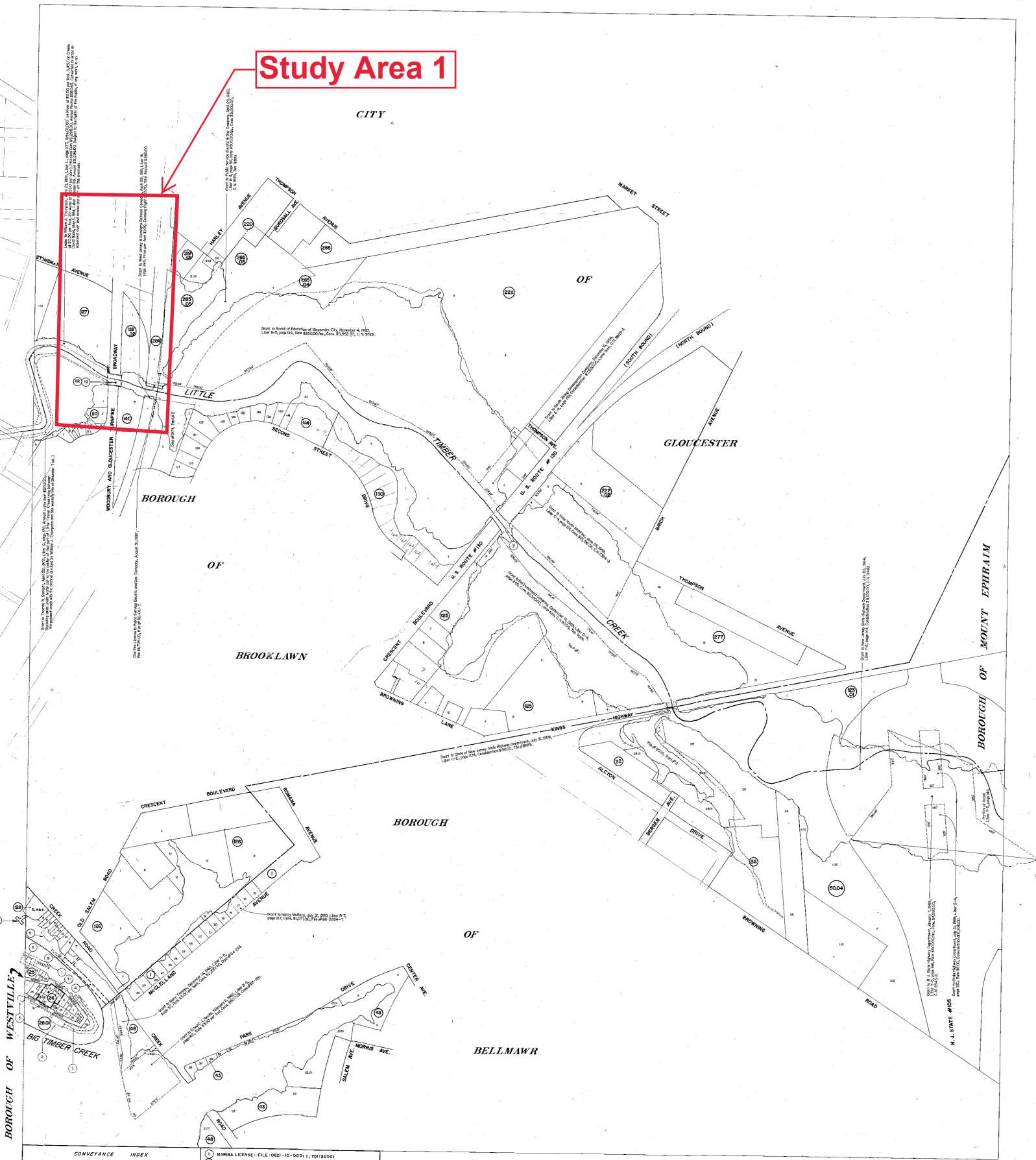
****For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

All spatial data is currently available for the Mid-Atlantic and New England councils, Secretarial EFH,
 Bigeye Sand Tiger Shark,
 Bigeye Sixgill Shark,
 Caribbean Sharpnose Shark,
 Galapagos Shark,
 Narrowtooth Shark,
 Sevengill Shark,
 Sixgill Shark,
 Smooth Hammerhead Shark,
 Smalltail Shark

APPENDIX E

TIDELANDS CONVEYANCE MAPS

Study Area 1



CONVEYANCE INDEX

- 1 MARINA LICENSE - FILE: 0821-09-0001, TO: 090001
- 2 FILE: 88-0091 - T. H. LICENSE, 1/11/99, TO: JACQUELIN LUTHERMAN - FILE: 88-0091
- 3 LICENSE - FILE: 0821-09-0001, TO: 120001
- 4 LICENSE - FILE: 0407-02-0001, TO: 140002
- 5 LICENSE - FILE: 0407-02-0001, TO: 140002
- 6 FILE: 0407-02-0001, TO: 140002
- 7 FILE: 0407-02-0001, TO: 140002
- 8 FILE: 0407-02-0001, TO: 140002
- 9 FILE: 0407-02-0001, TO: 140002
- 10 FILE: 0407-02-0001, TO: 140002
- 11 FILE: 0407-02-0001, TO: 140002
- 12 FILE: 0407-02-0001, TO: 140002
- 13 FILE: 0407-02-0001, TO: 140002
- 14 FILE: 0407-02-0001, TO: 140002
- 15 FILE: 0407-02-0001, TO: 140002
- 16 FILE: 0407-02-0001, TO: 140002
- 17 FILE: 0407-02-0001, TO: 140002
- 18 FILE: 0407-02-0001, TO: 140002
- 19 FILE: 0407-02-0001, TO: 140002
- 20 FILE: 0407-02-0001, TO: 140002

- 1 MARINA LICENSE - FILE: 0821-10-0001, TO: 120001
- 2 GRANT - FILE: 0407-02-0001, TO: 12000001, L. H. 1-10, P. 51 etc.

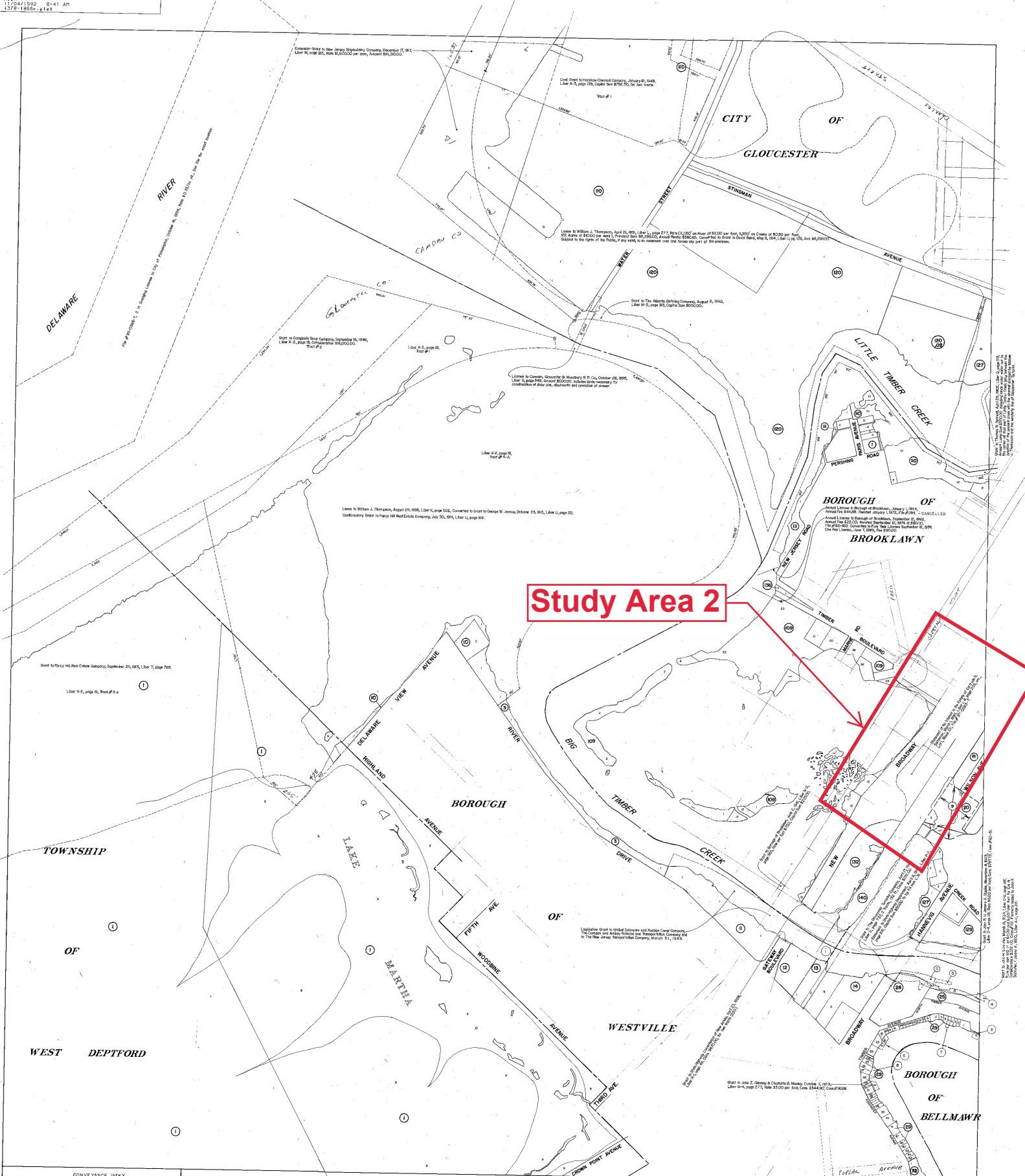
STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL
PROTECTION
BUREAU OF TIDELANDS MANAGEMENT
MAP SHOWING CONVEYANCES ON
BIG TIMBER CREEK - LITTLE TIMBER CREEK
WESTVILLE BOROUGH
GLOUCESTER COUNTY
BROOKLAWN BOROUGH-GLOUCESTER CITY
BELLMAWR BOROUGH-MOUNT EPHRAIM BOROUGH
CAMDEN COUNTY



The areas, boundaries and dimensions shown on this plan are derived from record tideland grants, quitclaim deeds, leases, licenses, easements and judgments quieting title. This map should be used for reference purposes only. The individual instrument should be consulted to ascertain the accurate legal description and the significance of all substantive terms and conditions.

SCALE: 1" = 200'

ATLAS SHEET NO. 378-1872



Study Area 2

BOROUGH OF
Annual License to Borough of Brooklawn, January 1, 1944.
Annual Fee \$45.00. Renewed January 1, 1972, Fee \$1194. - CANCELLED
Annual License to Borough of Brooklawn, September 12, 1942.
Annual Fee \$25.00. Renewed September 12, 1974 at \$60.00.
Fee \$160-\$100. Converted to New Year License September 12, 1976.
One Year License, June 7, 1929, Fee \$90.00.

BROOKLAWN

The areas, boundaries and dimensions shown on this plan are derived from record tideland grants, quitclaim deeds, leases, licenses, easements and judgments quieting title. This map should be used for reference purposes only. The individual instrument should be consulted to ascertain the accurate legal description and the significance of all substantive terms and conditions.

CONVAYANCE INDEX

1	SEE FOR LICENSE TO BUY CONVEYANCES, 150, JULY 8, 1989, COND. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 82
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STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL
PROTECTION
BUREAU OF TIDELANDS MANAGEMENT
MAP SHOWING CONVEYANCES ON
BIG TIMBER CREEK-DELAWARE RIVER-LITTLE TIMBER CREEK
WEST DEPTFORD TOWNSHIP-WESTVILLE BOROUGH
GLOUCESTER COUNTY
BROOKLAWN BOROUGH-GLOUCESTER CITY
BELLMAWR BOROUGH
CAMDEN COUNTY

SCALE: 1" = 200'

ATLAS SHEET NO. 378-1866

APPENDIX F

U.S. CENSUS DATA

ACS DEMOGRAPHIC AND HOUSING ESTIMATES		<div>United States™ Census Bureau</div>
Note: The table shown may have been modified by user selections. Some information may be missing.		
DATA NOTES		
TABLE ID:	DP05	
SURVEY/PROGRAM:	American Community Survey	
VINTAGE:	2018	
DATASET:	ACSDP5Y2018	
PRODUCT:	ACS 5-Year Estimates Data Profiles	
UNIVERSE:	None	
FTP URL:	None	
API URL:	https://api.census.gov/data/2018/acs/acs5/profile	
USER SELECTIONS		
GEOS	New Jersey	
DATASETS	ACS 5-Year Estimates Data Profiles	
EXCLUDED COLUMNS	None	
APPLIED FILTERS	None	
APPLIED SORTS	None	
WEB ADDRESS	https://data.census.gov/cedsci/table?g=0400000US34&d=ACS%205-Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2018.DP05&hidePreview=true	
TABLE NOTES	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.	
	Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.	
	Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.	
	Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates	
	Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.	

	<p>For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010</p> <p>, issued March 2011. (pdf format)</p>
	<p>While the 2014-2018 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.</p>
	<p>Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.</p>
	<p>Explanation of Symbols:</p> <ul style="list-style-type: none">* An "***" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.* An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.* An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.* An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.* An "****" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.* An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.* An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.* An "(X)" means that the estimate is not applicable or not available.
COLUMN NOTES	None

Table: ACSDP5Y2018.DP05

	New Jersey			
Label	Estimate	Margin of Error	Percent	Percent Margin of
SEX AND AGE				
Total population	8,881,845	*****	8,881,845	(X)
Male	4,335,930	±472	48.8%	±0.1
Female	4,545,915	±472	51.2%	±0.1
Sex ratio (males per 100 females)	95.4	±0.1	(X)	(X)
Under 5 years	521,684	±247	5.9%	±0.1
5 to 9 years	540,335	±3,515	6.1%	±0.1
10 to 14 years	562,668	±3,556	6.3%	±0.1
15 to 19 years	565,170	±402	6.4%	±0.1
20 to 24 years	562,446	±463	6.3%	±0.1
25 to 34 years	1,135,665	±612	12.8%	±0.1
35 to 44 years	1,143,224	±481	12.9%	±0.1
45 to 54 years	1,286,245	±426	14.5%	±0.1
55 to 59 years	636,206	±3,846	7.2%	±0.1
60 to 64 years	551,339	±3,871	6.2%	±0.1
65 to 74 years	772,545	±334	8.7%	±0.1
75 to 84 years	406,646	±2,501	4.6%	±0.1
85 years and over	197,672	±2,424	2.2%	±0.1
Median age (years)	39.8	±0.1	(X)	(X)
Under 18 years	1,973,402	±281	22.2%	±0.1
16 years and over	7,142,175	±1,961	80.4%	±0.1
18 years and over	6,908,443	±281	77.8%	±0.1
21 years and over	6,581,451	±2,347	74.1%	±0.1
62 years and over	1,690,853	±2,786	19.0%	±0.1
65 years and over	1,376,863	±287	15.5%	±0.1
18 years and over	6,908,443	±281	6,908,443	(X)
Male	3,328,844	±397	48.2%	±0.1
Female	3,579,599	±267	51.8%	±0.1
Sex ratio (males per 100 females)	93.0	±0.1	(X)	(X)
65 years and over	1,376,863	±287	1,376,863	(X)
Male	589,327	±178	42.8%	±0.1
Female	787,536	±255	57.2%	±0.1
Sex ratio (males per 100 females)	74.8	±0.1	(X)	(X)
RACE				
Total population	8,881,845	*****	8,881,845	(X)
One race	8,650,896	±5,331	97.4%	±0.1
Two or more races	230,949	±5,331	2.6%	±0.1
One race	8,650,896	±5,331	97.4%	±0.1
White	6,031,747	±10,067	67.9%	±0.1
Black or African American	1,196,764	±4,168	13.5%	±0.1

Table: ACSDP5Y2018.DP05

	New Jersey			
Label	Estimate	Margin of Error	Percent	Percent Margin of
American Indian and Alaska Native	18,649	±1,458	0.2%	±0.1
Cherokee tribal grouping	1,552	±510	0.0%	±0.1
Chippewa tribal grouping	49	±38	0.0%	±0.1
Navajo tribal grouping	236	±147	0.0%	±0.1
Sioux tribal grouping	62	±59	0.0%	±0.1
Asian	832,403	±2,588	9.4%	±0.1
Asian Indian	364,869	±5,817	4.1%	±0.1
Chinese	155,713	±3,455	1.8%	±0.1
Filipino	113,952	±3,434	1.3%	±0.1
Japanese	12,665	±960	0.1%	±0.1
Korean	96,081	±2,696	1.1%	±0.1
Vietnamese	20,981	±1,961	0.2%	±0.1
Other Asian	68,142	±2,995	0.8%	±0.1
Native Hawaiian and Other Pacific Islander	3,357	±458	0.0%	±0.1
Native Hawaiian	880	±239	0.0%	±0.1
Guamanian or Chamorro	924	±313	0.0%	±0.1
Samoaan	346	±113	0.0%	±0.1
Other Pacific Islander	1,207	±324	0.0%	±0.1
Some other race	567,976	±10,632	6.4%	±0.1
Two or more races	230,949	±5,331	2.6%	±0.1
White and Black or African American	71,603	±3,328	0.8%	±0.1
White and American Indian and Alaska Native	17,142	±906	0.2%	±0.1
White and Asian	48,116	±2,322	0.5%	±0.1
Black or African American and American Indian and Alaska Native	8,013	±942	0.1%	±0.1
Race alone or in combination with one or more other races				
Total population	8,881,845	*****	8,881,845	(X)
White	6,212,579	±10,844	69.9%	±0.1
Black or African American	1,313,606	±4,362	14.8%	±0.1
American Indian and Alaska Native	59,511	±2,078	0.7%	±0.1
Asian	910,292	±2,050	10.2%	±0.1
Native Hawaiian and Other Pacific Islander	12,319	±1,013	0.1%	±0.1
Some other race	626,035	±10,943	7.0%	±0.1
HISPANIC OR LATINO AND RACE				
Total population	8,881,845	*****	8,881,845	(X)

Table: ACSDP5Y2018.DP05

	New Jersey			
Label	Estimate	Margin of Error	Percent	Percent Margin of
Hispanic or Latino (of any race)	1,768,020	*****	19.9%	*****
Mexican	230,875	±7,020	2.6%	±0.1
Puerto Rican	475,882	±6,781	5.4%	±0.1
Cuban	91,827	±3,320	1.0%	±0.1
Other Hispanic or Latino	969,436	±8,212	10.9%	±0.1
Not Hispanic or Latino	7,113,825	*****	80.1%	*****
White alone	4,960,005	±1,670	55.8%	±0.1
Black or African American alone	1,129,257	±3,129	12.7%	±0.1
American Indian and Alaska Native alone	9,599	±636	0.1%	±0.1
Asian alone	826,944	±2,549	9.3%	±0.1
Native Hawaiian and Other Pacific Islander alone	2,255	±218	0.0%	±0.1
Some other race alone	36,881	±2,145	0.4%	±0.1
Two or more races	148,884	±3,773	1.7%	±0.1
Two races including Some other race	14,595	±1,296	0.2%	±0.1
Two races excluding Some other race, and Three or more races	134,289	±3,467	1.5%	±0.1
Total housing units	3,605,401	±471	(X)	(X)
CITIZEN, VOTING AGE POPULATION				
Citizen, 18 and over population	6,117,615	±8,193	6,117,615	(X)
Male	2,931,149	±5,184	47.9%	±0.1
Female	3,186,466	±4,820	52.1%	±0.1

INCOME IN THE PAST 12 MONTHS (IN 2018 INFLATION-ADJUSTED DOLLARS)

Survey/Program: American Community Survey

TableID: S1901

	New Jersey	
	Households	
Label	Estimate	Margin of Error
▼ Total	3,213,362	±6,651
Less than \$10,000	5.1%	±0.1
\$10,000 to \$14,999	3.3%	±0.1
\$15,000 to \$24,999	7.4%	±0.1
\$25,000 to \$34,999	7.1%	±0.1
\$35,000 to \$49,999	9.8%	±0.1
\$50,000 to \$74,999	14.9%	±0.1
\$75,000 to \$99,999	12.1%	±0.1
\$100,000 to \$149,999	17.5%	±0.1
\$150,000 to \$199,999	9.7%	±0.1
\$200,000 or more	13.0%	±0.1
Median income (dollars)	79,363	±386
Mean income (dollars)	110,140	±457
▼ PERCENT ALLOCATED		
Household income in the past 12 months	37.2%	(X)
Family income in the past 12 months	(X)	(X)
Nonfamily income in the past 12 months	(X)	(X)

Location: Camden County
Ring (buffer): 0-mile radius
Description:

Camden County

Summary of ACS Estimates		2014 - 2018	
Population		507,367	
Population Density (per sq. mile)		2,292	
People of Color Population		217,338	
% People of Color Population		43%	
Households		187,158	
Housing Units		206,013	
Housing Units Built Before 1950		54,673	
Per Capita Income		34,280	
Land Area (sq. miles) (Source: SF1)		221.35	
% Land Area		97%	
Water Area (sq. miles) (Source: SF1)		6.07	
% Water Area		3%	

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	507,367	100%	0
Population Reporting One Race	492,268	97%	6,054
White	320,830	63%	1,885
Black	97,896	19%	1,173
American Indian	1,172	0%	370
Asian	29,045	6%	412
Pacific Islander	230	0%	77
Some Other Race	43,095	8%	2,137
Population Reporting Two or More Races	15,099	3%	1,387
Total Hispanic Population	83,057	16%	0
Total Non-Hispanic Population	424,310		
White Alone	290,029	57%	523
Black Alone	92,935	18%	974
American Indian Alone	541	0%	165
Non-Hispanic Asian Alone	28,946	6%	406
Pacific Islander Alone	167	0%	45
Other Race Alone	1,885	0%	702
Two or More Races Alone	9,807	2%	995
Population by Sex			
Male	245,068	48%	92
Female	262,299	52%	92
Population by Age			
Age 0-4	31,246	6%	79
Age 0-17	116,637	23%	1,437
Age 18+	390,730	77%	2,578
Age 65+	75,995	15%	1,409

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Camden County
Ring (buffer): 0-mile radius
Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	347,459	100%	81
Less than 9th Grade	15,717	5%	863
9th - 12th Grade, No Diploma	24,499	7%	1,193
High School Graduate	104,485	30%	1,817
Some College, No Degree	92,295	27%	1,917
Associate Degree	24,438	7%	1,009
Bachelor's Degree or more	110,463	32%	2,018
Population Age 5+ Years by Ability to Speak English			
Total	476,121	100%	75
Speak only English	377,722	79%	1,663
Non-English at Home ¹⁺²⁺³⁺⁴	98,399	21%	2,021
¹ Speak English "very well"	58,504	12%	2,013
² Speak English "well"	18,314	4%	1,160
³ Speak English "not well"	16,066	3%	1,181
⁴ Speak English "not at all"	5,515	1%	680
³⁺⁴ Speak English "less than well"	21,581	5%	1,362
²⁺³⁺⁴ Speak English "less than very well"	39,895	8%	1,789
Linguistically Isolated Households*			
Total	9,400	100%	631
Speak Spanish	6,135	65%	512
Speak Other Indo-European Languages	1,340	14%	221
Speak Asian-Pacific Island Languages	1,776	19%	286
Speak Other Languages	149	2%	74
Households by Household Income			
Household Income Base	187,158	100%	1,125
< \$15,000	20,609	11%	1,027
\$15,000 - \$25,000	17,237	9%	964
\$25,000 - \$50,000	34,857	19%	1,301
\$50,000 - \$75,000	29,786	16%	1,206
\$75,000 +	84,669	45%	1,809
Occupied Housing Units by Tenure			
Total	187,158	100%	1,125
Owner Occupied	124,840	67%	1,654
Renter Occupied	62,318	33%	1,569
Employed Population Age 16+ Years			
Total	404,141	100%	470
In Labor Force	266,763	66%	1,781
Civilian Unemployed in Labor Force	18,876	5%	1,133
Not In Labor Force	137,378	34%	1,837

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Camden County

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	476,121	100%	75
English	377,722	79%	1,987
Spanish	59,440	12%	1,382
French	2,486	1%	853
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	1,071	0%	287
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	12,058	3%	1,179
Chinese	4,820	1%	703
Japanese	N/A	N/A	N/A
Korean	1,891	0%	465
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	3,577	1%	818
Other Asian	2,660	1%	541
Tagalog	3,226	1%	486
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	1,567	0%	517
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	2,792	1%	567
Total Non-English	98,399	21%	1,988

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076110001
 Ring (buffer): 0-mile radius
 Description:

Census Tract 6110 Block Group 1

Summary of ACS Estimates		2014 - 2018	
Population		840	
Population Density (per sq. mile)		1,343	
People of Color Population		134	
% People of Color Population		16%	
Households		361	
Housing Units		361	
Housing Units Built Before 1950		280	
Per Capita Income		25,139	
Land Area (sq. miles) (Source: SF1)		0.63	
% Land Area		62%	
Water Area (sq. miles) (Source: SF1)		0.38	
% Water Area		38%	
	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	840	100%	304
Population Reporting One Race	777	93%	454
White	706	84%	301
Black	18	2%	29
American Indian	0	0%	12
Asian	53	6%	88
Pacific Islander	0	0%	12
Some Other Race	0	0%	12
Population Reporting Two or More Races	63	8%	96
Total Hispanic Population	0	0%	12
Total Non-Hispanic Population	840		
White Alone	706	84%	301
Black Alone	18	2%	29
American Indian Alone	0	0%	12
Non-Hispanic Asian Alone	53	6%	88
Pacific Islander Alone	0	0%	12
Other Race Alone	0	0%	12
Two or More Races Alone	63	8%	96
Population by Sex			
Male	207	25%	106
Female	633	75%	237
Population by Age			
Age 0-4	8	1%	18
Age 0-17	156	19%	105
Age 18+	684	81%	221
Age 65+	157	19%	99

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076110001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	684	100%	248
Less than 9th Grade	51	7%	51
9th - 12th Grade, No Diploma	64	9%	48
High School Graduate	219	32%	113
Some College, No Degree	197	29%	117
Associate Degree	15	2%	28
Bachelor's Degree or more	153	22%	93
Population Age 5+ Years by Ability to Speak English			
Total	832	100%	303
Speak only English	696	84%	274
Non-English at Home ¹⁺²⁺³⁺⁴	136	16%	107
¹ Speak English "very well"	85	10%	76
² Speak English "well"	18	2%	32
³ Speak English "not well"	0	0%	12
⁴ Speak English "not at all"	33	4%	57
³⁺⁴ Speak English "less than well"	33	4%	57
²⁺³⁺⁴ Speak English "less than very well"	51	6%	65
Linguistically Isolated Households*			
Total	15	100%	28
Speak Spanish	0	0%	12
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	15	100%	25
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	361	100%	112
< \$15,000	47	13%	43
\$15,000 - \$25,000	50	14%	48
\$25,000 - \$50,000	46	13%	47
\$50,000 - \$75,000	166	46%	111
\$75,000 +	52	14%	41
Occupied Housing Units by Tenure			
Total	361	100%	112
Owner Occupied	248	69%	101
Renter Occupied	113	31%	61
Employed Population Age 16+ Years			
Total	701	100%	255
In Labor Force	382	54%	144
Civilian Unemployed in Labor Force	28	4%	32
Not In Labor Force	319	46%	152

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076110001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076110006
Ring (buffer): 0-mile radius
Description:

Census Tract 6110 Block Group 6

Summary of ACS Estimates		2014 - 2018	
Population		1,293	
Population Density (per sq. mile)		9,501	
People of Color Population		136	
% People of Color Population		11%	
Households		478	
Housing Units		478	
Housing Units Built Before 1950		336	
Per Capita Income		20,630	
Land Area (sq. miles) (Source: SF1)		0.14	
% Land Area		100%	
Water Area (sq. miles) (Source: SF1)		0.00	
% Water Area		0%	
		2014 - 2018 ACS Estimates	Percent MOE (±)
Population by Race			
Total		1,293	100% 498
Population Reporting One Race		1,293	100% 754
White		1,157	89% 501
Black		52	4% 86
American Indian		0	0% 12
Asian		84	6% 131
Pacific Islander		0	0% 12
Some Other Race		0	0% 12
Population Reporting Two or More Races		0	0% 12
Total Hispanic Population		0	0% 12
Total Non-Hispanic Population		1,293	
White Alone		1,157	89% 501
Black Alone		52	4% 86
American Indian Alone		0	0% 12
Non-Hispanic Asian Alone		84	6% 131
Pacific Islander Alone		0	0% 12
Other Race Alone		0	0% 12
Two or More Races Alone		0	0% 12
Population by Sex			
Male		641	50% 299
Female		652	50% 270
Population by Age			
Age 0-4		58	4% 64
Age 0-17		413	32% 219
Age 18+		880	68% 284
Age 65+		164	13% 99

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076110006

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	726	100%	242
Less than 9th Grade	36	5%	51
9th - 12th Grade, No Diploma	50	7%	49
High School Graduate	381	52%	168
Some College, No Degree	147	20%	97
Associate Degree	19	3%	33
Bachelor's Degree or more	112	15%	79
Population Age 5+ Years by Ability to Speak English			
Total	1,235	100%	472
Speak only English	1,115	90%	384
Non-English at Home ¹⁺²⁺³⁺⁴	120	10%	107
¹ Speak English "very well"	40	3%	64
² Speak English "well"	44	4%	70
³ Speak English "not well"	36	3%	51
⁴ Speak English "not at all"	0	0%	12
³⁺⁴ Speak English "less than well"	36	3%	51
²⁺³⁺⁴ Speak English "less than very well"	80	6%	86
Linguistically Isolated Households*			
Total	0	0%	12
Speak Spanish	0	0%	12
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	478	100%	140
< \$15,000	22	5%	42
\$15,000 - \$25,000	62	13%	76
\$25,000 - \$50,000	169	35%	105
\$50,000 - \$75,000	87	18%	98
\$75,000 +	138	29%	95
Occupied Housing Units by Tenure			
Total	478	100%	140
Owner Occupied	255	53%	131
Renter Occupied	223	47%	98
Employed Population Age 16+ Years			
Total	949	100%	351
In Labor Force	469	49%	186
Civilian Unemployed in Labor Force	27	3%	42
Not In Labor Force	480	51%	240

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076110006

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076053001
 Ring (buffer): 0-mile radius
 Description:

Census Tract 6053 Block Group 1

Summary of ACS Estimates		2014 - 2018		
Population		1,240		
Population Density (per sq. mile)		4,638		
People of Color Population		305		
% People of Color Population		25%		
Households		393		
Housing Units		459		
Housing Units Built Before 1950		288		
Per Capita Income		25,246		
Land Area (sq. miles) (Source: SF1)		0.27		
% Land Area		95%		
Water Area (sq. miles) (Source: SF1)		0.01		
% Water Area		5%		
		2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race				
Total		1,240	100%	167
Population Reporting One Race		1,212	98%	392
White		949	77%	151
Black		102	8%	59
American Indian		0	0%	12
Asian		48	4%	59
Pacific Islander		0	0%	12
Some Other Race		113	9%	99
Population Reporting Two or More Races		28	2%	24
Total Hispanic Population		105	8%	76
Total Non-Hispanic Population		1,135		
White Alone		935	75%	148
Black Alone		87	7%	65
American Indian Alone		0	0%	12
Non-Hispanic Asian Alone		48	4%	59
Pacific Islander Alone		0	0%	12
Other Race Alone		48	4%	74
Two or More Races Alone		17	1%	22
Population by Sex				
Male		583	47%	95
Female		657	53%	101
Population by Age				
Age 0-4		82	7%	46
Age 0-17		281	23%	69
Age 18+		959	77%	121
Age 65+		93	8%	31

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076053001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	825	100%	120
Less than 9th Grade	52	6%	26
9th - 12th Grade, No Diploma	58	7%	30
High School Graduate	401	49%	79
Some College, No Degree	200	24%	52
Associate Degree	38	5%	18
Bachelor's Degree or more	114	14%	48
Population Age 5+ Years by Ability to Speak English			
Total	1,158	100%	146
Speak only English	975	84%	140
Non-English at Home ¹⁺²⁺³⁺⁴	183	16%	84
¹ Speak English "very well"	91	8%	56
² Speak English "well"	67	6%	52
³ Speak English "not well"	25	2%	25
⁴ Speak English "not at all"	0	0%	12
³⁺⁴ Speak English "less than well"	25	2%	25
²⁺³⁺⁴ Speak English "less than very well"	92	8%	57
Linguistically Isolated Households*			
Total	18	100%	22
Speak Spanish	0	0%	12
Speak Other Indo-European Languages	18	100%	18
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	393	100%	47
< \$15,000	35	9%	21
\$15,000 - \$25,000	26	7%	18
\$25,000 - \$50,000	81	21%	33
\$50,000 - \$75,000	88	22%	32
\$75,000 +	163	41%	45
Occupied Housing Units by Tenure			
Total	393	100%	47
Owner Occupied	272	69%	48
Renter Occupied	121	31%	34
Employed Population Age 16+ Years			
Total	1,004	100%	133
In Labor Force	679	68%	117
Civilian Unemployed in Labor Force	100	10%	49
Not In Labor Force	325	32%	73

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076053001

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: Blockgroup: 340076053002
 Ring (buffer): 0-mile radius
 Description:

Census Tract 6053 Block Group 2

Summary of ACS Estimates		2014 - 2018		
Population		783		
Population Density (per sq. mile)		3,541		
People of Color Population		60		
% People of Color Population		8%		
Households		305		
Housing Units		351		
Housing Units Built Before 1950		320		
Per Capita Income		31,036		
Land Area (sq. miles) (Source: SF1)		0.22		
% Land Area		89%		
Water Area (sq. miles) (Source: SF1)		0.03		
% Water Area		11%		
		2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race				
Total		783	100%	117
Population Reporting One Race		768	98%	191
White		723	92%	120
Black		14	2%	11
American Indian		0	0%	12
Asian		0	0%	12
Pacific Islander		0	0%	12
Some Other Race		31	4%	24
Population Reporting Two or More Races		15	2%	11
Total Hispanic Population		34	4%	25
Total Non-Hispanic Population		749		
White Alone		723	92%	120
Black Alone		14	2%	11
American Indian Alone		0	0%	12
Non-Hispanic Asian Alone		0	0%	12
Pacific Islander Alone		0	0%	12
Other Race Alone		0	0%	12
Two or More Races Alone		12	2%	10
Population by Sex				
Male		386	49%	77
Female		397	51%	56
Population by Age				
Age 0-4		20	3%	12
Age 0-17		140	18%	50
Age 18+		643	82%	86
Age 65+		83	11%	33

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: Blockgroup: 340076053002

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	560	100%	85
Less than 9th Grade	14	3%	15
9th - 12th Grade, No Diploma	54	10%	34
High School Graduate	220	39%	53
Some College, No Degree	135	24%	35
Associate Degree	42	8%	16
Bachelor's Degree or more	137	24%	39
Population Age 5+ Years by Ability to Speak English			
Total	763	100%	115
Speak only English	725	95%	127
Non-English at Home ¹⁺²⁺³⁺⁴	38	5%	24
¹ Speak English "very well"	22	3%	18
² Speak English "well"	0	0%	12
³ Speak English "not well"	9	1%	14
⁴ Speak English "not at all"	7	1%	14
³⁺⁴ Speak English "less than well"	16	2%	16
²⁺³⁺⁴ Speak English "less than very well"	16	2%	16
Linguistically Isolated Households*			
Total	4	100%	13
Speak Spanish	4	100%	5
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	305	100%	42
< \$15,000	33	11%	19
\$15,000 - \$25,000	22	7%	17
\$25,000 - \$50,000	66	22%	29
\$50,000 - \$75,000	61	20%	24
\$75,000 +	123	40%	38
Occupied Housing Units by Tenure			
Total	305	100%	42
Owner Occupied	251	82%	45
Renter Occupied	54	18%	27
Employed Population Age 16+ Years			
Total	677	100%	102
In Labor Force	499	74%	89
Civilian Unemployed in Labor Force	50	7%	31
Not In Labor Force	178	26%	49

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: Blockgroup: 340076053002

Ring (buffer): 0-mile radius

Description:

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	N/A	N/A	N/A
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: User-specified polygonal location
Ring (buffer): 0-miles radius
Description: Camden County LCD

1000' from Study Areas 1 and 2

Summary of ACS Estimates		2014 - 2018	
Population		1,564	
Population Density (per sq. mile)		4,772	
People of Color Population		201	
% People of Color Population		13%	
Households		621	
Housing Units		693	
Housing Units Built Before 1950		542	
Per Capita Income		27,805	
Land Area (sq. miles) (Source: SF1)		0.33	
% Land Area		90%	
Water Area (sq. miles) (Source: SF1)		0.04	
% Water Area		10%	

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	1,564	100%	498
Population Reporting One Race	1,540	98%	841
White	1,368	87%	501
Black	66	4%	86
American Indian	0	0%	12
Asian	36	2%	131
Pacific Islander	0	0%	12
Some Other Race	70	4%	99
Population Reporting Two or More Races	24	2%	96
Total Hispanic Population	70	4%	76
Total Non-Hispanic Population	1,495		
White Alone	1,363	87%	501
Black Alone	61	4%	86
American Indian Alone	0	0%	12
Non-Hispanic Asian Alone	36	2%	131
Pacific Islander Alone	0	0%	12
Other Race Alone	17	1%	74
Two or More Races Alone	17	1%	96
Population by Sex			
Male	759	49%	299
Female	805	51%	270
Population by Age			
Age 0-4	68	4%	64
Age 0-17	342	22%	219
Age 18+	1,223	78%	284
Age 65+	159	10%	99

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018

Location: User-specified polygonal location

Ring (buffer): 0-miles radius

Description: Camden County LCD

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	1,050	100%	248
Less than 9th Grade	45	4%	51
9th - 12th Grade, No Diploma	90	9%	54
High School Graduate	459	44%	168
Some College, No Degree	254	24%	117
Associate Degree	59	6%	33
Bachelor's Degree or more	202	19%	93
Population Age 5+ Years by Ability to Speak English			
Total	1,496	100%	472
Speak only English	1,368	91%	384
Non-English at Home ¹⁺²⁺³⁺⁴	128	9%	107
¹ Speak English "very well"	62	4%	76
² Speak English "well"	34	2%	70
³ Speak English "not well"	25	2%	51
⁴ Speak English "not at all"	6	0%	57
³⁺⁴ Speak English "less than well"	32	2%	57
²⁺³⁺⁴ Speak English "less than very well"	66	4%	86
Linguistically Isolated Households*			
Total	10	100%	28
Speak Spanish	4	35%	12
Speak Other Indo-European Languages	7	64%	18
Speak Asian-Pacific Island Languages	0	1%	25
Speak Other Languages	0	0%	12
Households by Household Income			
Household Income Base	621	100%	140
< \$15,000	51	8%	43
\$15,000 - \$25,000	52	8%	76
\$25,000 - \$50,000	151	24%	105
\$50,000 - \$75,000	126	20%	111
\$75,000 +	241	39%	95
Occupied Housing Units by Tenure			
Total	621	100%	140
Owner Occupied	450	72%	131
Renter Occupied	172	28%	98
Employed Population Age 16+ Years			
Total	1,286	100%	351
In Labor Force	863	67%	186
Civilian Unemployed in Labor Force	92	7%	49
Not In Labor Force	423	33%	240

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: User-specified polygonal location

Ring (buffer): 0-miles radius

Description: Camden County LCD

	2014 - 2018 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	907	100%	137
English	803	88%	143
Spanish	22	2%	23
French	0	0%	52
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	0	0%	12
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	64	7%	86
Chinese	0	0%	12
Japanese	N/A	N/A	N/A
Korean	0	0%	12
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	0	0%	12
Other Asian	0	0%	12
Tagalog	0	0%	12
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	1	0%	4
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	1	0%	4
Total Non-English	104	12%	198

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.

APPENDIX G

ENVIRONMENTAL DATA

RESOURCES REPORT

(EXECUTIVE SUMMARY)

Study Area 1

DVRPC CR 511 Broadway LCD - Project Site 1

633 Broadway Turnpike
Gloucester City, NJ 08030

Inquiry Number: 6614630.2s
August 10, 2021

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

633 BROADWAY TURNPIKE
GLOUCESTER CITY, NJ 08030

COORDINATES

Latitude (North):	39.8841770 - 39° 53' 3.03"
Longitude (West):	75.1206140 - 75° 7' 14.21"
Universal Transverse Mercator:	Zone 18
UTM X (Meters):	489686.8
UTM Y (Meters):	4414699.5
State Plane X (Feet):	317975.3
State Plane Y (Feet):	383331.9
Elevation:	19 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6035311 CAMDEN, NJ
Version Date:	2014
Southeast Map:	6035327 RUNNEMEDE, NJ
Version Date:	2014
Southwest Map:	6035505 WOODBURY, NJ
Version Date:	2014
Northwest Map:	5947577 PHILADELPHIA, PA
Version Date:	2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150725, 20150816
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
633 BROADWAY TURNPIKE
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	PHILADELPHIA NAVAL B		DOD	Same	5210, 0.987, WNW
Reg	WELSBACH & GENERAL G	6 AREAS IN CAMDEN AN	NPL, SEMS, RCRA-LQG, US ENG CONTROLS, ROD, PRP,...	Same	3905, 0.740, NE
A1	LIQUID CARBONIC SPEC	560 SOUTH BROADWAY	NJ ISRA	Higher	1 ft.
A2	LIQUID CARBONIC SPEC	560 S BROADWAY	NJ SHWS, NJ HIST HWS, NJ INST CONTROL, NJ...	Higher	1 ft.
A3	CARPENTER REALTY COR	549 S BROADWAY	NJ SHWS, NJ HIST HWS, NJ LUST, NJ HIST LUST, NJ...	Higher	1 ft.
A4	RUTTER HOWARD J	558 S BROADWAY	EDR Hist Auto	Higher	1 ft.
A5	WOODLAND OXYGEN CO	560 S BROADWAY	NJ UST, NJ NJEMS, NJ Financial Assurance	Higher	1 ft.
6	EAST COAST COLLISION	609 NEW BROADWAY	RCRA NonGen / NLR	Higher	1 ft.
B7	GLOUCESTER IRON & ME	BRICK & STINSMAN ST	RCRA NonGen / NLR, NY MANIFEST	Higher	136, 0.026, North
B8	LETZGUS GEO F	532 S BROADWAY	EDR Hist Auto	Higher	171, 0.032, North
9	DANTES AUTO BODY	502 NEW BROADWAY	RCRA NonGen / NLR	Higher	181, 0.034, South
B10	DJB REALTY	522 S BROADWAY	NJ HIST LUST, NJ UST	Higher	206, 0.039, North
B11	FORMER SEWAGE TREATM	FOOT OF BRICK STREET	NJ BROWNFIELDS	Higher	238, 0.045, NNW
B12	DWYN CHAR INC	518 SOUTH BROADWAY	EDR Hist Cleaner	Higher	278, 0.053, North
C13	GLOUCESTER CITY WWTP	BRICK ST	NJ HIST HWS, NJ BROWNFIELDS	Higher	414, 0.078, WNW
D14	INTERSTATE PALLET CO	541 BRICK ST	NJ SHWS, NJ Release	Higher	438, 0.083, NW
D15	INTERSTATE PALLET CO	541 BRICK ST	NJ ENG CONTROLS, NJ VCP, NJ BROWNFIELDS	Higher	438, 0.083, NW
C16	GLOUCESTER CITY DPW	615 BRICK ST	NJ SHWS, NJ NJEMS	Higher	499, 0.095, WNW
E17	SCHILLINGER METAL SP	937 JERSEY AVENUE	NJ ISRA	Higher	555, 0.105, North
E18	CVS PHARMACY #0864	455 S BROADWAY	NJ NJEMS, NJ MANIFEST	Higher	600, 0.114, North
E19	CVS PHARMACY #0864	455 S BROADWAY	RCRA-VSQG	Higher	600, 0.114, North
E20	CVS PHARMACY 0864	455 S BROADWAY	PA MANIFEST	Higher	600, 0.114, North
E21	ACME STORE 1168	445 S BROADWAY	RCRA NonGen / NLR	Higher	628, 0.119, North
22	SOUTH JERSEY AUTOMAT	456 S BROADWAY	EDR Hist Cleaner	Higher	640, 0.121, North
F23	ELM STREET-BLOOM BUI	ELM STREET & NINTH S	NJ BROWNFIELDS	Higher	674, 0.128, NNW
F24	TELAIR INTERNATIONAL	860 CHARLES ST	RCRA NonGen / NLR	Higher	811, 0.154, NNW
F25	CATHERINE RAGEN PROP	860 CHARLES ST	NJ SHWS, NJ HIST HWS, NJ BROWNFIELDS	Higher	811, 0.154, NNW
F26	CATHERINE RAGEN PROP	860 CHARLES ST	NJ UST	Higher	811, 0.154, NNW
27	SOUTH JERSEY CONTAIN	267 NEW FREEDOM NEW	NJ HWS RE-EVAL	Higher	898, 0.170, SSW
F28	WALSH TRUCKING TERMI	920 CHARLES ST	NJ HIST LUST	Higher	929, 0.176, NNW
29	GARAGE EQUIPMENT SA	226 CHESTNUT AVE	NJ SHWS, NJ NJEMS	Higher	978, 0.185, SSW
G30	GLOUCESTER ELDERLY H	430 S BROADWAY	RCRA-VSQG, NY MANIFEST	Higher	999, 0.189, North
G31	CARPENTERS SQUARE	430 S BROADWAY	NJ SHWS, NJ UST, NJ NJEMS, FINDS	Higher	999, 0.189, North
G32	CARPENTERS SQUARE (F	430 S BROADWAY	NJ VCP	Higher	999, 0.189, North
33	905 JERSEY AVENUE	905 JERSEY AVE	NJ SHWS, NJ NJEMS, NJ Release	Higher	1074, 0.203, NNW
H34	FORMER HIGHLAND PARK	2 HUGHES AVE	NJ SHWS, NJ SPILLS, NJ Release	Higher	1075, 0.204, ENE
H35	HIGHLAND PARK APARTM	2 HUGHES AVE	NJ UST	Higher	1075, 0.204, ENE
36		202 PARIS AVE	NJ SHWS, NJ Release	Higher	1089, 0.206, SW
I37	209 5TH STREET	209 5TH ST	NJ SHWS, NJ HIST HWS	Higher	1190, 0.225, SE

MAPPED SITES SUMMARY

Target Property Address:
633 BROADWAY TURNPIKE
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
I38	209 5TH STREET	209 5TH ST	NJ VCP, NJ NJEMS, NJ SPILLS	Higher	1190, 0.225, SE
J39	BROOKLAWN BORO PUBLI	HAAKON RD	NJ HIST HWS, NJ UST	Lower	1301, 0.246, SSW
K40	D'QANDREA TIRE INC	100 NEW BROADWAY	NJ HIST LUST	Higher	1336, 0.253, SSW
K41	D'ANDREA TIRE INC	100 NEW BROADWAY	NJ SHWS, NJ HIST HWS, NJ UST, NJ INST CONTROL, NJ...	Higher	1336, 0.253, SSW
K42	D'ANDREA TIRE, INC	100 NEW BROADWAY	NJ HIST LUST	Higher	1336, 0.253, SSW
J43	BROOKLAWN BORO PUBLI	101 SOUTH NEW BROADW	NJ ENG CONTROLS, NJ INST CONTROL	Higher	1367, 0.259, SSW
J44	BROOKLAWN BORO PUBLI	101 NEW BROADWAY	NJ SHWS	Higher	1367, 0.259, SSW
J45	GASKILL-BROOKLAWN LA	BROOKLAWN CIRCLE & T	NJ HIST LF	Lower	1454, 0.275, SSW
L46	DYER STORE FIXTURES	8TH AND CHARLES STRE	NJ ISRA	Lower	1566, 0.297, NW
47	GLOUCESTER JR SR HS	1300 MARKET ST	NJ SHWS, NJ SPILLS	Lower	1694, 0.321, East
L48	JILCO EQUIPMENT LEAS	750 CHARLES ST	NJ SHWS	Lower	1700, 0.322, NW
49	AFL QUALITY INCORPOR	716 JERSEY AVENUE	NJ ISRA	Higher	1751, 0.332, NNW
50	BROOKLAWN BORO DPW	HAAKON RD & CHRISTIA	NJ BROWNFIELDS, NJ NJEMS	Higher	1755, 0.332, SSE
L51	RIVERPOINTE HOLDINGS	7TH AND CHARLES STRE	NJ ISRA	Lower	1826, 0.346, NW
L52	FOGARTY INDUSTRIES	7TH AND CHARLES STRE	SEMS-ARCHIVE	Lower	1826, 0.346, NW
53	MIDLANTIC PRECISION	940 MARKET ST	NJ HIST LUST, NJ UST, RCRA NonGen / NLR	Higher	1921, 0.364, NE
M54	SAINT MAURICES CHURC	401 COMMUNITY RD	NJ SHWS, NJ Release	Higher	1973, 0.374, SSE
M55	SAINT MAURICE PARISH	401 COMMUNITY RD	NJ VCP	Higher	1973, 0.374, SSE
N56	ARCO LOT	WATER STREET	NJ BROWNFIELDS	Higher	1999, 0.379, WNW
57	BROOKLAWN SHOPPING	RT. 130 & KINGS HWY	NJ HIST LUST, NJ Release	Higher	2008, 0.380, SE
O58	231 NANSEN AVENUE	231 NANSEN AVE	NJ SHWS, NJ VCP	Lower	2015, 0.382, South
P59	FORMER EMPIRE VENDIN	601-605 JERSEY AVE.	NJ BROWNFIELDS	Lower	2097, 0.397, NNW
Q60	GLOUCESTER CENTRAL O	1190 MARKET ST	NJ SHWS, NJ Release, RCRA NonGen / NLR, NJ AIRS	Higher	2099, 0.398, NE
Q61	NEW JERSEY BELL GLOU	1190 MARKET ST	NJ HIST LUST	Higher	2099, 0.398, NE
N62	G&W NATURAL RESOURCE	FOOT OF WATER ST	SEMS, CORRACTS, RCRA NonGen / NLR	Higher	2115, 0.401, WNW
R63	SHELL SERVICE STATIO	505 CRESCENT BLVD	NJ BROWNFIELDS	Lower	2145, 0.406, SSE
R64	59451	501 CRESCENT BLVD	NJ SHWS, NJ NJEMS	Lower	2145, 0.406, SSE
O65	RCA SERVICE COMPANY	375 CRESCENT BOULEVA	NJ ISRA	Lower	2162, 0.409, South
P66	EMPIRE VENDING INCOR	610 CHERRY ST	NJ HIST HWS, NJ VCP, NJ BROWNFIELDS	Higher	2192, 0.415, NNW
67	TOP ENTERPRICES LLC	CRESCENT BLVD & BROO	NJ BROWNFIELDS	Higher	2210, 0.419, SSE
S68	BROOKLAWN CITGO	299 CRESCENT BLVD S	NJ HIST HWS, NJ LUST	Lower	2241, 0.424, South
S69	BROOKLAWN CIRCLE CON	299 CRESCENT BLVD S	NJ LUST	Lower	2244, 0.425, South
S70		299 CRESCENT BLVD	NJ SHWS, NJ Release	Lower	2244, 0.425, South
T71	S F PEDRICK CONST CO	800 MARKET ST	NJ SHWS	Higher	2262, 0.428, North
T72	STEVE PEDRICK CONSTR	800 MARKET ST	NJ HIST LUST	Higher	2262, 0.428, North
P73	RIVERPOINTE HOLDINGS	600 JERSEY AVE	NJ SHWS, NJ ENG CONTROLS, NJ INST CONTROL, NJ...	Lower	2269, 0.430, NNW
U74	AMSPEC CHEMICAL CO	751 WATER STREET	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-LQG	Higher	2272, 0.430, WNW
U75	AMSPEC CHEMICAL CORP	751 WATER STREET	NJ SHWS, NJ BROWNFIELDS, NJ HIST MAJOR FACILITIES,...	Higher	2272, 0.430, WNW
U76	AMSPEC CHEMICAL COMP	751 WATER ST	NJ VCP, NJ Release, NJ AIRS	Higher	2272, 0.430, WNW

MAPPED SITES SUMMARY

Target Property Address:
633 BROADWAY TURNPIKE
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
P77	FORMER PSE&G	JERSEY AVE & SIXTH S	NJ BROWNFIELDS	Lower	2278, 0.431, NNW
P78	PSE&G GLOUCESTER COA	6TH ST & JERSEY AVE	NJ SHWS, NJ BROWNFIELDS, NJ NJEMS, FINDS	Lower	2278, 0.431, NNW
P79	GLOUCESTER COAL GAS	JERSEY AVE & 6TH ST	NJ HIST HWS, NJ ENG CONTROLS, NJ INST CONTROL	Lower	2278, 0.431, NNW
V80	GLOUCESTER CITY TITA	851 WATER ST	NJ SHWS, NJ HIST HWS, NJ ENG CONTROLS, NJ INST...	Higher	2280, 0.432, WNW
W81	B & F TIRE REPAIR	RTE 130 S	NJ HIST LUST	Higher	2282, 0.432, ESE
82	WORK SITE/TRAFFIC CI	RTE 130 OLD SALEM RD	NJ HIST LUST	Lower	2314, 0.438, South
P83	GLOUCESTER GAS WORKS	JERSEY AVE BETWEEN 5	SEMS	Lower	2330, 0.441, NNW
V84	VIACOM/GULF & WESTER	851 WATER STREET	US BROWNFIELDS	Higher	2333, 0.442, WNW
X85	FORMER ANKLE INN	709 WATER STREET	NJ BROWNFIELDS	Lower	2349, 0.445, NW
Y86	ESTATE OF LEO A RITC	1331 CRESCENT BLVD	NJ SHWS, NJ UST, NJ ISRA	Higher	2383, 0.451, East
Y87	WAREHOUSE 1331	1331 CRESCENT BLVD	NJ SHWS	Higher	2383, 0.451, East
W88	UNIVERSAL MOTORS	1430 RTE 130	NJ HIST LUST	Higher	2389, 0.452, ESE
W89	RT 130 SERVICE STATI	1430 RTE 130	NJ HIST LUST, NJ UST	Higher	2389, 0.452, ESE
90	HIGHLAND PARK APARTM	HUGHES AVE	NJ HIST LUST, NJ Release	Higher	2391, 0.453, ENE
W91	RT 130 SERVICE STATI	1430 CRESCENT BLVD	NJ SHWS	Higher	2393, 0.453, ESE
Z92	IDM ENVIRON CORP	WATER STREET	NJ HIST LF	Higher	2402, 0.455, WNW
Z93	GLOUCESTER CITY DEMO	WATER STREET	NJ HIST LF	Higher	2402, 0.455, WNW
94	GLOUCESTER COAL GAS	JERSEY AVE AND SIXTH	EDR MGP	Lower	2420, 0.458, NNW
95	MERIT	BROOKLIN CIRCLE RTE	NJ HIST LUST	Lower	2461, 0.466, SSW
AA96	707 WATER STREET	707 WATER ST	NJ SHWS, NJ NJEMS, NJ Release	Higher	2469, 0.468, NW
AA97	GLOUCESTER POINT, IN	707 WATER ST	NJ VCP, NJ BROWNFIELDS	Higher	2469, 0.468, NW
98	GLOUCESTER CITY HIGH	CRESENT BLVD	NJ HIST LUST	Higher	2498, 0.473, East
X99	VANGUARD VINYL SIDIN	CHARLES AND WATER ST	NJ ISRA	Lower	2539, 0.481, NW
X100	GAF CORP - GLOUCESTE	WATER & CHARLES ST	SEMS, CORRACTS, NJ HIST HWS, NJ UST, NJ ENG...	Lower	2539, 0.481, NW
X101	GAF BUILDING MATERIA	CHARLES ST & WATER S	NJ SHWS, NJ BROWNFIELDS, NJ NJEMS	Lower	2539, 0.481, NW
X102	VANGUARD VINYL SIDIN	CHARLES & WATER STS	NJ HWS RE-EVAL	Lower	2539, 0.481, NW
Y103	1325 ROUTE 130 ASSOC	1325 CRESCENT BLVD	NJ ISRA	Higher	2548, 0.483, East
AB104	GLOU-PHILLPS 66	174 S BROADY	NJ HIST LUST, NJ UST	Higher	2549, 0.483, North
AC105	FORMER POPCORN FACIL	516 HUNTER ST.	NJ BROWNFIELDS	Higher	2610, 0.494, NNW
AD106	RAMA PETROLEUM	3528 KINGS HWY	NJ SHWS	Higher	2630, 0.498, SE
AB107	GLOU-PHILLPS 66	174 S BROADWAY	NJ LUST	Higher	2639, 0.500, North
AB108	GLOU-PHILLPS 66	174 S BROADWAY	NJ SHWS	Higher	2639, 0.500, North
AB109	MULTANI BROTHERS INC	174 S BROADWAY	NJ LUST	Higher	2639, 0.500, North
AC110	FORMER RUG FACTORY	SIXTH & HUNTER ST	NJ SHWS, NJ INST CONTROL	Higher	2644, 0.501, NNW
AC111	FORMER THE POPCORN F	HUNTER ST & 6TH ST	NJ SHWS	Higher	2644, 0.501, NNW
AC112	FORMER THE POPCORN F	HUNTER & 6TH STS	NJ SHWS, NJ INST CONTROL	Higher	2644, 0.501, NNW
113	29 BEECHWOOD AVENUE	29 BEECHWOOD AVE	NJ SHWS, NJ HIST HWS, NJ NJEMS	Higher	2707, 0.513, ESE
114	VANGUARD VINYL SIDIN	651 WATER ST	NJ SHWS, NJ HIST HWS, NJ NJEMS	Lower	2739, 0.519, NW
AD115	CW CLARKE CAR DEALER	BROWNING LN & KINGS	NJ SHWS, NJ UST	Higher	2773, 0.525, SE

MAPPED SITES SUMMARY

Target Property Address:
633 BROADWAY TURNPIKE
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
AD116	AMOCO SERVICE STATIO	KINGS HWY & BROWNING	NJ SHWS, NJ NJEMS, FINDS	Higher	2773, 0.525, SE
117	1144 HOWARD AVENUE	1144 HOWARD AVE	NJ SHWS, NJ VCP, NJ NJEMS, NJ Release	Higher	2814, 0.533, SSE
118	334 GREENWOOD AVENUE	334 GREENWOOD AVE	NJ SHWS, NJ VCP, NJ NJEMS, NJ Release	Higher	2849, 0.540, ENE
AE119	PRC-DESOTO INTL FORM	426 JERSEY AVE	NJ SHWS, NJ Release	Lower	2858, 0.541, NNW
120	GLOUCESTER CITY ELEM	500 MARKET ST	NJ SHWS, NJ ENG CONTROLS, NJ INST CONTROL, NJ...	Higher	2975, 0.563, North
121	19 CEDARWOOD AVENUE	19 CEDARWOOD AVE	NJ SHWS, NJ NJEMS	Higher	3043, 0.576, ESE
AE122	PRODUCTS RESEARCH &	410 JERSEY AVE	NJ HWS RE-EVAL	Lower	3074, 0.582, NNW
AF123	SEMMATERIALS LP	201 WATER ST	NJ SHWS, NJ ENG CONTROLS, NJ Release	Lower	3264, 0.618, NNW
AF124	THERMOSEAL GLASS COR	400 418 WATER ST	NJ SHWS, NJ BROWNFIELDS, NJ NJEMS	Lower	3270, 0.619, NNW
125	JOHNNY'S FLYING "A"	BROADWAY & SOMERSET	NJ SHWS	Higher	3585, 0.679, North
126	401 HIGHLAND BOULEVA	401 HIGHLAND BLVD	NJ SHWS, NJ NJEMS, FINDS	Higher	3606, 0.683, NE
127	SEMMATERIALS LP	3RD ST & WATER ST	NJ SHWS	Lower	3657, 0.693, NNW
128	1371 ORIENTAL AVENUE	1371 ORIENTAL AVE	NJ SHWS, NJ NJEMS, NJ Release	Higher	3732, 0.707, ESE
129	419 CUMBERLAND STREE	419 CUMBERLAND ST	NJ SHWS, NJ Release	Higher	3761, 0.712, North
130	WESTVILLE BORO DPW	114 CROWN POINT RD	NJ SHWS, NJ HIST HWS, NJ LUST, NJ UST, NJ INST...	Lower	3825, 0.724, SSW
131	CONTINENTAL BAKING C	45 GATEWAY BLVD	NJ SHWS, NJ UST, RCRA NonGen / NLR	Lower	3842, 0.728, SSW
132	AMERICAN SERVICE CEN	11 DELSEA DR	NJ SHWS, NJ HWS RE-EVAL, NJ HIST LUST	Lower	4089, 0.774, SSW
AG133	36 TEMPLE AVENUE	36 TEMPLE AVE	NJ SHWS, NJ NJEMS	Higher	4106, 0.778, NE
AG134	34 TEMPLE AVENUE	34 TEMPLE AVE	NJ SHWS, NJ NJEMS	Higher	4141, 0.784, NE
135	UNIVERSITY AVENUE	UNIVERSITY AVE & MEM	NJ SHWS	Higher	4265, 0.808, NE
136	528 HIGHLAND AVENUE	528 HIGHLAND AVE	NJ SHWS, NJ HIST HWS, NJ NJEMS	Lower	4292, 0.813, SW
137	GATEWAY GRAPHICS INC	165 BROADWAY	NJ SHWS	Lower	4305, 0.815, SSW
138	BELLMWR PUMP STATIO	CREEK RD & THOMPSON	NJ SHWS, NJ UST, NJ BROWNFIELDS	Lower	4385, 0.830, South
139	GLOUCESTER CATHOLIC	1 S BURLINGTON ST	NJ SHWS, NJ NJEMS, NJ AIRS	Higher	4456, 0.844, North
140	307 WOODBINE AVENUE	307 WOODBINE AVE	NJ SHWS, NJ NJEMS, FINDS	Lower	4475, 0.848, SSW
141	COAST GUARD BASE GLO	KING ST & CUMBERLAND	NJ SHWS	Higher	4534, 0.859, NNW
142	NORTH BROADWAY PROPE	115 N BROADWAY	NJ SHWS, NJ Release	Higher	4593, 0.870, North
143	27 WARREN AVENUE	27 WARREN AVE	NJ SHWS, NJ VCP, NJ NJEMS, NJ SPILLS	Higher	4625, 0.876, SE
144	4 SOUTH KING STREET	4 S KING ST	NJ SHWS, NJ NJEMS, FINDS	Higher	4740, 0.898, NNW
145	ST MARYS CONVENT	115 SUSSEX ST	NJ SHWS, NJ NJEMS	Higher	4787, 0.907, North
146	914 HIGHLAND BOULEVA	914 HIGHLAND BLVD	NJ SHWS, NJ NJEMS, NJ Release	Higher	4824, 0.914, ENE
147	225 CENTER STREET	225 CENTER AVE	NJ SHWS, NJ BROWNFIELDS	Lower	4828, 0.914, South
148	BELLMWR BORO	CREEK RD & KARR DR	NJ SHWS, NJ BROWNFIELDS	Lower	4837, 0.916, SSE
149	834 WEST BROWNING RO	834 W BROWNING RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	4889, 0.926, SE
150	CHATHAM SQUARE APART	CRESCENT BLVD & READ	NJ SHWS, NJ NJEMS, FINDS	Higher	5053, 0.957, ENE
151	913 MERCER STREET	913 MERCER ST	NJ SHWS, NJ Release	Higher	5115, 0.969, NNE
152	224 NICHOLSON ROAD	224 NICHOLSON RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	5119, 0.970, NE
AH153	1004 MILLER AVENUE	1004 MILLER AVE	NJ SHWS, NJ NJEMS, NJ Release	Lower	5127, 0.971, ENE
154	RON'S SERVICE STATIO	326 BROADWAY	NJ SHWS, NJ HIST LUST, NJ UST	Lower	5129, 0.971, SSW

MAPPED SITES SUMMARY

Target Property Address:
633 BROADWAY TURNPIKE
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
155	ANNUNCIATION CHURCH	601 W BROWNING RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	5175, 0.980, SE
AH156		1008 MILLER AVE	NJ SHWS, NJ Release	Lower	5228, 0.990, ENE
AH157	201 WESTON AVENUE	201 WESTON AVE	NJ SHWS, NJ NJEMS, NJ Release	Lower	5262, 0.997, East

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal RCRA generators list

RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

PA SHWS..... Hazardous Sites Cleanup Act Site List

State and tribal landfill and/or solid waste disposal site lists

NJ SWF/LF..... Solid Waste Facility Directory
PA SWF/LF..... Operating Facilities

State and tribal leaking storage tank lists

PA LUST..... Storage Tank Release Sites

EXECUTIVE SUMMARY

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
PA UST..... Listing of Pennsylvania Regulated Underground Storage Tanks
NJ MAJOR FACILITIES..... List of Major Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

PA ENG CONTROLS..... Engineering Controls Site Listing
PA INST CONTROL..... Institutional Controls Site Listing

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
PA VCP..... Voluntary Cleanup Program Listing
NJ PF..... Publicly Funded Cleanups Site Status Report

State and tribal Brownfields sites

PA BROWNFIELDS..... Brownfields Sites

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

NJ SWRCY..... Approved Class B Recycling Facilities
PA HIST LF..... Abandoned Landfill Inventory
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
US CDL..... National Clandestine Laboratory Register

Local Land Records

NJ LIENS..... Environmental LIENS
LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
PA SPILLS..... State spills
NJ SPILLS 90..... SPILLS 90 data from FirstSearch
NJ SPILLS 80..... SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites

EXECUTIVE SUMMARY

SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
PA AIRS.....	Permit and Emissions Inventory Data
NJ CHROME.....	Chromate Chemical Production Waste Sites
NJ COAL ASH.....	Coal Ash Listing
NJ DRYCLEANERS.....	Drycleaner List
PA DRYCLEANERS.....	Drycleaner Facility Locations
NJ GW CONTAM AREAS.....	Groundwater Contamination Areas
PA NPDES.....	NPDES Permit Listing
NJ UIC.....	Underground Injection Wells Database
PA UIC.....	Underground Injection Wells
MINES MRDS.....	Mineral Resources Data System

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

NJ RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
PA RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
NJ RGA LF.....	Recovered Government Archive Solid Waste Facilities List
PA RGA LF.....	Recovered Government Archive Solid Waste Facilities List
NJ RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank
PA RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 04/27/2021 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>WELSBACH & GENERAL G</i> Cerclis ID:: 203580 EPA Id: NJD986620995	<i>6 AREAS IN CAMDEN AN</i>	<i>NE 1/2 - 1 (0.740 mi.)</i>	<i>0</i>	<i>8</i>

Federal CERCLIS list

SEMS: SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the SEMS list, as provided by EDR, and dated 04/27/2021 has revealed that there are 3 SEMS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>G&W NATURAL RESOURCE</i> Site ID: 0202951 EPA Id: NJD002347664	<i>FOOT OF WATER ST</i>	<i>WNW 1/4 - 1/2 (0.401 mi.)</i>	<i>N62</i>	<i>211</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GLOUCESTER GAS WORKS Site ID: 0201021 EPA Id: NJD981083058	JERSEY AVE BETWEEN 5	NNW 1/4 - 1/2 (0.441 mi.)	P83	625
<i>GAF CORP - GLOUCESTE</i>	<i>WATER & CHARLES ST</i>	<i>NW 1/4 - 1/2 (0.481 mi.)</i>	<i>X100</i>	<i>647</i>

EXECUTIVE SUMMARY

Site ID: 0202952
EPA Id: NJD043292606

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 04/27/2021 has revealed that there are 2 SEMS-ARCHIVE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AMSPEC CHEMICAL CO Site ID: 0200007 EPA Id: NJD000312371	751 WATER STREET	WNW 1/4 - 1/2 (0.430 mi.)	U74	280
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FOGARTY INDUSTRIES Site ID: 0203273 EPA Id: NJD986578169	7TH AND CHARLES STRE	NW 1/4 - 1/2 (0.346 mi.)	L52	185

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/22/2021 has revealed that there are 3 CORRACTS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
G&W NATURAL RESOURCE EPA ID:: NJD002347664	FOOT OF WATER ST	WNW 1/4 - 1/2 (0.401 mi.)	N62	211
AMSPEC CHEMICAL CO	751 WATER STREET	WNW 1/4 - 1/2 (0.430 mi.)	U74	280
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GAF CORP - GLOUCESTE EPA ID:: NJD043292606	WATER & CHARLES ST	NW 1/4 - 1/2 (0.481 mi.)	X100	647

EXECUTIVE SUMMARY

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AMSPEC CHEMICAL CO EPA ID:: NJD000312371	751 WATER STREET	WNW 1/4 - 1/2 (0.430 mi.)	U74	280

Federal RCRA generators list

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 03/22/2021 has revealed that there are 2 RCRA-VSQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CVS PHARMACY #0864 EPA ID:: NJR986630887	455 S BROADWAY	N 0 - 1/8 (0.114 mi.)	E19	114
GLOUCESTER ELDERLY H EPA ID:: NJR000045021	430 S BROADWAY	N 1/8 - 1/4 (0.189 mi.)	G30	145

State- and tribal - equivalent CERCLIS

NJ SHWS: Known contaminated sites in New Jersey except those associated with Bureau of Underground Storage Sites (BUST)

A review of the NJ SHWS list, as provided by EDR, and dated 03/04/2021 has revealed that there are 79 NJ SHWS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIQUID CARBONIC SPEC Site ID: 64458 Status: Active	560 S BROADWAY	0 - 1/8 (0.000 mi.)	A2	53
CARPENTER REALTY COR	549 S BROADWAY	0 - 1/8 (0.000 mi.)	A3	57

EXECUTIVE SUMMARY

Site ID: 57098 Status: Active				
INTERSTATE PALLET CO Site ID: 22601 Status: Closed	541 BRICK ST	NW 0 - 1/8 (0.083 mi.)	D14	89
GLOUCESTER CITY DPW Site ID: 51015 Status: Active	615 BRICK ST	WNW 0 - 1/8 (0.095 mi.)	C16	95
CATHERINE RAGEN PROP Site ID: 52846 Status: Closed	860 CHARLES ST	NNW 1/8 - 1/4 (0.154 mi.)	F25	139
GARAGE EQUIPMENT SA Site ID: 20619 Status: Closed	226 CHESTNUT AVE	SSW 1/8 - 1/4 (0.185 mi.)	29	144
CARPENTERS SQUARE Site ID: 130416 Status: Closed	430 S BROADWAY	N 1/8 - 1/4 (0.189 mi.)	G31	151
905 JERSEY AVENUE Site ID: 230235 Status: Active	905 JERSEY AVE	NNW 1/8 - 1/4 (0.203 mi.)	33	153
FORMER HIGHLAND PARK Site ID: 50619 Status: Closed	2 HUGHES AVE	ENE 1/8 - 1/4 (0.204 mi.)	H34	156
Not reported Site ID: 630317 Status: Closed	202 PARIS AVE	SW 1/8 - 1/4 (0.206 mi.)	36	162
209 5TH STREET Site ID: 94925 Status: Closed	209 5TH ST	SE 1/8 - 1/4 (0.225 mi.)	I37	164
D'ANDREA TIRE INC Site ID: 51359 Status: Closed	100 NEW BROADWAY	SSW 1/4 - 1/2 (0.253 mi.)	K41	169
BROOKLAWN BORO PUBLI Site ID: 117861 Status: Closed	101 NEW BROADWAY	SSW 1/4 - 1/2 (0.259 mi.)	J44	177
SAINT MAURICES CHURC Site ID: 165779 Status: Closed	401 COMMUNITY RD	SSE 1/4 - 1/2 (0.374 mi.)	M54	191
GLOUCESTER CENTRAL O Site ID: 10121 Status: Closed	1190 MARKET ST	NE 1/4 - 1/2 (0.398 mi.)	Q60	201
S F PEDRICK CONST CO Site ID: 50411 Status: Closed	800 MARKET ST	N 1/4 - 1/2 (0.428 mi.)	T71	232
AMSPEC CHEMICAL CORP Site ID: 14395 Status: Active	751 WATER STREET	WNW 1/4 - 1/2 (0.430 mi.)	U75	408
GLOUCESTER CITY TITA Site ID: 46199	851 WATER ST	WNW 1/4 - 1/2 (0.432 mi.)	V80	496

EXECUTIVE SUMMARY

Status: Active				
ESTATE OF LEO A RITC	1331 CRESCENT BLVD	E 1/4 - 1/2 (0.451 mi.)	Y86	632
Site ID: 52523				
Status: Closed				
WAREHOUSE 1331	1331 CRESCENT BLVD	E 1/4 - 1/2 (0.451 mi.)	Y87	633
Site ID: 52950				
Status: Closed				
RT 130 SERVICE STATI	1430 CRESCENT BLVD	ESE 1/4 - 1/2 (0.453 mi.)	W91	638
Site ID: 50204				
Status: Closed				
707 WATER STREET	707 WATER ST	NW 1/4 - 1/2 (0.468 mi.)	AA96	640
Site ID: 564557				
Status: Active				
RAMA PETROLEUM	3528 KINGS HWY	SE 1/4 - 1/2 (0.498 mi.)	AD106	679
Site ID: 10422				
Status: Closed				
GLOU-PHILLPS 66	174 S BROADWAY	N 1/4 - 1/2 (0.500 mi.)	AB108	679
Site ID: 10104				
Status: Active				
FORMER RUG FACTORY	SIXTH & HUNTER ST	NNW 1/2 - 1 (0.501 mi.)	AC110	680
Site ID: 64955				
Status: Active				
FORMER THE POPCORN F	HUNTER ST & 6TH ST	NNW 1/2 - 1 (0.501 mi.)	AC111	681
Site ID: 50113				
Status: Closed				
FORMER THE POPCORN F	HUNTER & 6TH STS	NNW 1/2 - 1 (0.501 mi.)	AC112	681
Site ID: 50113				
Status: Active				
29 BEECHWOOD AVENUE	29 BEECHWOOD AVE	ESE 1/2 - 1 (0.513 mi.)	113	682
Site ID: 191550				
Status: Pending				
CW CLARKE CAR DEALER	BROWNING LN & KINGS	SE 1/2 - 1 (0.525 mi.)	AD115	685
Site ID: 56313				
Status: Closed				
AMOCO SERVICE STATIO	KINGS HWY & BROWNING	SE 1/2 - 1 (0.525 mi.)	AD116	686
Site ID: 83308				
Status: Closed				
1144 HOWARD AVENUE	1144 HOWARD AVE	SSE 1/2 - 1 (0.533 mi.)	117	687
Site ID: 165011				
Status: Closed				
334 GREENWOOD AVENUE	334 GREENWOOD AVE	ENE 1/2 - 1 (0.540 mi.)	118	690
Site ID: 175143				
Status: Closed				
GLOUCESTER CITY ELEM	500 MARKET ST	N 1/2 - 1 (0.563 mi.)	120	695
Site ID: 538124				
Status: Active				
19 CEDARWOOD AVENUE	19 CEDARWOOD AVE	ESE 1/2 - 1 (0.576 mi.)	121	712
Site ID: 526175				
Status: Closed				
JOHNNY'S FLYING "A"	BROADWAY & SOMERSET	N 1/2 - 1 (0.679 mi.)	125	734

EXECUTIVE SUMMARY

Site ID: 51377 Status: Closed				
401 HIGHLAND BOULEVA Site ID: 371300 Status: Closed	401 HIGHLAND BLVD	NE 1/2 - 1 (0.683 mi.)	126	734
1371 ORIENTAL AVENUE Site ID: 634532 Status: Closed	1371 ORIENTAL AVE	ESE 1/2 - 1 (0.707 mi.)	128	735
419 CUMBERLAND STREE Site ID: 468844 Status: Closed	419 CUMBERLAND ST	N 1/2 - 1 (0.712 mi.)	129	738
36 TEMPLE AVENUE Site ID: 411478 Status: Closed	36 TEMPLE AVE	NE 1/2 - 1 (0.778 mi.)	AG133	752
34 TEMPLE AVENUE Site ID: 402579 Status: Pending	34 TEMPLE AVE	NE 1/2 - 1 (0.784 mi.)	AG134	753
UNIVERSITY AVENUE Site ID: 64098 Status: Closed	UNIVERSITY AVE & MEM	NE 1/2 - 1 (0.808 mi.)	135	753
GLOUCESTER CATHOLIC Site ID: 48216 Status: Closed	1 S BURLINGTON ST	N 1/2 - 1 (0.844 mi.)	139	759
COAST GUARD BASE GLO Site ID: 42311 Status: Closed	KING ST & CUMBERLAND	NNW 1/2 - 1 (0.859 mi.)	141	762
NORTH BROADWAY PROPE Site ID: 408373 Status: Closed	115 N BROADWAY	N 1/2 - 1 (0.870 mi.)	142	763
27 WARREN AVENUE Site ID: 95429 Status: Closed	27 WARREN AVE	SE 1/2 - 1 (0.876 mi.)	143	765
4 SOUTH KING STREET Site ID: 215618 Status: Pending	4 S KING ST	NNW 1/2 - 1 (0.898 mi.)	144	768
ST MARYS CONVENT Site ID: 53558 Status: Closed	115 SUSSEX ST	N 1/2 - 1 (0.907 mi.)	145	769
914 HIGHLAND BOULEVA Site ID: 393098 Status: Closed	914 HIGHLAND BLVD	ENE 1/2 - 1 (0.914 mi.)	146	770
834 WEST BROWNING RO Site ID: 625359 Status: Closed	834 W BROWNING RD	SE 1/2 - 1 (0.926 mi.)	149	778
CHATHAM SQUARE APART Site ID: 52407 Status: Closed	CRESCENT BLVD & READ	ENE 1/2 - 1 (0.957 mi.)	150	781
913 MERCER STREET Site ID: 456319	913 MERCER ST	NNE 1/2 - 1 (0.969 mi.)	151	782

EXECUTIVE SUMMARY

Status: Closed				
224 NICHOLSON ROAD Site ID: 230243 Status: Closed	224 NICHOLSON RD	NE 1/2 - 1 (0.970 mi.)	152	784
ANNUNCIATION CHURCH Site ID: 614465 Site ID: 566397 Status: Closed	601 W BROWNING RD	SE 1/2 - 1 (0.980 mi.)	155	794
Lower Elevation	Address	Direction / Distance	Map ID	Page
GLOUCESTER JR SR HS Site ID: 10127 Status: Closed	1300 MARKET ST	E 1/4 - 1/2 (0.321 mi.)	47	179
JILCO EQUIPMENT LEAS Site ID: 295568 Status: Closed	750 CHARLES ST	NW 1/4 - 1/2 (0.322 mi.)	L48	181
231 NANSEN AVENUE Site ID: 219336 Status: Closed	231 NANSEN AVE	S 1/4 - 1/2 (0.382 mi.)	O58	198
59451 Site ID: 55462 Status: Closed	501 CRESCENT BLVD	SSE 1/4 - 1/2 (0.406 mi.)	R64	220
Not reported Site ID: 10423 Status: Active	299 CRESCENT BLVD	S 1/4 - 1/2 (0.425 mi.)	S70	228
RIVERPOINTE HOLDINGS Site ID: 55697 Status: Closed Status: Active	600 JERSEY AVE	NNW 1/4 - 1/2 (0.430 mi.)	P73	233
PSE&G GLOUCESTER COA Site ID: 63914 Status: Closed	6TH ST & JERSEY AVE	NNW 1/4 - 1/2 (0.431 mi.)	P78	434
GAF BUILDING MATERIA Site ID: 45991 Status: Closed	CHARLES ST & WATER S	NW 1/4 - 1/2 (0.481 mi.)	X101	666
VANGUARD VINYL SIDIN Site ID: 63972 Status: Active	651 WATER ST	NW 1/2 - 1 (0.519 mi.)	114	683
PRC-DESOTO INTL FORM Site ID: 14658 Status: Closed	426 JERSEY AVE	NNW 1/2 - 1 (0.541 mi.)	AE119	693
SEMMATERIALS LP Site ID: 15706 Status: Active	201 WATER ST	NNW 1/2 - 1 (0.618 mi.)	AF123	713
THERMOSEAL GLASS COR Site ID: 39677 Status: Closed	400 418 WATER ST	NNW 1/2 - 1 (0.619 mi.)	AF124	730
SEMMATERIALS LP Site ID: 15706	3RD ST & WATER ST	NNW 1/2 - 1 (0.693 mi.)	127	735

EXECUTIVE SUMMARY

Status: Active				
WESTVILLE BORO DPW	114 CROWN POINT RD	SSW 1/2 - 1 (0.724 mi.)	130	740
Site ID: 7716				
Status: Active				
CONTINENTAL BAKING C	45 GATEWAY BLVD	SSW 1/2 - 1 (0.728 mi.)	131	746
Site ID: 30824				
Status: Closed				
AMERICAN SERVICE CEN	11 DELSEA DR	SSW 1/2 - 1 (0.774 mi.)	132	751
Site ID: 7723				
Status: Active				
528 HIGHLAND AVENUE	528 HIGHLAND AVE	SW 1/2 - 1 (0.813 mi.)	136	754
Site ID: 169392				
Status: Closed				
GATEWAY GRAPHICS INC	165 BROADWAY	SSW 1/2 - 1 (0.815 mi.)	137	755
Site ID: 32929				
Status: Closed				
BELMAWR PUMP STATIO	CREEK RD & THOMPSON	S 1/2 - 1 (0.830 mi.)	138	755
Site ID: 10495				
Status: Closed				
307 WOODBINE AVENUE	307 WOODBINE AVE	SSW 1/2 - 1 (0.848 mi.)	140	761
Site ID: 64314				
Status: Closed				
225 CENTER STREET	225 CENTER AVE	S 1/2 - 1 (0.914 mi.)	147	772
Site ID: 75318				
Status: Closed				
BELMAWR BORO	CREEK RD & KARR DR	SSE 1/2 - 1 (0.916 mi.)	148	775
Site ID: 50290				
Status: Closed				
1004 MILLER AVENUE	1004 MILLER AVE	ENE 1/2 - 1 (0.971 mi.)	AH153	787
Site ID: 144185				
Status: Closed				
RON'S SERVICE STATIO	326 BROADWAY	SSW 1/2 - 1 (0.971 mi.)	154	791
Site ID: 44129				
Status: Closed				
Not reported	1008 MILLER AVE	ENE 1/2 - 1 (0.990 mi.)	AH156	798
Site ID: 645592				
Status: Closed				
201 WESTON AVENUE	201 WESTON AVE	E 1/2 - 1 (0.997 mi.)	AH157	801
Site ID: 514791				
Status: Closed				

NJ HWS RE-EVAL: The locations were removed from the Known Contaminated Sites list for a variety of reasons. Some of the sites were taken off the list because they were inactive, some were not assigned a case worker and some were no longer contaminated. Inspectors from the DEP are now undertaking a full re-evaluation of each of the locations statewide. That includes visual and environmental tests to see whether contamination still exists.

A review of the NJ HWS RE-EVAL list, as provided by EDR, and dated 09/20/2007 has revealed that there

EXECUTIVE SUMMARY

are 4 NJ HWS RE-EVAL sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOUTH JERSEY CONTAIN Facility Status: Assigned to RPIU. Under Investigation.	267 NEW FREEDOM NEW	SSW 1/8 - 1/4 (0.170 mi.)	27	144

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VANGUARD VINYL SIDIN Facility Status: Assigned to Lead Bureau.	CHARLES & WATER STS	NW 1/4 - 1/2 (0.481 mi.)	X102	670
PRODUCTS RESEARCH & Facility Status: Assigned to RPIU. Under Investigation.	410 JERSEY AVE	NNW 1/2 - 1 (0.582 mi.)	AE122	713
AMERICAN SERVICE CEN Facility Status: Assigned to RPIU. Under Investigation.	11 DELSEA DR	SSW 1/2 - 1 (0.774 mi.)	132	751

State and tribal leaking storage tank lists

NJ LUST: A listing of regulated Underground Storage Tanks that have a cleanup underway.

A review of the NJ LUST list, as provided by EDR, and dated 05/17/2021 has revealed that there are 5 NJ LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CARPENTER REALTY COR Case Id: 033070	549 S BROADWAY	0 - 1/8 (0.000 mi.)	A3	57
GLOU-PHILLPS 66 Case Id: 007859	174 S BROADWAY	N 1/4 - 1/2 (0.500 mi.)	AB107	679
MULTANI BROTHERS INC Case Id: 007859	174 S BROADWAY	N 1/4 - 1/2 (0.500 mi.)	AB109	680
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOKLAWN CITGO Case Id: 007247	299 CRESCENT BLVD S	S 1/4 - 1/2 (0.424 mi.)	S68	227
BROOKLAWN CIRCLE CON Case Id: 007247	299 CRESCENT BLVD S	S 1/4 - 1/2 (0.425 mi.)	S69	228

NJ HIST LUST: This listing is no longer updated or maintained by the DEP.

A review of the NJ HIST LUST list, as provided by EDR, and dated 09/17/2002 has revealed that there are 17 NJ HIST LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CARPENTER REALTY COR Case Id: 99-09-08-1519-03 Facility Status: Assigned to a Program	549 S BROADWAY	0 - 1/8 (0.000 mi.)	A3	57
DJB REALTY	522 S BROADWAY	N 0 - 1/8 (0.039 mi.)	B10	83

EXECUTIVE SUMMARY

Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
WALSH TRUCKING TERMI	920 CHARLES ST	NNW 1/8 - 1/4 (0.176 mi.)	F28	144
Case Id: 91-04-23-1651				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
D'QANDREA TIRE INC	100 NEW BROADWAY	SSW 1/4 - 1/2 (0.253 mi.)	K40	169
Case Id: 91-11-01-0858				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
D'ANDREA TIRE, INC	100 NEW BROADWAY	SSW 1/4 - 1/2 (0.253 mi.)	K42	174
Case Id: 90-06-05-0932				
Facility Status: Assigned to a Program				
MIDLANTIC PRECISION	940 MARKET ST	NE 1/4 - 1/2 (0.364 mi.)	53	187
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
BROOKLAWN SHOPPING	RT. 130 & KINGS HWY	SE 1/4 - 1/2 (0.380 mi.)	57	196
Case Id: 92-01-17-1547				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
NEW JERSEY BELL GLOU	1190 MARKET ST	NE 1/4 - 1/2 (0.398 mi.)	Q61	210
Case Id: 91-08-20-1509				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
STEVE PEDRICK CONSTR	800 MARKET ST	N 1/4 - 1/2 (0.428 mi.)	T72	233
Case Id: 95-02-14-1015				
Facility Status: Case Awaiting Assignment				
B & F TIRE REPAIR	RTE 130 S	ESE 1/4 - 1/2 (0.432 mi.)	W81	624
Case Id: 97-09-03-1001-47				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
UNIVERSAL MOTORS	1430 RTE 130	ESE 1/4 - 1/2 (0.452 mi.)	W88	634
Case Id: 92-08-19-0933				
Facility Status: Case Awaiting Assignment				
RT 130 SERVICE STATI	1430 RTE 130	ESE 1/4 - 1/2 (0.452 mi.)	W89	634
Case Id: 97-11-21-1105-19				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
HIGHLAND PARK APARTM	HUGHES AVE	ENE 1/4 - 1/2 (0.453 mi.)	90	636
Case Id: 93-05-26-0952				
Facility Status: Case Management Strategy				
GLOUCESTER CITY HIGH	CRESENT BLVD	E 1/4 - 1/2 (0.473 mi.)	98	646
Case Id: 92-01-03-0854				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
GLOU-PHILLPS 66	174 S BROADY	N 1/4 - 1/2 (0.483 mi.)	AB104	671
Case Id: 02-08-16-0827-04				
Facility Status: Case Awaiting Assignment				
Lower Elevation	Address	Direction / Distance	Map ID	Page
WORK SITE/TRAFFIC CI	RTE 130 OLD SALEM RD	S 1/4 - 1/2 (0.438 mi.)	82	625
Case Id: 94-03-31-1458				
Facility Status: Case Awaiting Assignment				
MERIT	BROOKLIN CIRCLE RTE	SSW 1/4 - 1/2 (0.466 mi.)	95	639
Case Id: 85-10-11-03S				
Facility Status: Assigned to a Program				

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

NJ UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Protection & Energy's UST Data.

A review of the NJ UST list, as provided by EDR, and dated 04/30/2021 has revealed that there are 7 NJ UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CARPENTER REALTY COR Facility Id: 033070 Tank Status: Removed	549 S BROADWAY	0 - 1/8 (0.000 mi.)	A3	57
WOODLAND OXYGEN CO Facility Id: 015914 Tank Status: Removed	560 S BROADWAY	0 - 1/8 (0.000 mi.)	A5	65
DJB REALTY Facility Id: 024827 Tank Status: Abandoned in Place	522 S BROADWAY	N 0 - 1/8 (0.039 mi.)	B10	83
CATHERINE RAGEN PROP Facility Id: 020414 Tank Status: Removed	860 CHARLES ST	NNW 1/8 - 1/4 (0.154 mi.)	F26	143
CARPENTERS SQUARE Facility Id: 173102 Tank Status: Removed	430 S BROADWAY	N 1/8 - 1/4 (0.189 mi.)	G31	151
HIGHLAND PARK APARTM Facility Id: 013639 Tank Status: Other	2 HUGHES AVE	ENE 1/8 - 1/4 (0.204 mi.)	H35	160
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOKLAWN BORO PUBLI Facility Id: 012128 Tank Status: Removed	HAAKON RD	SSW 1/8 - 1/4 (0.246 mi.)	J39	167

State and tribal institutional control / engineering control registries

NJ ENG CONTROLS: Legal Document that restricts the use of contaminated property; holds owner(s) to the regulatory/statutory requirements for cleanup.

A review of the NJ ENG CONTROLS list, as provided by EDR, and dated 02/24/2021 has revealed that there are 6 NJ ENG CONTROLS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
INTERSTATE PALLET CO	541 BRICK ST	NW 0 - 1/8 (0.083 mi.)	D15	91
BROOKLAWN BORO PUBLI	101 SOUTH NEW BROADW	SSW 1/4 - 1/2 (0.259 mi.)	J43	174
GLOUCESTER CITY TITA	851 WATER ST	WNW 1/4 - 1/2 (0.432 mi.)	V80	496
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RIVERPOINTE HOLDINGS	600 JERSEY AVE	NNW 1/4 - 1/2 (0.430 mi.)	P73	233

EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GLOUCESTER COAL GAS	JERSEY AVE & 6TH ST	NNW 1/4 - 1/2 (0.431 mi.)	P79	438
GAF CORP - GLOUCESTER	WATER & CHARLES ST	NW 1/4 - 1/2 (0.481 mi.)	X100	647

NJ INST CONTROL: Sites where engineering and/or institutional controls remain in place as part of a remedial action to address soil and/or groundwater contamination. These restrictions ensure protection of human health and the environment as long as they are maintained.

A review of the NJ INST CONTROL list, as provided by EDR, and dated 02/24/2021 has revealed that there are 6 NJ INST CONTROL sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIQUID CARBONIC SPEC	560 S BROADWAY	0 - 1/8 (0.000 mi.)	A2	53
D'ANDREA TIRE INC	100 NEW BROADWAY	SSW 1/4 - 1/2 (0.253 mi.)	K41	169
BROOKLAWN BORO PUBLI	101 SOUTH NEW BROADW	SSW 1/4 - 1/2 (0.259 mi.)	J43	174
GLOUCESTER CITY TITA	851 WATER ST	WNW 1/4 - 1/2 (0.432 mi.)	V80	496
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RIVERPOINTE HOLDINGS	600 JERSEY AVE	NNW 1/4 - 1/2 (0.430 mi.)	P73	233
GLOUCESTER COAL GAS	JERSEY AVE & 6TH ST	NNW 1/4 - 1/2 (0.431 mi.)	P79	438

State and tribal voluntary cleanup sites

NJ VCP: Through the VCP, responsible parties, developers, local officials, or individuals may work with the department to remediate non-priority contaminated sites that pose no immediate threat to human health or the environment.

A review of the NJ VCP list, as provided by EDR, and dated 01/12/2018 has revealed that there are 8 NJ VCP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
INTERSTATE PALLET CO Incident Number: 07-04-10-0001-49	541 BRICK ST	NW 0 - 1/8 (0.083 mi.)	D15	91
CARPENTERS SQUARE (F) Incident Number: 03-01-15-1236-03	430 S BROADWAY	N 1/8 - 1/4 (0.189 mi.)	G32	153
209 5TH STREET Incident Number: 01-08-30-1633-37	209 5TH ST	SE 1/8 - 1/4 (0.225 mi.)	I38	165
SAINT MAURICE PARISH Incident Number: 03-05-07-1536-31	401 COMMUNITY RD	SSE 1/4 - 1/2 (0.374 mi.)	M55	193
EMPIRE VENDING INCOR Incident Number: 97-05-01-0531-06 Incident Number: 97-05-01-0531-06A	610 CHERRY ST	NNW 1/4 - 1/2 (0.415 mi.)	P66	222
AMSPEC CHEMICAL COMP GLOUCESTER POINT, IN Incident Number: 05-05-25-0030-34	751 WATER ST 707 WATER ST	WNW 1/4 - 1/2 (0.430 mi.) NW 1/4 - 1/2 (0.468 mi.)	U76 AA97	412 643
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
231 NANSEN AVENUE	231 NANSEN AVE	S 1/4 - 1/2 (0.382 mi.)	O58	198

EXECUTIVE SUMMARY

Incident Number: 06-04-13-1037-40

State and tribal Brownfields sites

NJ BROWNFIELDS: Brownfields are identified as former or current commercial or industrial use sites that are presently vacant or underutilized, on which there is suspected to have been a discharge of a contamination to the soil or groundwater at concentrations greater than applicable cleanup criteria.

A review of the NJ BROWNFIELDS list, as provided by EDR, and dated 03/26/2020 has revealed that there are 22 NJ BROWNFIELDS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIQUID CARBONIC SPEC PStatus: DEP Case	560 S BROADWAY	0 - 1/8 (0.000 mi.)	A2	53
CARPENTER REALTY COR PStatus: DEP Case	549 S BROADWAY	0 - 1/8 (0.000 mi.)	A3	57
FORMER SEWAGE TREATM PStatus: Pending Redevelopment	FOOT OF BRICK STREET	NNW 0 - 1/8 (0.045 mi.)	B11	84
GLOUCESTER CITY WWTP PStatus: DEP Case	BRICK ST	WNW 0 - 1/8 (0.078 mi.)	C13	86
INTERSTATE PALLET CO PStatus: DEP Case	541 BRICK ST	NW 0 - 1/8 (0.083 mi.)	D15	91
ELM STREET-BLOOM BUI PStatus: Incomplete	ELM STREET & NINTH S	NNW 1/8 - 1/4 (0.128 mi.)	F23	133
CATHERINE RAGEN PROP PStatus: DEP Case	860 CHARLES ST	NNW 1/8 - 1/4 (0.154 mi.)	F25	139
D'ANDREA TIRE INC PStatus: DEP Case	100 NEW BROADWAY	SSW 1/4 - 1/2 (0.253 mi.)	K41	169
BROOKLAWN BORO DPW PStatus: DEP Case	HAAKON RD & CHRISTIA	SSE 1/4 - 1/2 (0.332 mi.)	50	182
ARCO LOT PStatus: Pending Receipt of Waiver	WATER STREET	WNW 1/4 - 1/2 (0.379 mi.)	N56	194
EMPIRE VENDING INCOR PStatus: Incomplete	610 CHERRY ST	NNW 1/4 - 1/2 (0.415 mi.)	P66	222
TOP ENTERPRICES LLC PStatus: DEP Case	CRESCENT BLVD & BROO	SSE 1/4 - 1/2 (0.419 mi.)	67	225
AMSPEC CHEMICAL CORP PStatus: Pending Receipt of Waiver	751 WATER STREET	WNW 1/4 - 1/2 (0.430 mi.)	U75	408
GLOUCESTER CITY TITA PStatus: Pending Receipt of Waiver	851 WATER ST	WNW 1/4 - 1/2 (0.432 mi.)	V80	496
GLOUCESTER POINT, IN PStatus: Pending Receipt of Waiver	707 WATER ST	NW 1/4 - 1/2 (0.468 mi.)	AA97	643
FORMER POPCORN FACIL PStatus: Incomplete	516 HUNTER ST.	NNW 1/4 - 1/2 (0.494 mi.)	AC105	676
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FORMER EMPIRE VENDIN	601-605 JERSEY AVE.	NNW 1/4 - 1/2 (0.397 mi.)	P59	199

EXECUTIVE SUMMARY

PStatus: Incomplete					
SHELL SERVICE STATIO	505 CRESCENT BLVD	SSE 1/4 - 1/2 (0.406 mi.)	R63	218	
PStatus: DEP Case					
FORMER PSE&G	JERSEY AVE & SIXTH S	NNW 1/4 - 1/2 (0.431 mi.)	P77	432	
PStatus: Incomplete					
PSE&G GLOUCESTER COA	6TH ST & JERSEY AVE	NNW 1/4 - 1/2 (0.431 mi.)	P78	434	
PStatus: DEP Case					
FORMER ANKLE INN	709 WATER STREET	NW 1/4 - 1/2 (0.445 mi.)	X85	629	
PStatus: Available for Redevelopment					
GAF BUILDING MATERIA	CHARLES ST & WATER S	NW 1/4 - 1/2 (0.481 mi.)	X101	666	
PStatus: DEP Case					

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 03/15/2021 has revealed that there is 1 US BROWNFIELDS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VIACOM/GULF & WESTER ACRES property ID: 14702 Cleanup Completion Date: -	851 WATER STREET	WNW 1/4 - 1/2 (0.442 mi.)	V84	627

Local Lists of Landfill / Solid Waste Disposal Sites

NJ HIST LF: Old or non-permitted solid waste facilities/landfills that are not included in the current solid waste facilities/landfills database.

A review of the NJ HIST LF list, as provided by EDR, has revealed that there are 3 NJ HIST LF sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
IDM ENVIRON CORP Database: HIST LF, Date of Government Version: 06/10/2003 Facility Status: NOT OPERATING Facility Id: 0414001318	WATER STREET	WNW 1/4 - 1/2 (0.455 mi.)	Z92	639
GLOUCESTER CITY DEMO Database: HIST LF, Date of Government Version: 06/10/2003 Facility Status: NOT OPERATING Facility Id: 0414001274	WATER STREET	WNW 1/4 - 1/2 (0.455 mi.)	Z93	639
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GASKILL-BROOKLAWN LA Database: HIST LF, Date of Government Version: 06/10/2003	BROOKLAWN CIRCLE & T	SSW 1/4 - 1/2 (0.275 mi.)	J45	178

EXECUTIVE SUMMARY

Facility Status: CLOSED
Facility Id: 0407000205

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/22/2021 has revealed that there are 5 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
EAST COAST COLLISION EPA ID:: NJD981559743	609 NEW BROADWAY	0 - 1/8 (0.000 mi.)	6	68
GLOUCESTER IRON & ME EPA ID:: NJD067387175	BRICK & STINSMAN ST	N 0 - 1/8 (0.026 mi.)	B7	71
DANTES AUTO BODY EPA ID:: NJD980768998	502 NEW BROADWAY	S 0 - 1/8 (0.034 mi.)	9	79
ACME STORE 1168 EPA ID:: NJD982278137	445 S BROADWAY	N 0 - 1/8 (0.119 mi.)	E21	129
TELAIR INTERNATIONAL EPA ID:: NJR000038448	860 CHARLES ST	NNW 1/8 - 1/4 (0.154 mi.)	F24	135

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PHILADELPHIA NAVAL B		WNW 1/2 - 1 (0.987 mi.)	0	8

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 04/27/2021 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WELSBACH & GENERAL G EPA ID:: NJD986620995	6 AREAS IN CAMDEN AN	NE 1/2 - 1 (0.740 mi.)	0	8

EXECUTIVE SUMMARY

NJ HIST MAJOR FACILITIES: 'Major Facility' means all facilities, located on one or more contiguous or adjacent properties owned or operated by the same person, having total combined storage capacity of: 1) 20,000 gallons or more for hazardous substances other than Petroleum or petroleum products; 2) 200,000 gallons or more for hazardous substances of all kinds. This file contains detail information that is no longer available by the Department of Environmental Protection due to security concerns.

A review of the NJ HIST MAJOR FACILITIES list, as provided by EDR, and dated 01/02/2002 has revealed that there is 1 NJ HIST MAJOR FACILITIES site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AMSPEC CHEMICAL CORP Facility Id: 041400091000	751 WATER STREET	WNW 1/4 - 1/2 (0.430 mi.)	U75	408

NJ ISRA: The ISRA process begins with determining if the Act applies to your type of business and transaction. The provisions of ISRA only apply to industrial establishments. What is an industrial establishment? The term "industrial establishment" refers to the type of business operations and transactions that would subject a facility to review under ISRA. An industrial establishment must meet each of the following three criteria: The place of business or real property at which such business is conducted, having a North American Industry Classification System (NAICS) code listed in N.J.A.C. 7:26 B - Appendix C subject to the specified exceptions and limitations. The place of business must have been engaged in operations on or after December 31, 1983; and The place of business must involve the generation, manufacture, refining, transportation, treatment, storage, handling, or disposal of hazardous substances or hazardous wastes.

A review of the NJ ISRA list, as provided by EDR, and dated 03/29/2021 has revealed that there are 10 NJ ISRA sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIQUID CARBONIC SPEC Pi Number: G000013534 Case Status: Assigned to Program Case Status: LSRP Oversight	560 SOUTH BROADWAY	0 - 1/8 (0.000 mi.)	A1	51
SCHILLINGER METAL SP Pi Number: G000014420 Case Status: NFA (No Further Action) HISTORIC	937 JERSEY AVENUE	N 0 - 1/8 (0.105 mi.)	E17	96
AFL QUALITY INCORPOR Pi Number: G000035748 Case Status: NFA-E (Unrestricted Use)	716 JERSEY AVENUE	NNW 1/4 - 1/2 (0.332 mi.)	49	181
ESTATE OF LEO A RITC Pi Number: 019584 Case Status: NFA (No Further Action) HISTORIC	1331 CRESCENT BLVD	E 1/4 - 1/2 (0.451 mi.)	Y86	632
1325 ROUTE 130 ASSOC Pi Number: 593410 Case Status: Assigned to Program Case Status: Exempt from ECRA/ISRA	1325 CRESCENT BLVD	E 1/4 - 1/2 (0.483 mi.)	Y103	670

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DYER STORE FIXTURES Pi Number: G000042421 Case Status: NFA-E (Entire Site) HISTORIC	8TH AND CHARLES STRE	NW 1/4 - 1/2 (0.297 mi.)	L46	178
RIVERPOINTE HOLDINGS	7TH AND CHARLES STRE	NW 1/4 - 1/2 (0.346 mi.)	L51	185

EXECUTIVE SUMMARY

Pi Number: 026872

Case Status: NFA (No Further Action) HISTORIC

RCA SERVICE COMPANY	375 CRESCENT BOULEVA	S 1/4 - 1/2 (0.409 mi.)	O65	221
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Pi Number: G000014251

Case Status: NFA (No Further Action) HISTORIC

VANGUARD VINYL SIDIN	CHARLES AND WATER ST	NW 1/4 - 1/2 (0.481 mi.)	X99	646
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Pi Number: G000006282

Case Status: Withdrawn from ECRA/ISRA

GAF CORP - GLOUCESTE	WATER & CHARLES ST	NW 1/4 - 1/2 (0.481 mi.)	X100	647
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Pi Number: 005843

Case Status: NFA (Restricted Use) HISTORIC

NJ MANIFEST: Hazardous waste manifest information.

A review of the NJ MANIFEST list, as provided by EDR, and dated 12/31/2018 has revealed that there is 1 NJ MANIFEST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CVS PHARMACY #0864 EPA Id: NJR986630887	455 S BROADWAY	N 0 - 1/8 (0.114 mi.)	E18	96

PA MANIFEST: Hazardous waste manifest information.

A review of the PA MANIFEST list, as provided by EDR, and dated 06/30/2018 has revealed that there is 1 PA MANIFEST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CVS PHARMACY 0864 Generator EPA Id: NJR986630887	455 S BROADWAY	N 0 - 1/8 (0.114 mi.)	E20	127

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, and dated 01/01/2019 has revealed that there are 2 NY MANIFEST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GLOUCESTER IRON & ME EPA ID: NJD067387175	BRICK & STINSMAN ST	N 0 - 1/8 (0.026 mi.)	B7	71
GLOUCESTER ELDERLY H EPA ID: NJR000045021	430 S BROADWAY	N 1/8 - 1/4 (0.189 mi.)	G30	145

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GLOUCESTER COAL GAS	JERSEY AVE AND SIXTH	NNW 1/4 - 1/2 (0.458 mi.)	94	639

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RUTTER HOWARD J	558 S BROADWAY	0 - 1/8 (0.000 mi.)	A4	64
LETZGUS GEO F	532 S BROADWAY	N 0 - 1/8 (0.032 mi.)	B8	78

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 2 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DWYN CHAR INC	518 SOUTH BROADWAY	N 0 - 1/8 (0.053 mi.)	B12	86
SOUTH JERSEY AUTOMAT	456 S BROADWAY	N 0 - 1/8 (0.121 mi.)	22	133

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 89 records.

Site Name	Database(s)
B&F TIRE REPAIR	NJ SHWS, NJ NJEMS
30 RAILROAD AVENUE	NJ SHWS, NJ NJEMS
SGT SCRAP	NJ SHWS, NJ NJEMS
RIGGINS TRANSPORT MVA	NJ SHWS, NJ NJEMS
BROOKLAWN CONOCO	NJ SHWS, NJ LUST, NJ INST CONTROL
BROOKLAWN CIRCLE CONOCO	NJ SHWS, NJ INST CONTROL
GLOU-PHILLPS 66	NJ SHWS
CUMBERLAND ST	NJ SHWS
FERNWOOD AVE @ CRESCENT MOBILE HOM	NJ SHWS
HUNTER STREET SCHOOL	NJ SHWS
FORMER RUG FACTORY	NJ SHWS
GLOUCESTER CITY TITANIUM CO INC	NJ SHWS
ATLANTIC RICHFIELD COMPANY	NJ SHWS
SHELL SERVICE STATION 138363	NJ SHWS
59823 COLLINGSWOOD FUELS	NJ SHWS
ALLIANCE VINYL WINDOWS CO INC	NJ SHWS, NJ LUST, NJ Release, NJ Financial Assurance
HADDON TRANSMISSION	NJ SHWS
59850 HADDON HEIGHTS FUELS	NJ SHWS
217 HADDON AVENUE AND 218 HIGHLAND	NJ SHWS
HADDON TWP HIGH SCHOOL	NJ SHWS, NJ SPILLS
HADDON TRANSMISSION	NJ SHWS
1 WEST PARK AVENUE	NJ SHWS
401 WILSON AVENUE	NJ SHWS
MOUNT EPHRAIM EXXON NJ 0073	NJ SHWS, NJ ENG CONTROLS, NJ INST CONTROL
PACKER AVENUE MARINE TERM	PA SHWS, PA LUST
CENTERVILLE REVITALIZATION	NJ ENG CONTROLS, NJ VCP
CAMDEN COUNTY MUA PUMP STATION	NJ VCP
VACANT LOTS	NJ VCP
SOUTHPORT REDEVELOPMENT AREA	NJ VCP
RAILROAD & VA PROPERTY	NJ VCP
FORMER HUNTER STREET SCHOOL	NJ VCP
GLOUCESTER CITY JR. SR. H. S	SEMS-ARCHIVE, RCRA-VSQG, NJ MANIFEST
HOFSTEDER-LANDMARK	NJ SWF/LF
MACANDREWS & FORBES CO	NJ UST, NJ SPILLS, NJ Release
BROADWAY TERMINAL	NJ SPILLS, NJ Release
BARBER SHOP & LIPKINS PHARM	NJ Release
AREA OF	NJ Release
INCINERATOR AT:	NJ Release
IN AREA OF	NJ Release
IN THE AREA OF	NJ Release
DELMONTE TERM PIER 5	NJ Release
PATH TERMINAL	NJ Release
AREA OF	NJ Release
SOUTH JERSEY PORT	NJ Release
BETWEEN MORGAN BLVD & CHELTON	NJ Release
AREA OF NEWTON CREEK BRIDGE	NJ Release
CO GENERATION PLANT	NJ Release
CO GEN TECH	NJ Release
UNKNOWN NAME COMPANY/CORNER	NJ Release
CAMCORE TRANSMISSIONS	NJ Release

EXECUTIVE SUMMARY

HOLP CORP.(STORAGE AREA)

TRANS OCEAN TERMINAL

GLOUCESTER MARINE TERMINAL

AIRCO

GLOUCESTER IRON & METAL

AREA OF

GLOUCESTER WTR/SA

TRANS OCEAN FACILITY

GLOUCESTER MARINA TERMINAL

TRUCK TRAILERS (BOX CARS)

WOODLYN OXYGEN

IN AREA OF

ON ROADWAY

IN THE AREA OF

AREA OF

INACTIVE SERVICE STATION

AREA OF

AMSPEC CHEMICAL COMPANY

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

NJ Release

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NJ Release

NJ Release

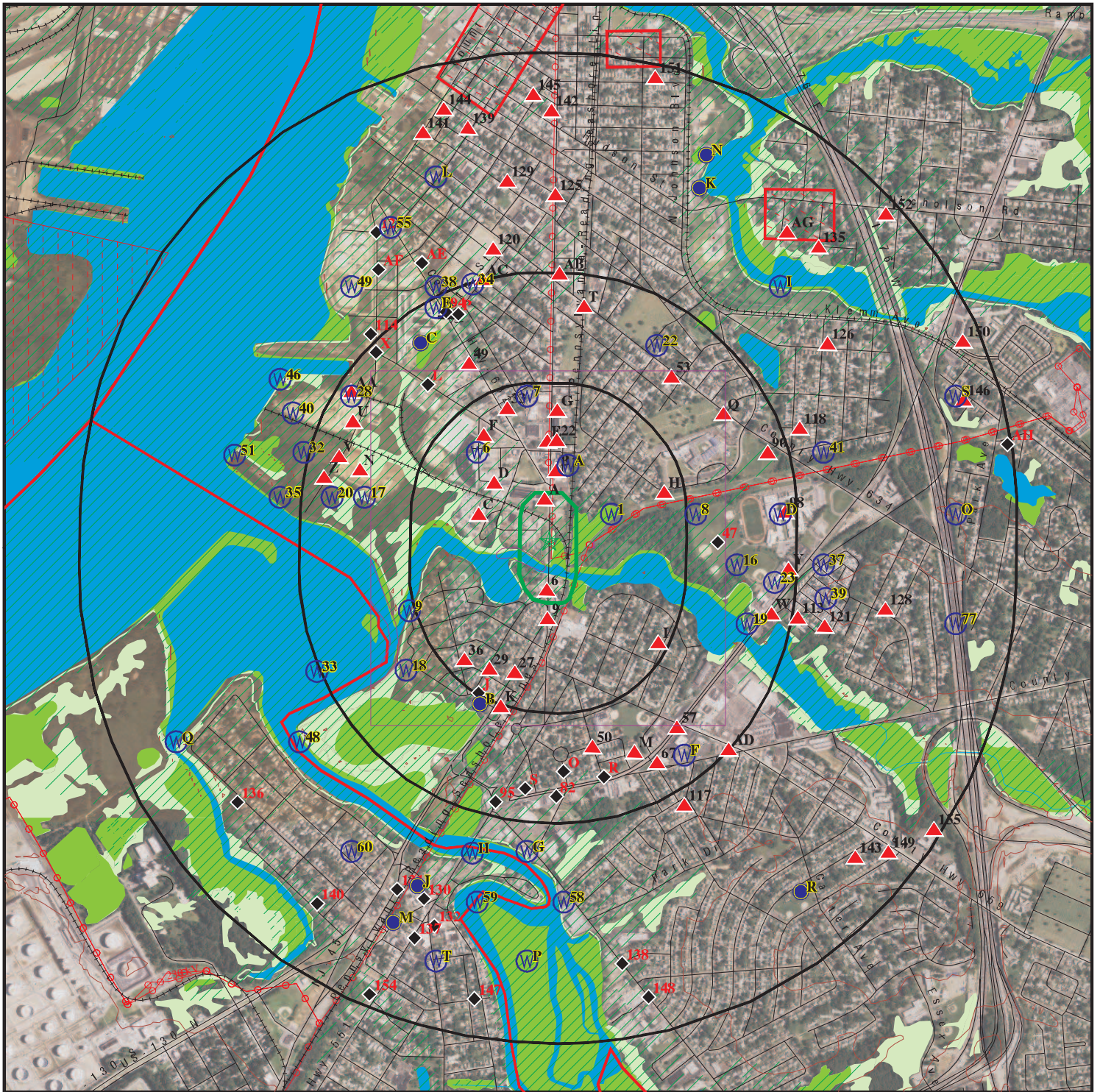
NJ Release

NJ Release

NJ Release

NJ HWS RE-EVAL

OVERVIEW MAP - 6614630.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

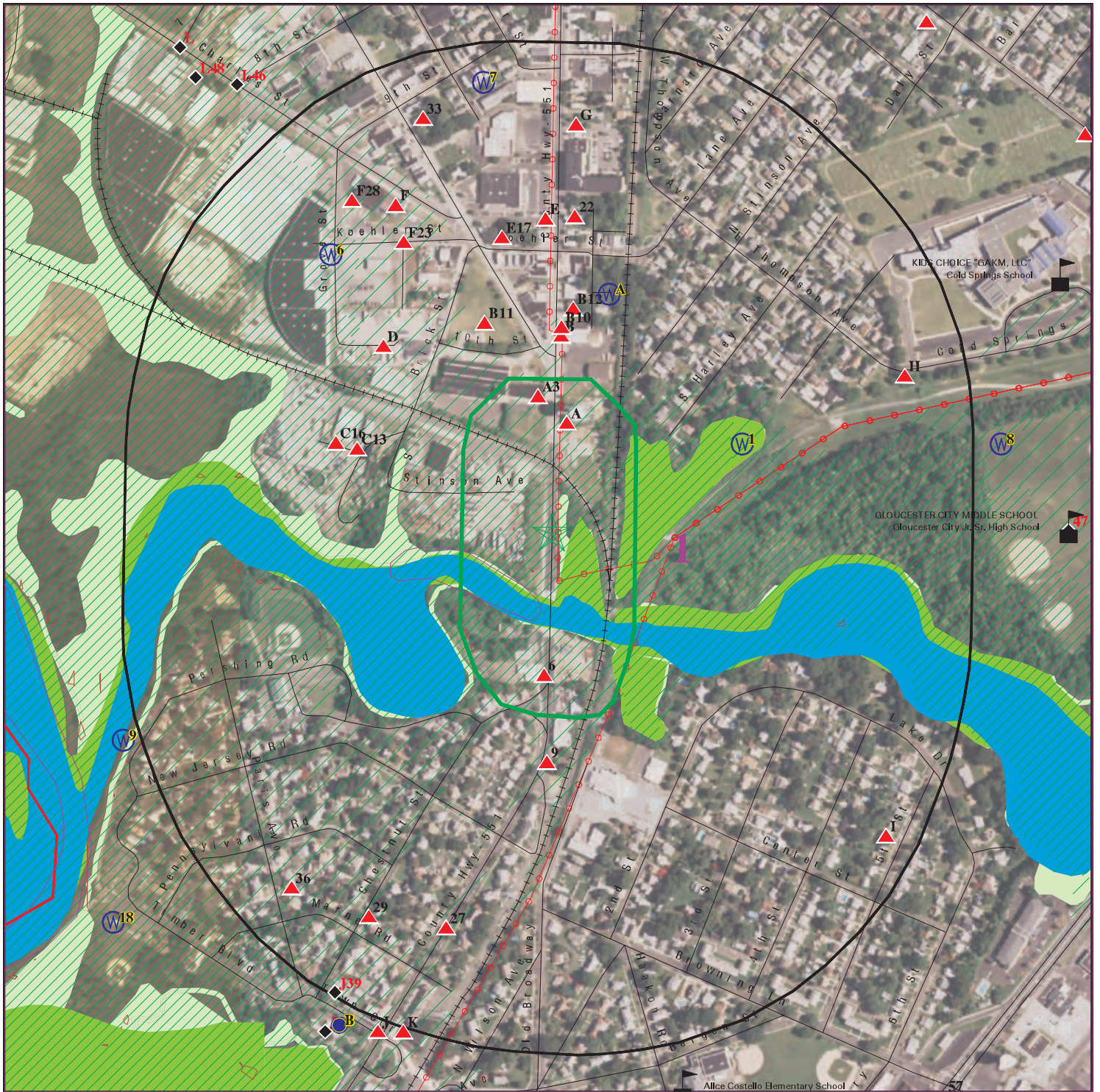
0 1/4 1/2 1 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: DVRPC CR 511 Broadway LCD - Project Site 1
ADDRESS: 633 Broadway Turnpike
Gloucester City NJ 08030
LAT/LONG: 39.884177 / 75.120614

CLIENT: Michael Baker Jr. Inc.
CONTACT: Ashley Sidhu
INQUIRY #: 6614630.2s
DATE: August 10, 2021 5:10 pm

DETAIL MAP - 6614630.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

0 1/16 1/8 1/4 Miles

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: DVRPC CR 511 Broadway LCD - Project Site 1
ADDRESS: 633 Broadway Turnpike
Gloucester City NJ 08030
LAT/LONG: 39.884177 / 75.120614

CLIENT: Michael Baker Jr. Inc.
CONTACT: Ashley Sidhu
INQUIRY #: 6614630.2s
DATE: August 10, 2021 5:13 pm

Study Area 2

DVRPC CR 511 Broadway LCD - Study Area 2

2 S New Broadway
Gloucester City, NJ 08030

Inquiry Number: 6614661.2s
August 10, 2021

The EDR Radius Map™ Report with GeoCheck®



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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

2 S NEW BROADWAY
GLOUCESTER CITY, NJ 08030

COORDINATES

Latitude (North):	39.8780000 - 39° 52' 40.80"
Longitude (West):	75.1236100 - 75° 7' 24.99"
Universal Transverse Mercator:	Zone 18
UTM X (Meters):	489429.7
UTM Y (Meters):	4414014.0
State Plane X (Feet):	317118.9
State Plane Y (Feet):	381087.8
Elevation:	18 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6035311 CAMDEN, NJ
Version Date:	2014
Southeast Map:	6035327 RUNNEMEDE, NJ
Version Date:	2014
Southwest Map:	6035505 WOODBURY, NJ
Version Date:	2014
Northwest Map:	5947577 PHILADELPHIA, PA
Version Date:	2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20150725, 20150816
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
2 S NEW BROADWAY
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	D'ANDREA TIRE, INC	100 NEW BROADWAY	NJ HIST LUST	Higher	1 ft.
A2	BROOKLAWN BORO PUBLI	101 NEW BROADWAY	NJ SHWS	Higher	1 ft.
A3	READERS AUTO ACCESSO	100 NEW BROADWAY	EDR Hist Auto	Higher	1 ft.
A4	D'ANDREA TIRE INC	100 NEW BROADWAY	NJ SHWS, NJ HIST HWS, NJ UST, NJ INST CONTROL, NJ...	Higher	1 ft.
A5	BROOKLAWN DRY CLEANE	104 NEW BROADWAY	EDR Hist Cleaner	Higher	1 ft.
A6	BROOKLAWN BORO PUBLI	101 SOUTH NEW BROADW	NJ ENG CONTROLS, NJ INST CONTROL	Higher	1 ft.
A7	D'QANDREA TIRE INC	100 NEW BROADWAY	NJ HIST LUST	Higher	1 ft.
B8	GASKILL-BROOKLAWN LA	BROOKLAWN CIRCLE & T	NJ HIST LF	Higher	1 ft.
A9	READER JOHN L	100 NEW BROADWAY	EDR Hist Auto	Higher	1 ft.
B10	BROOKLAWN BORO PUBLI	HAAKON RD	NJ HIST HWS, NJ UST	Higher	1 ft.
11	GARAGE EQUIPMENT SA	226 CHESTNUT AVE	NJ SHWS, NJ NJEMS	Higher	98, 0.019, North
12	SOUTH JERSEY CONTAIN	267 NEW FREEDOM NEW	NJ HWS RE-EVAL	Higher	191, 0.036, NNE
C13	C & G AUTO BODY	RTE 130 & BROOKLAWN	RCRA NonGen / NLR	Lower	204, 0.039, SSE
C14	MERIT	BROOKLIN CIRCLE RTE	NJ HIST LUST	Lower	244, 0.046, SSE
15		202 PARIS AVE	NJ SHWS, NJ Release	Higher	302, 0.057, NNW
C16	SOUTH JERSEY BODY SH	218 CRESCENT BLVD RT	RCRA-VSQG	Lower	349, 0.066, South
17	HESS CORP STATION #3	342 BROOKLAWN CIRCLE	NJ HIST HWS, NJ LUST, NJ UST, NJ Release, NJ...	Lower	383, 0.073, SSW
D18		299 CRESCENT BLVD	NJ SHWS, NJ Release	Lower	440, 0.083, SE
D19	BROOKLAWN CITGO	299 CRESCENT BLVD	EDR Hist Auto	Lower	440, 0.083, SE
D20	BROOKLAWN CIRCLE CON	299 CRESCENT BLVD S	NJ LUST	Lower	440, 0.083, SE
D21	BROOKLAWN CITGO	299 CRESCENT BLVD S	NJ HIST HWS, NJ LUST	Lower	485, 0.092, SE
D22	MOBIL - B & L FRIEND	RTE 130 & HORTON RD	RCRA NonGen / NLR, US AIRS	Lower	496, 0.094, SSE
E23	SALS CLEANERS	150 W BROWNING RD	EDR Hist Cleaner	Higher	536, 0.102, NE
E24	BELMAR SANCO	168 BROWNING RD	EDR Hist Auto	Higher	548, 0.104, ENE
25	ALICE COSTELLO ELEME	HAAKON RD & BERGEN S	NJ UST	Higher	712, 0.135, East
F26	231 NANSEN AVENUE	231 NANSEN AVE	NJ SHWS, NJ VCP	Higher	730, 0.138, ESE
F27	RCA SERVICE COMPANY	375 CRESCENT BOULEVA	NJ ISRA	Lower	781, 0.148, ESE
28	WORK SITE/TRAFFIC CI	RTE 130 OLD SALEM RD	NJ HIST LUST	Lower	808, 0.153, SE
F29	NJDOT ROUTE 130 BROO	OLD SALEM PIKE & ROU	NJ UST	Lower	862, 0.163, SE
30	BROOKLAWN BORO DPW	HAAKON RD & CHRISTIA	NJ BROWNFIELDS, NJ NJEMS	Higher	891, 0.169, East
31	CONTINENTAL BAKING C	45 GATEWAY BLVD	NJ HIST LUST	Lower	921, 0.174, SSW
32	DANTES AUTO BODY	502 NEW BROADWAY	RCRA NonGen / NLR	Higher	947, 0.179, NNE
33	MATERIAL HANDLING SU	CREEK RD & OLD SALEM	RCRA NonGen / NLR	Lower	1001, 0.190, SSE
G34	59451	501 CRESCENT BLVD	NJ SHWS, NJ NJEMS	Lower	1174, 0.222, ESE
G35	SHELL SERVICE STATIO	505 CRESCENT BLVD	NJ BROWNFIELDS	Lower	1182, 0.224, ESE
36	EAST COAST COLLISION	609 NEW BROADWAY	RCRA NonGen / NLR	Higher	1240, 0.235, NNE
H37	DOWNTOWN WESTVILLE R	HISTORIC TOWN CENTER	NJ BROWNFIELDS	Lower	1293, 0.245, SSW
H38	WESTVILLE BORO DPW	114 CROWN POINT RD	NJ SHWS, NJ HIST HWS, NJ LUST, NJ UST, NJ INST...	Lower	1344, 0.255, SSW
H39	MUNICIPAL GARAGE	114 CROWN POINT RD	NJ HIST LUST	Lower	1344, 0.255, SSW

MAPPED SITES SUMMARY

Target Property Address:
2 S NEW BROADWAY
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
40	CONTINENTAL BAKING C	45 GATEWAY BLVD	NJ SHWS, NJ UST, RCRA NonGen / NLR	Lower	1374, 0.260, SSW
I41	SAINT MAURICE PARISH	401 COMMUNITY RD	NJ VCP	Higher	1394, 0.264, East
I42	SAINT MAURICES CHURC	401 COMMUNITY RD	NJ SHWS, NJ Release	Higher	1394, 0.264, East
H43	FRANKLIN ELECTRIC CO	110 BROADWAY	NJ VCP	Lower	1483, 0.281, SSW
J44	AMERICAN SERVICE CEN	11 DELSEA DR	NJ LUST	Lower	1609, 0.305, SSW
J45	AMERICAN SERVICE CEN	11 DELSEA DR	NJ SHWS, NJ HWS RE-EVAL, NJ HIST LUST	Lower	1609, 0.305, SSW
46	TOP ENTERPRICES LLC	CRESCENT BLVD & BROO	NJ BROWNFIELDS	Higher	1688, 0.320, East
47	WILLIAM HARGROVE MAR	1210 CREEK RD	NJ HIST LUST, NJ AIRS, NJ NPDES	Lower	1702, 0.322, SSE
J48	GATEWAY GRAPHICS INC	165 BROADWAY	NJ ISRA	Lower	1783, 0.338, SSW
K49	209 5TH STREET	209 5TH ST	NJ SHWS, NJ HIST HWS	Higher	1786, 0.338, ENE
K50	209 5TH STREET	209 5TH ST	NJ VCP, NJ NJEMS, NJ SPILLS	Higher	1786, 0.338, ENE
L51	GATEWAY GRAPHICS INC	165 BROADWAY	NJ SHWS	Lower	1822, 0.345, SSW
52	BROOKLAWN SHOPPING	RT. 130 & KINGS HWY	NJ HIST LUST, NJ Release	Higher	1837, 0.348, East
M53	GLOUCESTER CITY WWTP	BRICK ST	NJ HIST HWS, NJ BROWNFIELDS	Higher	1920, 0.364, North
N54	MURPHY'S TAVERN	212 CROWN POINT RD	NJ HIST LUST, NJ UST	Lower	1932, 0.366, SSW
M55	GLOUCESTER CITY DPW	615 BRICK ST	NJ SHWS, NJ NJEMS	Higher	1945, 0.368, North
L56	MILLER STUDIO	158 BROADWAY	NJ NJEMS, NJ ISRA	Lower	1983, 0.376, SSW
57	307 WOODBINE AVENUE	307 WOODBINE AVE	NJ SHWS, NJ NJEMS, FINDS	Lower	2019, 0.382, SW
58	LARC SCHOOL	CREEK ROAD & PARK DR	NJ HIST LUST, NJ UST	Lower	2029, 0.384, SSE
N59	SAINT ANNE'S CHURCH	RTE 130 & HIGHLAND A	NJ HIST LUST	Lower	2040, 0.386, SSW
O60	LIQUID CARBONIC SPEC	560 SOUTH BROADWAY	NJ ISRA	Higher	2177, 0.412, NNE
O61	LIQUID CARBONIC SPEC	560 S BROADWAY	NJ SHWS, NJ HIST HWS, NJ INST CONTROL, NJ...	Higher	2177, 0.412, NNE
62	1144 HOWARD AVENUE	1144 HOWARD AVE	NJ SHWS, NJ VCP, NJ NJEMS, NJ Release	Higher	2182, 0.413, ESE
O63	CARPENTER REALTY COR	549 S BROADWAY	NJ SHWS, NJ HIST HWS, NJ LUST, NJ HIST LUST, NJ...	Higher	2239, 0.424, NNE
P64	528 HIGHLAND AVENUE	528 HIGHLAND AVE	NJ VCP, NJ Release	Higher	2277, 0.431, WSW
P65	528 HIGHLAND AVENUE	528 HIGHLAND AVE	NJ SHWS, NJ HIST HWS, NJ NJEMS	Higher	2277, 0.431, WSW
Q66	INTERSTATE PALLET CO	541 BRICK ST	NJ ENG CONTROLS, NJ VCP, NJ BROWNFIELDS	Higher	2324, 0.440, North
Q67	INTERSTATE PALLET CO	541 BRICK ST	NJ SHWS, NJ Release	Higher	2324, 0.440, North
68	WESTVILLE FIRE DEPAR	BROADWAY&CENTER ST.	NJ HIST LUST	Lower	2366, 0.448, SSW
69	225 CENTER STREET	225 CENTER AVE	NJ SHWS, NJ BROWNFIELDS	Lower	2443, 0.463, South
70	FORMER SEWAGE TREATM	FOOT OF BRICK STREET	NJ BROWNFIELDS	Higher	2463, 0.466, North
R71	RAMA PETROLEUM	3528 KINGS HWY	NJ SHWS	Higher	2488, 0.471, East
72	DJB REALTY	522 S BROADWAY	NJ HIST LUST, NJ UST	Higher	2525, 0.478, NNE
73	RON'S SERVICE STATIO	326 BROADWAY	NJ SHWS, NJ HIST LUST, NJ UST	Lower	2656, 0.503, SSW
R74	CW CLARKE CAR DEALER	BROWNING LN & KINGS	NJ SHWS, NJ UST	Higher	2662, 0.504, East
R75	AMOCO SERVICE STATIO	KINGS HWY & BROWNING	NJ SHWS, NJ NJEMS, FINDS	Higher	2662, 0.504, East
76	BELLMAWR PUMP STATIO	CREEK RD & THOMPSON	NJ SHWS, NJ UST, NJ BROWNFIELDS	Lower	2693, 0.510, SSE
77	CATHERINE RAGEN PROP	860 CHARLES ST	NJ SHWS, NJ HIST HWS, NJ BROWNFIELDS	Higher	2878, 0.545, North
S78	G&W NATURAL RESOURCE	FOOT OF WATER ST	SEMS, CORRACTS, RCRA NonGen / NLR	Higher	2904, 0.550, NNW

MAPPED SITES SUMMARY

Target Property Address:
2 S NEW BROADWAY
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
79	FORMER HIGHLAND PARK	2 HUGHES AVE	NJ SHWS, NJ SPILLS, NJ Release	Higher	3000, 0.568, NE
80	GLOUCESTER JR SR HS	1300 MARKET ST	NJ SHWS, NJ SPILLS	Lower	3013, 0.571, NE
81	MACEDONIA BAPTIST CH	351 HIGH ST	NJ SHWS, NJ ENG CONTROLS, NJ NJEMS	Lower	3032, 0.574, SSW
82	RT 130 SERVICE STATI	1430 CRESCENT BLVD	NJ SHWS	Higher	3078, 0.583, ENE
S83	GLOUCESTER CITY TITA	851 WATER ST	NJ SHWS, NJ HIST HWS, NJ ENG CONTROLS, NJ INST...	Higher	3161, 0.599, NNW
84	BELLMWR BORO	CREEK RD & KARR DR	NJ SHWS, NJ BROWNFIELDS	Lower	3204, 0.607, SSE
85	905 JERSEY AVENUE	905 JERSEY AVE	NJ SHWS, NJ NJEMS, NJ Release	Higher	3224, 0.611, North
86	CARPENTERS SQUARE	430 S BROADWAY	NJ SHWS, NJ UST, NJ NJEMS, FINDS	Higher	3301, 0.625, NNE
T87	ESTATE OF LEO A RITC	1331 CRESCENT BLVD	NJ SHWS, NJ UST, NJ ISRA	Higher	3351, 0.635, ENE
T88	WAREHOUSE 1331	1331 CRESCENT BLVD	NJ SHWS	Higher	3351, 0.635, ENE
89	JILCO EQUIPMENT LEAS	750 CHARLES ST	NJ SHWS	Higher	3432, 0.650, North
U90	AMSPEC CHEMICAL CO	751 WATER STREET	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-LQG	Higher	3447, 0.653, NNW
U91	AMSPEC CHEMICAL CORP	751 WATER STREET	NJ SHWS, NJ BROWNFIELDS, NJ HIST MAJOR FACILITIES,...	Higher	3447, 0.653, NNW
92	29 BEECHWOOD AVENUE	29 BEECHWOOD AVE	NJ SHWS, NJ HIST HWS, NJ NJEMS	Higher	3448, 0.653, ENE
93	PETROPLUS INC	409 DELSEA DR	NJ SHWS	Lower	3467, 0.657, South
V94	508 PARK AVENUE	508 PARK AVE	NJ SHWS, NJ NJEMS, FINDS	Lower	3530, 0.669, SSW
95	19 CEDARWOOD AVENUE	19 CEDARWOOD AVE	NJ SHWS, NJ NJEMS	Higher	3728, 0.706, ENE
V96	319 HAZEL AVENUE	319 HAZEL AVE	NJ SHWS, NJ NJEMS, FINDS	Lower	3736, 0.708, SW
97	707 WATER STREET	707 WATER ST	NJ SHWS, NJ NJEMS, NJ Release	Higher	3777, 0.715, NNW
98	615 BROADWAY	615 BROADWAY	NJ SHWS, NJ VCP, NJ Release	Higher	4024, 0.762, SSW
W99	GAF BUILDING MATERIA	CHARLES ST & WATER S	NJ SHWS, NJ BROWNFIELDS, NJ NJEMS	Higher	4097, 0.776, NNW
W100	VANGUARD VINYL SIDIN	CHARLES & WATER STS	NJ HWS RE-EVAL	Higher	4097, 0.776, NNW
W101	GAF CORP - GLOUCESTE	WATER & CHARLES ST	SEMS, CORRACTS, NJ HIST HWS, NJ UST, NJ ENG...	Higher	4097, 0.776, NNW
102	GLOUCESTER CENTRAL O	1190 MARKET ST	NJ SHWS, NJ Release, RCRA NonGen / NLR, NJ AIRS	Higher	4179, 0.791, NE
X103	RIVERPOINTE HOLDINGS	600 JERSEY AVE	NJ SHWS, NJ ENG CONTROLS, NJ INST CONTROL, NJ...	Lower	4240, 0.803, North
X104	PSE&G GLOUCESTER COA	6TH ST & JERSEY AVE	NJ SHWS, NJ BROWNFIELDS, NJ NJEMS, FINDS	Higher	4256, 0.806, North
105	ST JOHN OF GOD COMMU	532 DELSEA DR	NJ SHWS, NJ UST	Lower	4271, 0.809, South
106	27 WARREN AVENUE	27 WARREN AVE	NJ SHWS, NJ VCP, NJ NJEMS, NJ SPILLS	Higher	4310, 0.816, ESE
W107	VANGUARD VINYL SIDIN	651 WATER ST	NJ SHWS, NJ HIST HWS, NJ NJEMS	Higher	4324, 0.819, NNW
X108	GLOUCESTER COAL GAS	JERSEY AVE AND SIXTH	EDR MGP	Higher	4391, 0.832, North
109	18 CEDAR AVENUE	18 CEDAR AVE	NJ SHWS, NJ NJEMS, NJ Release	Higher	4438, 0.841, SSW
110	251 WEST OLIVE STREE	251 W OLIVE ST	NJ SHWS	Higher	4462, 0.845, SW
111	1371 ORIENTAL AVENUE	1371 ORIENTAL AVE	NJ SHWS, NJ NJEMS, NJ Release	Higher	4485, 0.849, ENE
112	120 CEDAR AVENUE	120 CEDAR AVE	NJ SHWS, NJ Release	Higher	4563, 0.864, SSW
113	BELLMWR BORO SEWER	850 CREEK RD	NJ SHWS, NJ NJEMS	Lower	4583, 0.868, SSE
114	S F PEDRICK CONST CO	800 MARKET ST	NJ SHWS	Higher	4590, 0.869, NNE
115	334 GREENWOOD AVENUE	334 GREENWOOD AVE	NJ SHWS, NJ VCP, NJ NJEMS, NJ Release	Higher	4659, 0.882, NE
116	834 WEST BROWNING RO	834 W BROWNING RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	4661, 0.883, ESE
Y117	PRC-DESOTO INTL FORM	426 JERSEY AVE	NJ SHWS, NJ Release	Lower	4761, 0.902, North

MAPPED SITES SUMMARY

Target Property Address:
2 S NEW BROADWAY
GLOUCESTER CITY, NJ 08030

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Z118	FORMER RUG FACTORY	SIXTH & HUNTER ST	NJ SHWS, NJ INST CONTROL	Higher	4761, 0.902, North
Z119	FORMER THE POPCORN F	HUNTER ST & 6TH ST	NJ SHWS	Higher	4761, 0.902, North
Z120	FORMER THE POPCORN F	HUNTER & 6TH STS	NJ SHWS, NJ INST CONTROL	Higher	4761, 0.902, North
121	GLOU-PHILLPS 66	174 S BROADWAY	NJ SHWS	Higher	4909, 0.930, North
AA122	SEMMATERIALS LP	201 WATER ST	NJ SHWS, NJ ENG CONTROLS, NJ Release	Lower	4993, 0.946, NNW
Y123	PRODUCTS RESEARCH &	410 JERSEY AVE	NJ HWS RE-EVAL	Lower	5011, 0.949, North
AA124	THERMOSEAL GLASS COR	400 418 WATER ST	NJ SHWS, NJ BROWNFIELDS, NJ NJEMS	Lower	5039, 0.954, NNW
125	ANNUNCIATION CHURCH	601 W BROWNING RD	NJ SHWS, NJ NJEMS, NJ Release	Higher	5102, 0.966, ESE
126	GLOUCESTER CITY ELEM	500 MARKET ST	NJ SHWS, NJ ENG CONTROLS, NJ INST CONTROL, NJ...	Higher	5126, 0.971, North
127	WAWA	913 915 BROADWAY	NJ SHWS	Higher	5141, 0.974, SSW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal RCRA generators list

RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

NJ SWF/LF..... Solid Waste Facility Directory

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

EXECUTIVE SUMMARY

NJ MAJOR FACILITIES..... List of Major Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
NJ PF..... Publicly Funded Cleanups Site Status Report

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

NJ SWRCY..... Approved Class B Recycling Facilities
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
US CDL..... National Clandestine Laboratory Register

Local Land Records

NJ LIENS..... Environmental LIENS
LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
NJ SPILLS 90..... SPILLS 90 data from FirstSearch
NJ SPILLS 80..... SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS..... Formerly Used Defense Sites
DOD..... Department of Defense Sites
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
2020 COR ACTION..... 2020 Corrective Action Program List
TSCA..... Toxic Substances Control Act
TRIS..... Toxic Chemical Release Inventory System
SSTS..... Section 7 Tracking Systems
ROD..... Records Of Decision
RMP..... Risk Management Plans
RAATS..... RCRA Administrative Action Tracking System
PRP..... Potentially Responsible Parties
PADS..... PCB Activity Database System

EXECUTIVE SUMMARY

ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
UXO.....	Unexploded Ordnance Sites
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
NJ CHROME.....	Chromate Chemical Production Waste Sites
NJ COAL ASH.....	Coal Ash Listing
NJ DRYCLEANERS.....	Drycleaner List
NJ GW CONTAM AREAS.....	Groundwater Contamination Areas
NJ UIC.....	Underground Injection Wells Database
MINES MRDS.....	Mineral Resources Data System

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

NJ RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
NJ RGA LF.....	Recovered Government Archive Solid Waste Facilities List
NJ RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA CORRACTS facilities list

EXECUTIVE SUMMARY

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/22/2021 has revealed that there are 3 CORRACTS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
G&W NATURAL RESOURCE EPA ID:: NJD002347664	FOOT OF WATER ST	NNW 1/2 - 1 (0.550 mi.)	S78	166
AMSPEC CHEMICAL CO GAF CORP - GLOUCESTE EPA ID:: NJD043292606	751 WATER STREET WATER & CHARLES ST	NNW 1/2 - 1 (0.653 mi.) NNW 1/2 - 1 (0.776 mi.)	U90 W101	327 472

Federal RCRA generators list

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOUTH JERSEY BODY SH EPA ID:: NJD080789837	218 CRESCENT BLVD RT	S 0 - 1/8 (0.066 mi.)	C16	28

State- and tribal - equivalent CERCLIS

NJ SHWS: Known contaminated sites in New Jersey except those associated with Bureau of Underground Storage Sites (BUST)

A review of the NJ SHWS list, as provided by EDR, and dated 03/04/2021 has revealed that there are 71 NJ SHWS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOKLAWN BORO PUBLI Site ID: 117861 Status: Closed	101 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A2	8
D'ANDREA TIRE INC Site ID: 51359 Status: Closed	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A4	9
GARAGE EQUIPMENT SA Site ID: 20619 Status: Closed	226 CHESTNUT AVE	N 0 - 1/8 (0.019 mi.)	11	20
Not reported	202 PARIS AVE	NNW 0 - 1/8 (0.057 mi.)	15	26

EXECUTIVE SUMMARY

Site ID: 630317 Status: Closed				
231 NANSEN AVENUE Site ID: 219336 Status: Closed	231 NANSEN AVE	ESE 1/8 - 1/4 (0.138 mi.)	F26	62
SAINT MAURICES CHURCH Site ID: 165779 Status: Closed	401 COMMUNITY RD	E 1/4 - 1/2 (0.264 mi.)	I42	97
209 5TH STREET Site ID: 94925 Status: Closed	209 5TH ST	ENE 1/4 - 1/2 (0.338 mi.)	K49	106
GLOUCESTER CITY DPW Site ID: 51015 Status: Active	615 BRICK ST	N 1/4 - 1/2 (0.368 mi.)	M55	117
LIQUID CARBONIC SPEC Site ID: 64458 Status: Active	560 S BROADWAY	NNE 1/4 - 1/2 (0.412 mi.)	O61	124
1144 HOWARD AVENUE Site ID: 165011 Status: Closed	1144 HOWARD AVE	ESE 1/4 - 1/2 (0.413 mi.)	62	128
CARPENTER REALTY COR Site ID: 57098 Status: Active	549 S BROADWAY	NNE 1/4 - 1/2 (0.424 mi.)	O63	131
528 HIGHLAND AVENUE Site ID: 169392 Status: Closed	528 HIGHLAND AVE	WSW 1/4 - 1/2 (0.431 mi.)	P65	141
INTERSTATE PALLET CO Site ID: 22601 Status: Closed	541 BRICK ST	N 1/4 - 1/2 (0.440 mi.)	Q67	145
RAMA PETROLEUM Site ID: 10422 Status: Closed	3528 KINGS HWY	E 1/4 - 1/2 (0.471 mi.)	R71	153
CW CLARKE CAR DEALER Site ID: 56313 Status: Closed	BROWNING LN & KINGS	E 1/2 - 1 (0.504 mi.)	R74	157
AMOCO SERVICE STATIO Site ID: 83308 Status: Closed	KINGS HWY & BROWNING	E 1/2 - 1 (0.504 mi.)	R75	158
CATHERINE RAGEN PROP Site ID: 52846 Status: Closed	860 CHARLES ST	N 1/2 - 1 (0.545 mi.)	77	163
FORMER HIGHLAND PARK Site ID: 50619 Status: Closed	2 HUGHES AVE	NE 1/2 - 1 (0.568 mi.)	79	173
RT 130 SERVICE STATI Site ID: 50204 Status: Closed	1430 CRESCENT BLVD	ENE 1/2 - 1 (0.583 mi.)	82	188
GLOUCESTER CITY TITA Site ID: 46199	851 WATER ST	NNW 1/2 - 1 (0.599 mi.)	S83	188

EXECUTIVE SUMMARY

Status: Active				
905 JERSEY AVENUE Site ID: 230235 Status: Active	905 JERSEY AVE	N 1/2 - 1 (0.611 mi.)	85	320
CARPENTERS SQUARE Site ID: 130416 Status: Closed	430 S BROADWAY	NNE 1/2 - 1 (0.625 mi.)	86	323
ESTATE OF LEO A RITC Site ID: 52523 Status: Closed	1331 CRESCENT BLVD	ENE 1/2 - 1 (0.635 mi.)	T87	324
WAREHOUSE 1331 Site ID: 52950 Status: Closed	1331 CRESCENT BLVD	ENE 1/2 - 1 (0.635 mi.)	T88	326
JILCO EQUIPMENT LEAS Site ID: 295568 Status: Closed	750 CHARLES ST	N 1/2 - 1 (0.650 mi.)	89	327
AMSPEC CHEMICAL CORP Site ID: 14395 Status: Active	751 WATER STREET	NNW 1/2 - 1 (0.653 mi.)	U91	455
29 BEECHWOOD AVENUE Site ID: 191550 Status: Pending	29 BEECHWOOD AVE	ENE 1/2 - 1 (0.653 mi.)	92	459
19 CEDARWOOD AVENUE Site ID: 526175 Status: Closed	19 CEDARWOOD AVE	ENE 1/2 - 1 (0.706 mi.)	95	461
707 WATER STREET Site ID: 564557 Status: Active	707 WATER ST	NNW 1/2 - 1 (0.715 mi.)	97	463
615 BROADWAY Site ID: 359028 Status: Closed	615 BROADWAY	SSW 1/2 - 1 (0.762 mi.)	98	466
GAF BUILDING MATERIA Site ID: 45991 Status: Closed	CHARLES ST & WATER S	NNW 1/2 - 1 (0.776 mi.)	W99	468
GLOUCESTER CENTRAL O Site ID: 10121 Status: Closed	1190 MARKET ST	NE 1/2 - 1 (0.791 mi.)	102	492
PSE&G GLOUCESTER COA Site ID: 63914 Status: Closed	6TH ST & JERSEY AVE	N 1/2 - 1 (0.806 mi.)	X104	548
27 WARREN AVENUE Site ID: 95429 Status: Closed	27 WARREN AVE	ESE 1/2 - 1 (0.816 mi.)	106	553
VANGUARD VINYL SIDIN Site ID: 63972 Status: Active	651 WATER ST	NNW 1/2 - 1 (0.819 mi.)	W107	556
18 CEDAR AVENUE Site ID: 450859 Status: Closed	18 CEDAR AVE	SSW 1/2 - 1 (0.841 mi.)	109	557
251 WEST OLIVE STREE	251 W OLIVE ST	SW 1/2 - 1 (0.845 mi.)	110	560

EXECUTIVE SUMMARY

Site ID: 413698 Status: Closed				
1371 ORIENTAL AVENUE Site ID: 634532 Status: Closed	1371 ORIENTAL AVE	ENE 1/2 - 1 (0.849 mi.)	111	560
120 CEDAR AVENUE Site ID: 121163 Status: Closed	120 CEDAR AVE	SSW 1/2 - 1 (0.864 mi.)	112	563
S F PEDRICK CONST CO Site ID: 50411 Status: Closed	800 MARKET ST	NNE 1/2 - 1 (0.869 mi.)	114	566
334 GREENWOOD AVENUE Site ID: 175143 Status: Closed	334 GREENWOOD AVE	NE 1/2 - 1 (0.882 mi.)	115	566
834 WEST BROWNING RO Site ID: 625359 Status: Closed	834 W BROWNING RD	ESE 1/2 - 1 (0.883 mi.)	116	569
FORMER RUG FACTORY Site ID: 64955 Status: Active	SIXTH & HUNTER ST	N 1/2 - 1 (0.902 mi.)	Z118	574
FORMER THE POPCORN F Site ID: 50113 Status: Closed	HUNTER ST & 6TH ST	N 1/2 - 1 (0.902 mi.)	Z119	575
FORMER THE POPCORN F Site ID: 50113 Status: Active	HUNTER & 6TH STS	N 1/2 - 1 (0.902 mi.)	Z120	576
GLOU-PHILLPS 66 Site ID: 10104 Status: Active	174 S BROADWAY	N 1/2 - 1 (0.930 mi.)	121	576
ANNUNCIATION CHURCH Site ID: 614465 Site ID: 566397 Status: Closed	601 W BROWNING RD	ESE 1/2 - 1 (0.966 mi.)	125	597
GLOUCESTER CITY ELEM Site ID: 538124 Status: Active	500 MARKET ST	N 1/2 - 1 (0.971 mi.)	126	602
WAWA Site ID: 168996 Status: Closed	913 915 BROADWAY	SSW 1/2 - 1 (0.974 mi.)	127	619
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported Site ID: 10423 Status: Active	299 CRESCENT BLVD	SE 0 - 1/8 (0.083 mi.)	D18	52
59451 Site ID: 55462 Status: Closed	501 CRESCENT BLVD	ESE 1/8 - 1/4 (0.222 mi.)	G34	77
WESTVILLE BORO DPW Site ID: 7716	114 CROWN POINT RD	SSW 1/4 - 1/2 (0.255 mi.)	H38	86

EXECUTIVE SUMMARY

Status: Active				
CONTINENTAL BAKING C	45 GATEWAY BLVD	SSW 1/4 - 1/2 (0.260 mi.)	40	93
Site ID: 30824				
Status: Closed				
AMERICAN SERVICE CEN	11 DELSEA DR	SSW 1/4 - 1/2 (0.305 mi.)	J45	100
Site ID: 7723				
Status: Active				
GATEWAY GRAPHICS INC	165 BROADWAY	SSW 1/4 - 1/2 (0.345 mi.)	L51	110
Site ID: 32929				
Status: Closed				
307 WOODBINE AVENUE	307 WOODBINE AVE	SW 1/4 - 1/2 (0.382 mi.)	57	120
Site ID: 64314				
Status: Closed				
225 CENTER STREET	225 CENTER AVE	S 1/4 - 1/2 (0.463 mi.)	69	148
Site ID: 75318				
Status: Closed				
RON'S SERVICE STATIO	326 BROADWAY	SSW 1/2 - 1 (0.503 mi.)	73	154
Site ID: 44129				
Status: Closed				
BELLMAWR PUMP STATIO	CREEK RD & THOMPSON	SSE 1/2 - 1 (0.510 mi.)	76	159
Site ID: 10495				
Status: Closed				
GLOUCESTER JR SR HS	1300 MARKET ST	NE 1/2 - 1 (0.571 mi.)	80	177
Site ID: 10127				
Status: Closed				
MACEDONIA BAPTIST CH	351 HIGH ST	SSW 1/2 - 1 (0.574 mi.)	81	179
Site ID: 374608				
Status: Closed				
Status: Active				
BELLMAWR BORO	CREEK RD & KARR DR	SSE 1/2 - 1 (0.607 mi.)	84	317
Site ID: 50290				
Status: Closed				
PETROPLUS INC	409 DELSEA DR	S 1/2 - 1 (0.657 mi.)	93	460
Site ID: 44275				
Status: Closed				
508 PARK AVENUE	508 PARK AVE	SSW 1/2 - 1 (0.669 mi.)	V94	460
Site ID: 72477				
Status: Closed				
319 HAZEL AVENUE	319 HAZEL AVE	SW 1/2 - 1 (0.708 mi.)	V96	462
Site ID: 65535				
Status: Closed				
RIVERPOINTE HOLDINGS	600 JERSEY AVE	N 1/2 - 1 (0.803 mi.)	X103	500
Site ID: 55697				
Status: Closed				
Status: Active				
ST JOHN OF GOD COMMU	532 DELSEA DR	S 1/2 - 1 (0.809 mi.)	105	551
Site ID: 42231				
Status: Closed				
BELLMAWR BORO SEWER	850 CREEK RD	SSE 1/2 - 1 (0.868 mi.)	113	565

EXECUTIVE SUMMARY

Site ID: 64364
Status: Pending

PRC-DESOTO INTL FORM **426 JERSEY AVE** **N 1/2 - 1 (0.902 mi.)** **Y117** **572**

Site ID: 14658
Status: Closed

SEMMATERIALS LP **201 WATER ST** **NNW 1/2 - 1 (0.946 mi.)** **AA122** **577**

Site ID: 15706
Status: Active

THERMOSEAL GLASS COR **400 418 WATER ST** **NNW 1/2 - 1 (0.954 mi.)** **AA124** **594**

Site ID: 39677
Status: Closed

NJ HWS RE-EVAL: The locations were removed from the Known Contaminated Sites list for a variety of reasons. Some of the sites were taken off the list because they were inactive, some were not assigned a case worker and some were no longer contaminated. Inspectors from the DEP are now undertaking a full re-evaluation of each of the locations statewide. That includes visual and environmental tests to see whether contamination still exists.

A review of the NJ HWS RE-EVAL list, as provided by EDR, and dated 09/20/2007 has revealed that there are 4 NJ HWS RE-EVAL sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOUTH JERSEY CONTAIN Facility Status: Assigned to RPIU. Under Investigation.	267 NEW FREEDOM NEW	NNE 0 - 1/8 (0.036 mi.)	12	21
VANGUARD VINYL SIDIN Facility Status: Assigned to Lead Bureau.	CHARLES & WATER STS	NNW 1/2 - 1 (0.776 mi.)	W100	472

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
AMERICAN SERVICE CEN Facility Status: Assigned to RPIU. Under Investigation.	11 DELSEA DR	SSW 1/4 - 1/2 (0.305 mi.)	J45	100
PRODUCTS RESEARCH & Facility Status: Assigned to RPIU. Under Investigation.	410 JERSEY AVE	N 1/2 - 1 (0.949 mi.)	Y123	594

State and tribal leaking storage tank lists

NJ LUST: A listing of regulated Underground Storage Tanks that have a cleanup underway.

A review of the NJ LUST list, as provided by EDR, and dated 05/17/2021 has revealed that there are 6 NJ LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CARPENTER REALTY COR Case Id: 033070	549 S BROADWAY	NNE 1/4 - 1/2 (0.424 mi.)	O63	131

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HESS CORP STATION #3	342 BROOKLAWN CIRCLE	SSW 0 - 1/8 (0.073 mi.)	17	33

EXECUTIVE SUMMARY

Case Id: 009126				
BROOKLAWN CIRCLE CON	299 CRESCENT BLVD S	SE 0 - 1/8 (0.083 mi.)	D20	56
Case Id: 007247				
BROOKLAWN CITGO	299 CRESCENT BLVD S	SE 0 - 1/8 (0.092 mi.)	D21	56
Case Id: 007247				
WESTVILLE BORO DPW	114 CROWN POINT RD	SSW 1/4 - 1/2 (0.255 mi.)	H38	86
Case Id: 004272				
AMERICAN SERVICE CEN	11 DELSEA DR	SSW 1/4 - 1/2 (0.305 mi.)	J44	100
Case Id: 000039				

NJ HIST LUST: This listing is no longer updated or maintained by the DEP.

A review of the NJ HIST LUST list, as provided by EDR, and dated 09/17/2002 has revealed that there are 15 NJ HIST LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
D'ANDREA TIRE, INC	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A1	8
Case Id: 90-06-05-0932				
Facility Status: Assigned to a Program				
D'QANDREA TIRE INC	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A7	17
Case Id: 91-11-01-0858				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
BROOKLAWN SHOPPING	RT. 130 & KINGS HWY	E 1/4 - 1/2 (0.348 mi.)	52	110
Case Id: 92-01-17-1547				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
CARPENTER REALTY COR	549 S BROADWAY	NNE 1/4 - 1/2 (0.424 mi.)	O63	131
Case Id: 99-09-08-1519-03				
Facility Status: Assigned to a Program				
DJB REALTY	522 S BROADWAY	NNE 1/4 - 1/2 (0.478 mi.)	72	153
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
MERIT	BROOKLIN CIRCLE RTE	SSE 0 - 1/8 (0.046 mi.)	C14	25
Case Id: 85-10-11-03S				
Facility Status: Assigned to a Program				
WORK SITE/TRAFFIC CI	RTE 130 OLD SALEM RD	SE 1/8 - 1/4 (0.153 mi.)	28	63
Case Id: 94-03-31-1458				
Facility Status: Case Awaiting Assignment				
CONTINENTAL BAKING C	45 GATEWAY BLVD	SSW 1/8 - 1/4 (0.174 mi.)	31	68
Case Id: 94-04-01-1100				
Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern				
MUNICIPAL GARAGE	114 CROWN POINT RD	SSW 1/4 - 1/2 (0.255 mi.)	H39	92
Case Id: 93-05-28-1511				
Facility Status: Assigned to a Program				
AMERICAN SERVICE CEN	11 DELSEA DR	SSW 1/4 - 1/2 (0.305 mi.)	J45	100
Case Id: 91-04-01-1345				
Facility Status: Administrative Deficiencies Exist				
WILLIAM HARGROVE MAR	1210 CREEK RD	SSE 1/4 - 1/2 (0.322 mi.)	47	104

EXECUTIVE SUMMARY

Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern

MURPHY'S TAVERN	212 CROWN POINT RD	SSW 1/4 - 1/2 (0.366 mi.)	N54	115
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Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern

LARC SCHOOL	CREEK ROAD & PARK DR	SSE 1/4 - 1/2 (0.384 mi.)	58	121
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Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern

SAINT ANNE'S CHURCH	RTE 130 & HIGHLAND A	SSW 1/4 - 1/2 (0.386 mi.)	N59	122
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Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern

WESTVILLE FIRE DEPAR	BROADWAY&CENTER ST.	SSW 1/4 - 1/2 (0.448 mj.)	68	147
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Facility Status: Site Issued Letter of No Further Action for Area(s) Of Concern

State and tribal registered storage tank lists

NJ UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Protection & Energy's UST Data.

A review of the NJ UST list, as provided by EDR, and dated 04/30/2021 has revealed that there are 5 NJ UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
D'ANDREA TIRE INC Facility Id: 016792 Tank Status: Removed	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A4	9
BROOKLAWN BORO PUBLI Facility Id: 012128 Tank Status: Removed	HAAKON RD	0 - 1/8 (0.000 mi.)	B10	18
ALICE COSTELLO ELEME Facility Id: 012434 Tank Status: Removed	HAAKON RD & BERGEN S	E 1/8 - 1/4 (0.135 mi.)	25	61
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HESS CORP STATION #3 Facility Id: 009126 Tank Status: Removed Tank Status: Duplicate	342 BROOKLAWN CIRCLE	SSW 0 - 1/8 (0.073 mi.)	17	33
NJDOT ROUTE 130 BROO Facility Id: 749453 Tank Status: Removed	OLD SALEM PIKE & ROU	SE 1/8 - 1/4 (0.163 mi.)	F29	64

State and tribal institutional control / engineering control registries

NJ ENG CONTROLS: Legal Document that restricts the use of contaminated property; holds owner(s) to the regulatory/statutory requirements for cleanup.

A review of the NJ ENG CONTROLS list, as provided by EDR, and dated 02/24/2021 has revealed that

EXECUTIVE SUMMARY

there are 2 NJ ENG CONTROLS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOKLAWN BORO PUBLI	101 SOUTH NEW BROADW	0 - 1/8 (0.000 mi.)	A6	14
INTERSTATE PALLET CO	541 BRICK ST	N 1/4 - 1/2 (0.440 mi.)	Q66	142

NJ INST CONTROL: Sites where engineering and/or institutional controls remain in place as part of a remedial action to address soil and/or groundwater contamination. These restrictions ensure protection of human health and the environment as long as they are maintained.

A review of the NJ INST CONTROL list, as provided by EDR, and dated 02/24/2021 has revealed that there are 4 NJ INST CONTROL sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
D'ANDREA TIRE INC	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A4	9
BROOKLAWN BORO PUBLI	101 SOUTH NEW BROADW	0 - 1/8 (0.000 mi.)	A6	14
LIQUID CARBONIC SPEC	560 S BROADWAY	NNE 1/4 - 1/2 (0.412 mi.)	O61	124
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WESTVILLE BORO DPW	114 CROWN POINT RD	SSW 1/4 - 1/2 (0.255 mi.)	H38	86

State and tribal voluntary cleanup sites

NJ VCP: Through the VCP, responsible parties, developers, local officials, or individuals may work with the department to remediate non-priority contaminated sites that pose no immediate threat to human health or the environment.

A review of the NJ VCP list, as provided by EDR, and dated 01/12/2018 has revealed that there are 8 NJ VCP sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
231 NANSEN AVENUE Incident Number: 06-04-13-1037-40	231 NANSEN AVE	ESE 1/8 - 1/4 (0.138 mi.)	F26	62
SAINT MAURICE PARISH Incident Number: 03-05-07-1536-31	401 COMMUNITY RD	E 1/4 - 1/2 (0.264 mi.)	I41	97
209 5TH STREET Incident Number: 01-08-30-1633-37	209 5TH ST	ENE 1/4 - 1/2 (0.338 mi.)	K50	107
1144 HOWARD AVENUE Incident Number: 03-11-26-1312-10	1144 HOWARD AVE	ESE 1/4 - 1/2 (0.413 mi.)	62	128
528 HIGHLAND AVENUE Incident Number: 04-01-05-0932-42	528 HIGHLAND AVE	WSW 1/4 - 1/2 (0.431 mi.)	P64	138
INTERSTATE PALLET CO Incident Number: 07-04-10-0001-49	541 BRICK ST	N 1/4 - 1/2 (0.440 mi.)	Q66	142
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WESTVILLE BORO DPW	114 CROWN POINT RD	SSW 1/4 - 1/2 (0.255 mi.)	H38	86
FRANKLIN ELECTRIC CO	110 BROADWAY	SSW 1/4 - 1/2 (0.281 mi.)	H43	100

EXECUTIVE SUMMARY

Incident Number: 91-12-13-1913-12

State and tribal Brownfields sites

NJ BROWNFIELDS: Brownfields are identified as former or current commercial or industrial use sites that are presently vacant or underutilized, on which there is suspected to have been a discharge of a contamination to the soil or groundwater at concentrations greater than applicable cleanup criteria.

A review of the NJ BROWNFIELDS list, as provided by EDR, and dated 03/26/2020 has revealed that there are 12 NJ BROWNFIELDS sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
D'ANDREA TIRE INC PStatus: DEP Case	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A4	9
BROOKLAWN BORO DPW PStatus: DEP Case	HAAKON RD & CHRISTIA	E 1/8 - 1/4 (0.169 mi.)	30	65
TOP ENTERPRICES LLC PStatus: DEP Case	CRESCENT BLVD & BROO	E 1/4 - 1/2 (0.320 mi.)	46	101
GLOUCESTER CITY WWTP PStatus: DEP Case	BRICK ST	N 1/4 - 1/2 (0.364 mi.)	M53	113
LIQUID CARBONIC SPEC PStatus: DEP Case	560 S BROADWAY	NNE 1/4 - 1/2 (0.412 mi.)	O61	124
CARPENTER REALTY COR PStatus: DEP Case	549 S BROADWAY	NNE 1/4 - 1/2 (0.424 mi.)	O63	131
INTERSTATE PALLET CO PStatus: DEP Case	541 BRICK ST	N 1/4 - 1/2 (0.440 mi.)	Q66	142
FORMER SEWAGE TREATM PStatus: Pending Redevelopment	FOOT OF BRICK STREET	N 1/4 - 1/2 (0.466 mi.)	70	150
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHELL SERVICE STATIO PStatus: DEP Case	505 CRESCENT BLVD	ESE 1/8 - 1/4 (0.224 mi.)	G35	78
DOWNTOWN WESTVILLE R PStatus: Available for Redevelopment	HISTORIC TOWN CENTER	SSW 1/8 - 1/4 (0.245 mi.)	H37	84
WESTVILLE BORO DPW PStatus: DEP Case	114 CROWN POINT RD	SSW 1/4 - 1/2 (0.255 mi.)	H38	86
225 CENTER STREET PStatus: DEP Case	225 CENTER AVE	S 1/4 - 1/2 (0.463 mi.)	69	148

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

EXECUTIVE SUMMARY

NJ HIST LF: Old or non-permitted solid waste facilities/landfills that are not included in the current solid waste facilities/landfills database.

A review of the NJ HIST LF list, as provided by EDR, has revealed that there is 1 NJ HIST LF site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GASKILL-BROOKLAWN LA Database: HIST LF, Date of Government Version: 06/10/2003 Facility Status: CLOSED Facility Id: 0407000205	BROOKLAWN CIRCLE & T	0 - 1/8 (0.000 mi.)	B8	18

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/22/2021 has revealed that there are 6 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
DANTES AUTO BODY EPA ID:: NJD980768998	502 NEW BROADWAY	NNE 1/8 - 1/4 (0.179 mi.)	32	68
EAST COAST COLLISION EPA ID:: NJD981559743	609 NEW BROADWAY	NNE 1/8 - 1/4 (0.235 mi.)	36	81

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
C & G AUTO BODY EPA ID:: NJD981134497	RTE 130 & BROOKLAWN	SSE 0 - 1/8 (0.039 mi.)	C13	21
HESS CORP STATION #3 EPA ID:: NJD981556251	342 BROOKLAWN CIRCLE	SSW 0 - 1/8 (0.073 mi.)	17	33
MOBIL - B & L FRIEND EPA ID:: NJD982793242	RTE 130 & HORTON RD	SSE 0 - 1/8 (0.094 mi.)	D22	57
MATERIAL HANDLING SU EPA ID:: NJD981494354	CREEK RD & OLD SALEM	SSE 1/8 - 1/4 (0.190 mi.)	33	72

NJ ISRA: The ISRA process begins with determining if the Act applies to your type of business and transaction. The provisions of ISRA only apply to industrial establishments. What is an industrial establishment? The term "industrial establishment" refers to the type of business operations and transactions that would subject a facility to review under ISRA. An industrial establishment must meet each of the following three criteria: The place of business or real property at which such business is conducted, having a North American Industry Classification System (NAICS) code listed in N.J.A.C. 7:26 B - Appendix C subject to the specified exceptions and limitations. The place of business must have been engaged in operations on or after December 31, 1983; and The place of business must involve the generation, manufacture, refining, transportation, treatment, storage, handling, or disposal of hazardous substances or hazardous wastes.

A review of the NJ ISRA list, as provided by EDR, and dated 03/29/2021 has revealed that there are 4

EXECUTIVE SUMMARY

NJ ISRA sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LIQUID CARBONIC SPEC Pi Number: G000013534 Case Status: Assigned to Program Case Status: LSRP Oversight	560 SOUTH BROADWAY	NNE 1/4 - 1/2 (0.412 mi.)	O60	122
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RCA SERVICE COMPANY Pi Number: G000014251 Case Status: NFA (No Further Action) HISTORIC	375 CRESCENT BOULEVA	ESE 1/8 - 1/4 (0.148 mi.)	F27	63
GATEWAY GRAPHICS INC Pi Number: 250130 Case Status: Assigned to Program Case Status: NFA-E (Unrestricted Use)	165 BROADWAY	SSW 1/4 - 1/2 (0.338 mi.)	J48	106
MILLER STUDIO Pi Number: G000013724 Case Status: NFA (No Further Action) HISTORIC	158 BROADWAY	SSW 1/4 - 1/2 (0.376 mi.)	L56	119

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

A review of the EDR MGP list, as provided by EDR, has revealed that there is 1 EDR MGP site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GLOUCESTER COAL GAS	JERSEY AVE AND SIXTH	N 1/2 - 1 (0.832 mi.)	X108	557

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 4 EDR Hist Auto

EXECUTIVE SUMMARY

sites within approximately 0.125 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
READERS AUTO ACCESSO	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A3	8
READER JOHN L	100 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A9	18
BELMAR SANCO	168 BROWNING RD	ENE 0 - 1/8 (0.104 mi.)	E24	61
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOKLAWN CITGO	299 CRESCENT BLVD	SE 0 - 1/8 (0.083 mi.)	D19	56

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there are 2 EDR Hist Cleaner sites within approximately 0.125 miles of the target property.

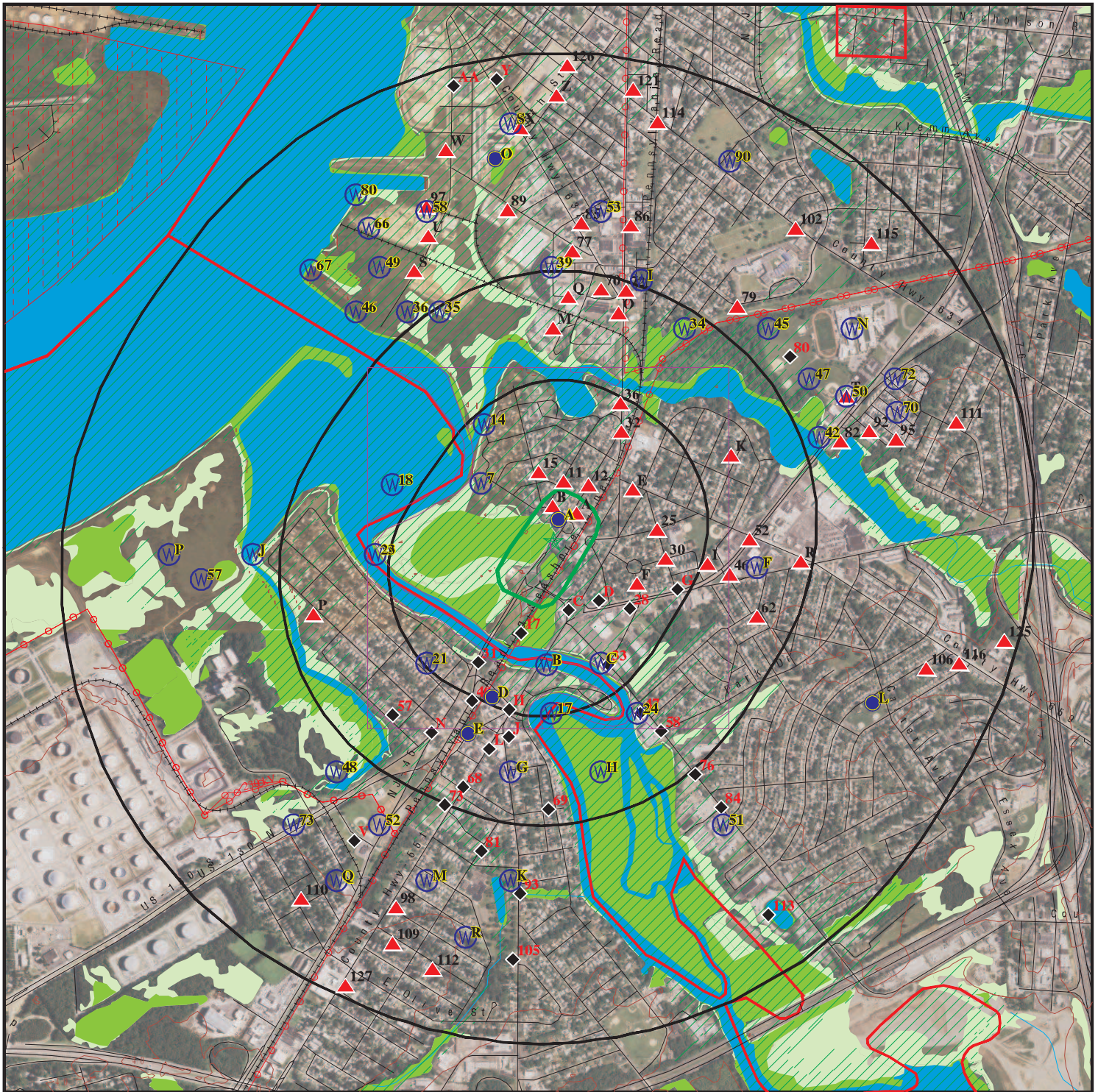
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BROOKLAWN DRY CLEANER	104 NEW BROADWAY	0 - 1/8 (0.000 mi.)	A5	14
SALS CLEANERS	150 W BROWNING RD	NE 0 - 1/8 (0.102 mi.)	E23	61

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 42 records.

[illegible]

OVERVIEW MAP - 6614661.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: DVRPC CR 511 Broadway LCD - Study Area 2
ADDRESS: 2 S New Broadway
Gloucester City NJ 08030
LAT/LONG: 39.878 / 75.12361

CLIENT: Michael Baker Jr. Inc.
CONTACT: Ashley Sidhu
INQUIRY #: 6614661.2s
DATE: August 10, 2021 5:12 pm

DETAIL MAP - 6614661.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: DVRPC CR 511 Broadway LCD - Study Area 2
ADDRESS: 2 S New Broadway
Gloucester City NJ 08030
LAT/LONG: 39.878 / 75.12361

CLIENT: Michael Baker Jr. Inc.
CONTACT: Ashley Sidhu
INQUIRY #: 6614661.2s
DATE: August 10, 2021 5:15 pm

APPENDIX J – CULTURAL RESOURCE SCREENING REPORT

FY 2021 Camden County Local Concept Development Project for County Route 551 Broadway

Borough of Brooklawn & City of Gloucester
Camden County, New Jersey

Cultural Resources Screening



September 2021

Prepared by:

Michael Baker
INTERNATIONAL

Michael Baker International, Inc.
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Hamilton, NJ 08619

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Introduction

The Delaware Valley Regional Planning Commission (DVRPC) and Camden County has retained Michael Baker International, Inc. (Michael Baker) to perform a Local Concept Development (LCD) study to address chronic flooding on County Route (CR) 551 Broadway between approximately MP 29.46 to 29.61 and MP 30.08 to 30.21. The project is located in the Borough of Brooklawn and City of Gloucester, Camden County, New Jersey. Refer to Figure 1 in Appendix A for the project location shown on a USGS 7.5' topographic map and to Appendix C for photos of the study areas. When noted in this report, the study area is defined as the project sites and the general areas in the immediate vicinity. Additionally, the northern project site, MP 30.08 to 30.21, will be known as "Project Site 1" and the southern project site, MP 29.46 to 29.61, will be known as "Project Site 2."

The purpose of this Cultural Resources Screening Report is to identify known cultural resources constraints, to provide a general assessment of the potential for significant archaeological resources and to identify significant and potentially significant above-ground, historic-age (>50 years) properties (architectural resources) within the study area.

Historic properties are defined as resources listed in, or eligible for listing in the New Jersey Register of Historic Places (NJR) and the National Register of Historic Places (NRHP). Potentially significant architectural resources include any properties 45 years or older within or proximate to the project area that have not been previously evaluated for NRHP eligibility. Due to the ongoing COVID-19 pandemic, the New Jersey Historic Preservation Office (NJHPO) and the New Jersey State Museum (NJSM) were not open to researchers at the time of the screening. A good faith effort was made to conduct NJHPO research by reviewing the NJ-GeoWeb, the New Jersey Department of Environmental Protection's (NJDEP's) DataMiner website, and the updated list of historic properties to determine if previously identified historic properties listed in the NJR and/or NRHP or eligible for listing in the NRHP are the study area. The list of cultural resources surveys and reports on NJHPO's website were reviewed to identify prior surveys conducted in or near the project area. Research at the New Jersey State Museum was conducted through email correspondence to identify the locations of any registered archaeological sites within proximity of the study area.

Existing Conditions

CR 551 Broadway carries traffic through residential and commercial areas. Observations have identified flooding during storm events along the roadway, which restricts traffic movement. In order to eliminate existing flooding and prevent future flooding events various alternatives will be examined, including cleaning the drainage system, raising the roadway profile, upgrading the drainage system, designing green infrastructure, flood barriers, and pump stations.

CR 551 Broadway at MP 29.46 to 29.61 and MP 30.08 to 30.21 have commercial areas adjacent to the project areas, including a scrap yard, restaurant, and liquor store. Residential properties run adjacent to

Cultural Resources Screening:

the roadway between the two study areas. According to a land use and zoning map provided by the Borough of Brooklawn, the properties immediately east of the roadway are classified as 'Commercial' and the properties to the west of the roadway are classified as 'Redevelopment Area Overlay Zone.' According to a land use and zoning map provided by the City of Gloucester, the study area is located within the Retail and Commercial Services (RC) and Port Planned Industrial Development (PPI). The PPI is located within the Rehabilitation and Redevelopment District.

Environmental Context

The project area is located within the Outer Coastal Plain Physiographic Province of New Jersey, which is characterized by unconsolidated clays, marls, silts, and sands that formed during periods of marine transgression and fluvial erosion (Wolfe 1977). Bedrock geology within the project area is Cretaceous, while surface geology is primarily Cape May 2 Marine Terrace (Pleistocene Nonglacial) (NJDEP-NJGWS 2016).

The California Soil Resource Lab (UC Davis, California) was used to identify the soils within the project areas. Aside from water, the only type of soil identified was "UR," Urban Land. This type of soil comes from parent material described as "surface covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material." No land capability classification (irrigation) is specified, while non-irrigated is 8s. The hydric soil rating is unranked. Refer to Attachment A: Maps for a figure depicting soil types in the study area.

Project Site 1 spans Little Timber Creek and Big Timber Creek UNT runs adjacent to Project Site 2, both of which are tidal waterways. The NJDEP designates both waterways as freshwater non-trout (FW2-NT) waterways. The study area is located within the Lower Delaware Watershed Management Area (WMA 18) and exists within two HUC-14 watersheds. The HUC-14 watersheds are as follows:

- Project Site 1: Little Timber Creek (Gloucester City) – 02040202120070
- Project Site 2: Big Timber Creek (below NB/SB confl) – 02040202120080

No Category One waters were identified downstream of either of the study area's HUC-14 watersheds.

Cultural Resources Screening:

Overview of Existing Cultural Resources

Known Historic Properties and Previously Surveyed Architectural Resources

A review of the NJHPO LUCY Cultural Resources GIS site identified five previously recorded architectural resources located within or adjacent to the project area. The Noreg Village Historic District (Figure 3; Plates 14 and 22) encompasses a large portion of Brooklawn Borough and is bounded by Second, Third, Fourth, Fifth, Sixth and Bergen streets, Browning Road, Chestnut, Christiana, Delaware, Hannevig and Haakon avenues, Lake Drive, Marne, New Jersey, Paris and Pennsylvania avenues, Pershing Street and Wilson Avenue. It was identified in the Intensive-Level Survey of Historic Resources, Camden County, Phase II, Brooklawn Borough, and was determined eligible for the NJR and NRHP on June 12, 1996 (SHPO opinion). During World War I, the federal government purchased land to building housing for rail and shipyard workers. The Noreg Realty Company, sponsored by the government, constructed the community of approximately 450 dwellings. The community was named Noreg Village. The dwellings consisted of two-story, wood-frame, stucco-clad, multi-family dwellings, containing two, three, or four units. The village also contained a store and firehouse/community hall. Following the end of the war, the U.S. government's Emergency Fleet Corporation, operated the village. In 1923, the corporation auctioned 451 dwellings, which were largely purchased by the existing tenants. In 1924, the name of the community was changed to Brooklawn. The historic district is significant under NRHP Criterion A for its association with shipbuilding in World War I, which was a major support industry for the war effort. It is also significant under NRHP Criterion as a government-planned residential community with a unique street plan and housing stock (Kise Straw & Kolodner: 2004:11-12).

The Brooklawn Traffic Circle (Figure 3; Plates 21 and 25) was identified in the Cultural Resources Survey of Route 130 Brooklawn Circle Improvement Project Report in 2011 and was determined eligible for the NJR and NRHP on August 29, 2011 (SHPO opinion).

The West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District (Figure 3; Plates 4, 7, 8, and 26) was identified in the Historic Architectural Reconnaissance Survey Report Glassboro-Camden Line Light Rail Project, Camden and Gloucester Counties, New Jersey in 2018. The survey report recommended the historic district as eligible for the NRHP, but that recommendation does not appear to have a SHPO opinion on eligibility for the NJR or NRHP.

Ray Bets Liquor Store (114 South New Broadway) (Figure 3; Plate 24) was identified Historic Architectural Reconnaissance Survey Report Glassboro-Camden Line Light Rail Project, Camden and Gloucester Counties, New Jersey in 2018. The survey report recommended the property as not eligible for the NRHP, but that recommendation does not appear to have a SHPO opinion on eligibility for the NJR or NRHP.

Cultural Resources Screening:

500-510 New Broadway (Figure 3; Plate 13) was identified in the Historic Architectural Reconnaissance Survey Report, Addendum 3, Glassboro-Camden Line Light Rail Project, Camden and Gloucester Counties, New Jersey in 2018. The survey report recommended the property as not eligible for the NRHP, but that recommendation does not appear to have a SHPO opinion on eligibility for the NJR or NRHP.

All known historic properties and previously surveyed architectural resources located within the survey area are summarized in Table 1.

Table 1: Known Historic Properties and Previously Recorded Architectural Resources				
SHPO Inv. No.	Name of Property	Location	NRHP Status	NJ Register Status
3018	Noreg Village Historic District	Timber Boulevard (West); Chestnut Street/New Broadway (north); Haakon Road (east); Crescent Boulevard (south)	Eligible (06/12/1996)	Eligible (06/12/1996)
5335	Brooklawn Traffic Circle	US Highway 130 and NJ Route 47	Eligible (08/29/2011)	Eligible (08/29/2011)
11081	West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District	Glassboro to Whitman Park/Camden	Undetermined	Undetermined
13541	Ray-Bets Liquor Store	114 South New Broadway	Undetermined	Undetermined
13541	500-510 New Broadway	500-510 New Broadway	Undetermined	Undetermined

New Jersey Historic Bridge Survey

The 1994 New Jersey Historic Bridge Survey (A.G. Lichtenstein & Associates) inventoried all bridges 20 or more feet in length that were built before 1947. The primary goal of the survey was to evaluate the NRHP eligibility status of the pre-1946 bridges in the state. While the survey includes recommendations of NRHP eligibility for each structure, those recommendations were not concurred upon by the NJHPO and do not represent formal opinions of eligibility. The New Jersey Historic Bridge Survey identified one bridge within the project area: Millville Secondary (West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines) over US 130 (Plate 26). The bridge was recommended not individually eligible for the NRHP. The only other bridge in the project area is the CR 551 Bridge over Little Timber Creek, which was constructed in 2015.

Cultural Resources Screening:

Historic Sites Inventories

The 1984 study, *Black Historic Sites in New Jersey* (The New Jersey Historical Commission 1984), an effort to document African American historic landmarks in New Jersey, did not identify any sites in Brooklawn or Gloucester City.

The 1992 *Sites and Structures: Camden County Inventory of Historic Places* (Greenberg 1992) identified one architectural resource within Brooklawn in Project Sites 1 and 2, the Noreg Village Historic District. The survey identified the boundaries of the proposed historic district as encompassing portions of 2nd, 3rd, 4th, 5th, 6th, and Bergen Streets; Browning Road, Chestnut, Christiana, Delaware, Hannevig, and Hoakon Avenues; Lake Drive; Marne, New Jersey, Paris, and Pennsylvania Avenues; Pershing Street; and Wilson Avenue. Of note was a commercial block in the town center containing eight attached units [102-188 New Broadway]. Individual sites identified in the survey near Project Site 1 in Gloucester City include Fort Nassau, built ca. 1626 at the confluence of Little Timber Creek and the Delaware River (although its exact location is unknown, it was likely near the intersection of Water and Charles Streets); the Battle of Gloucester Point, which occurred just east of the CR 551 Bridge over Little Timber Creek on November 25, 1777; and Nearby Gloucester Beach, a popular wharf, bathing and boating area, and site of the Gloucester Race Track, was located west of CR 551 and north of Little Timber Creek along the east bank of the Delaware River.

Similarly, the 1992 *Inter-Municipal Historic Preservation Zoning Study* (Malesich 1992a) and *Camden County Future Historic Preservation Survey Recommendations Report* (Malesich 1992b) noted that the Noreg Village was included in the Camden County Inventory of Historic Places (CCIHP) and that Camden County Cultural and Heritage Commission considered the district to be eligible for nomination to the NJR and the NRHP. The report recommended that a survey be undertaken to identify the village's original buildings, a nomination be prepared for NJR and NRHP listing, and for the Borough to devise planning and rezoning strategies to promote self-renewal of properties with a focus on preservation, revitalization, rehabilitation, and conversion/adaptive reuse. The study identified two sites in Gloucester City, but neither are located near Project Site 1.

The 2002 *New Jersey Women's Historic Sites Survey* (Schultz and Kelly 2002) was begun in the fall of 2000 for the purpose of identifying historic sites associated with women throughout the state of New Jersey as the basis for creating a women's heritage train and to help preservationists educators and community members identify and make better use of New Jersey's diverse historic resources. The survey identified five sites in Camden County, none of which were in Brooklawn Borough or Gloucester City.

The 2002-2011 *Crossroads of the American Revolution in New Jersey* (Crossroads of the American Revolution Association 2002, 2011a, 2011b), a broad-based cultural resources survey detailed the Crossroads of the American Revolution Association's policies, guidelines, actions, and plans for cultural heritage programs to develop a better understanding of the American Revolution in New Jersey. The study produced a *Special Resource Study* (2002) and a two-part *Management Plan*, Part I—Vision, Alternatives, and Environmental Assessment (2011a) and Part II—Implementation Plan (2011b). The

Cultural Resources Screening:

study area included 15 New Jersey counties spanning the state from Bergen and Passaic counties in the north to Camden and Gloucester counties in the south. One site was identified within Gloucester City, the Battle of Gloucester, which occurred just east of the CR 551 Bridge over Little Timber Creek on November 25, 1777.

The 2004 Survey of Historic Resources, Phase II (Kise, Straw & Kolodner 2004) focused on the Noreg Village Historic District, which had received a NJHPO opinion of eligibility in 1996. The goal of the survey was to document examples of building types within the original Noreg village development and to establish historic district boundaries. In addition to defining the residential building types, the survey identified public amenities such as the fire hall, water works, church, and school constructed as part of the original plan, as well as the plan and layout of the community. An intensive-level form was prepared for the historic district and 38 buildings were documented on short survey forms. Of those, 26 were identified as contributing to the district, six were identified as non-contributing, and six were located outside of the historic district boundaries. Four buildings were documented on intensive-level forms but found to be not individually eligible for the NRHP and non-contributing to the historic district.

Unidentified Architectural Resources Over 45 Years of Age

Three newly identified unevaluated buildings 50 years of age or older may be affected by the proposed undertaking and will require survey and evaluation for NRHP eligibility. These properties are located at 549 S. Broadway, Gloucester City (Plate 6) ; 609 New Broadway, Brooklawn (Plates 10 and 11) ; and 601 New Broadway, Brooklawn (Plate 12).

Registered Archaeological Sites

The southern section of the project lies within Cell AV204 of the New Jersey Archaeological Site Grid, while there is no grid designation for the northern section of the project (NJDEP Bureau of GIS 2021). A review of the archaeological site files provided by the NJSM curator indicates that there are six registered archaeological sites mapped within a one-mile radius of the study area including sites 28-Ca-044, 28-Ca-105, 28-Ca-117, 28-Ca-126, 28-Ca-187, and 28-Ca-189.

Site 28-Ca-044 is a prehistoric site of unknown age that was recorded in 1936. Site 28-Ca-105 is a small prehistoric site of unknown age identified in 2004. Sites 28-Ca-187 and 28-Ca-189 are historic sites dating to the eighteenth and nineteenth centuries and are associated with the early historical settlement of Brooklawn; no registration date was provided on the site form. Site 28-Ca-117 and 28-Ca-126, registered in 2006 and 2011, respectively, have Woodland Period prehistoric and nineteenth-through-twentieth-century, historic-period deposits. No sites previously recorded with the Pinelands Commission are located within a one-mile radius of the study area.

To protect archaeological resources, the locations of registered archaeological sites are not mapped on the accompanying figures.

Cultural Resources Screening:

Previously Conducted Cultural Resources Surveys

Due to COVID-19 restrictions for researchers at the NJHPO, a review of previously conducted cultural resources surveys was conducted using NJDEP's DataMiner website. Several cultural resources surveys and resulting reports were identified within the Borough of Brooklawn and Gloucester City. A few of the reports were available to download, while many were restricted or not yet available. Prior archaeological surveys include a Phase I archaeological survey for a streambank stabilization along Big Timber Creek at Timber Boulevard in 2007 and subsequent archaeological monitoring of stabilization work in 2010; a cultural resources survey for the Route 130 Brooklawn Circle Improvement Project in 2011; a Phase 1A archaeological survey (2012), archaeological monitoring plan (2013), and archaeological monitoring (2015) for the Public Service Electric & Gas Company Southern Reinforcement Program, Northern Project; and cultural resources surveys for Route 47 and Route 130 bridges over Big Timber Creek that were conducted in the immediate vicinity of Project Site 2; however, the extent of that survey work is unknown due to restricted access to the survey report.

Prior architectural surveys include the 2004 report: Intensive-Level Survey of Historic Resources, Camden County, Phase II, Brooklawn Borough (Kise Straw & Kolodner) that resulted in the NRHP-eligible determination of the Noreg Village Historic District in Project Sites 1 and 2, the 2011 report: Cultural Resources Survey of Route 130 Brooklawn Circle Improvement Project, Borough of Brooklawn, Camden County, New Jersey, that resulted in the identification and NRHP-eligible determination of the Brooklawn Traffic Circle in Project Site 2; the 2013 report: Historic Architectural Reconnaissance Survey Report Glassboro-Camden Line Light Rail Project, Camden and Gloucester Counties, New Jersey (A.D. Marble 2013), that resulted in the identification and the NRHP-eligible recommendation for the West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Lines in Project Sites 1 and 2; and the 2018 report: Historic Architectural Reconnaissance Survey Report, Addendum 3, Glassboro-Camden Line Light Rail Project, Camden and Gloucester Counties, New Jersey (A.D. Marble 2018), that resulted in the identification of the Ray-Bets Liquor Store (114 South New Broadway) in Project Site 2 and 500-510 New Broadway in Project Site 1, both of which were recommended not eligible for the NRHP.

Historic Map Review

The area now known as Westville (immediately south of the project area) received its first white settlers in conjunction with Fort Nassau between 1624 and 1651. Located at the mouth of Big Timber Creek at its confluence with the Delaware River, the fort was eventually relocated to the west side of the Delaware River. One of the earliest available historical maps of the project area, an 1846 lithograph of Camden County (Clement 1846) (Figure 4), depicts an X-shaped polygon at the confluence of the two rivers, illustrating the "supposed" location or remnants of Fort Nassau, "the first settlement attempted on the east side of the Delaware River" (Clement 1846). This map also shows the town that would become Westville at the south end of the project area. Westville's first tavern and homes were constructed in the early eighteenth century, though the town did not incorporate until 1914. The 1846 map also shows the beginnings of Gloucester City nestled between the Delaware River and the Woodbury Railroad. Gloucester was incorporated in 1868.

Cultural Resources Screening:

The next available historical map dates to 1857 (Figure 5), and depicts Union and Center townships in detail, including prominent property owners' names (Merry, Frederick Carles, et al. 1857). Very little development is depicted at the northern Project Site 1, though the map indicates that the roadway was then a plank road. The southern Project Site 2 is shown adjacent to the Cape May Railroad and in proximity to a brick yard and a house owned by "Cason." Between the two project sites, east of the intersection of the railroad and the roadway (Old Broadway), the map has a notation for "Battle Ground: General Lafayette, November 25th, 1777." That battle came to be known as the Battle of Gloucester, a subset of the Philadelphia campaign during the American Revolutionary War.

The 1872 historical map is much less detailed in the vicinity of the project areas (F.W. Beers 1872). The map does not provide a clear label for the railroad's current ownership. It does, however, illustrate the roadway alignments of Market Street, Creek Road, W Browning Road, Crescent Boulevard, Crown Point Road, Kings Highway (CR 551), and the Broadway Turnpike.

Remaining historical maps are topographical quadrangles, the first of which dates to 1894 (USGS 1894). This map illustrates the West Jersey Seashore Railroad adjacent to the project areas. With the exception of the aforementioned roadways, the project areas show very little development in their proximity. A singular house appears in the location of the present-day Noreg Village Historic District, but nothing else of note. The quadrangle from 1920 (USGS 1920) is largely identical, indicating very few changes over the first two decades of the twentieth century. Between 1920 and 1943 (USGS 1943), the project area changed dramatically, with the construction of "New Broadway" and the corresponding roundabouts at the southern end of Project Site 2. The residential and commercial development in this peninsula (between Little Timber Creek, the Delaware River, and Big Timber Creek) is also visible on an aerial photograph dating to 1938 (USGS Earth Explorer 1938). By this time, the former Noreg Village area was entirely built up. Additional aerial photographs (USGS Earth Explorer 1951, 1965, 1970, and 1990) show no noteworthy developments, save for additional residential development along the south side of the Little Timber Creek in Brooklawn.

Archaeological Sensitivity Assessment

The assessment of archaeological sensitivity is based on background research and existing conditions in the study area. While there are no known sites within the immediate study area, the previously identified archaeological sites in the general area provide a baseline for assessing the types of sites that may be present within the current study area. There is evidence of prehistoric Native American occupations within 2,000 ft of the study area that are situated in a similar environmental setting. Artifacts dating to the Woodland Period are attributed to sites in the project vicinity. The location of the project within 500 feet of water on well-drained and level terrain, suggests a high probability for encountering other prehistoric sites. Prehistoric sites from the Archaic Period are also possible. Soils mapped for this area of Camden County include only one soil type—Urban Land—which is described as "surface covered by pavement, concrete, building, and other structures underlain by disturbed and natural soil material" (<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>). It is noted that intensive historical

Cultural Resources Screening:

Overview of Existing Cultural Resources

development of this landscape may have obliterated or obscured prehistoric archaeological sites or resulted in the burying of sites below fill/disturbances.

The history of Brooklawn spans at least 300 years before present, and there are numerous above-ground historic sites dating from the 1700s through the mid-1900s in the immediate project vicinity. While the study area has likely been disturbed through the construction of roadways and infrastructure, the general project vicinity is considered to have a moderate to high probability for encountering historic archaeological deposits that may survive beneath layers of fill or other disturbances.

Cultural Resources Screening:

Summary

The study areas contain no properties listed in the NRHP. Two properties, the Noreg Village Historic District and the Brooklawn Traffic Circle, have been determined eligible for the NJR and NRHP. The study areas contain three previously recorded architectural resources, West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Line Historic District (recommended eligible for the NRHP), Ray-Bets Liquor Store at 114 South New Broadway (recommended not eligible for the NRHP), and 500-510 New Broadway (recommended not eligible for the NRHP); from a review of available records, the NJHPO has not made a formal determination of NRHP eligible for these three architectural resources.

Six registered archaeological sites are located within a one-mile radius of the study area for both crossings including sites 28-Ca-044, 28-Ca-105, 28-Ca-117, 28-Ca-126, 28-Ca-187, and 28-Ca-189. No registered archaeological sites are located within or adjacent to the project area. The location of the project within 500 feet of water on well-drained and level terrain, suggests a high probability for encountering pre-Contact archaeological sites. While the study area has likely been disturbed through the construction of roadways and infrastructure, the general project vicinity is considered to have a moderate to high probability for encountering historic archaeological deposits that may survive beneath layers of fill or other disturbances.

A cultural resources survey may be necessary if federal funding or permitting is utilized that would thereby require compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (Public Law 89-665; 54 USC §; 300101 et seq.); and its implementing regulations (36 CFR § 800), as well as other applicable cultural resources requirements under the National Environmental Policy Act, Section 4(f) of the US Department of Transportation Act; and relevant New Jersey Department of Environmental Protection permits, such as a Freshwater Wetlands Permit (N.J.A.C. 7:7A). Funding from the State of New Jersey may require compliance with New Jersey Executive Order 215 and coordination with the New Jersey Department of Transportation.

Sources

A.D. Marble	
2013	Historic Architectural Reconnaissance Survey Report Glassboro-Camden Line Light Rail Project, Camden and Gloucester Counties, New Jersey. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey.
2018	Historic Architectural Reconnaissance Survey Report, Addendum 3, Glassboro-Camden Line Light Rail Project, Camden and Gloucester Counties, New Jersey. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey.
A.G. Lichtenstein & Associates, Inc.	
1994	<i>New Jersey Historic Bridge Survey</i> . Prepared for the New Jersey Department of Transportation, Bureau of Environmental Analysis, Trenton New Jersey. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www.state.nj.us/transportation/works/environment/pdf/NJHBD_statewide.pdf , accessed August 27, 2021.
Beers, F.W.	
1872	<i>Topographical Map of Camden and Gloucester Cos., New Jersey</i> . Beers State Atlas of New Jersey. Beers, Comstock, & Cline. New York, New York. http://mapmaker.rutgers.edu/1872Atlas/CamdenGloucesterCounties.jpg
Clement, John Jr.	
1846	<i>A Map of Camden County, State of New Jersey</i> . T. Sinclair's Lithographer. Haddonfield, New Jersey. http://mapmaker.rutgers.edu/CAMDEN_COUNTY/CamdenCounty_1846.jpg .

Crossroads of the American Revolution Association

- 2002 Crossroads of the American Revolution in New Jersey Special Resource Study, National Heritage Area Feasibility Study Environmental Assessment. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/cf6dabf9-4726-4cc7-bdc6-97f834bbb176/0_26608234_PI_0_1_MULT_GB_254b_ID13467.pdf, accessed August 27, 2021.
- 2011a Crossroads of the American Revolution National Heritage Area Management Plan, Part 1. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/cf6dabf9-4726-4cc7-bdc6-97f834bbb176/0_26895270_PI_0_1_MULT_GB_254_v1_ID10648.pdf, accessed August 27, 2021.
- 2011b Crossroads of the American Revolution National Heritage Area Management Plan, Part 2. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/cf6dabf9-4726-4cc7-bdc6-97f834bbb176/0_26895454_PI_0_1_MULT_GB_254_v2_ID10649.pdf, accessed August 27, 2021.

Greenberg, Gail

- 1992 *Sites and Structures: The Camden County Inventory of Historic Places*. Prepared for the Camden County Cultural and Heritage Commission. On file at the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/509b8f5b-b2de-4571-b657-e31e42ca26e4/0_21246245_PI_0_1_CAM_GB_64_v2_ID11636.pdf, accessed August 27, 2021.

Kise Straw & Kolodner

- 2004 *Survey of Historic Resources, Camden County, Phase II*. On file at the New Jersey Historic Preservation Office, Trenton, New Jersey. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/509b8f5b-b2de-4571-b657-e31e42ca26e4/0_21246245_PI_0_1_CAM_GB_64_v2_ID11636.pdf, accessed August 27, 2021.

Malesich, Elizabeth

- 1992a *Camden County Inter-Municipal Historic Preservation Zoning Study*. Prepared for Borough of Collingswood. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/dedf115d-cd04-45ee-b0dc-826d669384df/0_15468940_PI_0_2_CAM_GB_54_v1_ID7739.pdf, accessed August 27, 2021.
- 1992b *Camden County Future Historic Preservation Survey Recommendations Report*. Prepared for the Camden County Cultural and Heritage Commission for Borough of Collingswood. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/dedf115d-cd04-45ee-b0dc-826d669384df/0_27270798_PI_0_1_CAM_GB_54_v2_ID11594.PDF, accessed August 27, 2021.

Cultural Resources Screening:

Merry, Frederick Carles, et al.	
1857	<i>Map of Camden County, New Jersey</i> . R.L. Barnes, Philadelphia, Pennsylvania. Lloyd Vanderveer, Camden, New Jersey. https://www.loc.gov/item/2012590162/
New Jersey Historical Commission	
1984	<i>Black Historic Sites in New Jersey</i> . On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/2b9f8104-f191-449e-b102-8ec3304e1b9e/0_15469251_PI_0_1_MULT_GB_187_ID7893.pdf , accessed August 27, 2021.
New Jersey Department of Environmental Protection [NJDEP] Geological and Water Survey [NJGWS]	
2016	"Bedrock and Surficial Geology, Gravity, Magnetic, Aquifers, Landslides, Mines, Quarries, Earthquakes and Physiographic Provinces Maps of New Jersey, Scale 1:1,000,000." https://www.nj.gov/dep/njgs/NJMaps.pdf
Schultz, Ellen Freedman and Deborah Marquis Kelly	
2002	New Jersey Women's Historic Sites Survey Final Report. Prepared for the New Jersey State Historic Preservation Office and The Alice Paul Centennial Foundation. On file, the New Jersey Historic Preservation Office, Trenton, New Jersey. Electronic document, https://www13.state.nj.us/DataMiner/DEP_ATT.aspx?ATTACH=http://dep-image/HV5/Domain1/D1Volume1/70a5a3e5-d098-4605-adbd-74855f6796af/0_27280612_PI_0_1_MULT_GB_60_v2_ID12246.pdf , accessed August 27, 2021.
United States Army Corps of Engineers, Regional Planning Federation of The Philadelphia Tri-State District, and United States Maritime Commission. [USACE]	
1938	<i>Mosaic composed of aerial photographs, port of Philadelphia, Pa.: including Camden and Gloucester, N.J.</i> The Corps. Washington, D.C. https://www.loc.gov/item/91686405/
United States Department of the Interior, National Park Service	
1991	"Bulletin 15: How to Apply the National Register Criteria for Evaluation." National Park Service Interagency Resources Division. Government Publishing Office, Washington, D.C.
United States Geological Survey [USGS]	
1894	Philadelphia, NJ-PA, 15-minute topographic quadrangle. USGS, Washington, D.C.
1920	Philadelphia, NJ-PA, 15-minute topographic quadrangle. USGS, Washington, D.C.
1943	Philadelphia, NJ-PA, 15-minute topographic quadrangle. USGS, Washington, D.C.
1949	Camden, NJ-PA, 7.5-minute topographic quadrangle. USGS, Washington, D.C.
1967	Camden, NJ-PA, 7.5-minute topographic quadrangle. USGS, Washington, D.C.
1967[1984]	Camden, NJ-PA, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.
1995	Camden, NJ-PA, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.
1995	Philadelphia, NJ-PA, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.
1995	Runnemede, NJ, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.
1995	Woodbury, NJ-PA, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.

Cultural Resources Screening:

United States Geological Survey [USGS], Earth Explorer

- 1951 Aerial Photo Single Frame "Photo ID. 1OV0000010051," 20 April 1951. Electronic source: <https://earthexplorer.usgs.gov/>.
- 1965 Aerial Photo Single Frame "Photo ID. 1VBEM00030087," 1 April 1965. Electronic source: <https://earthexplorer.usgs.gov/>.
- 1967 Aerial Photo Single Frame "Photo ID. 1PUHS00010079," 20 October 1967. Electronic source: <https://earthexplorer.usgs.gov/>.
- 1970 Aerial Photo Single Frame "Photo ID. 6144002100364," 1970. Electronic source: <https://earthexplorer.usgs.gov/>.
- 1990 Aerial Photo Single Frame "Photo ID. AR1VFND0010105," 8 March 1990. Electronic source: <https://earthexplorer.usgs.gov/>.

Wolfe, Peter E.

- 1977 "Geology and Landscapes of New Jersey." Crane, Russak & Company, New York, New York.

**Attachment A:
Maps**

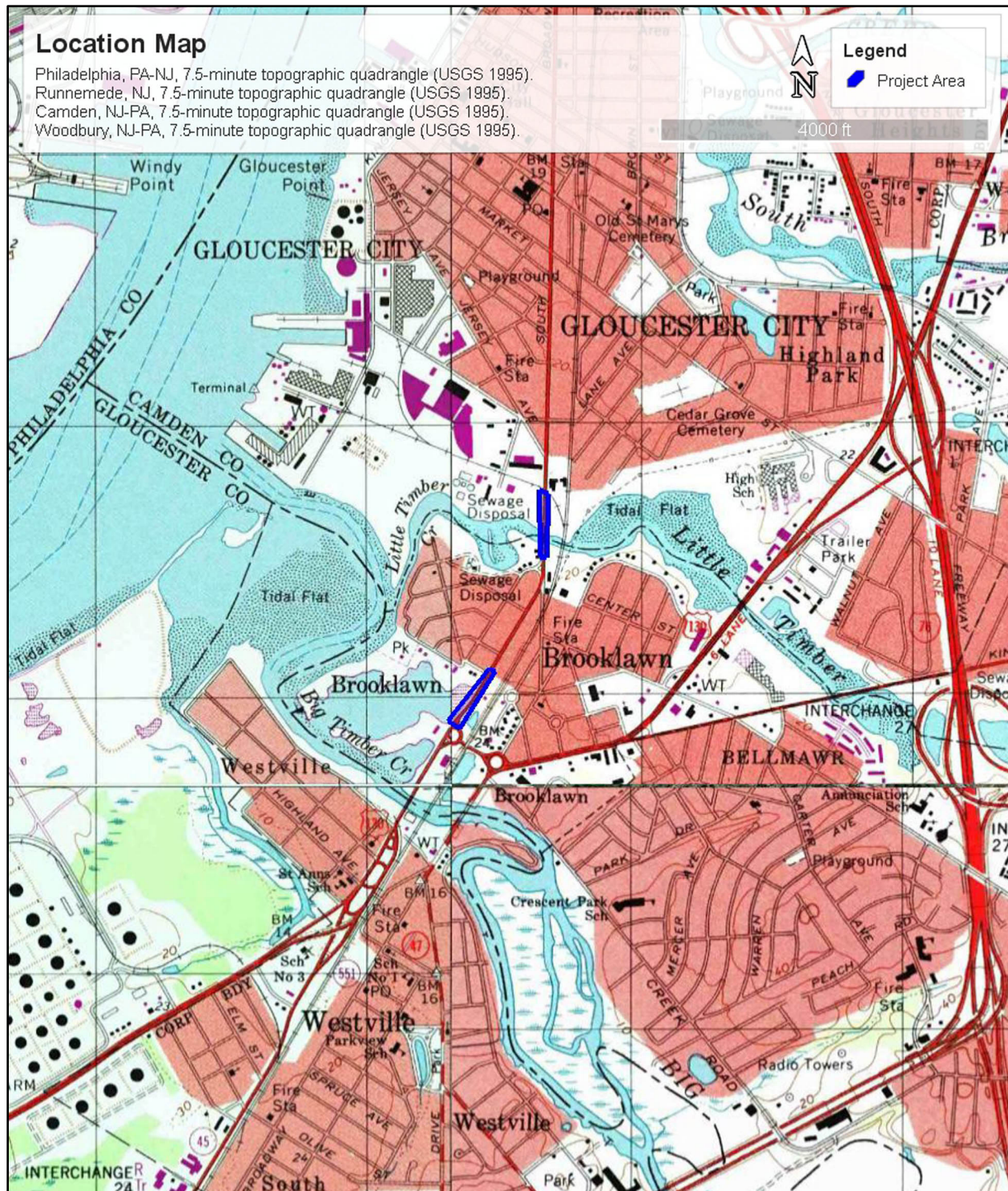


Figure 1: Project location shown on topographic mapping (USGS 1995).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

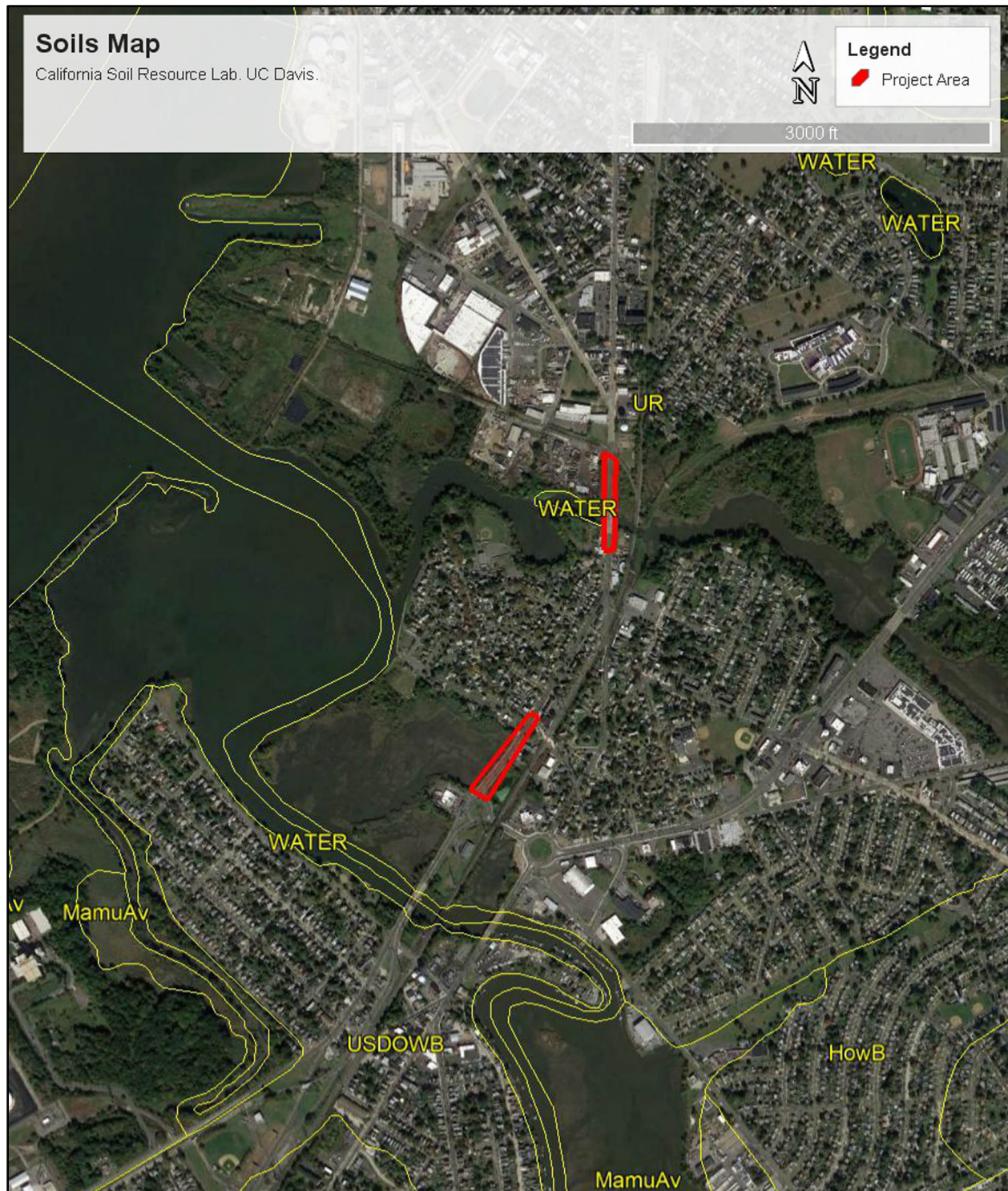


Figure 2: Soils map showing Project Site 1 (north) and Project Site 2 (south).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

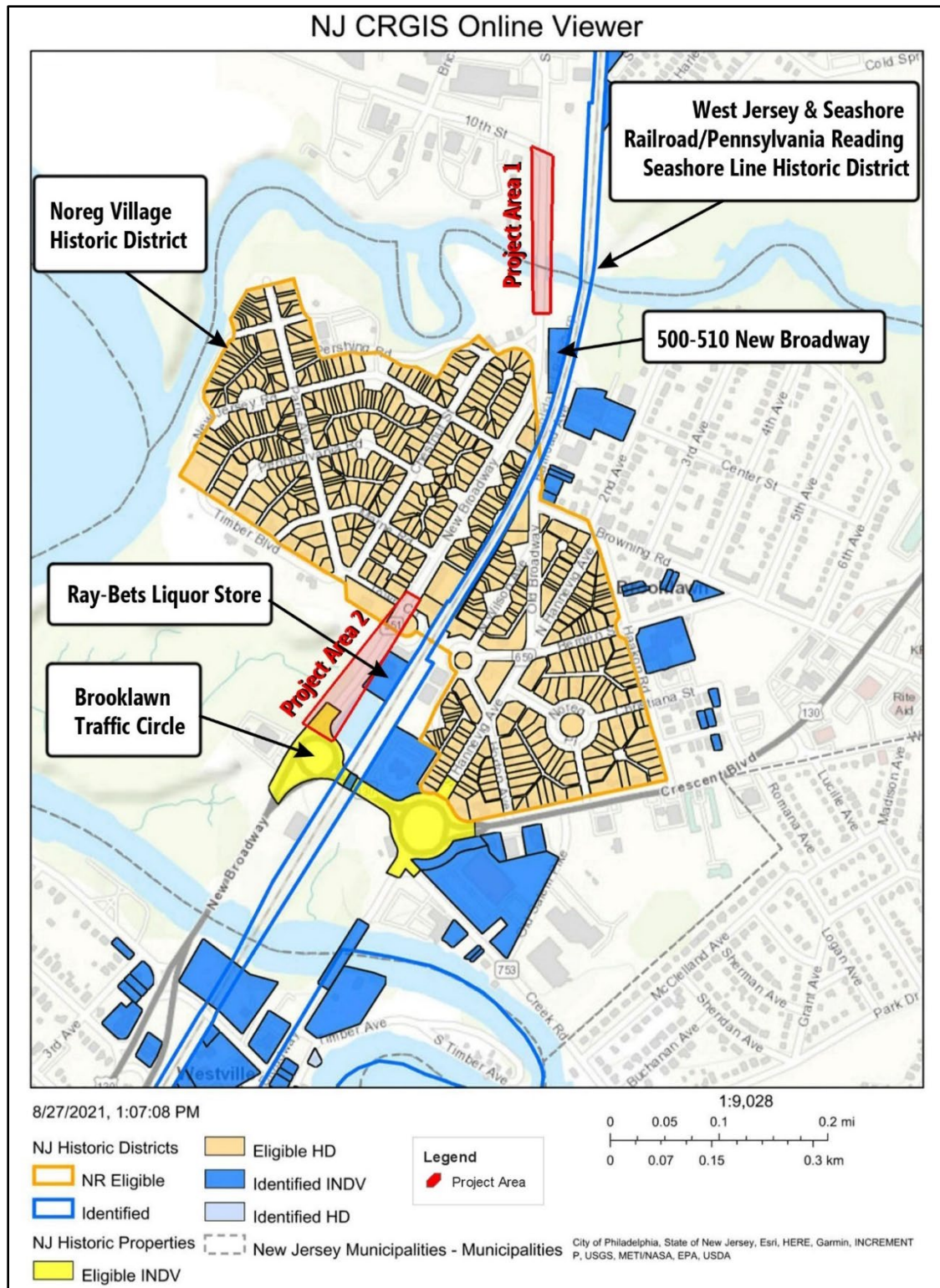


Figure 3: NJ CRGIS map of study area showing previously recorded historic properties and architectural resources.

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

Michael Baker
INTERNATIONAL

Attachment B:
Historical Maps and Aerials

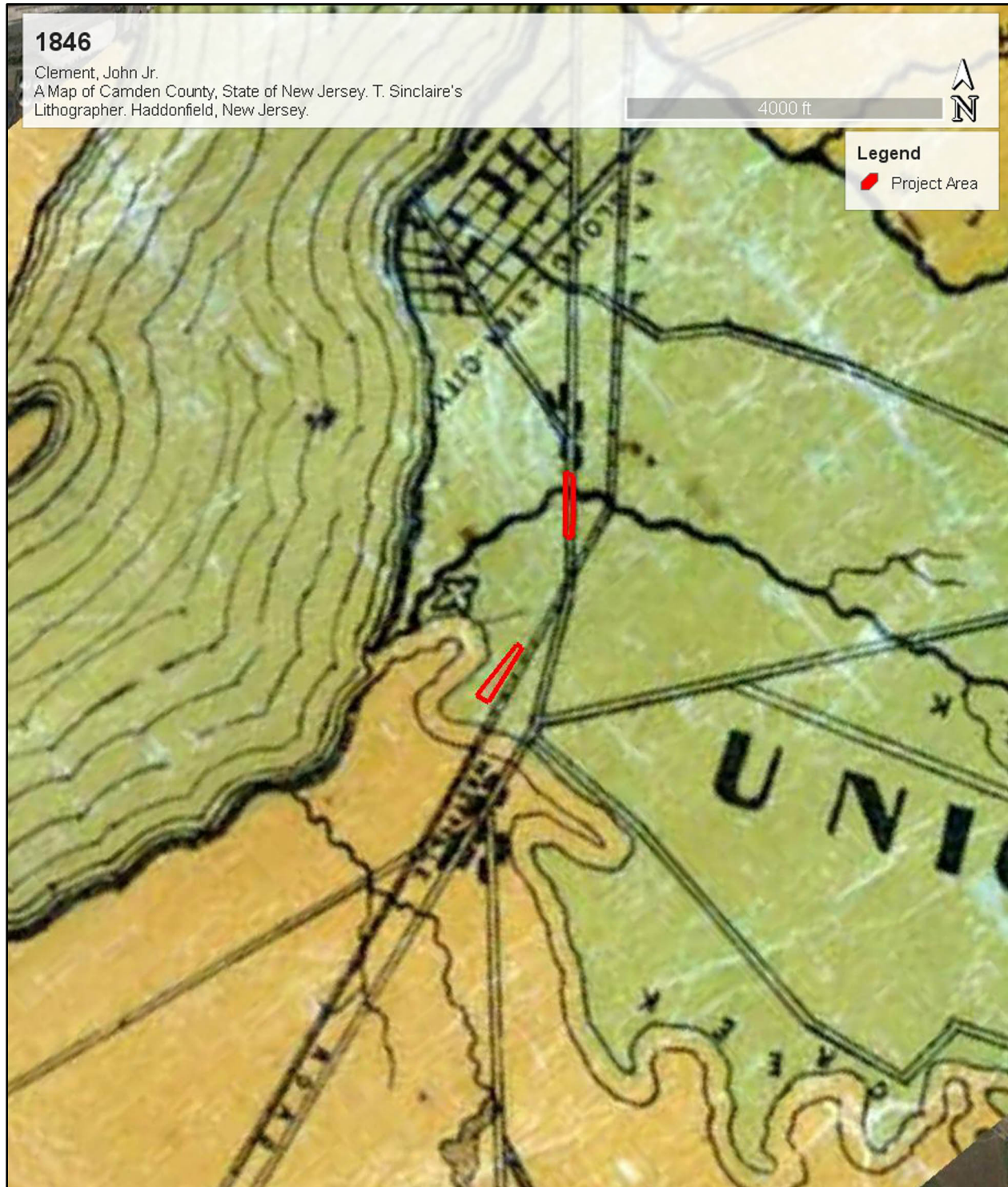


Figure 4: 1846 map showing location of Project Site 1 (north) and Project Site 2 (south) showing the site of Fort Nassau at the confluence of Little Timber Creek and the Delaware River (Clement 1846).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

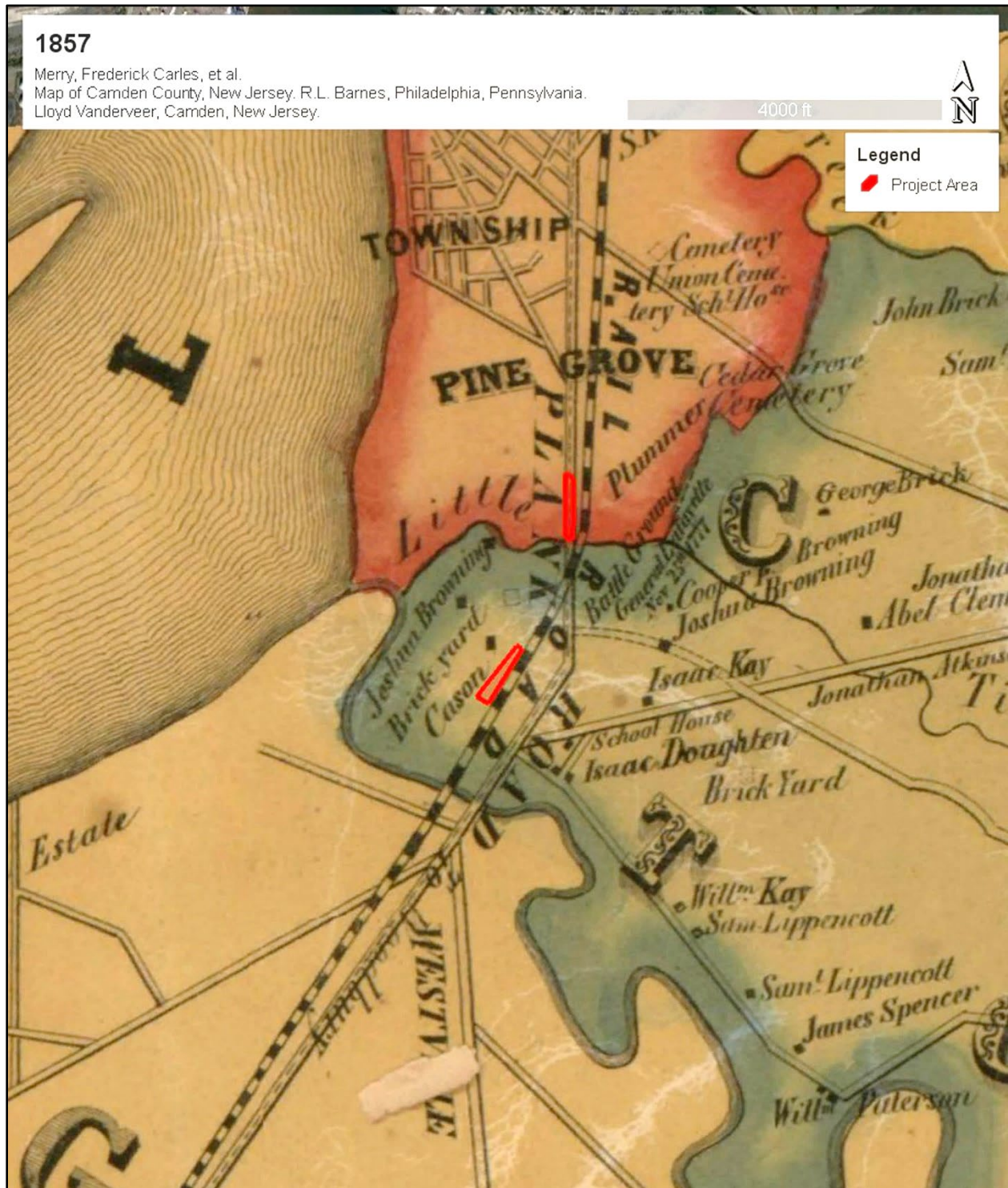


Figure 5: 1857 map showing location of Project Site 1 (north) and Project Site 2 (south) (Merry 1857).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

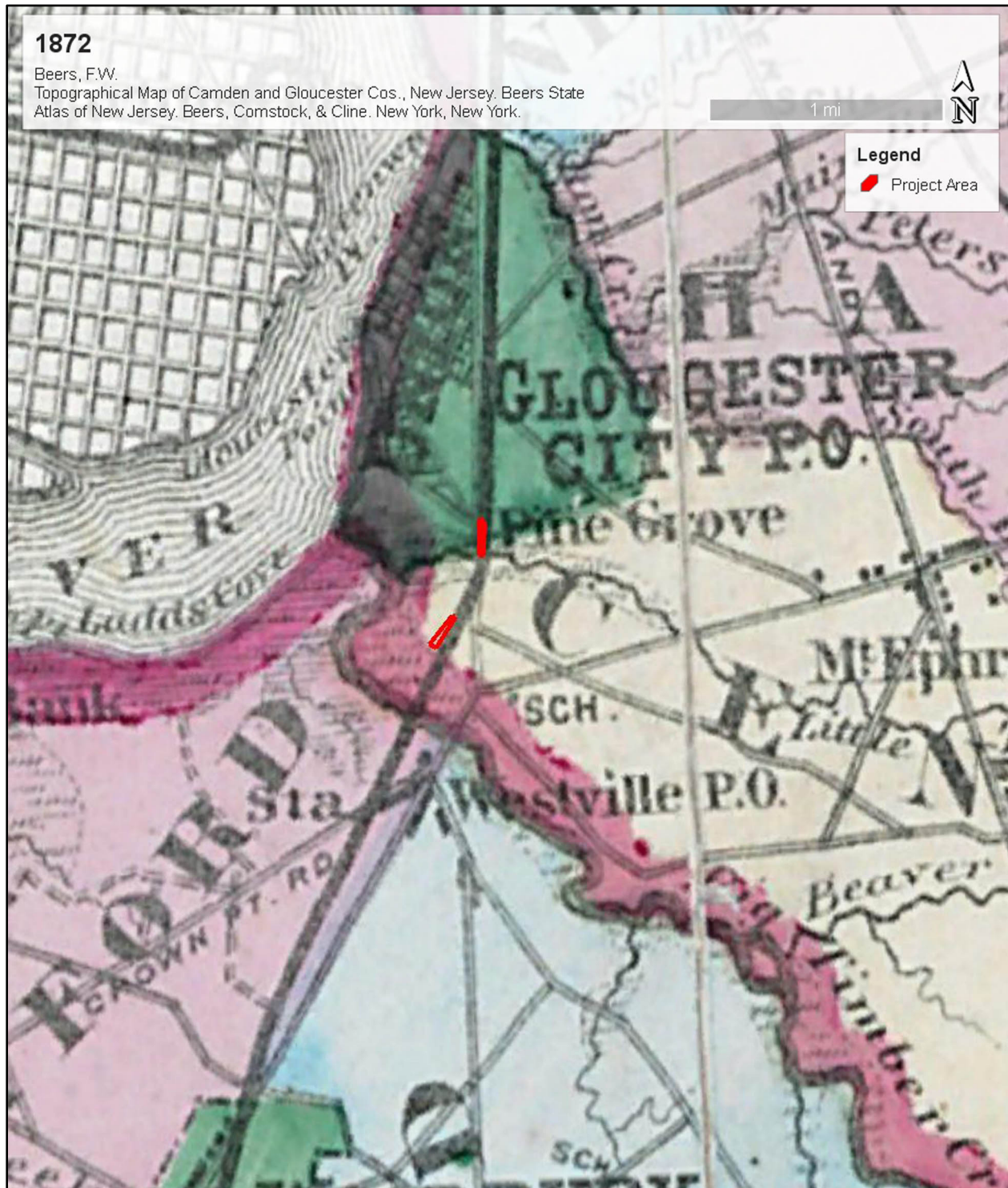


Figure 6: 1872 map showing location of Project Site 1 (north) and Project Site 2 (south) (Beers 1872)).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

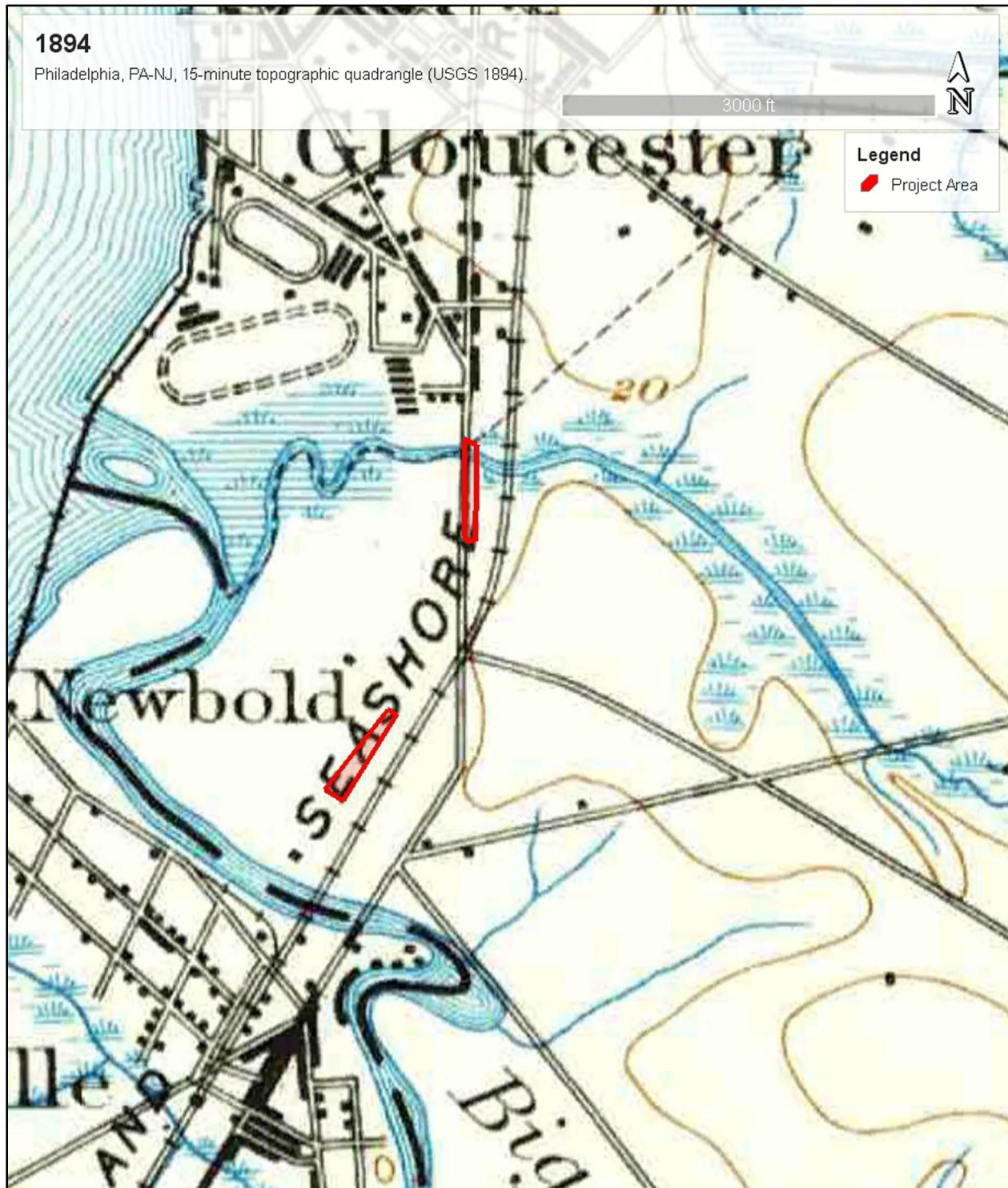


Figure 7: 1894 map showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1894).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

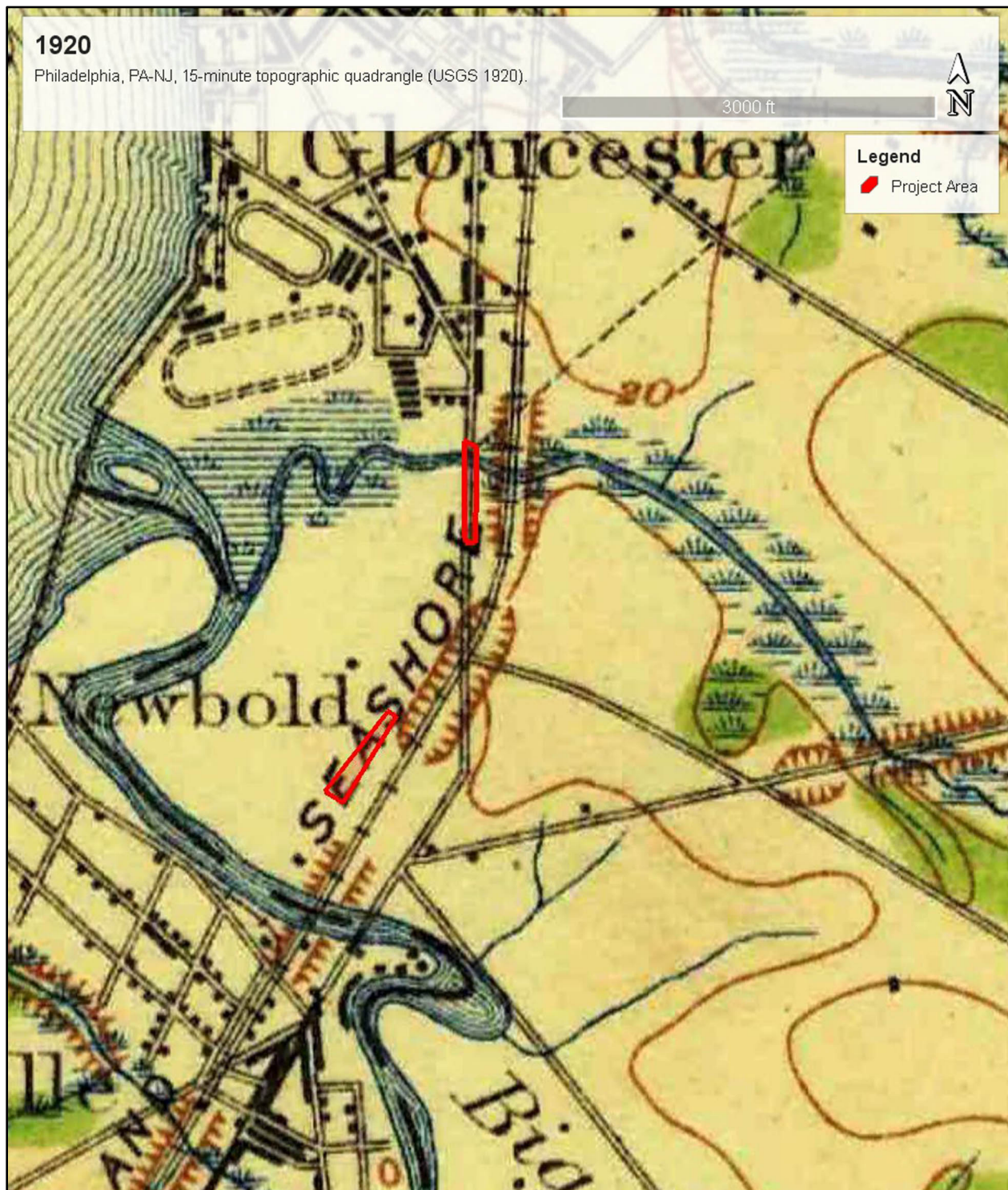


Figure 8: 1920 map showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1920).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

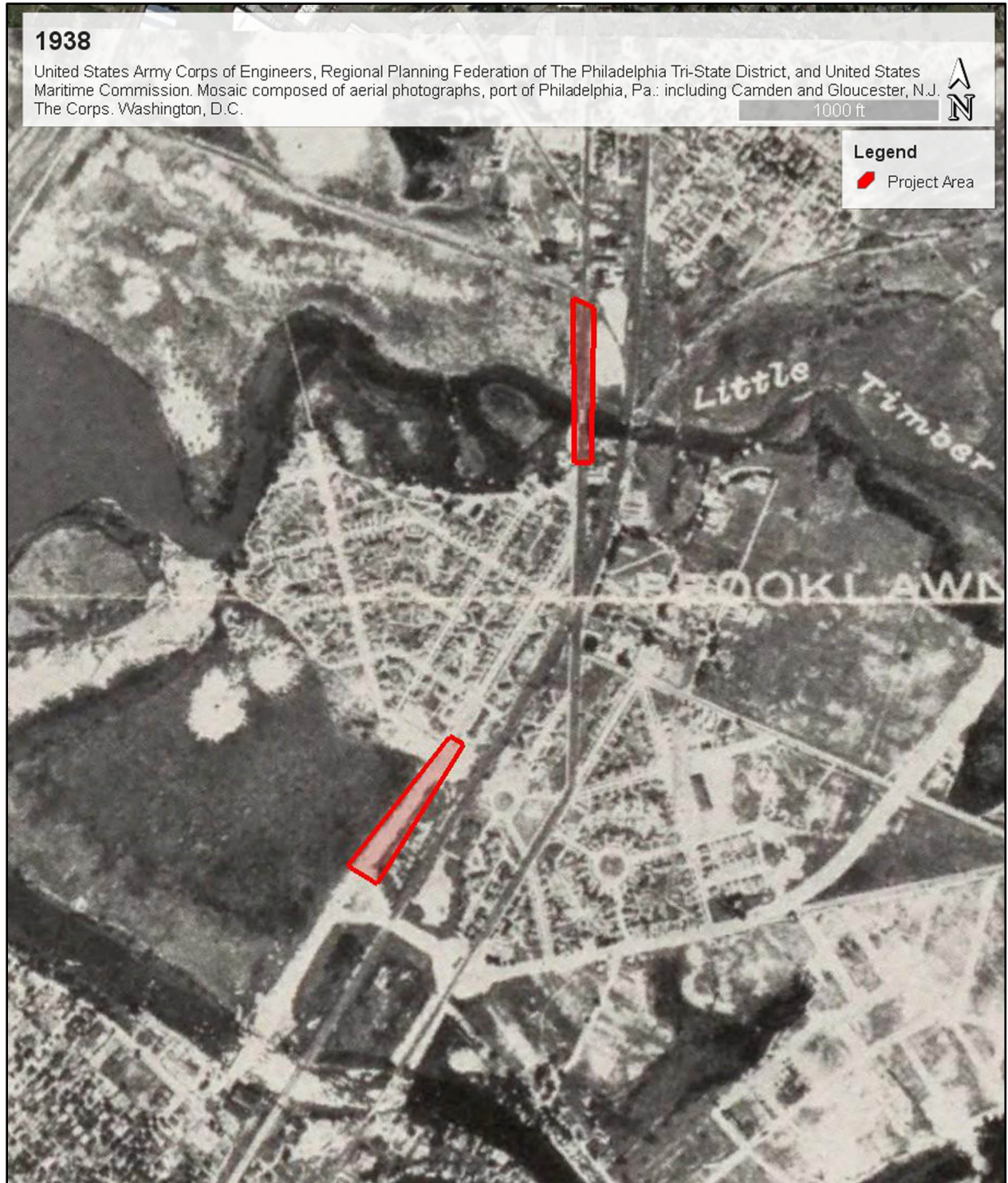


Figure 9: 1938 aerial photograph showing location of Project Site 1 (north) and Project Site 2 (south) (USACE 1938).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

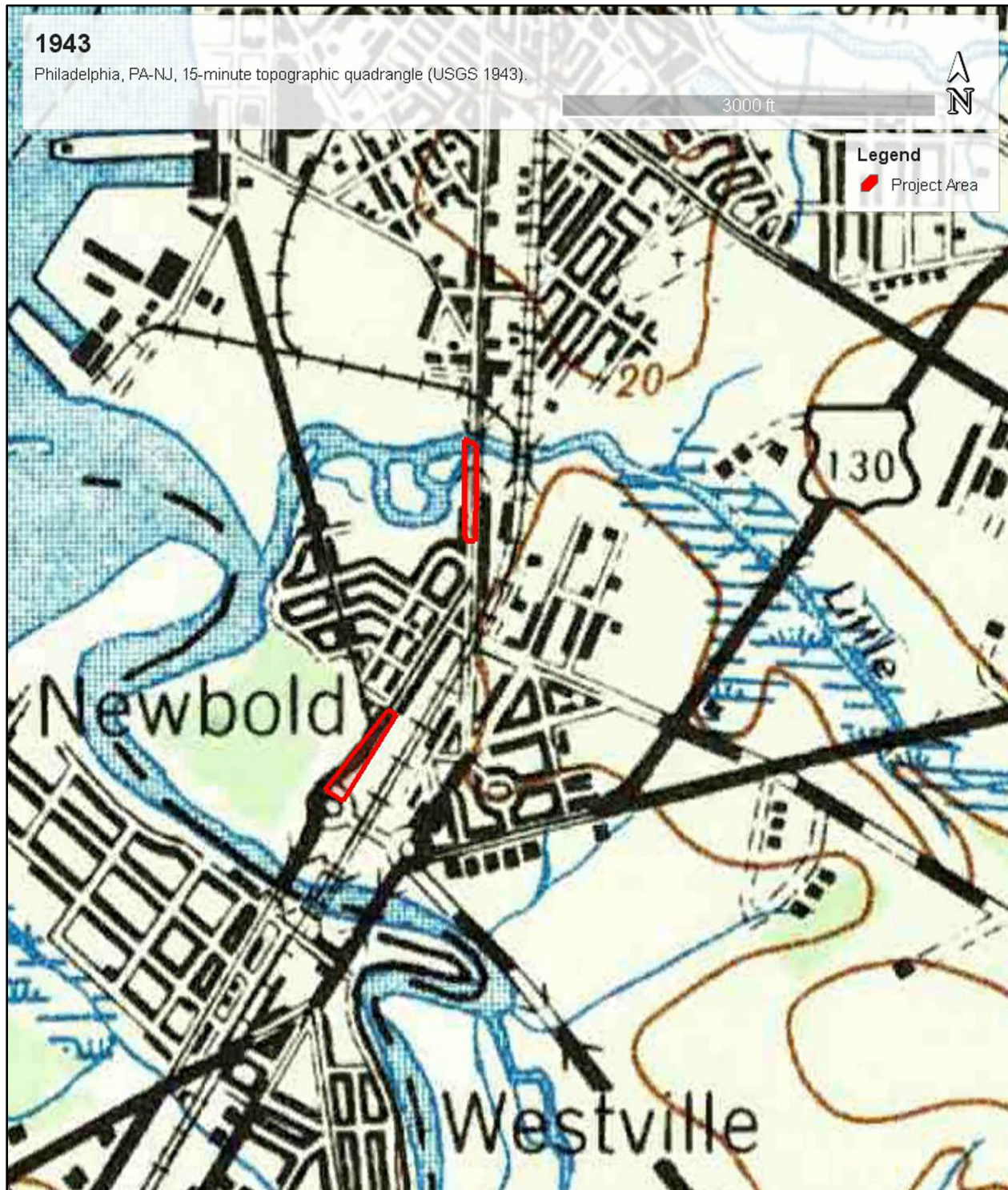


Figure 10: 1943 map showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1943).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

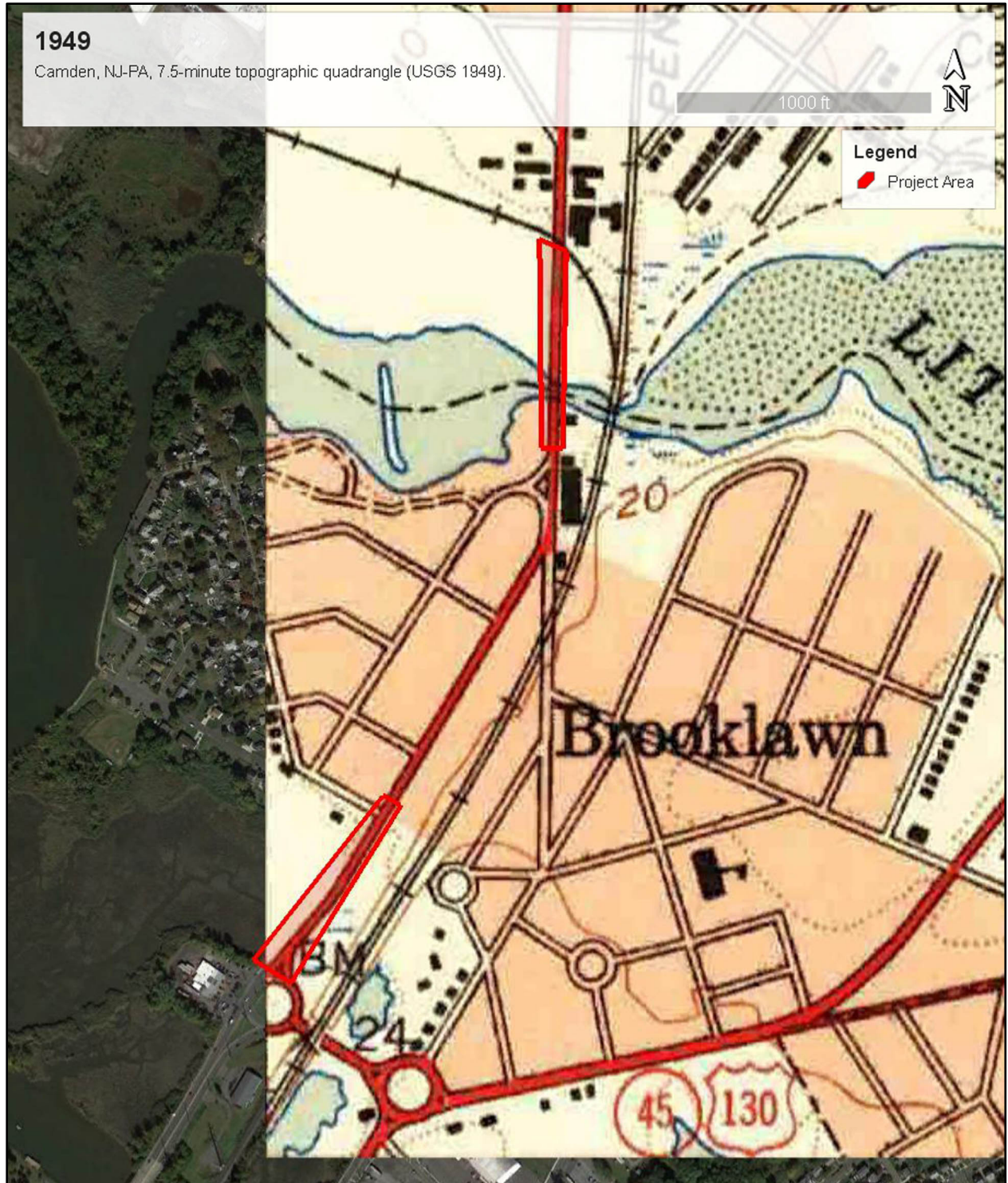


Figure 11: Portion of 1949 map showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1949).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

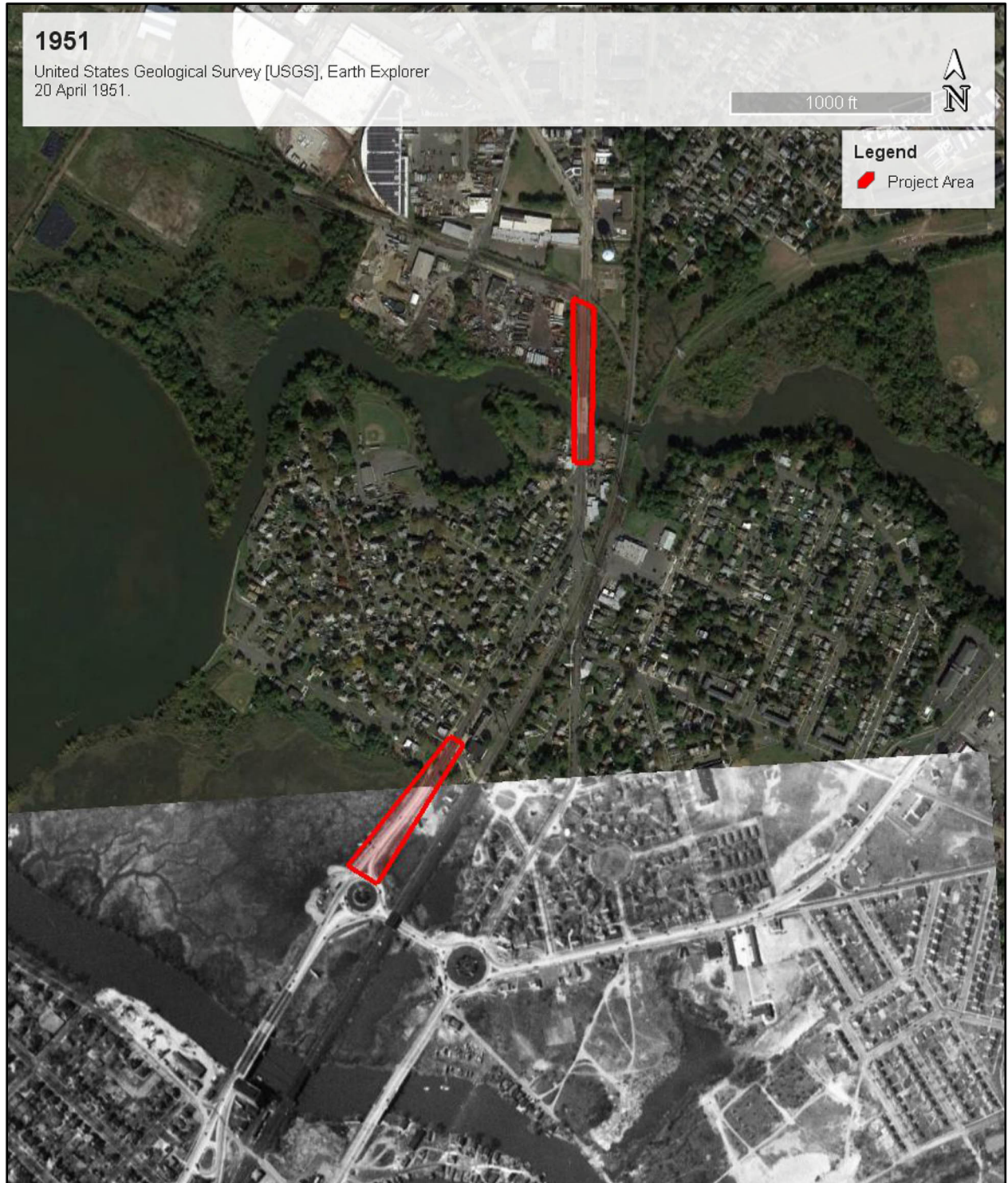


Figure 12: Portion of 1951 aerial photograph showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1951).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

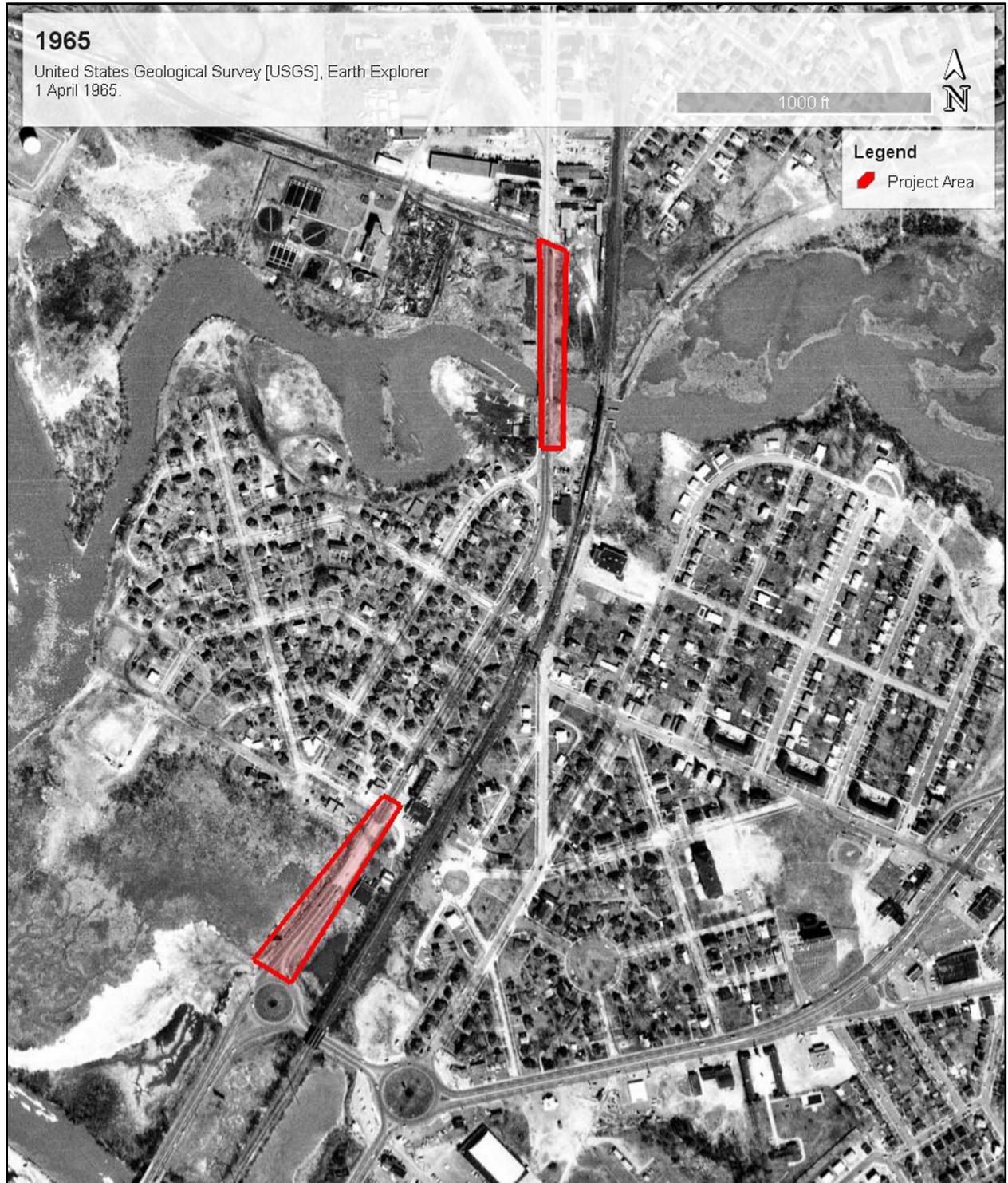


Figure 13: 1965 aerial photograph showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1965).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway



Figure 14: 1970 aerial photograph map showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1970).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

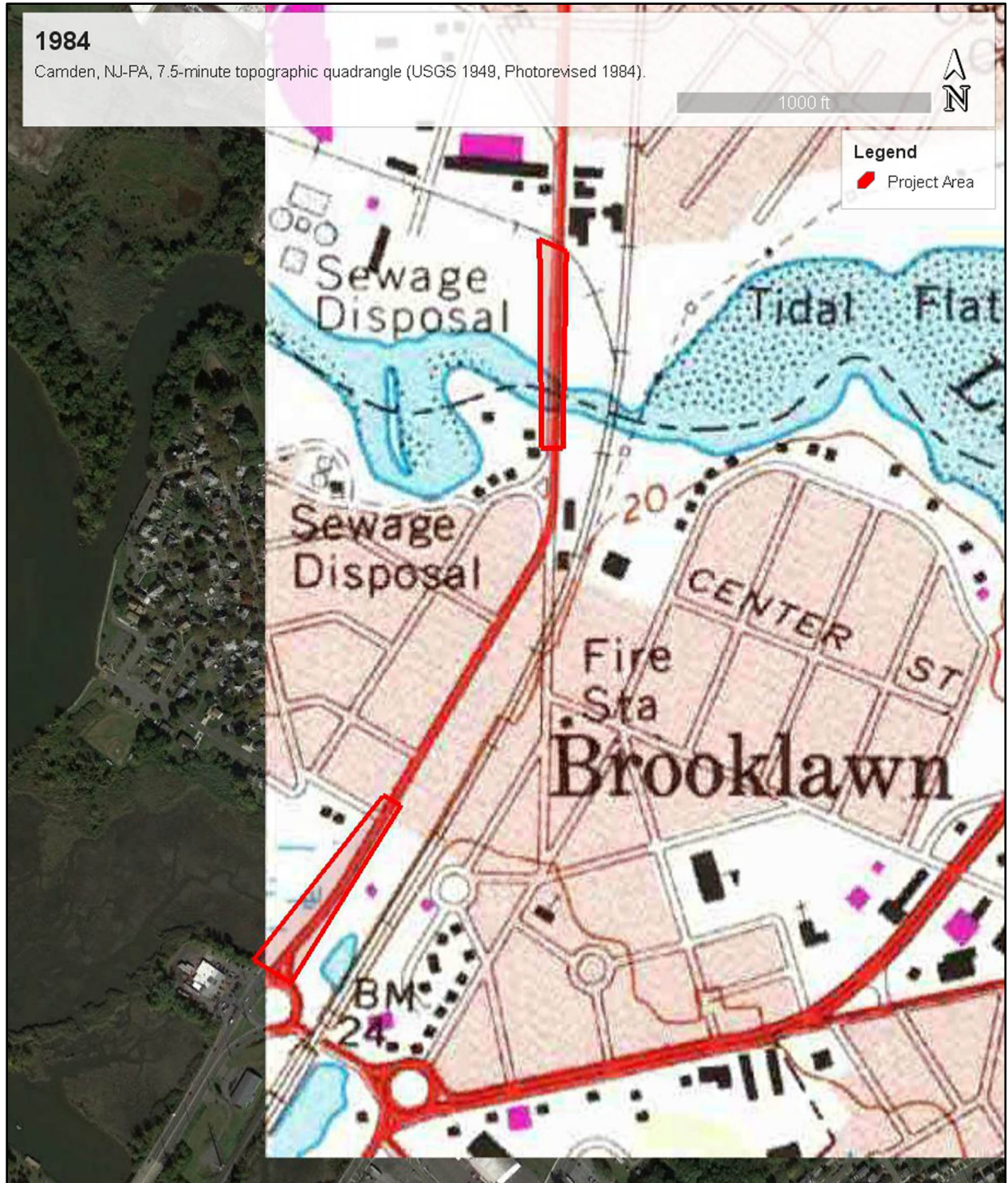


Figure 15: Portion of 1984 map showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1984).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway



Figure 16: 1990 aerial photograph showing location of Project Site 1 (north) and Project Site 2 (south) (USGS 1990).

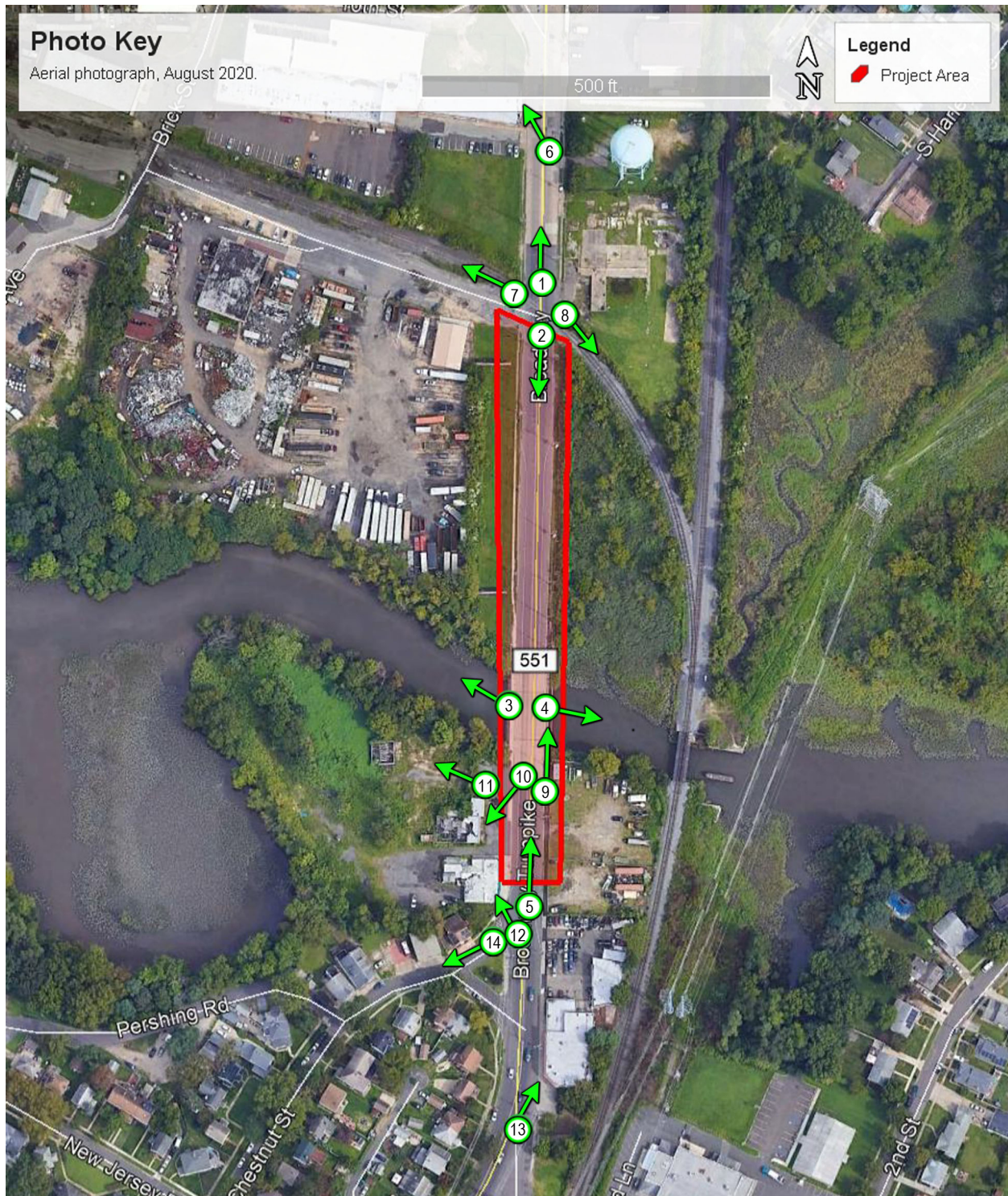
Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

Michael Baker
INTERNATIONAL

Attachment C: Photographs

Project Site 1

**Cultural Resources Screening:**

Camden County Local Concept Development Project for County Route 551 Broadway



Plate 1: Northern terminus of Project Area 1 showing S. Broadway from crossing of Industrial spur of West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines, facing north. (Justin Greenawalt, 07/01/2021).



Plate 2: Northern terminus of Project Area 1 showing S. Broadway from crossing of Industrial spur of West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines, facing south. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:



Plate 3: Center of Project Area 1 showing Little Timber Creek from CR 551 Bridge, facing west. (Justin Greenawalt, 07/01/2021).



Plate 4: Center of Project Area 1 showing West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines Bridge over Little Timber Creek, facing east. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:



Plate 5: Southern terminus of Project Area 1 showing 600 block of New Broadway from intersection of Chestnut Street and northern boundary of the Noreg Village Historic District, facing north. (Justin Greenawalt, 07/01/2021).



Plate 6: Project Area 1; previously unrecorded architectural resource at 549-555 S. Broadway, south (side) and west (front) façades, facing northwest. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway



Plate 7: Project Area 1; previously unrecorded architectural resource, industrial spur of West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines from S. Broadway, facing northwest. (Justin Greenawalt, 07/01/2021).



Plate 8: Project Area 1; previously unrecorded architectural resource, industrial spur of West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines from S. Broadway, facing southeast. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:



Plate 9: Project Area 1 showing CR 551 Bridge over Little Timber Creek, facing north. (Justin Greenawalt, 07/01/2021).



Plate 10: Project Area 1; previously unrecorded architectural resource at 609 New Broadway, east (front) and north (side) façades, facing southwest. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:



Plate 11: Project Area 1; previously unrecorded architectural resource at 609 New Broadway, secondary building, east (front) and south (side) façades, facing northwest. (Justin Greenawalt, 07/01/2021).



Plate 12: Project Area 1; previously unrecorded architectural resource at 601 New Broadway, south (side) and east (front) façades, facing northwest. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway



Plate 13: Project Area 1; previously recorded architectural resource at 500-510 New Broadway, west (front) and south (side) façades, facing northeast. (Justin Greenawalt, 07/01/2021).

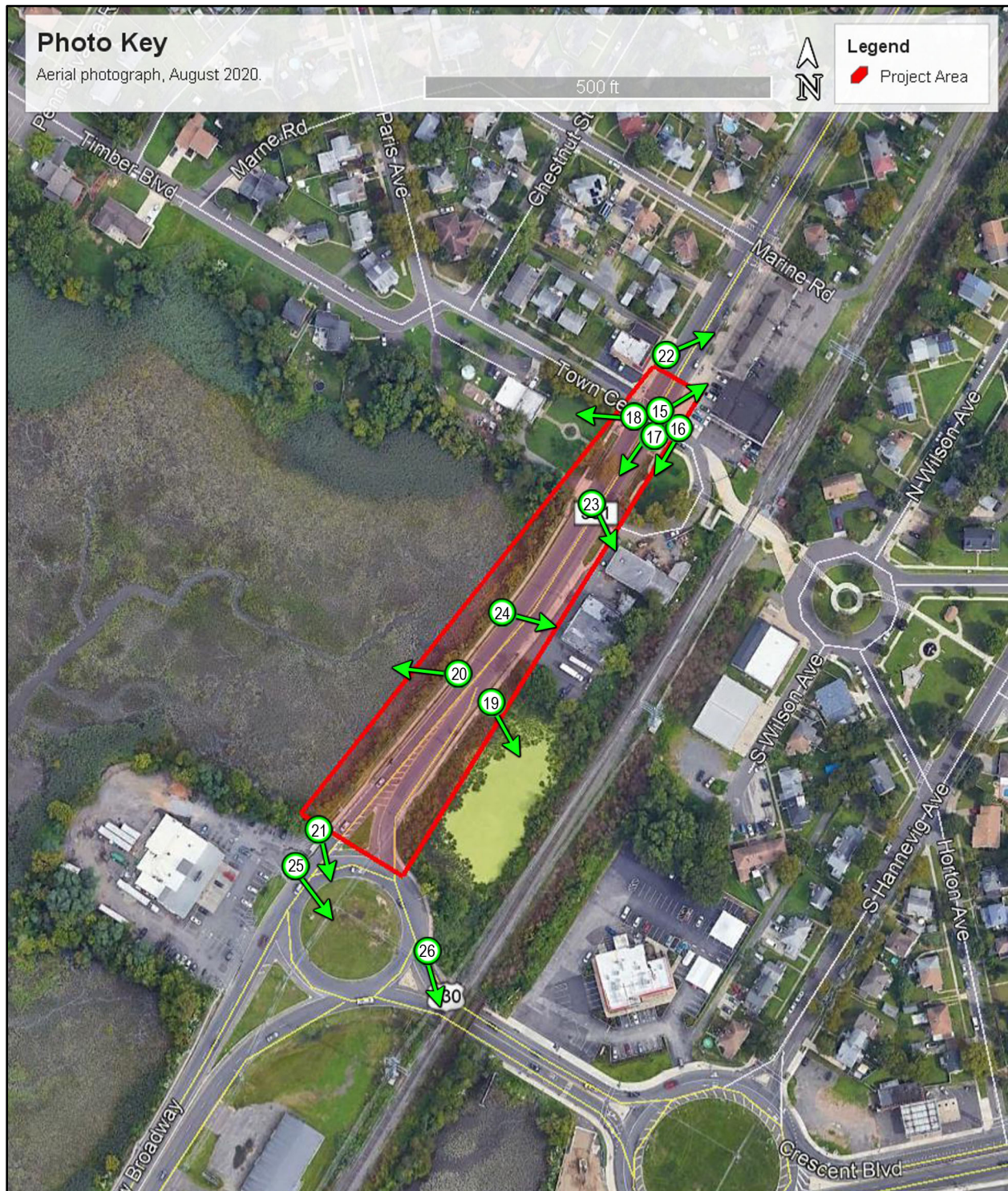


Plate 14: NRHP-listed Noreg Village Historic District at southern terminus of Project Area 1 showing Intersection of New Broadway and Chestnut Street, facing southwest. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway

Project Site 2

**Cultural Resources Screening:**

Camden County Local Concept Development Project for County Route 551 Broadway



Plate 15: Northern terminus of Project Area 2 at intersection of New Broadway and Town Center showing commercial buildings along southeast side of 100 block of New Broadway, facing northeast. (Justin Greenawalt, 07/01/2021).



Plate 16: Northern terminus of Project Area 2 at intersection of New Broadway and Town Center showing southeast side of 100 block of New Broadway, facing south. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway



Plate 17: Northern terminus of Project Area 2 at intersection of New Broadway and Town Center, facing southwest. (Justin Greenawalt, 07/01/2021).



Plate 18: Northern terminus of Project Area 2 at intersection of New Broadway and Town Center showing Brooklawn Water Works at 101 New Broadway, facing west. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:



Plate 19: Center of Project Area 2 showing marshland along southeast side of New Broadway between 114 S. New Broadway and the CR 551/US 130 Brooklawn Circle, facing southeast. (Justin Greenawalt, 07/01/2021).



Plate 20: Center of Project Area 2 showing marshland along northwest side of New Broadway between Town Center and the CR 551/US 130 Brooklawn Circle, facing west. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:



Plate 21: Southern terminus of Project Area 2 showing Brooklawn Circle, CR 551 and US 130, facing south. (Justin Greenawalt, 07/01/2021).



Plate 22: NRHP-listed Noreg Village Historic District at northern terminus of Project Area 2 showing northwest (front) and southeast (side) façades of commercial building at 118-102 New Broadway, facing northeast. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:

Camden County Local Concept Development Project for County Route 551 Broadway



Plate 23: Project Area 2; previously unrecorded architectural resource at 110 S. New Broadway, showing northeast (front) and northwest (side) façades, facing southeast. (Justin Greenawalt, 07/01/2021).



Plate 24: Project Area 2; previously recorded architectural resource at 112-114 S. New Broadway, showing northwest (front) façade, facing east. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:



Plate 25: Project Area 2; previously recorded architectural resource, NRHP-eligible CR 551 and US 130 Brooklawn Circle, facing southeast. (Justin Greenawalt, 07/01/2021).



Plate 26: Project Area 2; previously recorded architectural resource West Jersey and Seashore Railroad/Pennsylvania Reading Seashore Lines showing rail bridge over US 130 between the Brooklawn (Broadway and New Broadway) Circles, facing southeast. (Justin Greenawalt, 07/01/2021).

Cultural Resources Screening:

BASE FORM

Historic Sites #:

Property Name: West Jersey and Seashore Railroad Spur (Gloucester City)
Street Address: Street #: _____ Apartment #: _____
(Low) (High) (Low) (High)
Prefix: _____ **Street Name:** _____ **Suffix:** _____ **Type:** _____
County(s): CAMDEN **Zip Code:** 08030
Municipality(s): Gloucester City **Block(s):** N/A
Local Place Name(s): _____ **Lot(s):** N/A
Ownership: Private (Norfolk Southern Railway) **USGS Quad(s):** Philadelphia, PA;
Camden, NJ

Photograph: West Jersey and Seashore Railroad Spur (Gloucester City), facing northwest near the intersection of South Broadway (CR 551) and 10th Street (J. Greenawalt, 7/1/21).



Description: The West Jersey and Seashore Railroad Spur (Gloucester City) is a single-track industrial railroad spur. The spur encompasses roughly 2,147 feet of track, stretching west from the Norfolk Southern Millville Branch. The track is set on wood ties with gravel ballast for the majority of its length.

Registration and Status Dates: National Historic Landmark: _____ SHPO Opinion: _____
National Register: _____ Local Designation: _____
New Jersey Register: _____ Other Designation: _____
Determination of Eligibility: _____ Date: _____

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

BASE FORM

Historic Sites #:

Location Map:

See Continuation Sheet.

Site Map:

See Continuation Sheet.

Bibliography/Sources:

See Continuation Sheet.

Additional Information: N/A

More Research Needed? ☐ Yes ☒ No

INTENSIVE LEVEL USE ONLY

Attachments Included: ☐ Building ☒ Structure ☐ Object ☐ Bridge
☐ Landscape ☐ Industry

Within Historic District? ☐ Yes ☒ No

Status: ☐ Key-Contributing ☐ Contributing ☐ Non-Contributing

Associated Archaeological Site/Deposit? ☐ Yes
(Known or potential Sites – if yes, please describe briefly)

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

STRUCTURE ATTACHMENT

Historic Sites #:

Common Name: Norfolk Southern Railway Millville Branch Spur (Gloucester City)

Historic Name: West Jersey and Seashore Railroad Spur (Gloucester City)

Present Use: No Activity

Historic Use: Industrial Activity

Construction Date: 1910 **Source:** Camden Post-Telegram 1910:10

Alteration Date(s): 1916, 1917 **Source:** Camden Post-Telegram 1917:3

Designer: Unknown

Physical Condition: Fair

Builder: West Jersey and Seashore Railroad

Remaining Historic Fabric: Low

Type: _____

Roof Finish Materials: _____

Exterior Finish Materials _____

Exterior Description: The West Jersey and Seashore Railroad Spur (Gloucester City) is a linear railroad spur located at the southern edge of Gloucester City, Camden County, New Jersey. The spur spans approximately 2,147 feet, following a 30-foot right-of-way beginning at the Norfolk Southern Railway Millville Branch in the southeast and arcing northwest to a point just past the terminus of 10th Street. The spur is single tracked, utilizing wood ties on a gravel ballast for the majority of its length. At the spur's grade crossing with South Broadway (CR 551), the tracks are embedded within the asphalt pavement. No crossing signals or other additional railroad features are present.

The existing length of track was formerly part of a larger series of industrial spur lines stretching from the Millville Branch to the edge of the Delaware River waterfront. Based on current aerial imagery, only this 2,147-foot linear portion of the original 2.64-mile network remains; all other tracks have been paved over or removed.

Interior Description: N/A

Setting: The overall character of the spur's setting is urban and industrial. Near its southeast end, the spur intersects with South Broadway, a major north-south county artery. It is surrounded to the north and south with warehouses and light industry including a cold storage facility and a scrapyard. Vacated marshland stretches beyond the spur's northwest terminus to the east bank of the Delaware River. The topography is flat across the spur's entire length.

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

ELIGIBILITY WORKSHEET

Historic Sites #:

History: See Continuation Sheet.

Significance: The railroad spur was evaluated for National Register of Historic Places (NRHP) eligibility using the four criteria for evaluation as defined by the Secretary of the Interior in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. The railroad spur is recommended not eligible for the NRHP or New Jersey Register under any applicable criteria.

**Eligibility for New Jersey
and National Registers:**

☐ Yes

☒ No

**National
Register Criteria:**

☐ A

☐ B

☐ C

☐ D

Level of Significance

☐ Local

☐ State

☐ National

Justification of Eligibility/Ineligibility:

See Continuation Sheet.

For Historic Districts Only:

Property Count: Key Contributing: _____ Contributing: _____ Non Contributing: _____

For Individual Properties Only:

List the completed attachments related to the property's significance:

Narrative Boundary Description:

The resource boundary encompasses the entire right-of-way of the surviving length of track. The 30-foot right-of-way follows the track from its beginning point at the Norfolk Southern Railway Millville Branch to its western terminus.

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:

History:

The West Jersey and Seashore Railroad Spur (Gloucester City) was constructed in 1910 as a single-track industrial spur of the West Jersey and Seashore Mainline (Camden Post-Telegram, 1910). The rail corridor was initially a linear spur serving only the Hinde & Dauch Paper Company's plant at the corner of Sixth and Charles Streets in Gloucester City (Sanborn Map Company, 1915). The spur was greatly expanded throughout 1916 and 1917 to accommodate two new companies, the Pennsylvania Shipbuilding Company and the New Jersey Shipbuilding Company (Camden Post-Telegram, 1917). The two companies' plants spanned the entire Delaware River waterfront from Sixth Street to Little Timber Creek and necessitated a vast array of additional rails to serve the various buildings (Sanborn Map Company, 1923).

The spur would see its highest traffic during wartime. With the United States' entry into the World War I in 1917, the U.S. Shipping Board commandeered both the Pennsylvania Company and the New Jersey Company's shipyards for the construction of naval vessels (Camden Daily Courier, 1917). The Pusey & Jones Company, an established Shipping Board contractor, bought both companies a year later (Camden Post-Telegram, 1918). Pusey & Jones continued producing ships for the navy through the end of the war, but the yard was shuttered in 1920 (Camden Post-Telegram, 1920). The shipyard was used throughout the 1930s and 1940s as a storage facility, first for American Radiator and then for RCA Records, before John Trumpy and Sons Boatbuilders purchased it in 1942 (Camden Courier-Post, 1942). The yard was used for the production of naval vessels throughout World War II, with the Trumpy company earning a Navy 'E' in 1943 for its service (Camden Courier-Post, 1943).

After the war, industrial activity in the southern part of Gloucester City began to decline. The only additions to the spur after 1917 were constructed in the late 1960s to serve several new warehouses southeast of the former shipyard (Camden Courier-Post, 1969). John Trumpy and Sons continued to produce luxury yachts at the Gloucester plant until 1947, at which point the company moved operations to Annapolis, Maryland, citing increasingly oppressive pollution along the Delaware River (Camden Courier-Post, 1947). They sold the land to the Harshaw Chemical Company which operated out of the former shipyard until at least 1985 (Philadelphia Inquirer, 1985). The last remaining buildings were demolished ca. 2010, leaving the site entirely vacant. Hinde & Dauch was eventually absorbed into the West Virginia Pulp and Paper Company (Westvaco) which continued operation of the Gloucester plant until 1973 (Camden Courier-Post, 1973). Their original plant is still active and is currently occupied by Gloucester City Box Works.

Today, only about sixteen percent of the original series of spurs survives and the condition of the tracks indicates a lack of any traffic for a number of years. The former shipyard site is entirely vacant and overgrown, with all tracks west of Water Street paved over, removed, or overgrown beyond recognition. Although the former paper plant and warehouses are still active, they have been cut off from the rail line by the removal of the tracks. Most of the land once occupied by the spur has now reverted to the marshland that existed along the riverbank prior to industrialization.

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:

Justification of Eligibility/Ineligibility:

Statement of Significance: The Gloucester Branch Railroad does not appear to be eligible for the National Register of Historic Places (NRHP) under any applicable criteria.

The shipyards that the spur originally served played a major role in the growth of Gloucester City and the United States' effort during both World Wars, but nothing remains of these yards to tie the spur to this significance. The sections of the spur that directly related to this function have also been removed, further limiting any possible significance under Criterion A. The rail spur is not known to be associated with the lives of persons significant in our past, and is thus not eligible under Criterion B. The spur is unremarkable in design or engineering and is lacking in the integrity required to convey any significance under Criterion C. The rail spur was not evaluated under Criterion D as no archaeological studies were conducted.

The section of the mainline between Camden, Camden County and Glassboro, Gloucester County was previously recorded as the West Jersey & Seashore Railroad/Pennsylvania Reading Seashore Lines Historic District and recommended eligible for the New Jersey and National Registers, but no SHPO opinion has been recorded. The rail spur in question is recommended as a non-contributing feature of this district due to its poor integrity.

Historic Integrity: Overall, the rail spur retains a low level of integrity, no longer possessing sufficient integrity to convey its historic significance.

Location: The extant portion of the rail spur remains in its original location with no discernable realignments since its initial construction. However, most of its rails have been removed or paved over reducing the original interconnected network of rails to a single linear stretch.

Design: While some elements may have been replaced or repaired throughout its history, the integrity of the spur's original design remains intact.

Setting: The spur's setting remains industrial overall, but the volume and character of industrial activity has changed substantially since its initial construction. Heavy industry has been replaced by light industrial facilities that no longer require freight rail lines. Most of the land once occupied by this heavy industry is now vacant and has reverted to the marshland that existed along the riverfront prior to industrialization.

Materials and Workmanship: The majority of the spur's original rails have been removed or paved over.

Feeling: The spur's combined lack of integrity of location, setting, materials, and workmanship contribute to an overall inability to convey the associative qualities of its particular place in time.

Association: The spur is no longer used in its historic capacity as an industrial spur. Although industrial facilities still operate in the vicinity, they do not utilize the spur. The condition of the track indicates that it receives no traffic and is generally abandoned.

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:

Bibliography and Sources:

Gloucester City, New Jersey

- 2013 Gloucester City Tax Maps (GCTM), on file at the Gloucester City Tax Assessors Office, Gloucester City, Camden County, New Jersey.

Camden Courier-Post [Camden, New Jersey] (CCP)

- 1941 "Warehouse Leased to RCA for Storage." 21 July: 20. Camden, New Jersey.
1942 "Mathis Firm Buys Pusey-Jones Yard." 21 May: 3. Camden, New Jersey.
1943 "Trumpy Shipyards Awarded Second E." 3 April: 7. Camden, New Jersey.
1947 "Filth in River Costs Area Yacht Plant." 10 September: 3. Camden, New Jersey.
1969 "Gloucester City Firm Joins Warehouse Unit." 16 June: 5. Camden, New Jersey.
1973 "Westvaco Phases Out Box Plant." 16 July: 31. Camden, New Jersey.
1974 "\$1 Million in Money Orders Recovered in Gloucester." 25 April: 29. Camden, New Jersey.

Camden Daily Courier [Camden, New Jersey] (CDC)

- 1917 "Nation Will Use Gloucester Land." 24 April: 1. Camden, New Jersey.

Camden Post-Telegram [Camden, New Jersey] (CPT)

- 1910 "Gloucester Notes." 7 September: 10. Camden, New Jersey.
1916 "Keel of First Ship Laid at Gloucester." 9 September: 3. Camden, New Jersey.
1917 "New Ship Yards Boom at Gloucester." 2 July: 3. Camden, New Jersey.
1918 Pusey & Jones Company advertisement announcing purchase of New Jersey and Pennsylvania Shipbuilding Companies at Gloucester City. 12 April: 7. Camden, New Jersey
1920 "Launch Last Ship at P. & J. Yard." 15 September: 4. Camden, New Jersey.

Google Earth

- 2021 Aerial Imagery, Gloucester City, New Jersey, November 2021. Accessed via Google EarthPro.

McVarish, Douglas C. and Courtney L. Clark

- 2009 *An Intensive-Level Historic Building Survey of a Portion of the Gloucester City Local Historic District. Gloucester City, Camden County, New Jersey.* John Milner Associates Inc., Philadelphia, Pennsylvania. On file at the New Jersey Historic Preservation Office, Trenton, New Jersey.

Philadelphia Inquirer [Philadelphia, Pennsylvania] (PI)

- 1985 "Known and Suspected Hazardous Dumping Sites." 27 January: 285. Philadelphia, Pennsylvania.

Sanborn Map Company (SMC)

- Various Dates *Gloucester City, Camden County, New Jersey.* Sanborn Map Company, New York.

U.S. Geological Service (USGS)

- 1894 Philadelphia, PA, 15-minute topographic quadrangle. USGS, Washington D.C.
1949a Camden, NJ, 7.5-minute topographic quadrangle. USGS, Washington D.C.
1949b Philadelphia, PA, 7.5-minute topographic quadrangle. USGS, Washington D.C.
1967a Camden, NJ, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.
1967b Philadelphia, PA, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.
1967[1984] Camden, NJ, 7.5-minute topographic quadrangle, photorevised 1984. USGS, Reston, Virginia.
1967[1985] Philadelphia, PA, 7.5-minute topographic quadrangle, photorevised 1985. USGS, Reston, Virginia.
1995a Camden, NJ, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.
1995b Philadelphia, PA, 7.5-minute topographic quadrangle. USGS, Reston, Virginia.

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:

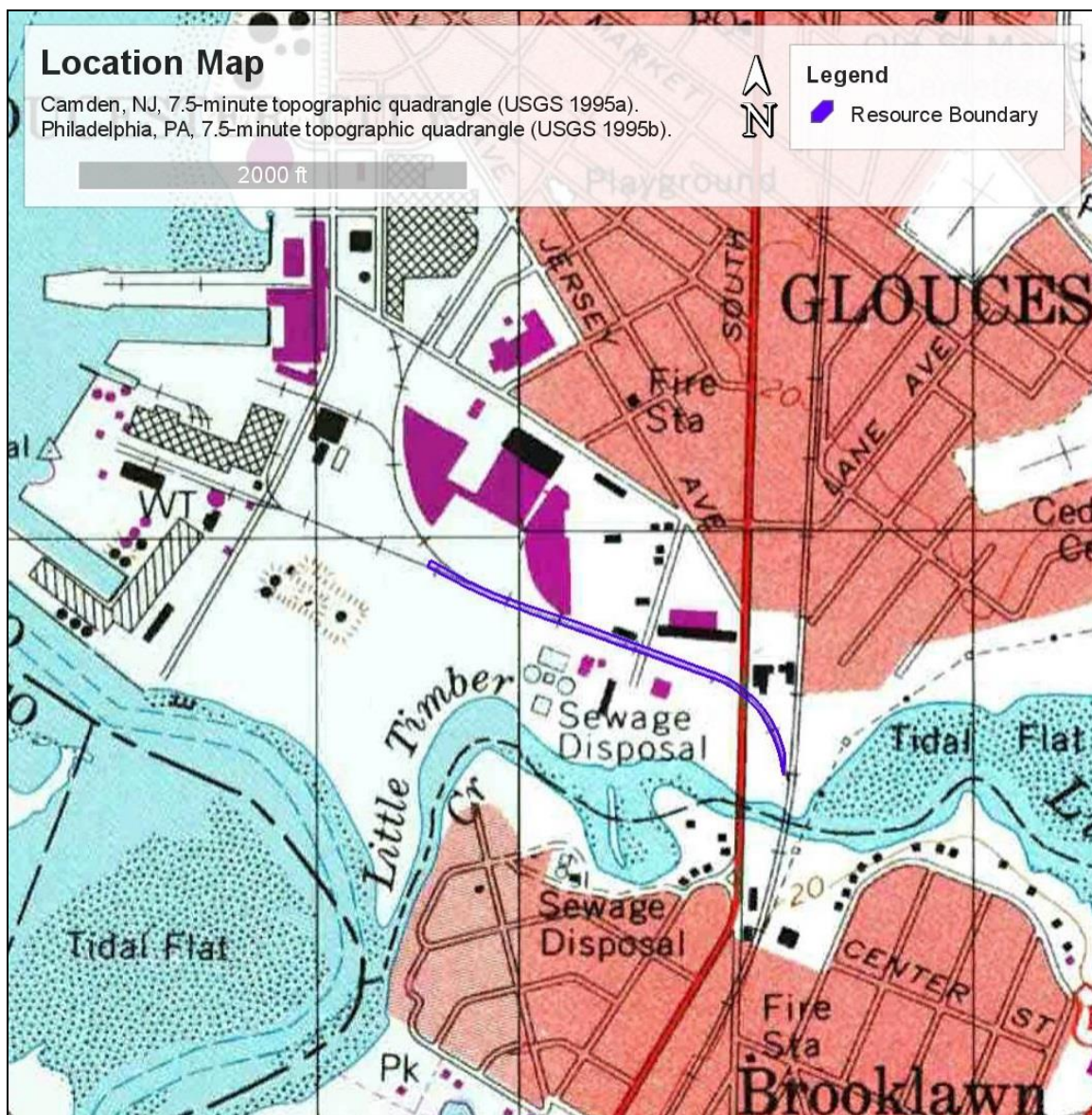


Figure 1. Topographic map showing the location of the industrial spur (USGS 1995a, 1995b).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

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CONTINUATION SHEET

Historic Sites #:



Figure 2. Aerial image showing the location of the industrial spur (Google Earth 2021).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

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Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:



Figure 3. Aerial photograph showing the full original extent of the industrial spur prior to track removal/abandonment (Google Earth 2021).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:



Figure 4. Historical topographic map showing the location of the industrial spur prior to industrialization (USGS 1894).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:

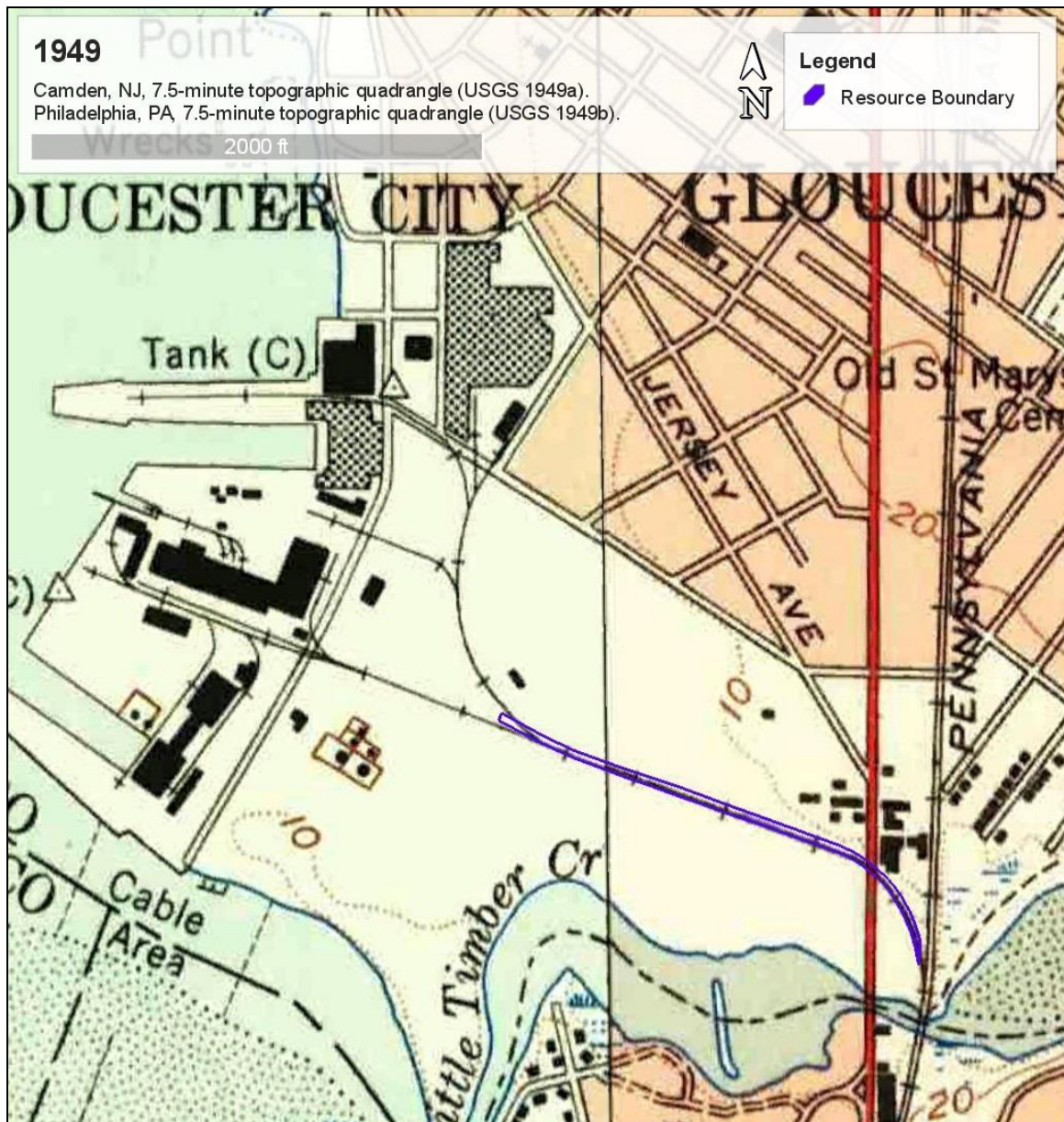


Figure 5. Historical topographic map showing the location of the industrial spur (USGS 1949a, 1949b).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:

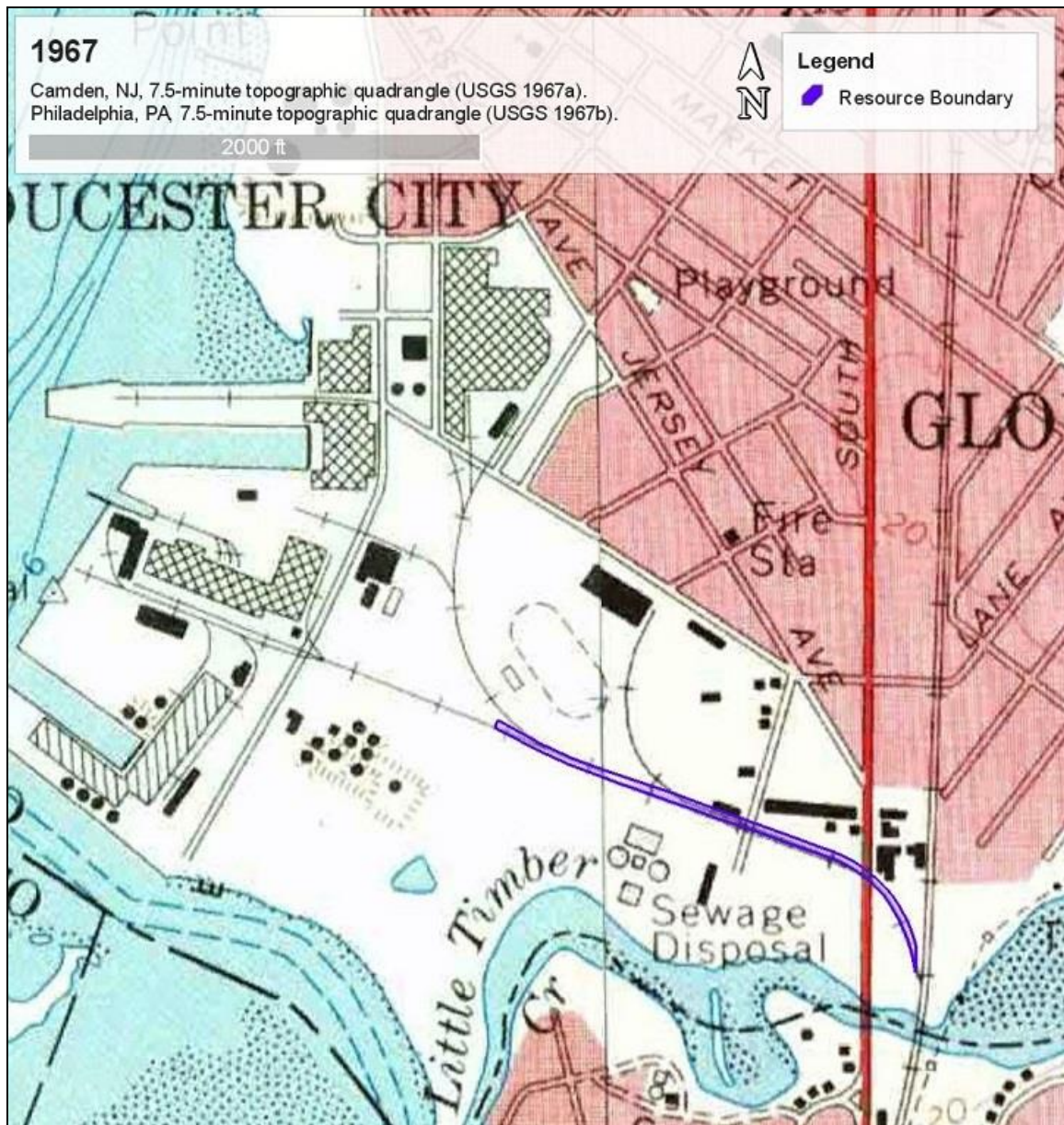


Figure 6. Historical topographic map showing the location of the industrial spur (USGS 1967a, 1967b).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:

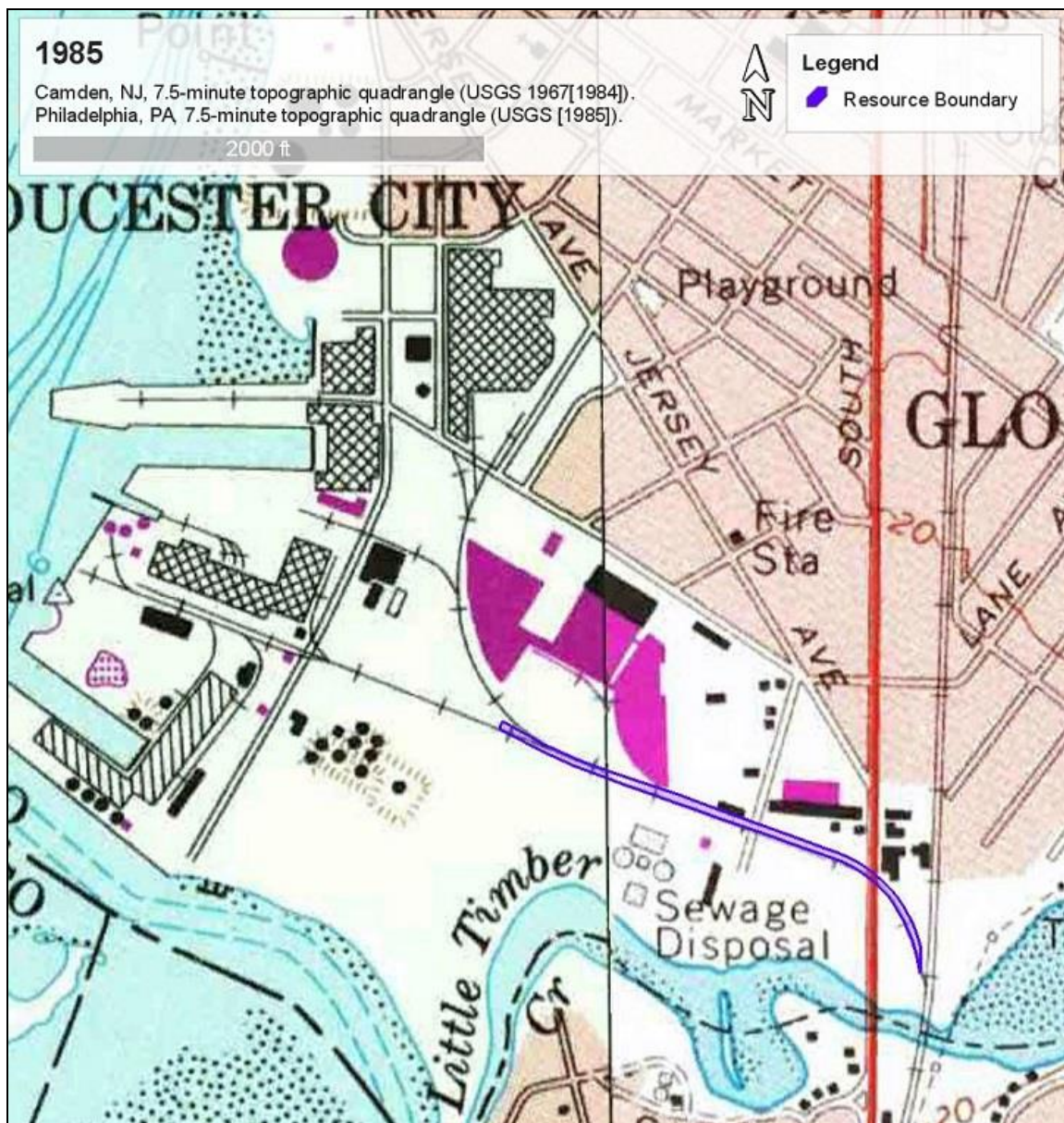


Figure 7. Historical topographic map showing the location of the industrial spur (USGS 1967[1984], 1967[1985]).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

CONTINUATION SHEET

Historic Sites #:



Photo 1. West Jersey and Seashore Railroad Spur (Gloucester City) at the intersection of South Broadway and 10th Street, facing northwest (J. Greenawalt, 7/1/21).



Photo 2. West Jersey and Seashore Railroad Spur (Gloucester City) near the intersection of South Broadway and 10th Street, facing southeast (J. Greenawalt, 7/1/21).

Survey Name: DVRPC CR 551 Broadway, Camden County LCD

Date: July 16, 2022

Surveyor: Thomas J. Lucy

Organization: Michael Baker International, Inc., Moon Township, PA 15108

APPENDIX K – UTILITY INFORMATION

STATE	FEDERAL PROJECT NO.
NJ	XXX ####(###)



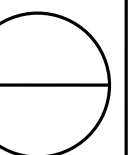
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DELAWARE VALLEY REGIONAL PLANNING COMMISSION

**COUNTY ROAD 551 BROADWAY
LOCAL CONCEPT DEVELOPMENT PROJECT**

CONTRACT NO. ##### MICHAEL BAKER INTERNATIONAL, INC. CERTIFICATION OF AUTHORIZATION NO. 24GA27954700

SYLVESTER M. FRYC, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04809700



USER: DATE & TIME: 15-MAR-2022 09:06
DATE & TIME: 15-MAR-2022 09:06
Baker PW Path Location: pw\msh-pw-bentley.com\mb-pw-pw-08Documents\Hamilton_NJ01_Projects\DV\RPC184180_DV\RPC-D\Working\APR184180_E-UTIL-403.dgn



Keller Engineers of New Jersey, LLC

121 Market Street, 2nd Floor

Camden, NJ 08102

Phone: 856.536.3169, Ext. 101

Fax: 856.494.0040

E-mail: smody@keller-engineers.com

www.keller-engineers.com

COA Number 24GA28276100

October 21, 2021

Mr. Michael Ostrom, Superintendent of Public Works
Brooklawn Water Works
101 New Broadway
Brooklawn, NJ 08030

RE: **REQUEST FOR MUNICIPAL UTILITY INFORMATION**
BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE
FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130
BOROUGH OF BROOKLAWN, CAMDEN COUNTY, NJ

Dear Mr. Ostrom:

The Delaware Valley Regional Planning Commission (DVRPC) and Michael Baker International have retained the services of Keller Engineers of New Jersey, LLC (Keller) to coordinate the utility engineering activities for the Local Concept Development Study of Broadway (CR 551), as referenced above. We have provided the following documents to accompany our introductory letter, for your convenience:

- Utility Base Maps
- Straight Line Diagram of CR 551; MP 29.46 to MP 30.32
- Aerial Image of CR 551 Study Areas

It is our understanding that **Brooklawn Water Works** may have facilities in the area. We are requesting any as-built records/drawings concerning the location of any of your facilities within this area be provided to help facilitate our design of this project.

Please verify the accuracy/completeness of all your existing facilities and red mark the attached plans to denote the type, size, age, material and limits of your facilities including ones that have been omitted from the plans. In addition, please indicate any scheduled improvements to your facilities and their approximate implementation date. Please return the requested information to my attention by Friday, November 5, 2021. If you have no facilities in this area, we would appreciate if you would let us know that also by returning this letter and checking the statement below.

_____ We DO NOT have existing facilities within the project limits

Information can be e-mailed to smody@keller-engineers.com or mailed to my attention at the address noted above. Should you have any questions or concerns, please feel free to contact me directly at 856-536-3169, Ext. 101.

Thank you.

Very Truly Yours,

KELLER ENGINEERS OF NEW JERSEY, LLC

A handwritten signature in black ink, appearing to read "Samir D. Mody". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Samir D. Mody, PE
Principal-in-Charge / Project Manager

AlDairi, Saif

From: Mike Ostrom <mostrom@brooklawn-nj.com>
Sent: Thursday, March 10, 2022 10:18 AM
To: AlDairi, Saif
Cc: Mody, Samir D.; Ryan Giles
Subject: Re: Request for Utility Information - Broadway
Attachments: Broadway utilities2.pdf; broadway utilities.pdf

Good morning,

As discussed on the phone this morning, I tried to identify the areas in question regarding water and sewer locations. there are several locations on this map that have private utilities running through them. please see attached files. One file that was down loaded is unmarked due to identity of location. please let me know if an onsite meeting is necessary and we will plan a date and time.

Respectfully,

Michael Ostrom

Deputy superintendent / CPWM
Brooklawn – Westville
Public Works
Cell- 856-373-1716
Office- 856-456-2638
Fax-856-456-4832

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From: AlDairi, Saif <SAlDairi@keller-engineers.com>
Sent: Wednesday, March 9, 2022 3:32 PM
To: Mike Ostrom <mostrom@brooklawn-nj.com>
Cc: Mody, Samir D. <SMody@keller-engineers.com>
Subject: FW: Request for Utility Information - Broadway

CAUTION: THE FOLLOWING EMAIL WAS SENT FROM OUTSIDE OF YOUR ORGANIZATION. PLEASE TAKE CARE WHEN CLICKING LINKS OR OPENING ATTACHMENTS. WHEN IN DOUBT, PLEASE CONTACT J. HARTE SUPPORT.

Good afternoon Mr. Michael,

It was a pleasure speaking with you this afternoon. We are sorry you did not receive our previous email that was sent on March 4th. For your convenience, I am forwarding the email to you and can be found below, it was sent by Mr. Samir Mody, President of Keller Engineers of New Jersey, LLC. For your convenience, I am providing you with the attachments from that email as well (please see attached).

On a separate note, and as we discussed over the phone, any help with Comcast would be appreciated. we are looking into having information whether Comcast have any UG/AERIAL utilities for both locations of the project- Gloucester City and Brooklawn.

Thank you so much for your time and efforts.

Best Regards,

Saif AlDairi / Structural Engineer

Keller Engineers of New Jersey, LLC

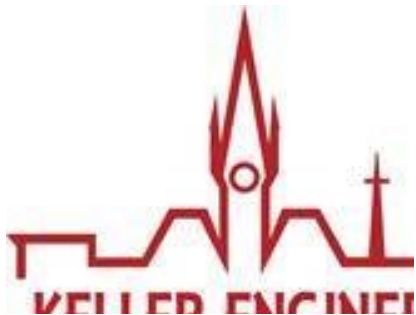
Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169

Fax: 856-494-0040

Mobile: 201-419-2266

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From: Mody, Samir D.

Sent: Friday, March 04, 2022 8:16 AM

To: mostrom@brooklawn-nj.com; dtomsa@ccmua.org; James.VenitoJr@pseg.com; AheadofPaving@pseg.com; Henry, Christopher A <Christopher.Henry@pseg.com>

Subject: Request for Utility Information - Broadway

BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130, BOROUGH OF BROOKLAWN AND GLOUCESTER CITY, CAMDEN COUNTY, NJ

Gentlemen good morning,

I am attaching copies of our base mapping files for the above referenced project to facilitate your efforts. The utility information presented in the attached graphics was acquired either from as-builts (you provided us) or field survey data conducted on the project.

Can you please assist our design team with clarifying the location of your respective facilities at your earliest convenience? We are requesting additional information related to water, sewer, gas and overhead electric facilities along the Broadway corridor within the limits noted above.

Thank you in advance for your assistance.

Best Regards,

Sam D. Mody, PE | President

Keller Engineers of New Jersey, LLC

Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169, Ext. 101

Fax: 856-494-0040

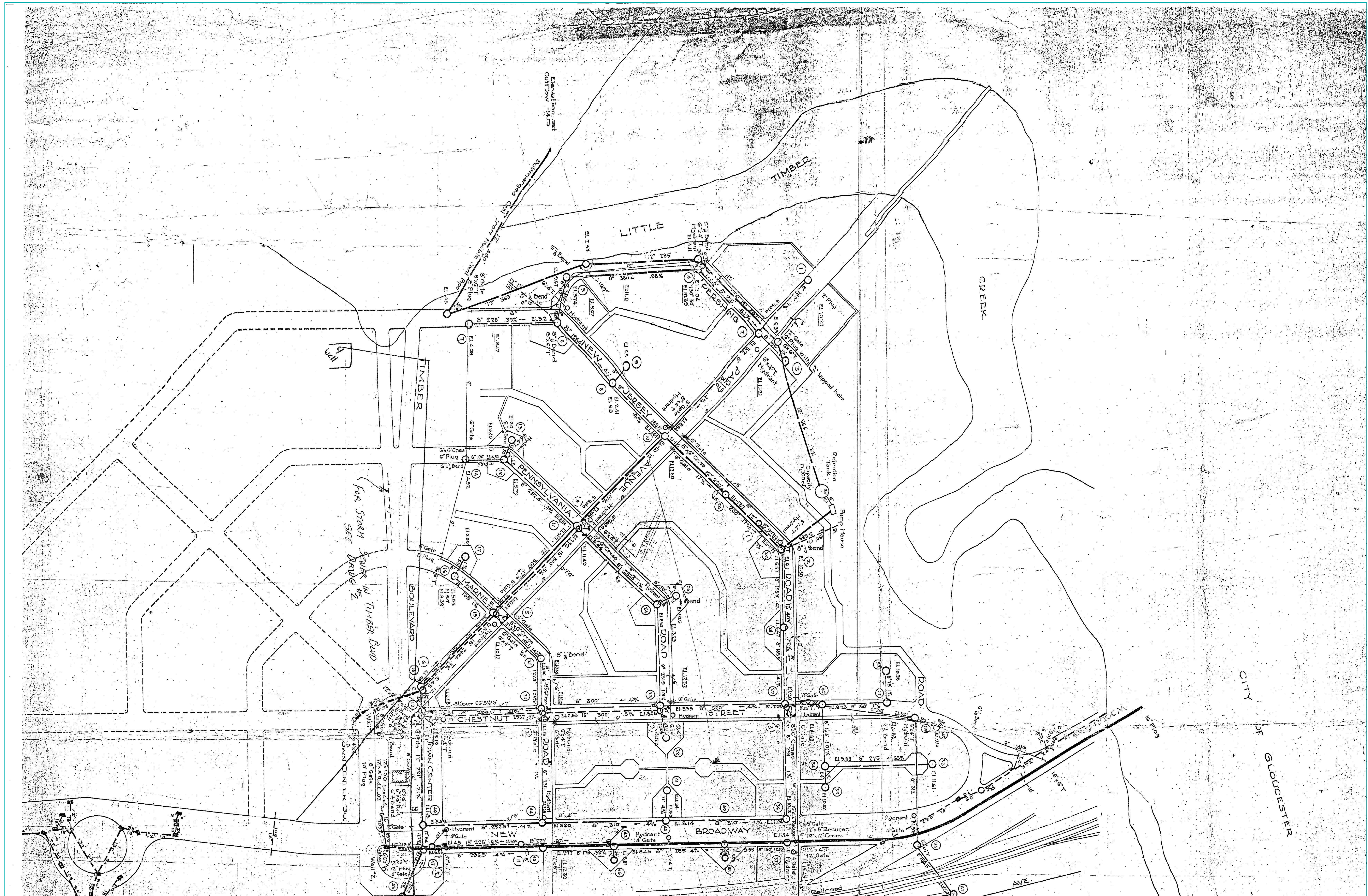
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Keller Engineers of New Jersey, LLC

121 Market Street, 2nd Floor

Camden, NJ 08102

Phone: 856.536.3169, Ext. 101

Fax: 856.494.0040

E-mail: smody@keller-engineers.com

www.keller-engineers.com

COA Number 24GA28276100

October 18, 2021

Mr. Dumitru Tomsa, Engineering Department
Camden County Municipal Utilities Authority (CCMUA)
1645 Ferry Avenue
Camden, NJ 08104

RE: REQUEST FOR MUNICIPAL UTILITY INFORMATION
BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE
FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130
BOROUGH OF BROOKLAWN, CAMDEN COUNTY, NJ

Dear Mr. Tomsa:

The Delaware Valley Regional Planning Commission (DVRPC) and Michael Baker International have retained the services of Keller Engineers of New Jersey, LLC (Keller) to coordinate the utility engineering activities for the Local Concept Development Study of Broadway (CR 551), as referenced above. We have provided the following documents to accompany our introductory letter, for your convenience:

- Utility Base Maps
- Straight Line Diagram of CR 551; MP 29.46 to MP 30.32
- Aerial Image of CR 551 Study Areas

It is our understanding that CCMUA may have facilities in the area. We are requesting any as-built records/drawings concerning the location of any of your facilities within this area be provided to help facilitate our design of this project.

Please verify the accuracy/completeness of all your existing facilities and red mark the attached plans to denote the type, size, age, material and limits of your facilities including ones that have been omitted from the plans. In addition, please indicate any scheduled improvements to your facilities and their approximate implementation date. Please return the requested information to my attention by Friday, October 29, 2021. If you have no facilities in this area, we would appreciate if you would let us know that also by returning this letter and checking the statement below.

_____ We DO NOT have existing facilities within the project limits

Information can be e-mailed to smody@keller-engineers.com or mailed to my attention at the address noted above. Should you have any questions or concerns, please feel free to contact me directly at 856-536-3169, Ext. 101.

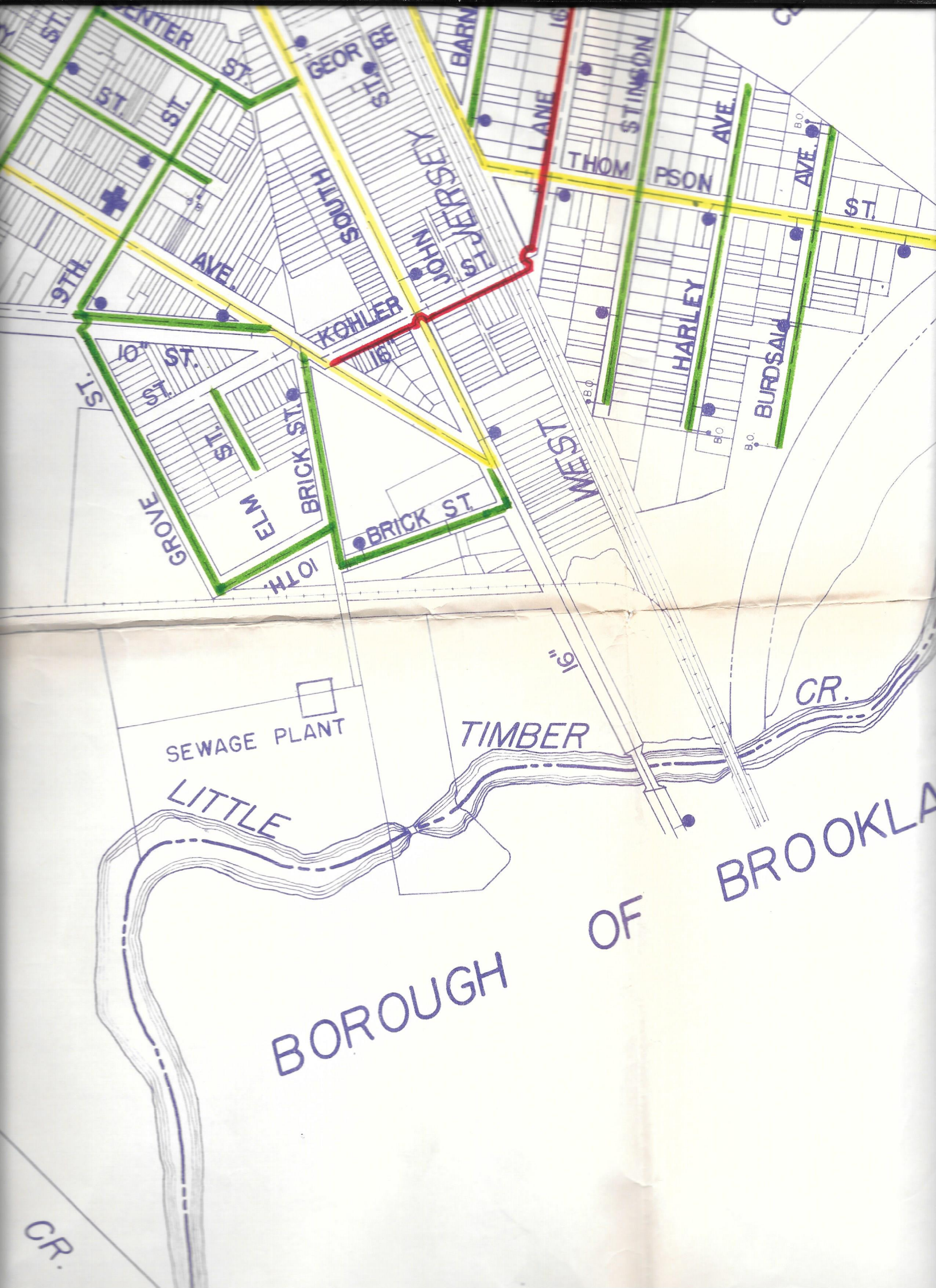
Thank you.

Very Truly Yours,

KELLER ENGINEERS OF NEW JERSEY, LLC

A handwritten signature in black ink, appearing to read "Samir D. Mody". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Samir D. Mody, PE
Principal-in-Charge / Project Manager





Keller Engineers of New Jersey, LLC

121 Market Street, 2nd Floor

Camden, NJ 08102

Phone: 856.536.3169, Ext. 101

Fax: 856.494.0040

E-mail: smody@keller-engineers.com

www.keller-engineers.com

COA Number 24GA28276100

October 13, 2021

Mr. Mike McCabe
Comcast Cable
1250 Haddonfield-Berlin Road
Cherry Hill, NJ 08054

RE: **REQUEST FOR CABLE UTILITY INFORMATION**
BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE
FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130
BOROUGH OF BROOKLAWN, CAMDEN COUNTY, NJ

Dear Mr. McCabe:

The Delaware Valley Regional Planning Commission (DVRPC) and Michael Baker International have retained the services of Keller Engineers of New Jersey, LLC (Keller) to coordinate the utility engineering activities for the Local Concept Development Study of Broadway (CR 551), as referenced above. We have provided the following documents to accompany our introductory letter, for your convenience:

- Utility Base Maps
- Straight Line Diagram of CR 551
- Aerial Image of CR 551 Study Areas

It is our understanding that Comcast Cable may have facilities in the area. We are requesting any as-built records/drawings concerning the location of any of your facilities within this area be provided to help facilitate our design of this project.

Please verify the accuracy/completeness of all your existing facilities and red mark the attached plans to denote the type, size, age, material and limits of your facilities including ones that have been omitted from the plans. In addition, please indicate any scheduled improvements to your facilities and their approximate implementation date. Please return the requested information to my attention by Friday, October 29, 2021. If you have no facilities in this area, we would appreciate if you would let us know that also by returning this letter and checking the statement below.

_____ We DO NOT have existing facilities within the project limits

Information can be e-mailed to smody@keller-engineers.com or mailed to my attention at the address noted above. Should you have any questions or concerns, please feel free to contact me directly at 856-536-3169, Ext. 101.

Thank you.

Very Truly Yours,
KELLER ENGINEERS OF NEW JERSEY, LLC

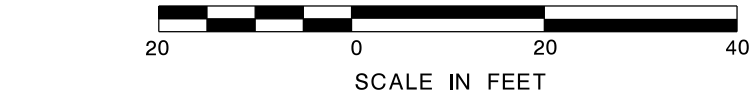
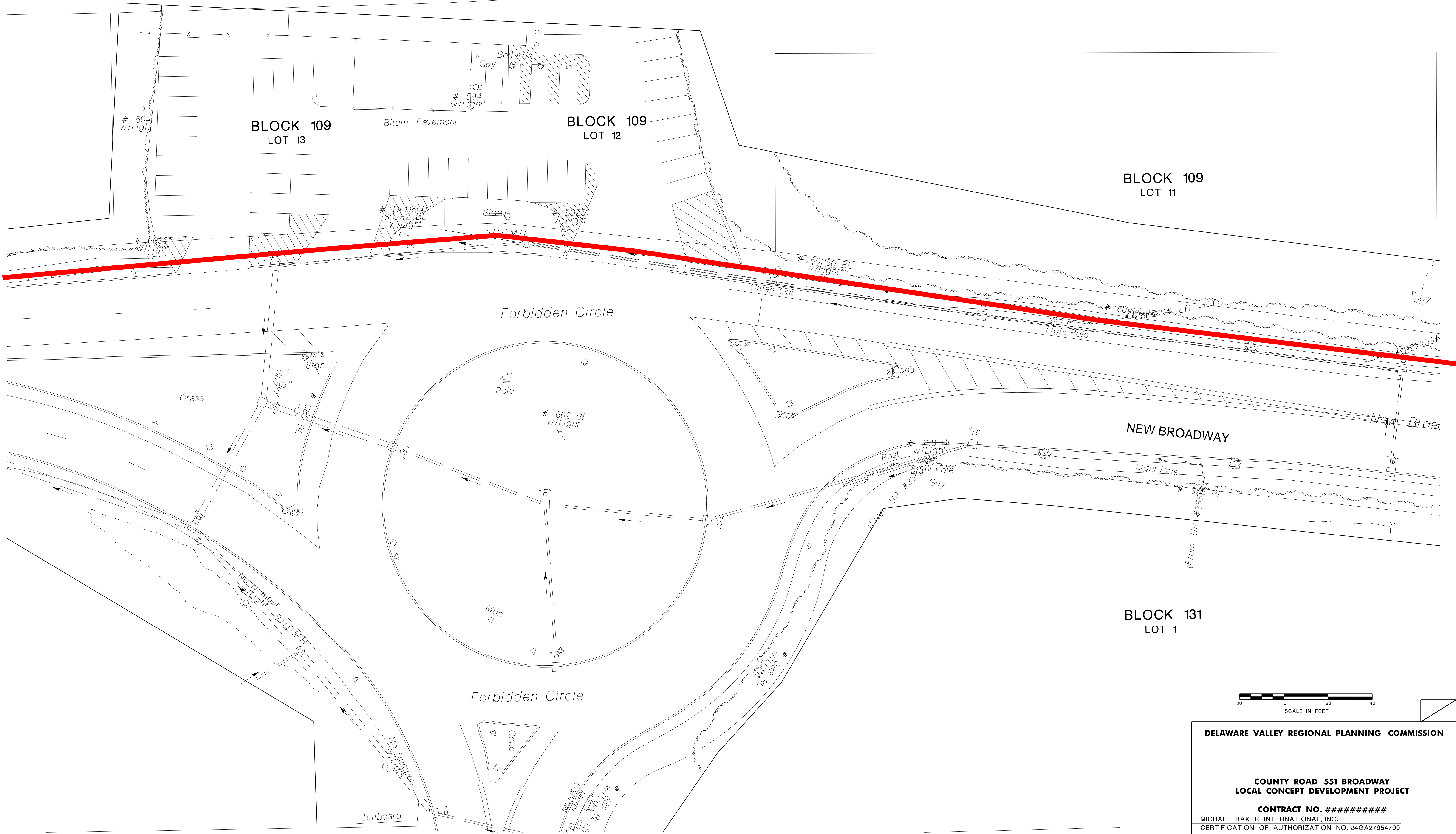
A handwritten signature in black ink, appearing to read "Samir D. Mody". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

Samir D. Mody, PE
Principal-in-Charge / Project Manager

Location of Comcast facilities is approximate based on existing records.
Prior to any construction please request locates

STATE	FEDERAL PROJECT NO.
NJ	XXX ###(###)

Existing Aerial plant



DELAWARE VALLEY REGIONAL PLANNING COMMISSION

COUNTY ROAD 551 BROADWAY
LOCAL CONCEPT DEVELOPMENT PROJECT

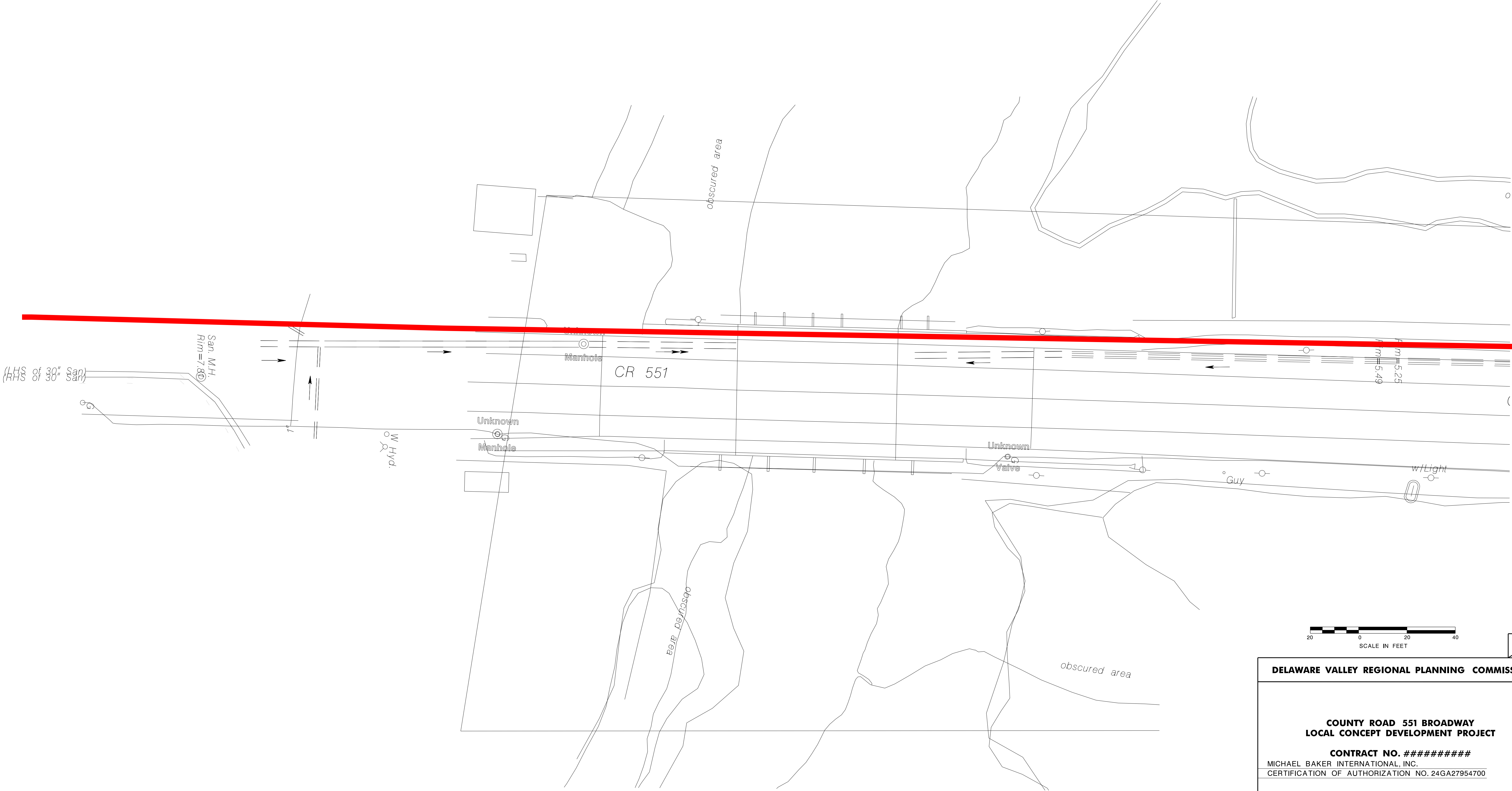
CONTRACT NO. #####
MICHAEL BAKER INTERNATIONAL, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27954700

SYLVESTER M. FRYC, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04809700

Location of Comcast facilities is approximate based on existing records.
Prior to any construction please request locates

Existing Aerial plant

N.J. State Plane Ground Coordinates

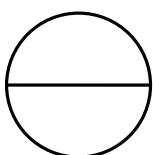


DELAWARE VALLEY REGIONAL PLANNING COMMISSION

COUNTY ROAD 551 BROADWAY
LOCAL CONCEPT DEVELOPMENT PROJECT

CONTRACT NO. #####
MICHAEL BAKER INTERNATIONAL, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27954700

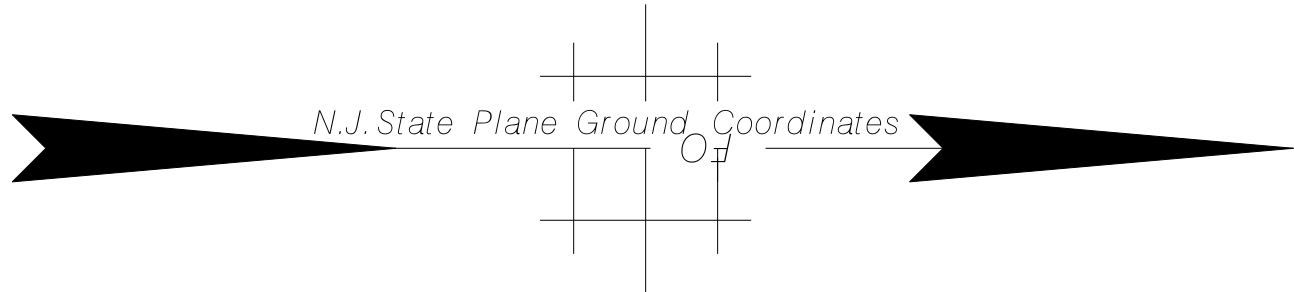
SYLVESTER M. FRYC, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04809700



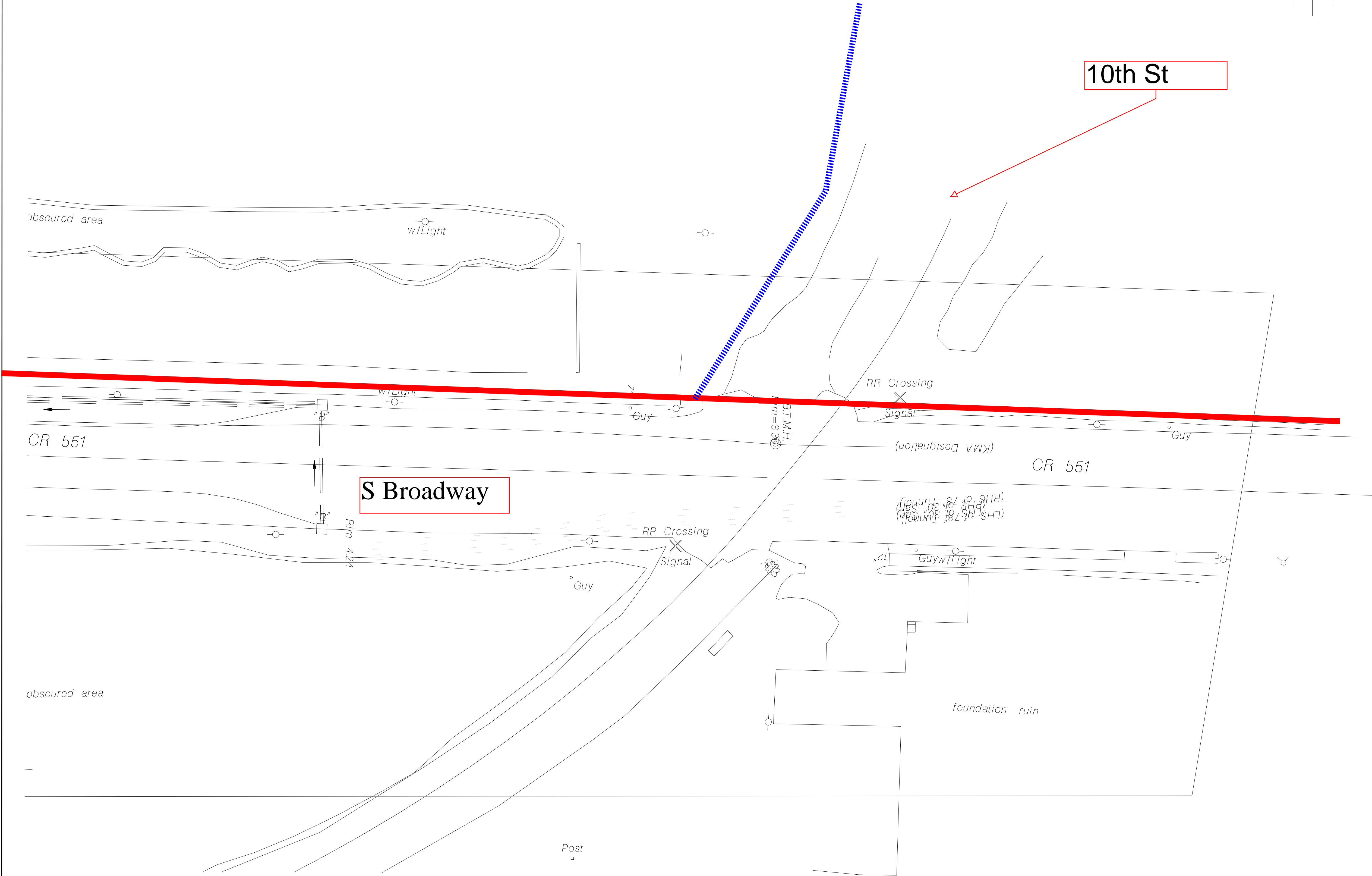
Existing Aerial plant

Existing Aerial plant

Location of Comcast facilities is approximate based on existing records.
Prior to any construction please request locates



10th St

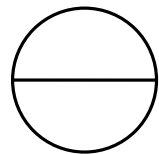


DELAWARE VALLEY REGIONAL PLANNING COMMISSION

COUNTY ROAD 551 BROADWAY
LOCAL CONCEPT DEVELOPMENT PROJECT

CONTRACT NO. #####
MICHAEL BAKER INTERNATIONAL, INC.
CERTIFICATION OF AUTHORIZATION NO. 24GA27954700

SYLVESTER M. FRYC, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04809700





Keller Engineers of New Jersey, LLC
121 Market Street, 2nd Floor
Camden, NJ 08102
Phone: 856.536.3169, Ext. 101
Fax: 856.494.0040
E-mail: smody@keller-engineers.com
www.keller-engineers.com
COA Number 24GA28276100

October 13, 2021

Ms. Adelaida Colon, Regional Public Affairs Manager
PSE&G Gas and Electric Divisions
410 Route US 130 South
Bordentown, NJ 08055

RE: **REQUEST FOR GAS & ELECTRIC UTILITY INFORMATION**
BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE
FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130
BOROUGH OF BROOKLAWN, CAMDEN COUNTY, NJ

Dear Ms. Colon:

The Delaware Valley Regional Planning Commission (DVRPC) and Michael Baker International have retained the services of Keller Engineers of New Jersey, LLC (Keller) to coordinate the utility engineering activities for the Local Concept Development Study of Broadway (CR 551), as referenced above. We have provided the following documents to accompany our introductory letter, for your convenience:

- Utility Base Maps
- Straight Line Diagram of CR 551
- Aerial Image of CR 551 Study Areas

It is our understanding that PSE&G may have facilities in the area. We are requesting any as-built records/drawings concerning the location of any of your facilities within this area be provided to help facilitate our design of this project.

Please verify the accuracy/completeness of all your existing facilities and red mark the attached plans to denote the type, size, age, material and limits of your facilities including ones that have been omitted from the plans. In addition, please indicate any scheduled improvements to your facilities and their approximate implementation date. Please return the requested information to my attention by Friday, October 29, 2021. If you have no facilities in this area, we would appreciate if you would let us know that also by returning this letter and checking the statement below.

_____ We DO NOT have existing facilities within the project limits

Information can be e-mailed to smody@keller-engineers.com or mailed to my attention at the address noted above. Should you have any questions or concerns, please feel free to contact me directly at 856-536-3169, Ext. 101.

Thank you.

Very Truly Yours,

KELLER ENGINEERS OF NEW JERSEY, LLC

A handwritten signature in black ink, appearing to read "Samir D. Mody". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Samir D. Mody, PE
Principal-in-Charge / Project Manager

AlDairi, Saif

From: AlDairi, Saif
Sent: Friday, March 11, 2022 11:18 AM
To: Mokoid, Jamie
Cc: Mody, Samir D.; Henry, Christopher A
Subject: RE: Request for Utility Information - Broadway
Attachments: 184160_E-UTIL.pdf; 184160_E-UTIL2.pdf

Mr. Jamie,

Are the attached plans sent originally work? They are also attached in this email for your convenience.

Please let me know.

Thank you.

Best Regards,

Saif AlDairi | Structural Engineer

Keller Engineers of New Jersey, LLC

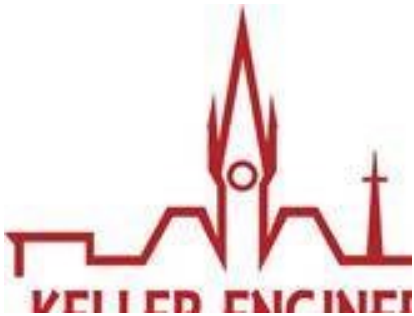
Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169

Fax: 856-494-0040

Mobile: 201-419-2266

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From: Mokoid, Jamie <Jamie.Mokoid@pseg.com>
Sent: Friday, March 11, 2022 9:01 AM
To: AlDairi, Saif <SAIDairi@keller-engineers.com>
Cc: Mody, Samir D. <SMody@keller-engineers.com>; Henry, Christopher A <Christopher.Henry@pseg.com>
Subject: RE: Request for Utility Information - Broadway

If you send plans we can mark them up

From: AlDairi, Saif <SAIDairi@keller-engineers.com>
Sent: Friday, March 11, 2022 8:09 AM
To: Mokoid, Jamie <Jamie.Mokoid@pseg.com>
Cc: Mody, Samir D. <SMody@keller-engineers.com>
Subject: [EXTERNAL] RE: Request for Utility Information - Broadway

Good morning Mr. Jamie,

Thank you for your email.

We have acquired utility information in the attached graphics from field survey and as-built data conducted on the Broadway project. We are looking to clarify the location of each facility; water, sewer, gas, and overhead electric along the Broadway corridor within the limits of the project which can be seen in the attachments.

Would you please assist our design team in clarifying the location of PSE&G's facilities on the attached base mapping files?

Thank you for your time.

Best Regards,

Saif AlDairi / Structural Engineer

Keller Engineers of New Jersey, LLC

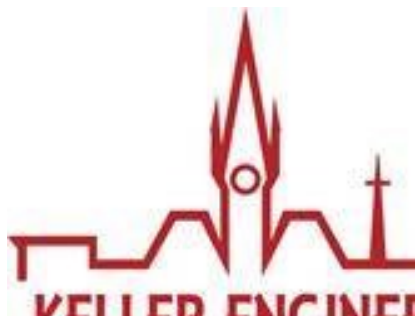
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From: Mokoid, Jamie <Jamie.Mokoid@pseg.com>
Sent: Thursday, March 10, 2022 6:02 PM
To: AlDairi, Saif <SAIDairi@keller-engineers.com>
Subject: FW: Request for Utility Information - Broadway

Im sorry what is it that your asking for?

From: Henry, Christopher A <Christopher.Henry@pseg.com>
Sent: Thursday, March 10, 2022 11:44 AM
To: Mokoid, Jamie <Jamie.Mokoid@pseg.com>
Subject: FW: Request for Utility Information - Broadway

From: AlDairi, Saif <SAIDairi@keller-engineers.com>
Sent: Thursday, March 10, 2022 11:15 AM
To: Henry, Christopher A <Christopher.Henry@pseg.com>
Cc: Mody, Samir D. <SMody@keller-engineers.com>
Subject: [EXTERNAL] FW: Request for Utility Information - Broadway

CAUTION

CAUTION

CAUTION

This e-mail is from an **EXTERNAL** address. The actual sender is (SAIDairi@keller-engineers.com) which may be different from the display address in the From: field. Be cautious of clicking on links or opening attachments. Suspicious? Report it via the Report Phishing button. On mobile phones, forward message to Cyber Security.

Good morning Mr. Christopher,

I am forwarding an email that was sent to you by Mr. Samir Mody, President of Keller Engineers of New Jersey, LLC, on March 4th, requesting for utility information for the Broadway project. I am not sure if you have received it, but if you could please take the time to respond to either email. For your convenience, I am providing you with the attachments from that email as well (please see attached).

Thank you for your time.

Best Regards,

Saif AlDairi | Structural Engineer

Keller Engineers of New Jersey, LLC

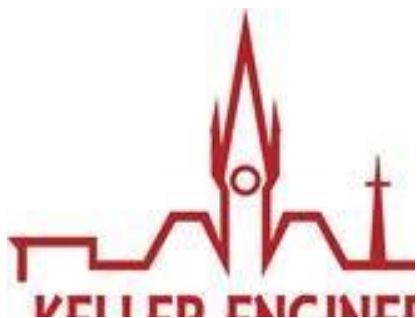
Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

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From: Mody, Samir D.

Sent: Friday, March 04, 2022 8:16 AM

To: mostrom@brooklawn-nj.com; dtomsa@ccmua.org; James.VenitoJr@pseg.com; AheadofPaving@pseg.com; Henry, Christopher A <Christopher.Henry@pseg.com>

Subject: Request for Utility Information - Broadway

BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130, BOROUGH OF BROOKLAWN AND GLOUCESTER CITY, CAMDEN COUNTY, NJ

Gentlemen good morning,

I am attaching copies of our base mapping files for the above referenced project to facilitate your efforts. The utility information presented in the attached graphics was acquired either from as-builts (you provided us) or field survey data conducted on the project.

Can you please assist our design team with clarifying the location of your respective facilities at your earliest convenience? We are requesting additional information related to water, sewer, gas and overhead electric facilities along the Broadway corridor within the limits noted above.

Thank you in advance for your assistance.

Best Regards,

Sam D. Mody, PE | President

Keller Engineers of New Jersey, LLC

Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169, Ext. 101

Fax: 856-494-0040

Mobile: 609-310-0364

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March 18, 2022

Keller Engineers of New Jersey, LLC
121 Market Street, 2nd Floor
Camden, New Jersey 08102
Attention: Saif AlDairi

RE: Utility Information - Broadway

As requested, PSE&G (Electric) has reviewed the set of plans for the above-mentioned project. We have drawn in red our overhead and underground electric facilities in this area and have indicated the number of circuits and the operating voltage for these circuits. This map is for reference only and not to scale and may not totally represent the exact field conditions. Remember always to call New Jersey One Call before you dig (1-800-272-1000).

A copy of your request has also been sent to our Relocation Recovery Group to determine if any portion of this project will be reimbursable to PSE&G. A representative from that office will be contacting you shortly to request additional information regarding this project.

Please do not consider your request for verification of our facilities as adequate application for new service or request for relocation of our facilities. To facilitate those needs you must contact our Construction Inquiry department at 1-800-832-0076 to request that a DWMS number be assigned to the job you are referencing.

Should you have any questions regarding this matter, please contact Armando Rosario at (609) 799-6912.

Very truly yours,

Vinesh B. Patel
Engineering Manager
Southern Division – Moorestown
Electric Distribution
By: Armando Rosario

Henry, Christopher A

From: AlDairi, Saif <SAIDairi@keller-engineers.com>
Sent: Wednesday, March 16, 2022 4:13 PM
To: Mokoid, Jamie
Cc: Henry, Christopher A
Subject: [EXTERNAL] RE: Request for Utility Information - Broadway
Attachments: 184160_E-UTIL-01_PSE&G.pdf; 184160_E-UTIL-02_PSE&G.pdf; 184160_E-UTIL-03_PSE&G.pdf; 184160_E-UTIL-04_PSE&G.pdf

Good afternoon Mr. Jamie,

As you requested, here are blank plans for both sites of the project. Please note that these Sheets are plotted on a larger scale for your convenience. Sheets 01 & 02 are for Brooklawn Township location and Sheets 03 & 04 are for Gloucester City location. Please mark up the plans providing the existing Electrical PSE&G utilities for both locations.

On a separate note, would you please assist us in obtaining a point of contact for the PSE&G Gas Division. We also need their assistance in providing the mark ups for their utilities as well.

Your time and effort are highly appreciated.

Thank you for your cooperation.

Best Regards,

Saif AlDairi | Structural Engineer
Keller Engineers of New Jersey, LLC

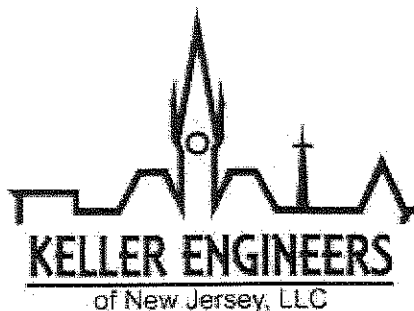
Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169

Fax: 856-494-0040

Mobile: 201-419-2266

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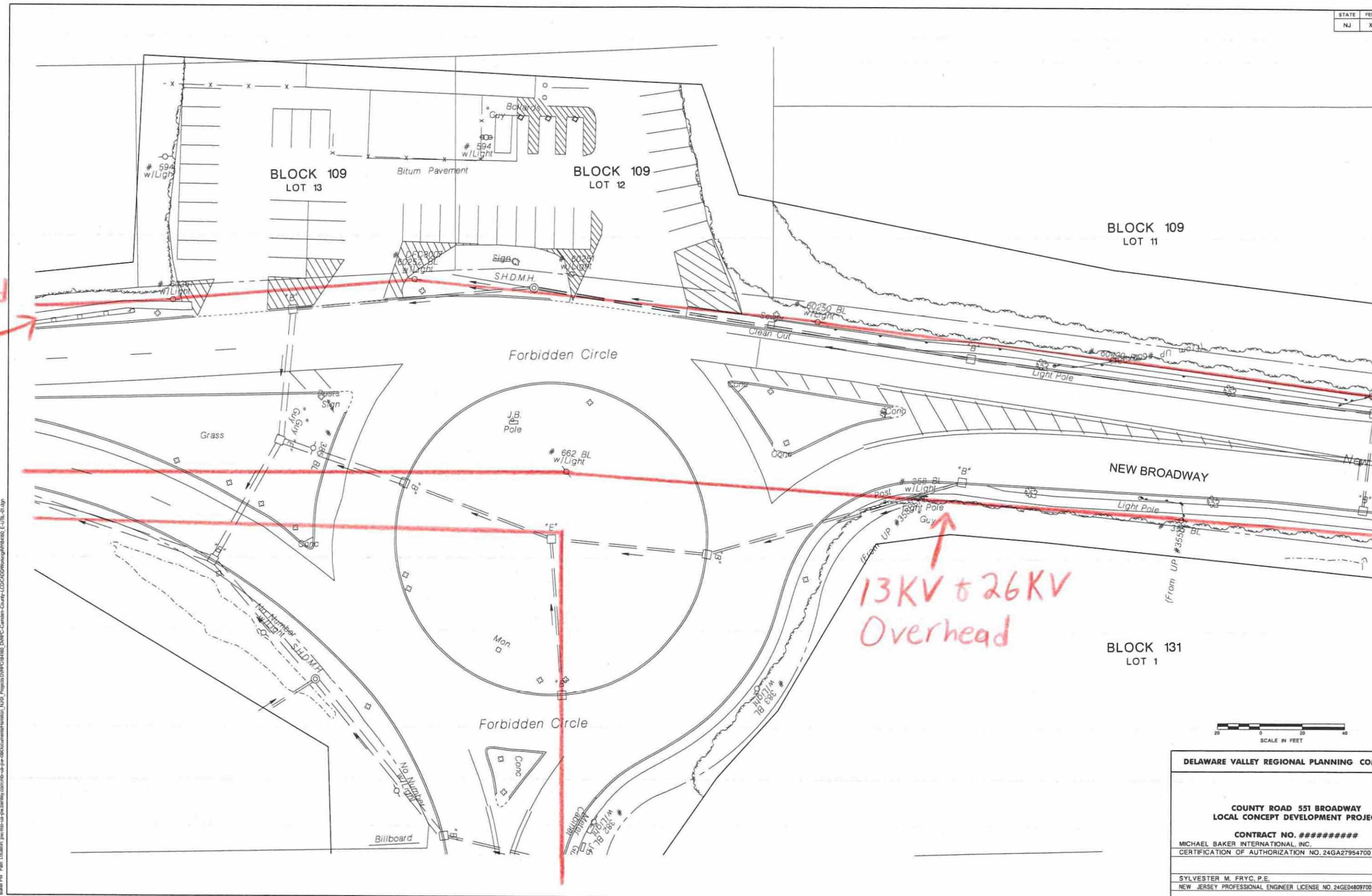
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From: Mokoid, Jamie <Jamie.Mokoid@pseg.com>

Sent: Wednesday, March 16, 2022 11:07 AM

13KV
+
26KV
Overhead

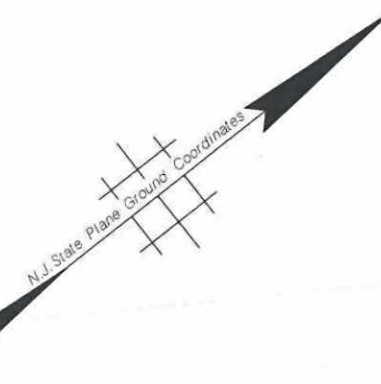
13KV + 26KV
Overhead



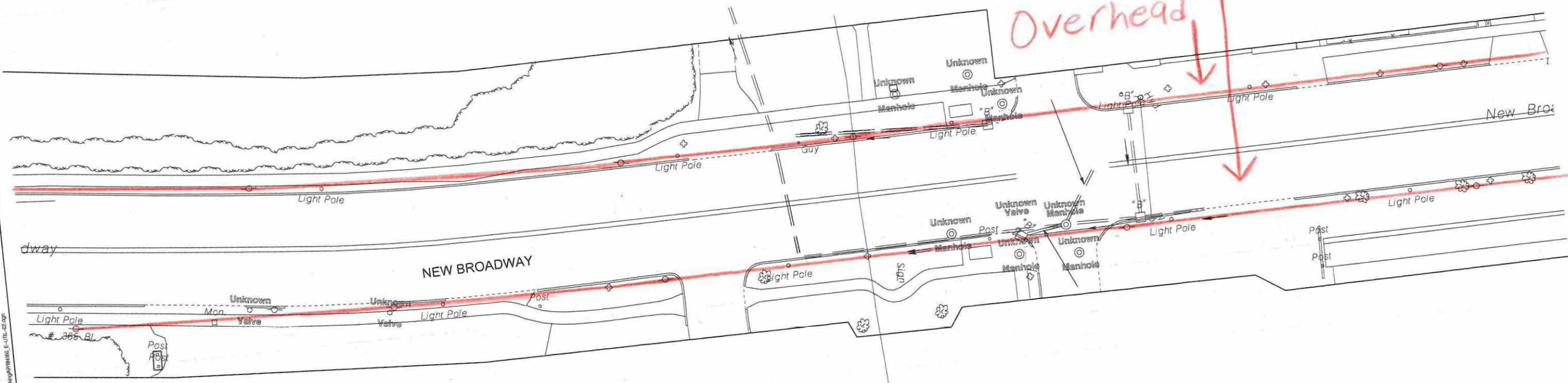
DELAWARE VALLEY REGIONAL PLANNING COMMISSION	
COUNTY ROAD 551 BROADWAY LOCAL CONCEPT DEVELOPMENT PROJECT	
CONTRACT NO. #####	
MICHAEL BAKER INTERNATIONAL, INC.	
CERTIFICATION OF AUTHORIZATION NO. 24GA27954700	
SYLVESTER M. FRYC, P.E.	
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04809700	

DATE & TIME: 10/14/10 10:07
Baker PVI Path Location: p:\info\pva\benley\com\mb-us-pa-24\Documents\1010_NJ08_Projects\DAVPC\1010_NJ08_Camden-County-LD\CD000Wong\ghh\1010_E-UTL-01.dgn

STATE	FEDERAL PROJECT NO.
NJ	XXX ###(###)



13KV & 26KV
Overhead



DELAWARE VALLEY REGIONAL PLANNING COMMISSION

COUNTY ROAD 551 BROADWAY
LOCAL CONCEPT DEVELOPMENT PROJECT

CONTRACT NO. #####
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SYLVESTER M. FRYC, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04809700



USER: 10/10/2023 13:51
DATE & TIME: 10/10/2023 13:51
Baker PI: 10/10/2023 13:51
Project: D:\Projects\2023\010101\County Road 551 Broadway\010101.dwg
E:\10101.dwg

AlDairi, Saif

From: AlDairi, Saif
Sent: Thursday, March 10, 2022 10:52 AM
To: James.VenitoJr@pseg.com
Cc: Mody, Samir D.
Subject: FW: Request for Utility Information - Broadway
Attachments: 184160_E-UTIL.pdf; 184160_E-UTIL2.pdf

Good morning Mr. James,

This is a follow-up email to the voice mail I left you this morning. Please confirm if you have received the email below which was sent on March 04, 2022, by Mr. Samir Mody, President of Keller Engineers of New Jersey, LLC, requesting for Utility Information for the Broadway Project. For your convenience, I attached the documents that was sent in that email as well.

Please feel free to respond to either email.

Should you have any question, please feel free to call me or respond to this email at your earliest convenience.

Thank you for your time.

Best Regards,

Saif AlDairi | Structural Engineer

Keller Engineers of New Jersey, LLC

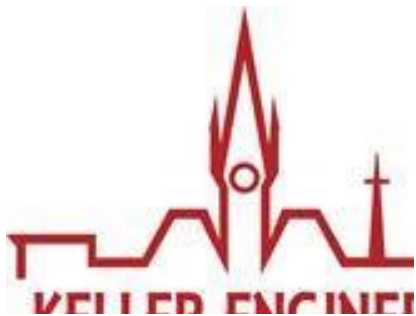
Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169

Fax: 856-494-0040

Mobile: 201-419-2266

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From: Mody, Samir D.
Sent: Friday, March 04, 2022 8:16 AM

To: mostrom@brooklawn-nj.com; dtomsa@ccmua.org; James.VenitoJr@pseg.com; AheadofPaving@pseg.com; Henry, Christopher A <Christopher.Henry@pseg.com>

Subject: Request for Utility Information - Broadway

BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130, BOROUGH OF BROOKLAWN AND GLOUCESTER CITY, CAMDEN COUNTY, NJ

Gentlemen good morning,

I am attaching copies of our base mapping files for the above referenced project to facilitate your efforts. The utility information presented in the attached graphics was acquired either from as-builts (you provided us) or field survey data conducted on the project.

Can you please assist our design team with clarifying the location of your respective facilities at your earliest convenience? We are requesting additional information related to water, sewer, gas and overhead electric facilities along the Broadway corridor within the limits noted above.

Thank you in advance for your assistance.

Best Regards,

Sam D. Modly, PE | President

Keller Engineers of New Jersey, LLC

Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169, Ext. 101

Fax: 856-494-0040

Mobile: 609-310-0364

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AlDairi, Saif

From: AlDairi, Saif
Sent: Thursday, March 10, 2022 1:38 PM
To: AheadofPaving@pseg.com
Cc: Mody, Samir D.
Subject: RE: Request for Utility Information - Broadway
Attachments: 184160_E-UTIL.pdf; 184160_E-UTIL2.pdf

Good afternoon,

Please see the email below and advise. The email was sent to you and other parties on March 4th. please respond to either email.

Thank you.

Best Regards,

Saif AlDairi / Structural Engineer

Keller Engineers of New Jersey, LLC

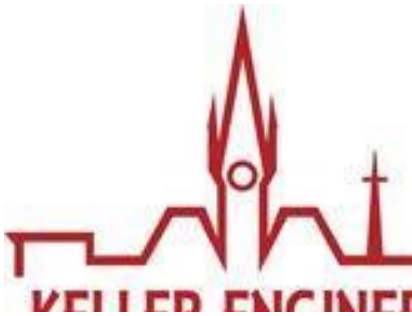
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From: Mody, Samir D.
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To: mostrom@brooklawn-nj.com; dtomsa@ccmua.org; James.VenitoJr@pseg.com; AheadofPaving@pseg.com; Henry, Christopher A <Christopher.Henry@pseg.com>
Subject: Request for Utility Information - Broadway

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Thank you in advance for your assistance.

Best Regards,

Sam D. Mody, PE | President

Keller Engineers of New Jersey, LLC

Office: 121 Market Street, 2nd Floor, Camden, NJ 08102

Phone: 856-536-3169, Ext. 101

Fax: 856-494-0040

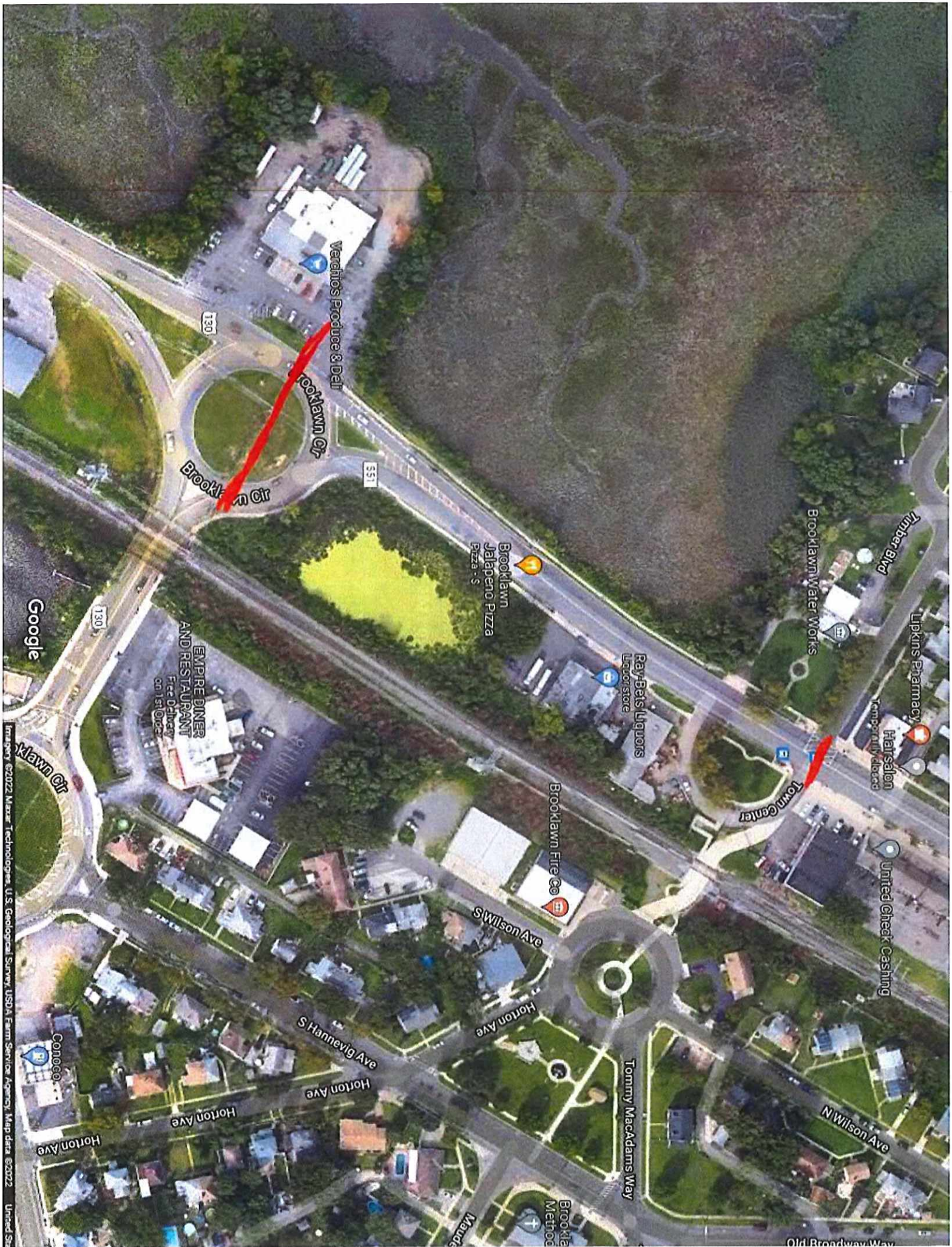
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PUBLIC SERVICE GAS COMPANY
 SKETCH RECORD OF STREET MAIN WORK

REG. NO.

AUTH. NO.

CLASSIFICATION	TOTAL	COST PER FT.	REMARKS
LABOR			
RECOVERY OLD PIPE			
SPECIALS			
FULL PIPE			
LEAD			
CEMENT			
YARN			
PAVING			
TOTAL			

STORE ROOM ORDER NO.

FOREMAN

CAULKERS

NO.

No.

No.

No.

REMOVED

SIZE

ABANDONED IN GROUND

SIZE

JOINTS

BUSINESS CLASSIFICATION

NATURE OF WORK

TRENCH PAVED

KING

BY WHOM

REMARKS

FOR DESIGN AND ESTIMATING
 PURPOSES ONLY, ACTUAL LOCATION
 MUST BE VERIFIED IN THE
 FIELD

P S E & G CO.
 ANDUBON GAS T & D

SIGNED

btd

OVER

DISTRICT NOREG

Side

 BROOKLAWN
 NEW BROADWAY

St.

NEW JERSEY TO TOWN CENTRE

St.

Commenced

19

Date Made 4-1

1919 Finished

1919

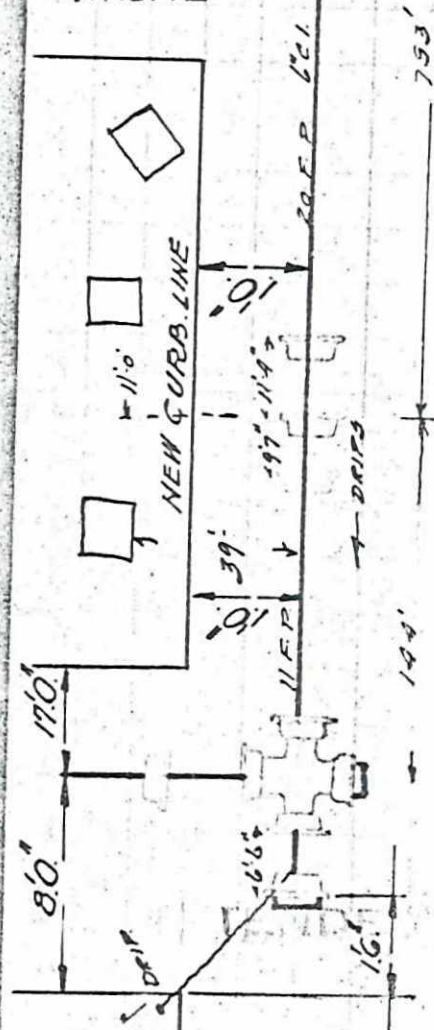
No. 2 d 2

Inst. No.

Classification 6" 3688 B

MARNE

ROAD



NEW BROADWAY

NOTE: MAIN WAS 4'0" W.W.C.
 STREET WAS WIDENED 5'0" ON EACH SIDE
 BY STATE HIGHWAY DEPT. NOV. 7 1928.
 MAIN IS NOW 10'0" E.W. CURB.

TOWN CENTRE

OVER

56-53

FOR DESIGN AND ESTIMATING
PURPOSES ONLY, ACTUAL LOCATION
MUST BE VERIFIED IN THE
FIELD

P S E & G CO.
AHDUBON GAS T & D

R Q 6052..... AUTH. 4119.....

LAGOR

IN S. PL. IT.

FILE LAM IN PL.

FORWARD ROY WATERS

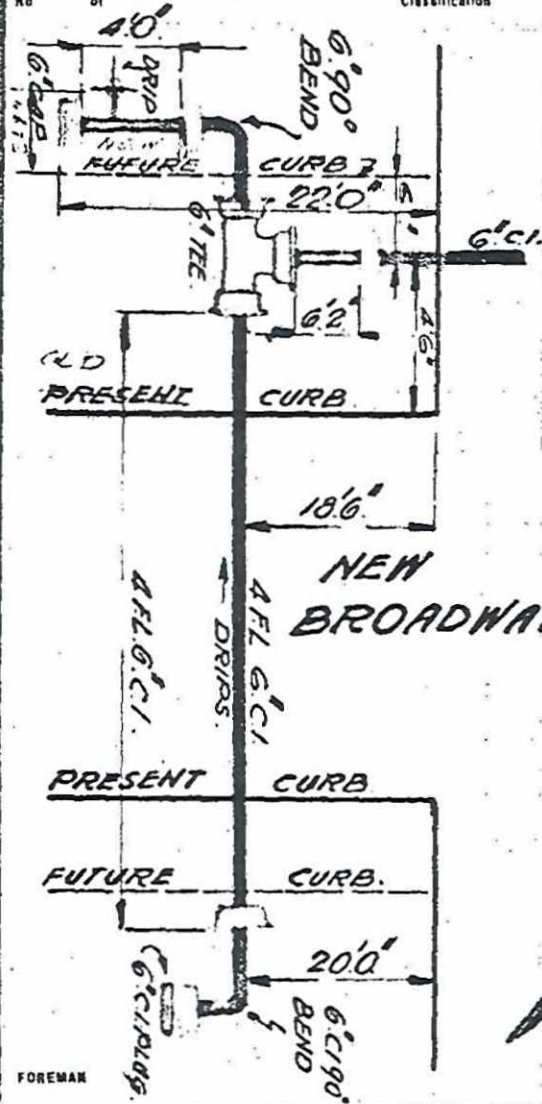
11. 2. 28. APPROVED BY

DISTRICT CAMDEN Side BROOKLAWN St.
TOWN CENTER.

CROSSING BROADWAY.

Commenced 10.30.28. 19 Finished 10.31.28.

No of Classification



TOWN CENTER.



56-525

X MAIN INSTALLED 3-8-85		
□ MAIN RETIRED		
FOOTAGE	SIZE	KIND
145	6	PL
12	6	ST
PLASTIC PIPE RECORD		
SIZE	MFR. & TYPE	
6	SDR11	
FOREMAN'S SIGNATURE		
Faulkner		

NEW BROADWAY

BROOKLAWN

3



FOR DESIGN AND ESTIMATING
PURPOSES ONLY, ACTUAL LOCATION
MUST BE VERIFIED IN THE

FIELD

P S E & G CO.

AUDUBON GAS T & D

TOWN
CENTRE

SCL

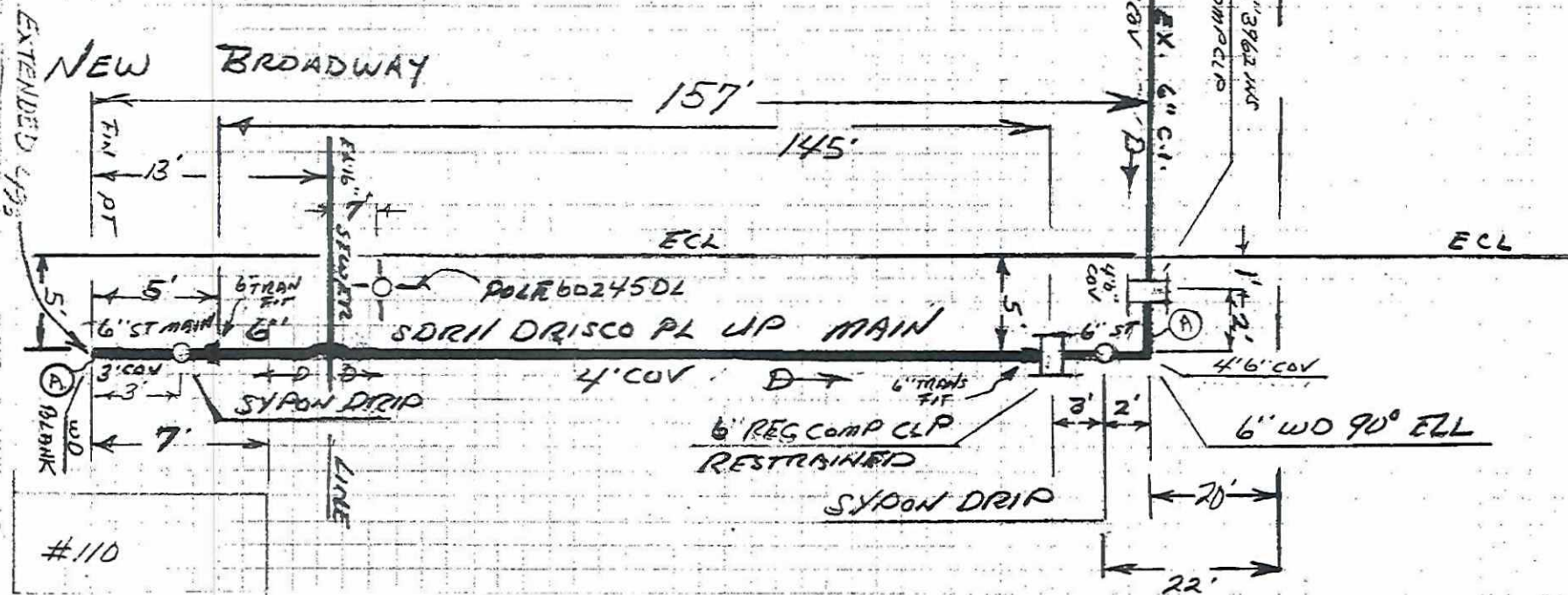
ST DT

WCL

McCLRECKY
INSTALLED

6" DRISCO 3-6-85

T. FAULKNER TIE-IN & GAS OUT 3-8-85



56-52
6/18/93

NEW BROADWAY

BKLN

4

107' PL



4" DRISCO
PE2406

T. FENIMORE

SUPPORT
CLAMP

CENTRAL
FUSE

6X4
REDUCER

4X4X4
TEE

4" FUSED
END
CAP

PE3408

EX 6" PL

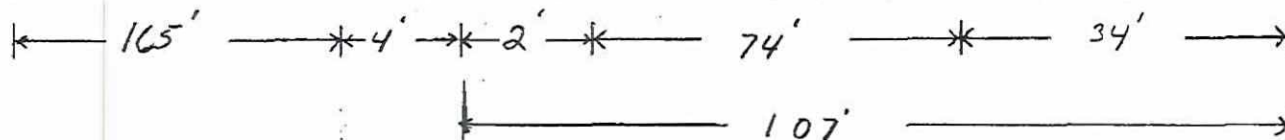
4"

SDR11 DRISCO U.P.

MAIN

3' COV

CL



4" DRISCO SDR 11 PE2406
#12 WIRE
3' COVER

FOR DESIGN AND ESTIMATING
PURPOSES ONLY, ACTUAL LOCATION
MUST BE VERIFIED IN THE
FIELD
P S E & G CO.
AIDUBON GAS T & D

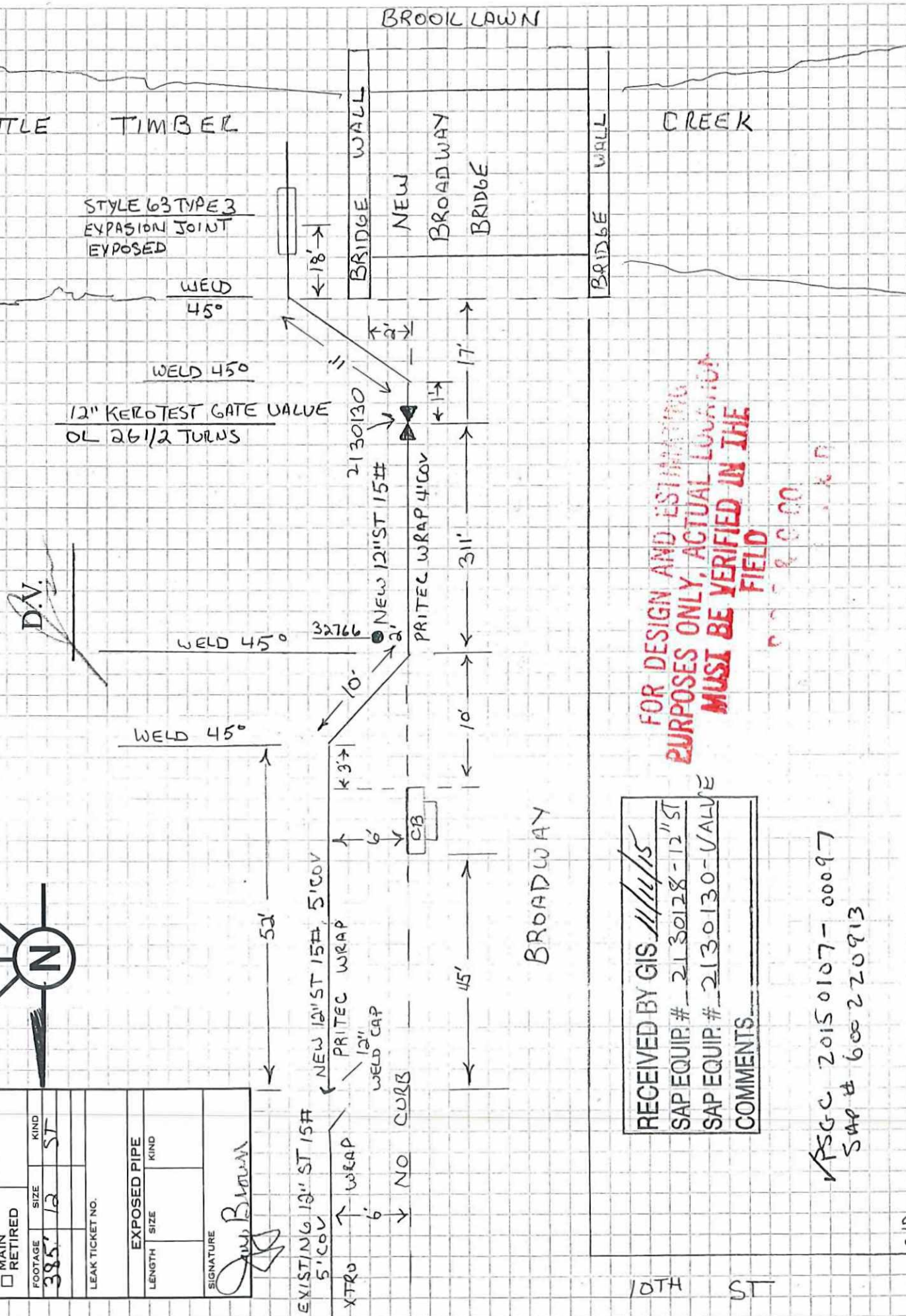
BROOKLYN
CIRCLE

TOWN CENTER

STREET BROADWAY

MAP INDEX 56-535

<input checked="" type="checkbox"/> MAIN <input type="checkbox"/> INSTALLED	DATE	2-5-15
	DATE	
<input type="checkbox"/> MAIN <input type="checkbox"/> RETIRED	FOOTAGE	385'
	SIZE	12 ST
LEAK TICKET NO.		
EXPOSED PIPE		
LENGTH	SIZE	KIND
SIGNATURE		



FOR DESIGN AND ESTIMATING
PURPOSES ONLY, ACTUAL LOCATION
MUST BE VERIFIED IN THE
FIELD

RECEIVED BY GIS	11/11/15
SAPEQUIP: #	2130128-12" ST
SAPEQUIP: #	2130130-VALVE
COMMENTS	

✓ PSCC 20150107-00097
SAP # 600220913

✓ 7 AB 11-0-15
C10

MAP INDEX 5G-535

STREET New Broadway

MUNICIPALITY Gloucester / Brookline

0-1-2

MAIN	DATE
<input checked="" type="checkbox"/> MAIN	4/15/15
<input type="checkbox"/> RETIRED	
FOOTAGE	SIZE
LEAK TICKET NO.	
EXPOSED PIPE	
LENGTH	KIND
12"	ST
SIGNATURE	
J. Reinhold	

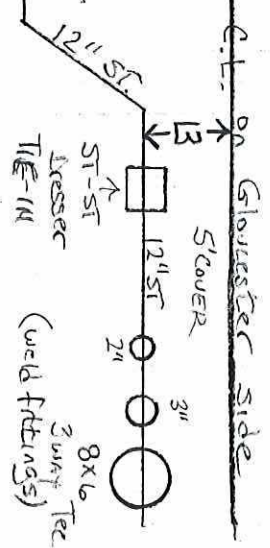
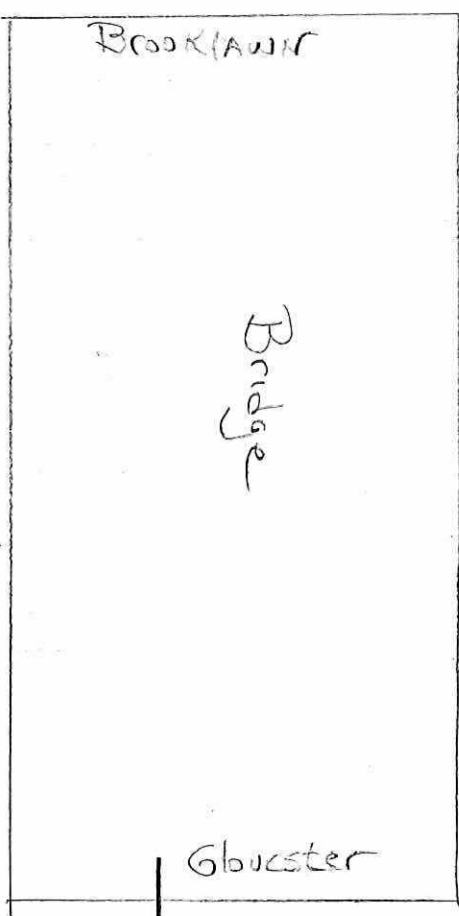
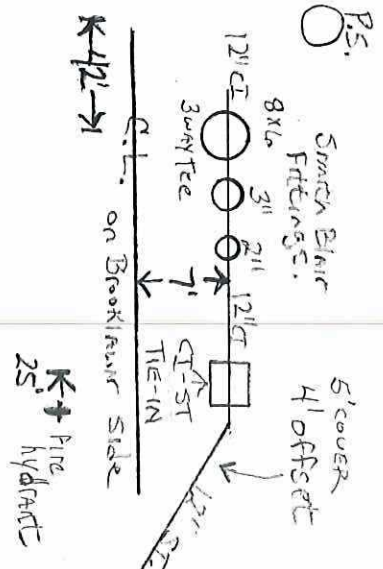
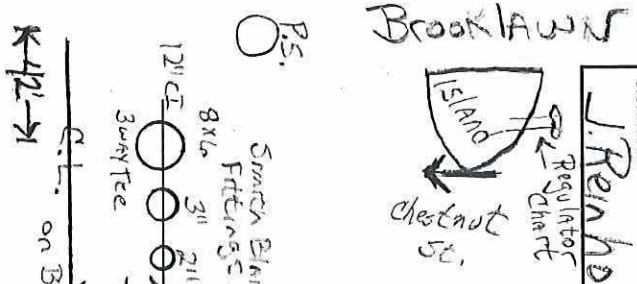


FOR DESIGN AND ESTIMATING PURPOSES ONLY, ACTUAL LOCATION MUST BE VERIFIED IN THE FIELD
P S & G CO. NOBODUIN
NOBODUIN GAS T & D

RECEIVED BY GIS	11/11/15
SAP EQUIP. #	2130128-125
SAP EQUIP. #	
COMMENTS	

Junk yard

Gloucester



PSGC 20150107-000981

Please refer to Contractor Paid Main for Expansion Joints + Valves.

Contractor Paid Main, P.S. Tied in. (Signature)

PSGC 20150107-00099

K1070 60313

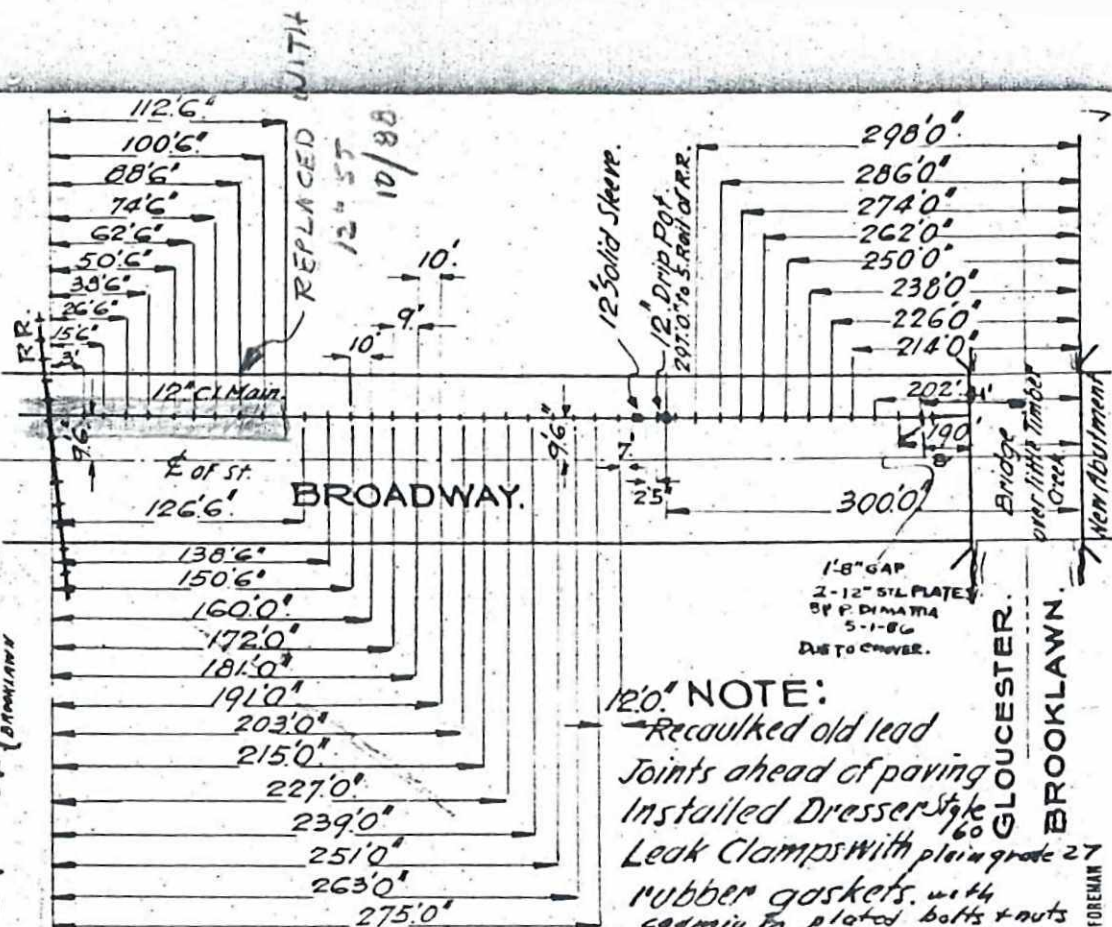
C/D 2/8/85 11-9-15

SKETCH OF MAIN INSTALLED OR RETIRED

18-19

DISTRICT CAM. **BROADWAY.** Gloucester, N.J.FR. R.R. SIDING S. OF JERSEY AVE. TO
Creek 5/134. LITTLE TIMBER CREEK. 5/18.34.No. 1 of 4
FOR CARDS
344 SEE
BROOKLAWN

Classification



NOTE:

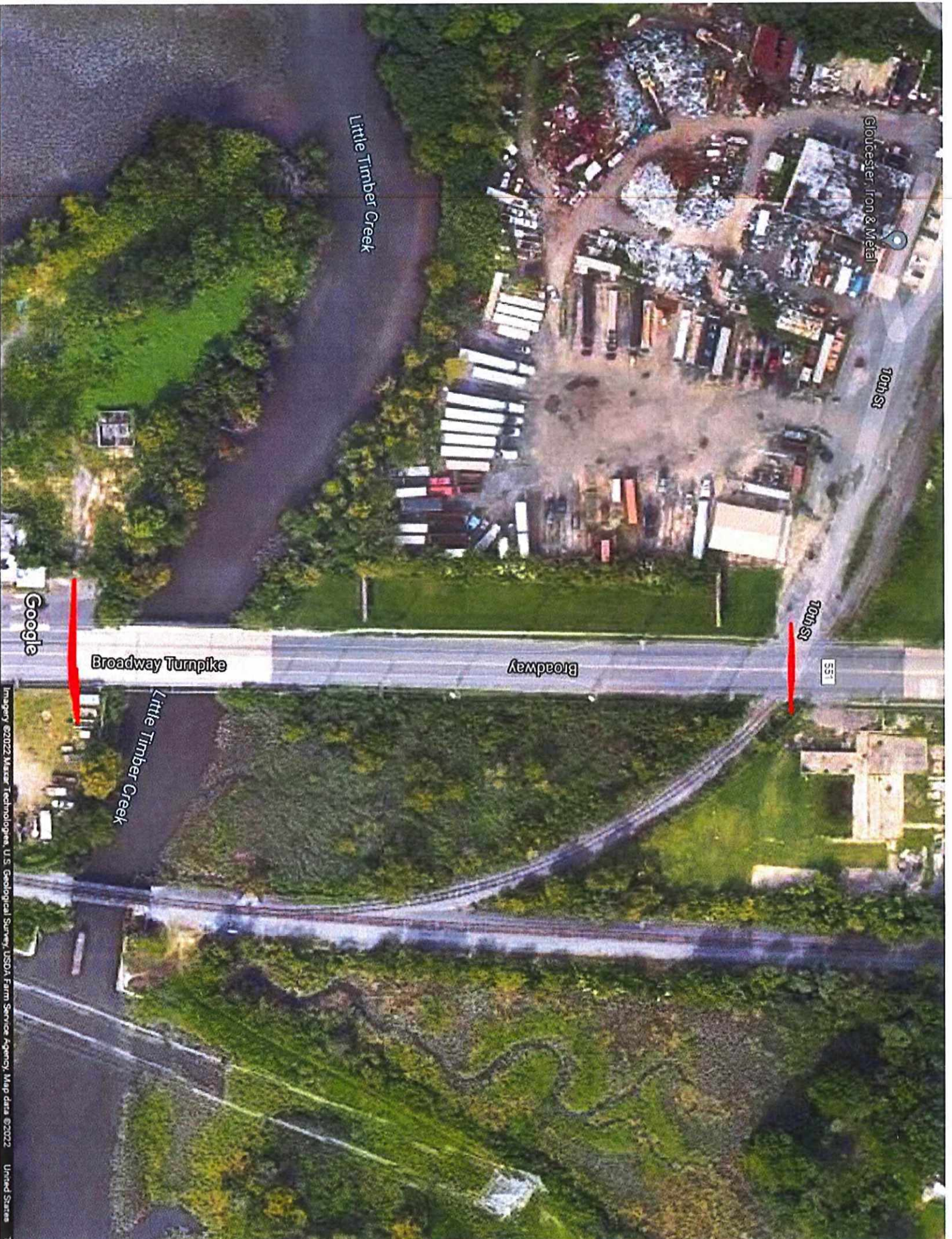
Recaulked old lead
Joints ahead of paving
Installed Dresser style
Leak Clamps with plain grade 27
rubber gaskets with
cadmium plated bolts & nuts

FOR DESIGN AND ESTIMATING
PURPOSES ONLY, ACTUAL LOCATION
MUST BE VERIFIED IN THE
FIELD
P S E & G CO.
AIDUBON GAS T & D

7350-A. 5011-A.

79.26.

1-16-35.



Gloucester, Iron & Metal

10th St

10th St

351

Broadway

Broadway Turnpike

Little Timber Creek

Little Timber Creek

Google



Keller Engineers of New Jersey, LLC

121 Market Street, 2nd Floor

Camden, NJ 08102

Phone: 856.536.3169, Ext. 101

Fax: 856.494.0040

E-mail: smody@keller-engineers.com

www.keller-engineers.com

COA Number 24GA28276100

October 21, 2021

Mr. Lou Morello, Engineering Supervisor
AT&T
400 Hamilton Avenue
White Plains, NY 10601

RE: **REQUEST FOR UTILITY INFORMATION**
BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE
FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130
BOROUGH OF BROOKLAWN, CAMDEN COUNTY, NJ

Dear Mr. Morello:

The Delaware Valley Regional Planning Commission (DVRPC) and Michael Baker International have retained the services of Keller Engineers of New Jersey, LLC (Keller) to coordinate the utility engineering activities for the Local Concept Development Study of Broadway (CR 551), as referenced above. We have provided the following documents to accompany our introductory letter, for your convenience:

- Utility Base Maps
- Straight Line Diagram of CR 551; MP 29.46 to MP 30.32
- Aerial Image of CR 551 Study Areas

It is our understanding that **AT&T** may have facilities in the area. We are requesting any as-built records/drawings concerning the location of any of your facilities within this area be provided to help facilitate our design of this project.

Please verify the accuracy/completeness of all your existing facilities and red mark the attached plans to denote the type, size, age, material and limits of your facilities including ones that have been omitted from the plans. In addition, please indicate any scheduled improvements to your facilities and their approximate implementation date. Please return the requested information to my attention by Friday, November 5, 2021. If you have no facilities in this area, we would appreciate if you would let us know that also by returning this letter and checking the statement below.

_____ We DO NOT have existing facilities within the project limits

Information can be e-mailed to smody@keller-engineers.com or mailed to my attention at the address noted above. Should you have any questions or concerns, please feel free to contact me directly at 856-536-3169, Ext. 101.

Thank you.

Very Truly Yours,

KELLER ENGINEERS OF NEW JERSEY, LLC

A handwritten signature in black ink, appearing to read "Samir D. Mody". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Samir D. Mody, PE
Principal-in-Charge / Project Manager



Keller Engineers of New Jersey, LLC

121 Market Street, 2nd Floor

Camden, NJ 08102

Phone: 856.536.3169, Ext. 101

Fax: 856.494.0040

E-mail: smody@keller-engineers.com

www.keller-engineers.com

COA Number 24GA28276100

October 13, 2021

Mr. Edward L. Gasko, Senior Engineering Specialist, Outside Plant
Verizon New Jersey, Inc.
10 Tansboro Road, 2nd Floor
Berlin, NJ 08055

RE: REQUEST FOR TELEPHONE & FIBER OPTIC UTILITY INFORMATION
BROADWAY (CR 551) – STUDY AREAS ARE BOUND TO THE NORTH BY THE
FREIGHT LINE AND TO THE SOUTH BY THE TRAFFIC CIRCLE AT ROUTE US 130
BOROUGH OF BROOKLAWN, CAMDEN COUNTY, NJ

Dear Mr. Gasko:

The Delaware Valley Regional Planning Commission (DVRPC) and Michael Baker International have retained the services of Keller Engineers of New Jersey, LLC (Keller) to coordinate the utility engineering activities for the Local Concept Development Study of Broadway (CR 551), as referenced above. We have provided the following documents to accompany our introductory letter, for your convenience:

- Utility Base Maps
- Straight Line Diagram of CR 551
- Aerial Image of CR 551 Study Areas

It is our understanding that Verizon may have facilities in the area. We are requesting any as-built records/drawings concerning the location of any of your facilities within this area be provided to help facilitate our design of this project.

Please verify the accuracy/completeness of all your existing facilities and red mark the attached plans to denote the type, size, age, material and limits of your facilities including ones that have been omitted from the plans. In addition, please indicate any scheduled improvements to your facilities and their approximate implementation date. Please return the requested information to my attention by Friday, October 29, 2021. If you have no facilities in this area, we would appreciate if you would let us know that also by returning this letter and checking the statement below.

_____ We DO NOT have existing facilities within the project limits

Information can be e-mailed to smody@keller-engineers.com or mailed to my attention at the address noted above. Should you have any questions or concerns, please feel free to contact me directly at 856-536-3169, Ext. 101.

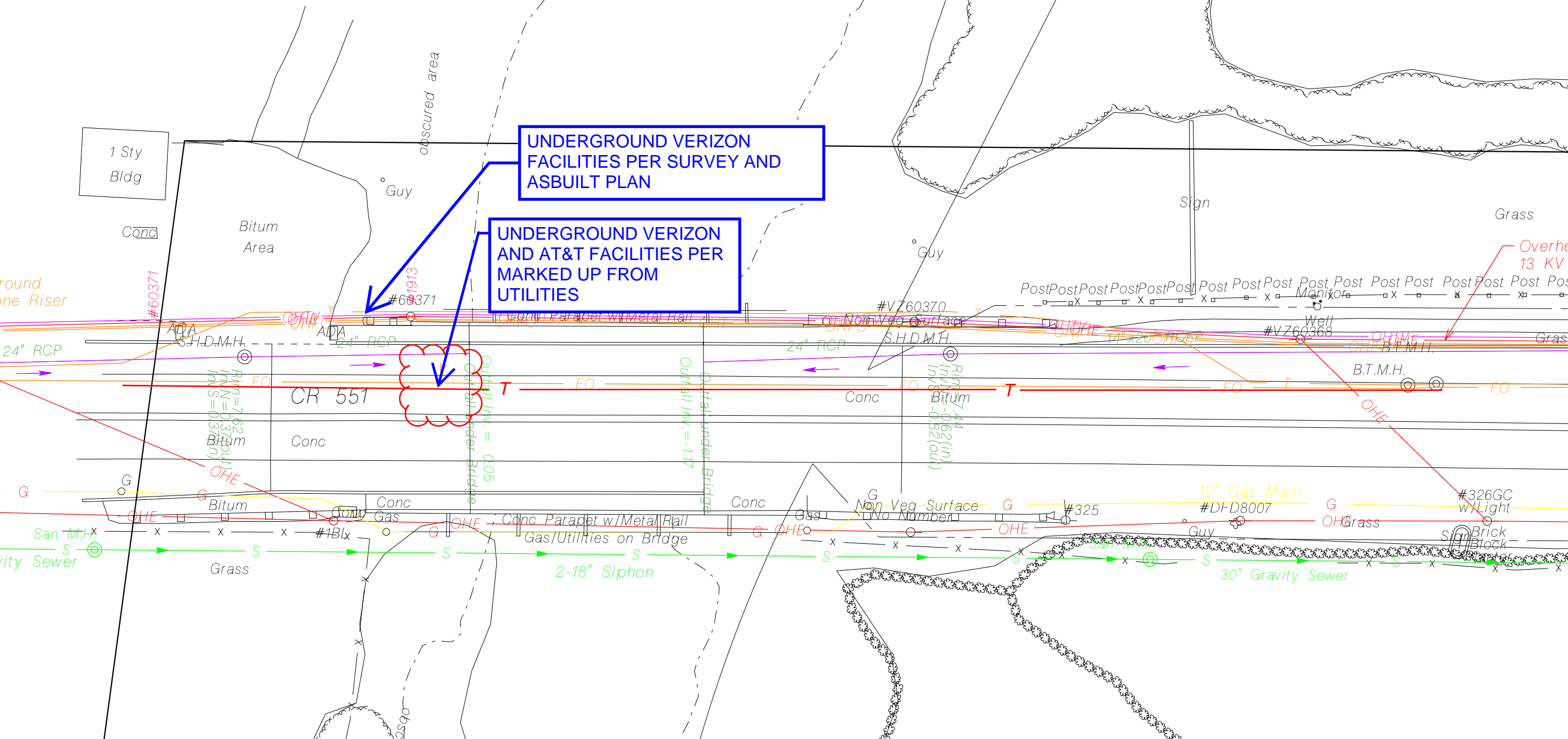
Thank you.

Very Truly Yours,

KELLER ENGINEERS OF NEW JERSEY, LLC

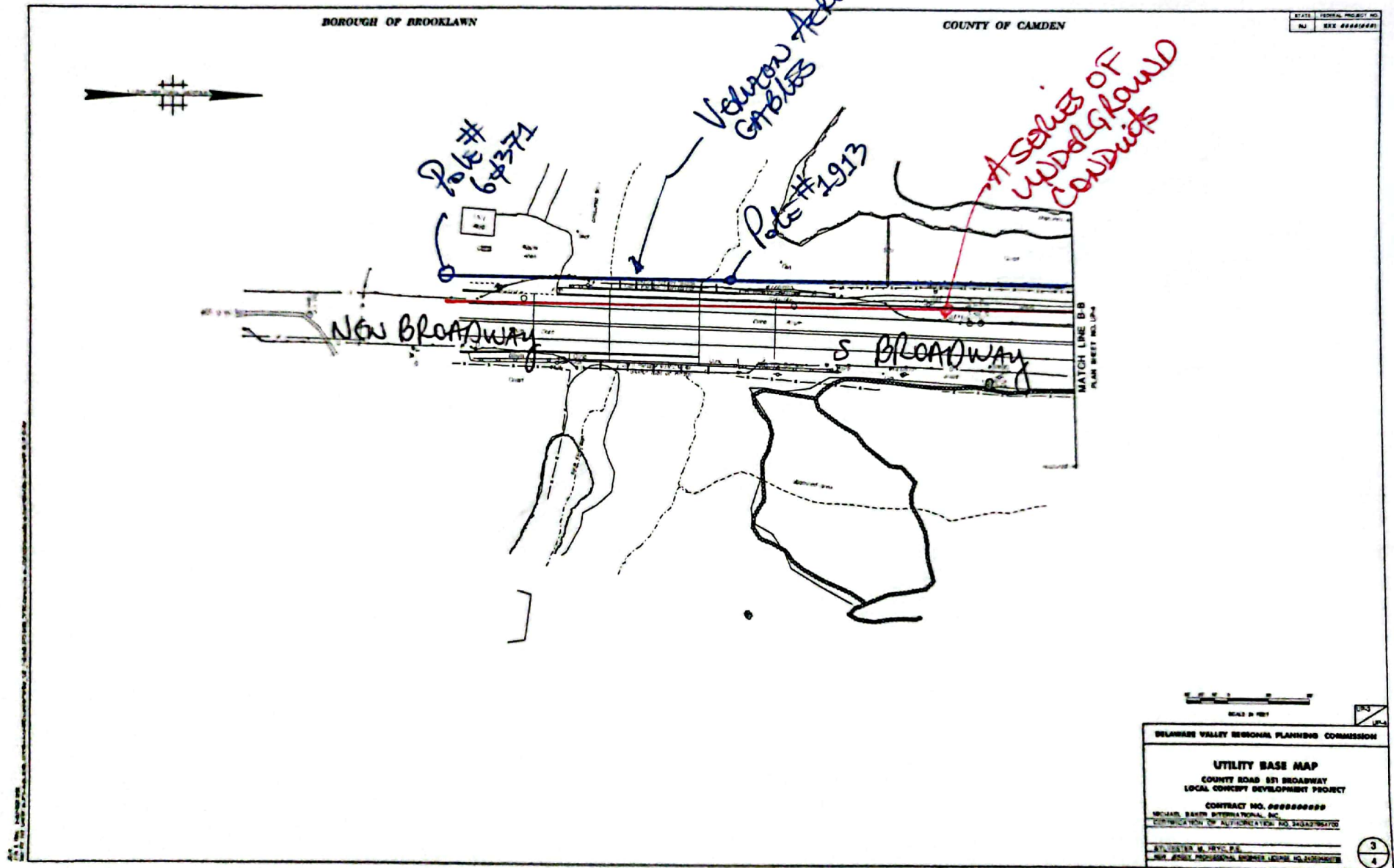
A handwritten signature in black ink, appearing to read "Samir D. Mody". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Samir D. Mody, PE
Principal-in-Charge / Project Manager



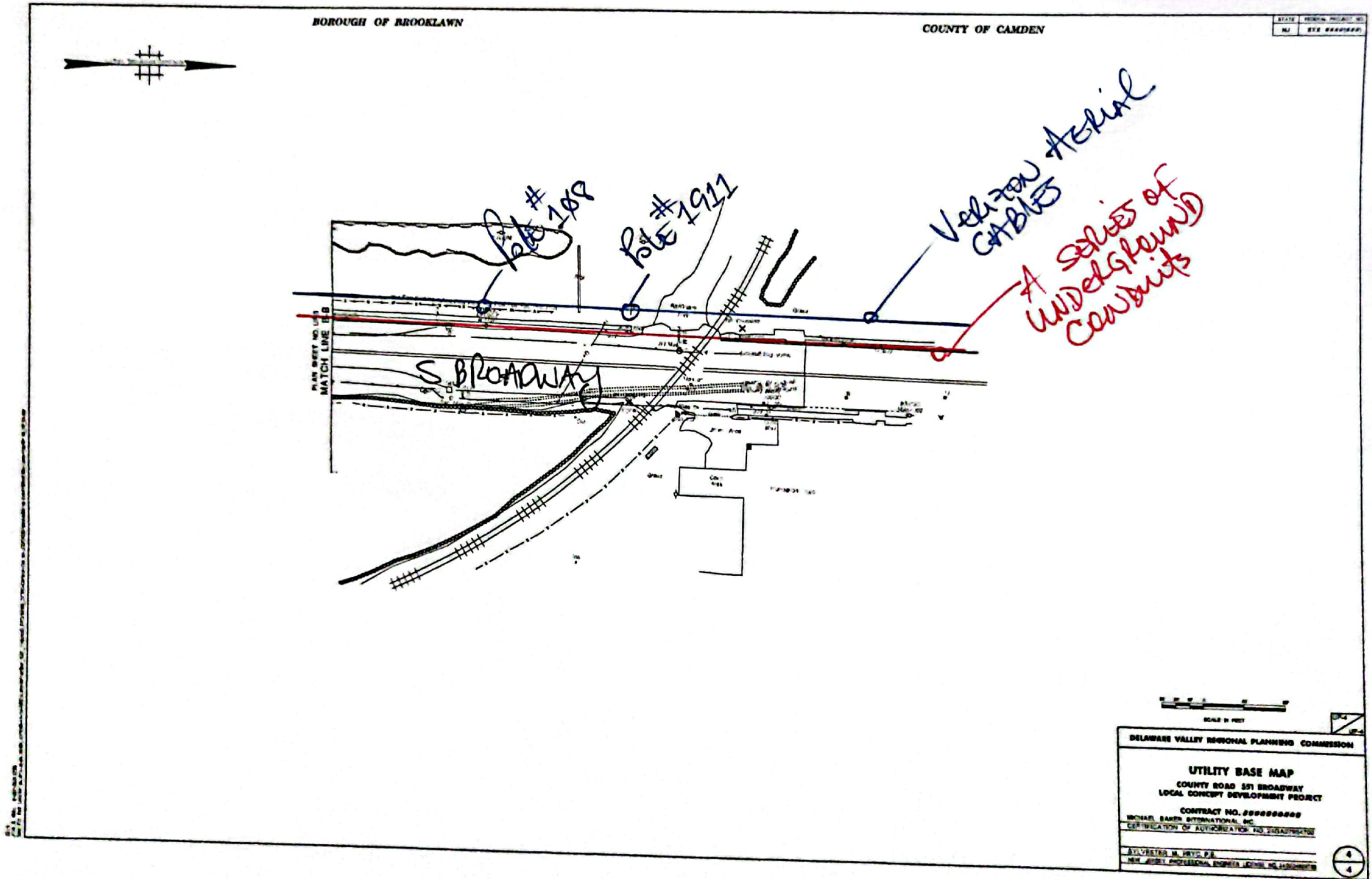
* Little Timber Creek *

VZ markup (3)



Little Timber Creek

VZ Markup ④



APPENDIX L – ALTERNATIVES MATRIX AND CONCEPT DEVELOPMENT PLANS



Local Concept Development Study for
CR 551 Broadway
Brooklawn Borough and City of Gloucester, Camden County

Alternatives Matrix - Project Area 1

January 2023

Alternatives		1: No Build	2: Drainage System Improvements (including Install Tide Check Valves)*	3: Drainage System Improvements, Add BMP	4: Drainage System Improvements, Add BMP, and Install Pump Station	5: Drainage System Improvements and Raise Roadway Profile	6: Drainage System Improvements, Install Pump Station, and Raise Roadway Profile	PPA *pending SME and local official feedback 6: Drainage System Improvements, Install Pump Station, and Raise Roadway Profile
Overview								
Advantages	1	Description	• No advantages.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year storm event.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year storm event. • Provides storage to alleviate roadway flooding in larger rain events.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year storm event. • Provides faster drainage during high tide and surge events. • Provides storage to alleviate roadway flooding in larger rain events.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year storm event. • Prevents certain surge events and sea level rise scenarios from flooding the roadway.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year storm event. • Prevents certain surge events and sea level rise scenarios from flooding the roadway.
	2	Description	• Does not address Purpose and Need	• During large surge events and in sea level rise scenarios, the roadway will still be overtopped with flood waters as the system will be unable to drain. • Roadway will still flood during larger, high volume rainfall events.	• During large surge events and in sea level rise scenarios, the roadway will still be overtopped with flood waters as the system will be unable to drain. • ROW acquisition will be required.	• Most costly option. • ROW acquisition will be required.	• May require roadway closures. • Minor ROW acquisition required.	• May require roadway closures. • Minor ROW acquisition required.
Purpose & Need								
Address chronic flooding	3	Y/N	N	Y	Y	Y	Y	Y
	4	Description	None	10 year rainfall event, high tide	100 year rainfall event, high tide/surge up to 4'	100 year rainfall event, high tide/surge up to 4'	100 year + 25% rainfall event, high tide	100 year + 25% rainfall event, high tide
Goals & Objectives								
Minimize present day flooding while implementing a resilient design to account for future flooding conditions	5	Y/N	N	Y	Y	Y	Y	Y
Avoid and/or minimize environmental impacts	6	Y/N	N/A	Y	Y	Y	Y	Y
Minimize or avoid impacts to adjacent historic properties and historic district	7	Y/N	N/A	Y	Y	Y	Y	Y
Minimize right-of-way impacts	8	Y/N	N/A	Y	Y, Minor Fee Take, Temporary Easement, and Tidelands Impact	Y, Minor Fee Take, Temporary Easement, and Tidelands Impact	Y, Minor Fee Take and Temporary Easement	Y, Minor Fee Take and Temporary Easement
Minimize utility impacts and relocations	9	Y/N	N/A	Y, Minor Relocations Possible	Y, Minor Relocations Possible	Y, Minor Relocations Possible	Y, Minor Relocations Possible	Y, Minor Relocations Possible
Minimize impacts to traffic and driveway access during construction	10	Y/N	N/A	Y	Y	Y, Road Closure and Detours May be Needed	Y, Road Closure and Detours May be Needed	Y, Road Closure and Detours May be Needed
Multimodal & System Linkage								
Pedestrian compatible	11	Y/N	Y, 4' sidewalk on SB side	Y, 4' sidewalk on SB side	Y, 4' sidewalk on SB side	Y, 4' sidewalk on SB side	Y, 4' sidewalk on SB side	Y, 4' sidewalk on SB side
	12	Y/N	Y, Up to 10' shoulder	Y, Up to 10' shoulder	Y, Up to 10' shoulder	Y, Up to 10' shoulder	Y, Up to 10' shoulder	Y, Up to 10' shoulder
Environmental								
Potential Fill in the Floodplain	13	Y/N	N/A	N	N	N	Y, tidal floodplain	Y, tidal floodplain
Approximate Wetland and Waterway Impacts	14	# of acres	N/A	Wetlands: 0 acres Waterway: <0.01 acres	Wetlands: 0 acres Waterway: <0.01 acres	Wetlands: 0 acres Waterway: <0.01 acres	Wetlands: 0 acres Waterway: <0.01 acres	Wetlands: 0 acres Waterway: <0.01 acres
Approximate Riparian Zone Impacts	15	# of acres	N/A	0.01 acres	0.01 acres	0.02 acres	0.01 acres	0.01 acres
Potential Regulated Waste/Contaminated Site Involvement	16	Y/N	N/A	Y - mapped historic fill and classification exception areas	Y - mapped historic fill and classification exception areas	Y - mapped historic fill and classification exception areas	Y - mapped historic fill and classification exception areas	Y - mapped historic fill and classification exception areas
Potential Federal/State T&E Species Habitat Impacts	17	Y/N	N/A	N	N	N	N	N
Air Quality & Noise Impacts	18	Y/N	N/A	N	N	N	N	N
Potential Cultural/Historic Resource Involvement	19	Low/High	N/A	Low	Low	Low	Low	Low
Net New Impervious Surface	20	# of acres	N/A	<0.25 acre	<0.25 acre	<0.25 acre	<0.25 acre	<0.25 acre
Regulated Motor Vehicle Surface	21	# of acres	N/A	<0.25 acre	<0.25 acre	<0.25 acre	<0.25 acre	<0.25 acre
Area of Disturbance	22	# of acres	N/A	<1.0 acre	<1.0 acre	<1.0 acre	<1.0 acre	<1.0 acre
Trigger Major Development	23	Y/N	N/A	Y	Y	Y	Y	Y
Impacts Section 4(f) Parkland	24	Y/N	N/A	N	N	N	N	N
Rights-of-Way								
Fee Take	25	# of acres	N/A	0 acre	0.578 acre	0.578 acre	0 acre	0.042 acre
Permanent Easement	26	# of acres	N/A	0 acre	0 acre	0 acre	0 acre	0 acre
Temporary Easement	27	# of acres	N/A	0 acre	0.113 acre	0.113 acre	0 acre	0 acre
Tidelands Impact	28	# of acres	N/A	0.045 acre	0.045 acre	0.045 acre	0.045 acre	0.045 acre
ROW Cost	29	\$	N/A	\$10,000	\$50,000	\$50,000	\$10,000	\$30,000
Construction Duration and Cost								
Construction Duration	30	months	N/A	1	2	3	6	6
Construction Cost	31	\$	N/A	\$148,000	\$815,000	\$1,388,000	\$721,000	\$1,301,000
Utility Relocation Cost (Not included in Total Construction Cost)	32	\$	N/A	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Right of Way Cost (Not included in Total Construction Cost)	33	\$	N/A	\$10,000	\$50,000	\$50,000	\$10,000	\$30,000
Preliminary Engineering (PE) Cost	34	\$	N/A	\$30,000	\$110,000	\$185,000	\$100,000	\$175,000
Final Design (FD) Cost	35	\$	N/A	\$35,000	\$135,000	\$230,000	\$115,000	\$215,000
Construction Engineering/Construction Inspection (CE/CI) Cost	36	\$	N/A	\$30,000	\$122,000	\$208,000	\$108,000	\$195,000
Total Project Cost	37	\$	N/A	\$453,000	\$1,432,000	\$2,261,000	\$1,254,000	\$2,116,000

Notes: * The installation of a tide check valve is assumed for all drainage system improvements
1. The approximate wetland and waterway impacts are based on a preliminary limit of disturbance and geospatial data/field reconnaissance. A wetland delineation is recommended during Final Design.
2. The approximate riparian zone impacts are based on a preliminary limit of disturbance and a 50-foot riparian zone.
3. The project area is located in an area with historic fill; therefore, involvement with regulated material may occur for activities involving excavation and grading.
4. In-water timing restrictions from March 1 to June 30 and September 1 to November 30 are anticipated for any in-water work.
5. Sum total of Preliminary Engineering (PE) and Final Design (FD) costs assumed to be +/- 30% of construction cost, further broken down as 45%/55% for PE/FD, respectively.
6. Construction Engineering/Construction Inspection (CE/CI) cost assumed to be +/- 15% of construction cost.

camden

county

dv

rpc

DELAWARE VALLEY

REGIONAL

PLANNING COMMISSION

making it better, together.

Local Concept Development Study for

CR 551 Broadway

Brooklawn Borough and City of Gloucester, Camden County

Alternatives Matrix - Project Area 2

January 2023

Alternatives			1: No Build	2: Drainage System Improvements (Including Install Tide Check Valves)*	3: Drainage System Improvements, Extend Flood Wall	4: Drainage System Improvements, Install Pump Station	5: Drainage System Improvements, Extend Flood Wall, and Install Pump Station
Overview							
Advantages	1	Description	• No advantages.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year + storm event. • The larger system provides more storage and inlets are unlikely to surcharge and flood the roadway, even during the larger rainfall events.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year + storm event. • The larger system provides more storage and inlets are unlikely to surcharge and flood the roadway, even during the larger rainfall events. •Prevents certain tidal/surge events from overtopping roadway.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year + storm event. • The larger system provides more storage and inlets are unlikely to surcharge and flood the roadway, even during the larger rainfall events.	• Prevents tidal backflow into system. • During low tide, provides sufficient capacities for system to drain up through the 10 year + storm event. • The larger system provides more storage and inlets are unlikely to surcharge and flood the roadway, even during the larger rainfall events. •Prevents certain tidal/surge events from overtopping roadway.
	Disadvantages	2	Description	• Does not address Purpose and Need	• During very large surge events and in sea level rise scenarios, the roadway will still be overtopped with flood waters and the system will be unable to drain.	• ROW acquisition will be required. • During large surge events and in sea level rise scenarios, the roadway will still be overtopped with flood waters and the system will be unable to drain. • Based on existing topography, the current wall extents proposed for the Route 130 over Big Timber Creek Project are sufficient. Extending the flood wall further is likely unnecessary.	• ROW acquisition will be required.
Purpose & Need							
Address chronic flooding	3	Y/N	N	Y	Y	Y	Y
	Level of Protection Provided	4	Description	None	100 year + 25% rainfall event, high tide	100 year + 25% rainfall event, high tide/surge events up to 5.5'	100 year + 25% rainfall event, high tide
Goals & Objectives							
Minimize present day flooding while implementing a resilient design to account for future flooding conditions	5	Y/N	N	Y	Y	Y	Y
Avoid and/or minimize environmental impacts	6	Y/N	N/A	Y	Y	Y	Y
Minimize or avoid impacts to adjacent historic properties and historic district	7	Y/N	N/A	Y	Y	Y	Y
Minimize right-of-way impacts	8	Y/N	N/A	Y	Y, Temporary Easement	Y, Minor Fee Take and Temporary Easement	Y, Minor Fee Take and Temporary Easement
Minimize utility impacts and relocations	9	Y/N	N/A	Y, Minor Relocations Possible	Y, Minor Relocations Possible	Y, Minor Relocations Possible	Y, Minor Relocations Possible
Minimize impacts to traffic and driveway access during construction	10	Y/N	N/A	Y	Y	Y	Y
Multimodal & System Linkage							
Pedestrian compatible	11	Y/N	Y, 5' sidewalk	Y, 5' sidewalk	Y, 5' sidewalk	Y, 5' sidewalk	Y, 5' sidewalk
Bicycle compatible	12	Y/N	Y, Up to 5' shoulder and 22' wide traffic lanes	Y, Up to 5' shoulder and 22' wide traffic lanes	Y, Up to 5' shoulder and 22' wide traffic lanes	Y, Up to 5' shoulder and 22' wide traffic lanes	Y, Up to 5' shoulder and 22' wide traffic lanes
Environmental							
Potential Fill in the Floodplain	13	Y/N	N/A	N	Y	N	Y
Approximate Wetland and Waterway Impacts	14	# of acres	N/A	Wetlands: 0.01 acres Waterway: 0.01 acres	Wetlands: 0.1 acres Waterway: 0.1 acres	Wetlands: 0.01 acres Waterway: 0.01 acres	Wetlands: 0.1 acres Waterway: 0.01 acres
Approximate Riparian Zone Impacts	15	# of acres	N/A	0.01 acres	0.1 acres	0.01 acres	0.1 acres
Potential Regulated Waste/Contaminated Site Involvement	16	Y/N	N/A	Y - mapped historic fill and classification exception areas	Y - mapped historic fill and classification exception areas	Y - mapped historic fill and classification exception areas	Y - mapped historic fill and classification exception areas
Potential Federal/State T&E Species Habitat Impacts	17	Y/N	N/A	Y	Y	Y	Y
Air Quality & Noise Impacts	18	Y/N	N/A	N	N	N	N
Potential Cultural/Historic Resource Involvement	19	Low/High	N/A	High	High	High	High
Net New Impervious Surface	20	# of acres	N/A	<0.25 acre	<0.25 acre	<0.25 acre	<0.25 acre
Regulated Motor Vehicle Surface	21	# of acres	N/A	<0.25 acre	<0.25 acre	<0.25 acre	<0.25 acre
Area of Disturbance	22	# of acres	N/A	<1.0 acre	<1.0 acre	<1.0 acre	<1.0 acre
Trigger Major Development	23	Y/N	N/A	Y	Y	Y	Y
Impacts Section 4(f) Parkland	24	Y/N	N/A	N	N	N	N
Rights-of-Way							
Fee Take	25	# of acres	N/A	0 acre	0.025 acre	0 acre	0.025 acre
Permanent Easement	26	# of acres	N/A	0.060 acre	0.060 acre	0.060 acre	0.060 acre
Temporary Easement	27	# of acres	N/A	0 acre	0.089 acre**	0 acre	0.089 acre**
Tidelands Impact	28	# of acres	N/A	0.030 acre	0.030 acre	0.030 acre	0.030 acre
ROW Cost	29	\$	N/A	\$15,000	\$25,000	\$15,000	\$25,000
Construction Duration and Cost							
Construction Duration	30	months	N/A	1	5	2	6
Construction Cost	31	\$	N/A	\$216,000	\$1,237,000	\$781,000	\$1,913,000
Utility Relocation Cost (Not included in Total Construction Cost)	32	\$	N/A	\$250,000	\$250,000	\$250,000	\$250,000
Right of Way Cost (Not included in Total Construction Cost)	33	\$	N/A	\$15,000	\$25,000	\$15,000	\$25,000
Preliminary Engineering (PE) Cost	34	\$	N/A	\$40,000	\$125,000	\$80,000	\$200,000
Final Design (FD) Cost	35	\$	N/A	\$45,000	\$160,000	\$100,000	\$100,000
Construction Engineering/Construction Inspection (CE/CI) Cost	36	\$	N/A	\$45,000	\$143,000	\$90,000	\$220,000
Total Project Cost	37	\$	N/A	\$611,000	\$1,940,000	\$1,316,000	\$2,848,000

Notes:

• The installation of a tide check valve is assumed for all drainage system improvements

1. The approximate wetland and waterway impacts are based on a preliminary limit of disturbance and geospatial data/field reconnaissance. A wetland delineation is recommended during Final Design.

2. The approximate riparian zone impacts are based on a preliminary limit of disturbance and a 50-foot riparian zone.

3. The project area is located in an area with historic fill; therefore, involvement with regulated material may occur for activities involving excavation and grading.

4. In-water timing restrictions from March 1 to June 30 and September 1 to November 30 are anticipated for any in-water work.

5. Sum total of Preliminary Engineering (PE) and Final Design (FD) costs assumed to be +/- 30% of construction cost, further broken down as 45%/55% for PE/FD, respectively.

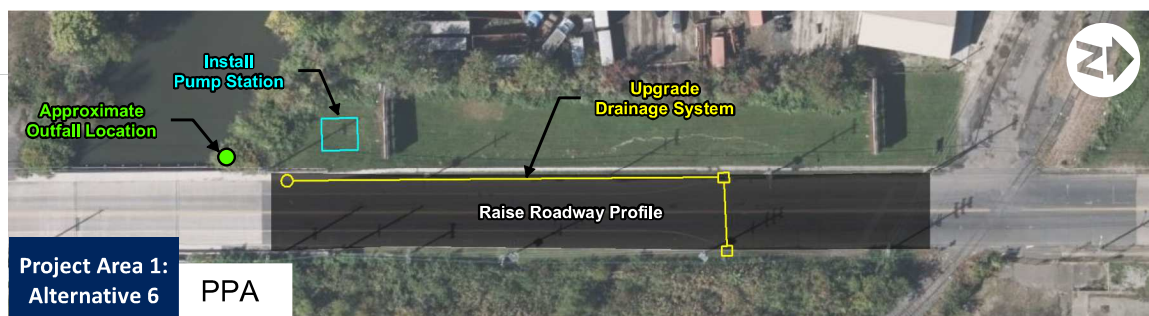
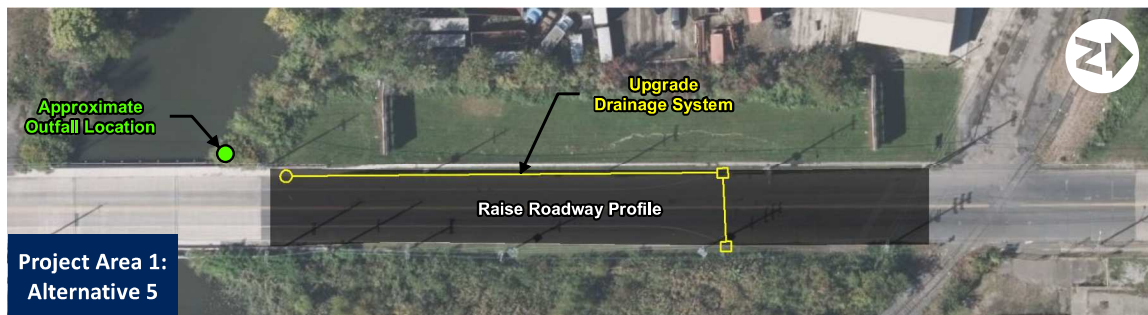
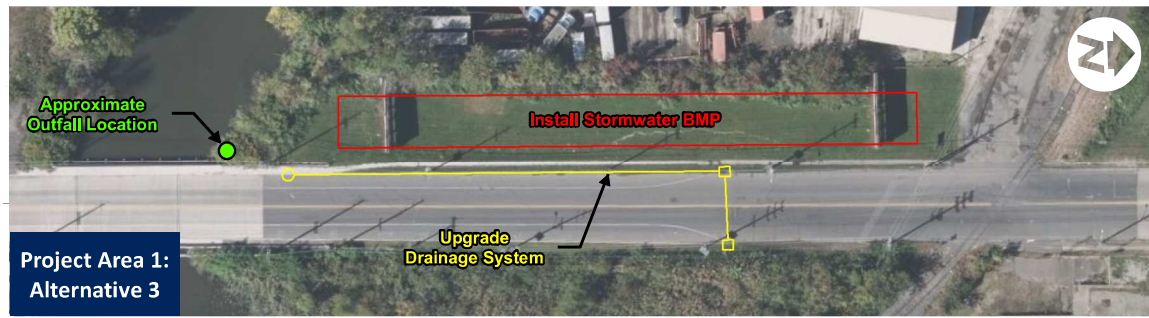
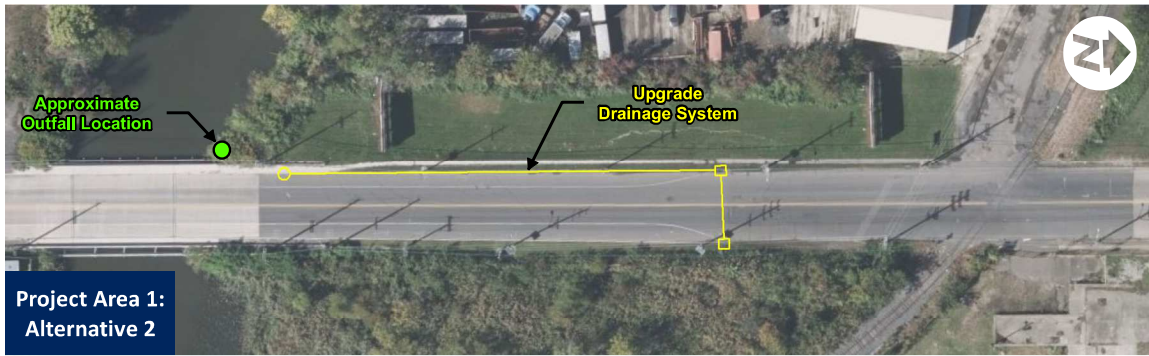
6. Construction Engineering/Construction Inspection (CE/CI) cost assumed to be +/- 15% of construction cost.

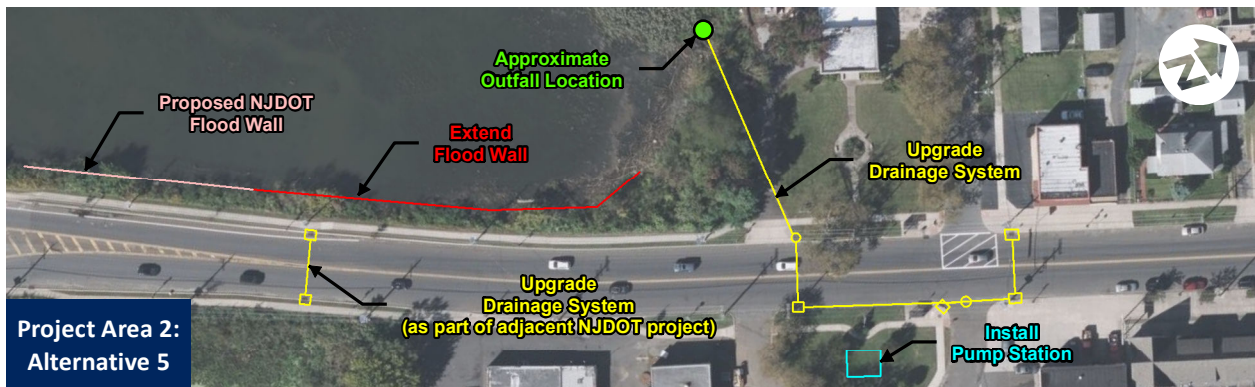
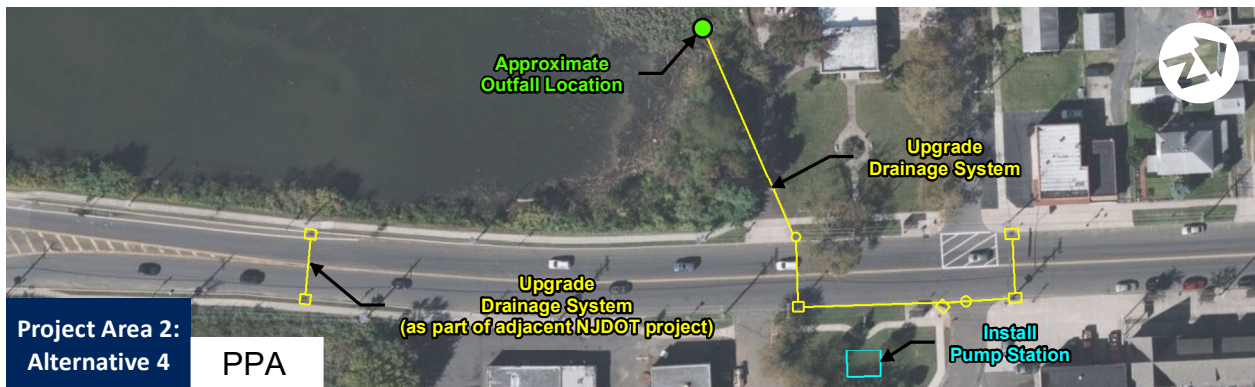
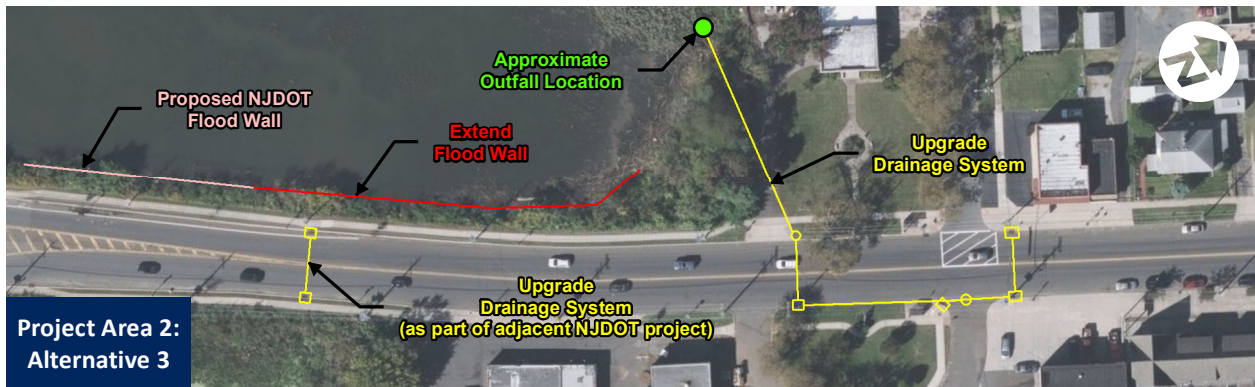
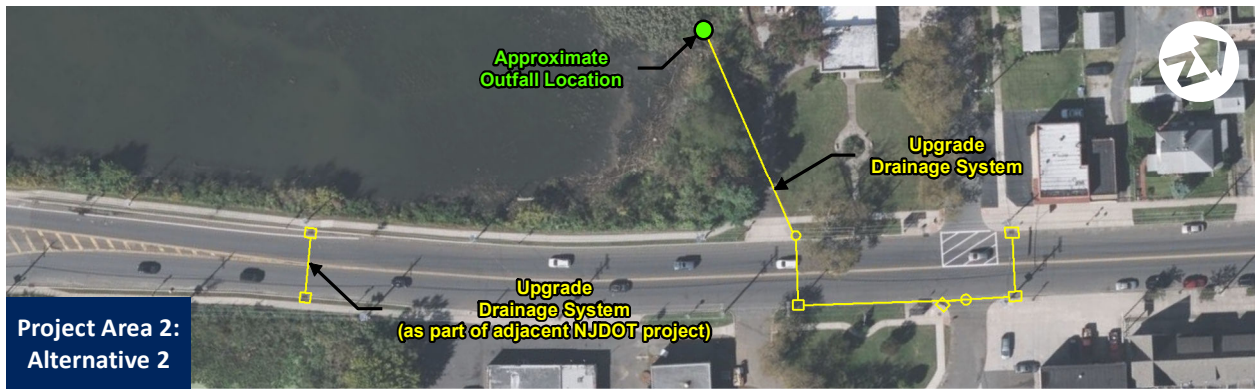
PPA

4: Drainage System Improvements, Install Pump Station

• Prevents tidal backflow into system.
• During low tide, provides sufficient capacities for system to drain up through the 10 year + storm event.
• The larger system provides more storage and inlets are unlikely to surcharge and flood the roadway, even during the larger rainfall events.

• ROW acquisition will be required.





APPENDIX M – COST ESTIMATES

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
NORTH (SITE 1) ALTERNATIVE COST ESTIMATES

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
ALTERNATIVE 2							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 10,000	\$ 10,000
-	TRAFFIC CONTROL	LS	1			\$ 20,000	\$ 20,000
-	CONSTRUCTION ACCESS	LS	1			\$ 10,000	\$ 10,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	150	135	15	\$ 80.00	\$ 12,000
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	45	40	5	\$ 100.00	\$ 4,500
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	25	20	5	\$ 250.00	\$ 6,250
4	16" DUCTILE IRON PIPE	LF	55	50	5	\$ 150.00	\$ 8,250
5	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000
6	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000
7	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 34,000	\$ 34,000
Alternative Subtotal:						\$	147,500
						SAY:	\$ 148,000
ALTERNATIVE 3							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 50,000	\$ 50,000
-	TRAFFIC CONTROL	LS	1			\$ 40,000	\$ 40,000
-	CONSTRUCTION ACCESS	LS	1			\$ 50,000	\$ 50,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	150	135	15	\$ 80.00	\$ 12,000
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	45	40	5	\$ 100.00	\$ 4,500
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	25	20	5	\$ 250.00	\$ 6,250
4	16" DUCTILE IRON PIPE	LF	210	200	10	\$ 150.00	\$ 31,500
5	16" DUCTILE IRON PIPE END SECTION	UNIT	2	2		\$ 3,000.00	\$ 6,000
6	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000
7	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000
8	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500
9	CAUTION FENCE	LF	510	500	10	\$ 20.00	\$ 10,200
10	HEAVY DUTY SILT FENCE	LF	510	500	10	\$ 5.00	\$ 2,550
11	EROSION CONTROL SEDIMENT REMOVAL	CY	550	500	50	\$ 25.00	\$ 13,750
12	EXCAVATION, UNCLASSIFIED	CY	3000	2500	500	\$ 100.00	\$ 300,000
13	TOPSOILING, 4" THICK	SY	1100	600	500	\$ 10.00	\$ 11,000
14	UNDERDRAIN	LF	660	600	60	\$ 20.00	\$ 13,200
15	OUTLET CONTROL STRUCTURE, NO.1	UNIT	1	1		\$ 15,000.00	\$ 15,000
16	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	110	100	10	\$ 115.00	\$ 12,650
17	TOPSOIL STABILIZATION, TYPE 2 MAT	SY	700	600	100	\$ 5.00	\$ 3,500
18	FERTILIZING AND SEEDING	SY	700	600	100	\$ 3.00	\$ 2,100
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 188,000	\$ 188,000
Alternative Subtotal:						\$	814,700
						SAY:	\$ 815,000
ALTERNATIVE 4							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 85,000	\$ 85,000
-	TRAFFIC CONTROL	LS	1			\$ 65,000	\$ 65,000
-	CONSTRUCTION ACCESS	LS	1			\$ 85,000	\$ 85,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	150	135		\$ 80.00	\$ 12,000
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	45	40		\$ 100.00	\$ 4,500
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	25	20		\$ 250.00	\$ 6,250
4	16" DUCTILE IRON PIPE	LF	210	200		\$ 150.00	\$ 31,500
5	16" DUCTILE IRON PIPE END SECTION	UNIT	2	2		\$ 3,000.00	\$ 6,000
6	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000
7	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000
8	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500
9	CAUTION FENCE	LF	510	500		\$ 20.00	\$ 10,200
10	HEAVY DUTY SILT FENCE	LF	510	500		\$ 5.00	\$ 2,550
11	EROSION CONTROL SEDIMENT REMOVAL	CY	550	500		\$ 25.00	\$ 13,750
12	EXCAVATION, UNCLASSIFIED	CY	3000	2500		\$ 100.00	\$ 300,000
13	TOPSOILING, 4" THICK	SY	700	600		\$ 10.00	\$ 7,000
14	UNDERDRAIN	LF	660	600		\$ 20.00	\$ 13,200

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
NORTH (SITE 1) ALTERNATIVE COST ESTIMATES

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
15	OUTLET CONTROL STRUCTURE, NO.1	UNIT	1	1		\$ 15,000.00	\$ 15,000
16	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	110	100		\$ 115.00	\$ 12,650
17	TOPSOIL STABILIZATION, TYPE 2 MAT	SY	700	600		\$ 5.00	\$ 3,500
18	FERTILIZING AND SEEDING	SY	700	600		\$ 3.00	\$ 2,100
19	STORMWATER PUMP STATION	UNIT	1	1		\$ 350,000	\$ 350,000
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 320,000	\$ 320,000
Alternative Subtotal:							\$ 1,387,700
SAY: \$ 1,388,000							
ALTERNATIVE 5							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 45,000	\$ 45,000
-	TRAFFIC CONTROL	LS	1			\$ 35,000	\$ 35,000
-	CONSTRUCTION ACCESS	LS	1			\$ 45,000	\$ 45,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	2750	2500	250	\$ 80.00	\$ 220,000
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	100	90	10	\$ 100.00	\$ 10,000
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	50	45	5	\$ 250.00	\$ 12,500
4	16" DUCTILE IRON PIPE	LF	55	50	5	\$ 150.00	\$ 8,250
5	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000
6	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000
7	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500
8	REMOVAL OF PAVEMENT	CY	1100	1000	100	\$ 50.00	\$ 55,000
9	SUBBASE	CY	1100	1000	100	\$ 75.00	\$ 82,500
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 165,000	\$ 165,000
Alternative Subtotal:							\$ 720,750
SAY: \$ 721,000							
ALTERNATIVE 6 (PRELIMINARY PREFERRED ALTERNATIVE)							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 80,000	\$ 80,000
-	TRAFFIC CONTROL	LS	1			\$ 60,000	\$ 60,000
-	CONSTRUCTION ACCESS	LS	1			\$ 80,000	\$ 80,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	2750	2500	250	\$ 80.00	\$ 220,000
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	100	90	10	\$ 100.00	\$ 10,000
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	50	45	5	\$ 250.00	\$ 12,500
4	16" DUCTILE IRON PIPE	LF	55	50	5	\$ 150.00	\$ 8,250
5	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2	0	\$ 2,500.00	\$ 5,000
6	16" TIDE CHECK VALVE	UNIT	1	1	0	\$ 8,000.00	\$ 8,000
7	24" REINFORCED CONCRETE PIPE	LF	295	295	0	\$ 100.00	\$ 29,500
8	REMOVAL OF PAVEMENT	CY	1100	1000	100	\$ 50.00	\$ 55,000
9	SUBBASE	CY	1100	1000	100	\$ 75.00	\$ 82,500
10	STORMWATER PUMP STATION	UNIT	1	1	0	\$ 350,000	\$ 350,000
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 300,000	\$ 300,000
Alternative Subtotal:							\$ 1,300,750
SAY: \$ 1,301,000							

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

NORTH (SITE 1) ALTERNATIVE 2

DRAINAGE SYSTEM IMPROVEMENTS

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	150	135	15	\$ 80.00	\$ 12,000.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	45	40	5	\$ 100.00	\$ 4,500.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	25	20	5	\$ 250.00	\$ 6,250.00
4	16" DUCTILE IRON PIPE	LF	55	50	5	\$ 150.00	\$ 8,250.00
5	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000.00
6	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000.00
7	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500.00
TOTAL:						\$	73,500.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
NORTH (SITE 1) ALTERNATIVE 3
DRAINAGE SYSTEM IMPROVEMENTS AND STORMWATER BMP

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	150	135	15	\$ 80.00	\$ 12,000.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	45	40	5	\$ 100.00	\$ 4,500.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	25	20	5	\$ 250.00	\$ 6,250.00
4	16" DUCTILE IRON PIPE	LF	210	200	10	\$ 150.00	\$ 31,500.00
5	16" DUCTILE IRON PIPE END SECTION	UNIT	2	2		\$ 3,000.00	\$ 6,000.00
6	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000.00
7	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000.00
8	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500.00
9	CAUTION FENCE	LF	510	500	10	\$ 20.00	\$ 10,200.00
10	HEAVY DUTY SILT FENCE	LF	510	500	10	\$ 5.00	\$ 2,550.00
11	EROSION CONTROL SEDIMENT REMOVAL	CY	550	500	50	\$ 25.00	\$ 13,750.00
12	EXCAVATION, UNCLASSIFIED	CY	3000	2500	500	\$ 100.00	\$ 300,000.00
13	TOPSOILING, 4" THICK	SY	1100	600	500	\$ 10.00	\$ 11,000.00
14	UNDERDRAIN	LF	660	600	60	\$ 20.00	\$ 13,200.00
15	OUTLET CONTROL STRUCTURE, NO.1	UNIT	1	1		\$ 15,000.00	\$ 15,000.00
16	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	110	100	10	\$ 115.00	\$ 12,650.00
17	TOPSOIL STABILIZATION, TYPE 2 MAT	SY	700	600	100	\$ 5.00	\$ 3,500.00
18	FERTILIZING AND SEEDING	SY	700	600	100	\$ 3.00	\$ 2,100.00
TOTAL:						\$	486,700.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
NORTH (SITE 1) ALTERNATIVE 4
DRAINAGE SYSTEM IMPROVEMENTS, STORMWATER BMP, AND PUMP STATION

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	150	135	15	\$ 80.00	\$ 12,000.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	45	40	5	\$ 100.00	\$ 4,500.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	25	20	5	\$ 250.00	\$ 6,250.00
4	16" DUCTILE IRON PIPE	LF	210	200	10	\$ 150.00	\$ 31,500.00
5	16" DUCTILE IRON PIPE END SECTION	UNIT	2	2		\$ 3,000.00	\$ 6,000.00
6	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000.00
7	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000.00
8	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500.00
9	CAUTION FENCE	LF	510	500	10	\$ 20.00	\$ 10,200.00
10	HEAVY DUTY SILT FENCE	LF	510	500	10	\$ 5.00	\$ 2,550.00
11	EROSION CONTROL SEDIMENT REMOVAL	CY	550	500	50	\$ 25.00	\$ 13,750.00
12	EXCAVATION, UNCLASSIFIED	CY	3000	2500	500	\$ 100.00	\$ 300,000.00
13	TOPSOILING, 4" THICK	SY	700	600	100	\$ 10.00	\$ 7,000.00
14	UNDERDRAIN	LF	660	600	60	\$ 20.00	\$ 13,200.00
15	OUTLET CONTROL STRUCTURE, NO.1	UNIT	1	1		\$ 15,000.00	\$ 15,000.00
16	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	110	100	10	\$ 115.00	\$ 12,650.00
17	TOPSOIL STABILIZATION, TYPE 2 MAT	SY	700	600	100	\$ 5.00	\$ 3,500.00
18	FERTILIZING AND SEEDING	SY	700	600	100	\$ 3.00	\$ 2,100.00
19	STORMWATER PUMP STATION	UNIT	1	1		\$ 350,000.00	\$ 350,000.00
TOTAL:						\$	832,700.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

NORTH (SITE 1) ALTERNATIVE 5

DRAINAGE SYSTEM IMPROVEMENTS AND RAISING OF ROADWAY PROFILE

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	2750	2500	250	\$ 80.00	\$ 220,000.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	100	90	10	\$ 100.00	\$ 10,000.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	50	45	5	\$ 250.00	\$ 12,500.00
4	16" DUCTILE IRON PIPE	LF	55	50	5	\$ 150.00	\$ 8,250.00
5	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000.00
6	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000.00
7	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500.00
8	REMOVAL OF PAVEMENT	CY	1100	1000	100	\$ 50.00	\$ 55,000.00
9	SUBBASE	CY	1100	1000	100	\$ 75.00	\$ 82,500.00
TOTAL:						\$	430,750.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

NORTH (SITE 1) ALTERNATIVE 6 (PPA)

DRAINAGE SYSTEM IMPROVEMENTS, PUMP STATION, AND RAISING OF ROADWAY PROFILE

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	2750	2500	250	\$ 80.00	\$ 220,000.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	100	90	10	\$ 100.00	\$ 10,000.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	50	45	5	\$ 250.00	\$ 12,500.00
4	16" DUCTILE IRON PIPE	LF	55	50	5	\$ 150.00	\$ 8,250.00
5	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	2	2		\$ 2,500.00	\$ 5,000.00
6	16" TIDE CHECK VALVE	UNIT	1	1		\$ 8,000.00	\$ 8,000.00
7	24" REINFORCED CONCRETE PIPE	LF	295	295		\$ 100.00	\$ 29,500.00
8	REMOVAL OF PAVEMENT	CY	1100	1000	100	\$ 50.00	\$ 55,000.00
9	SUBBASE	CY	1100	1000	100	\$ 75.00	\$ 82,500.00
10	STORMWATER PUMP STATION	UNIT	1	1		\$ 350,000.00	\$ 350,000.00
TOTAL:						\$	780,750.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
SOUTH (SITE 2) ALTERNATIVE COST ESTIMATES

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
ALTERNATIVE 2							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 15,000	\$ 15,000
-	TRAFFIC CONTROL	LS	1			\$ 20,000	\$ 20,000
-	CONSTRUCTION ACCESS	LS	1			\$ 15,000	\$ 15,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	132	120	12	\$ 80	\$ 10,560
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	35	30	5	\$ 100	\$ 3,500
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	20	15	5	\$ 250	\$ 5,000
4	15" DUCTILE IRON PIPE	LF	80	80		\$ 175	\$ 14,000
5	24" REINFORCED CONCRETE PIPE	LF	140	140		\$ 100	\$ 14,000
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110	\$ 23,100
7	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2		\$ 1,200	\$ 2,400
8	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5		\$ 2,500	\$ 12,500
9	18" TIDE CHECK VALVE	UNIT	1	1		\$ 10,000	\$ 10,000
10	27" TIDE CHECK VALVE	UNIT	1	1		\$ 17,000	\$ 17,000
11	CONCRETE SIDEWALK, 4" THICK	SY	25	25		\$ 80	\$ 2,000
12	8" x 16" CONCRETE VERTICAL CURB	LF	25	25		\$ 80	\$ 2,000
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 50,000	\$ 50,000
Alternative Subtotal:						\$	216,060
						SAY:	\$ 216,000
ALTERNATIVE 3							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 75,000	\$ 75,000
-	TRAFFIC CONTROL	LS	1			\$ 60,000	\$ 60,000
-	CONSTRUCTION ACCESS	LS	1			\$ 75,000	\$ 75,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	132	120	12	\$ 80	\$ 10,560
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	35	30	5	\$ 100	\$ 3,500
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	20	15	5	\$ 250	\$ 5,000
4	15" DUCTILE IRON PIPE	LF	80	80		\$ 175	\$ 14,000
5	24" REINFORCED CONCRETE PIPE	LF	140	140		\$ 100	\$ 14,000
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110	\$ 23,100
7	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5		\$ 2,500	\$ 12,500
8	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2		\$ 1,200	\$ 2,400
9	18" TIDE CHECK VALVE	UNIT	1	1		\$ 10,000	\$ 10,000
10	27" TIDE CHECK VALVE	UNIT	1	1		\$ 17,000	\$ 17,000
11	CONCRETE SIDEWALK, 4" THICK	SY	25	25		\$ 80	\$ 2,000
12	8" x 16" CONCRETE VERTICAL CURB	LF	25	25		\$ 80	\$ 2,000
13	RETAINING WALL, CAST-IN-PLACE	SF	400	300	100	\$ 1,000	\$ 400,000
14	HEAVY DUTY SILT FENCE	LF	510	500	10	\$ 5	\$ 2,550
15	EROSION CONTROL SEDIMENT REMOVAL	CY	120	100	20	\$ 25	\$ 3,000
16	EXCAVATION, UNCLASSIFIED	CY	2000	1500	500	\$ 100	\$ 200,000
17	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	175	125	50	\$ 115	\$ 20,125
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 285,000	\$ 285,000
Alternative Subtotal:						\$	1,236,735
						SAY:	\$ 1,237,000
ALTERNATIVE 4 (PRELIMINARY PREFERRED ALTERNATIVE)							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 50,000	\$ 50,000
-	TRAFFIC CONTROL	LS	1			\$ 35,000	\$ 35,000
-	CONSTRUCTION ACCESS	LS	1			\$ 50,000	\$ 50,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	132	120	12	\$ 80	\$ 10,560
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	35	30	5	\$ 100	\$ 3,500
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	20	15	5	\$ 250	\$ 5,000
4	15" DUCTILE IRON PIPE	LF	80	80	0	\$ 175	\$ 14,000
5	24" REINFORCED CONCRETE PIPE	LF	140	140	0	\$ 100	\$ 14,000
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110	\$ 23,100
7	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2	0	\$ 1,200	\$ 2,400
8	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5	0	\$ 2,500	\$ 12,500
9	18" TIDE CHECK VALVE	UNIT	1	1	0	\$ 10,000	\$ 10,000
10	27" TIDE CHECK VALVE	UNIT	1	1	0	\$ 17,000	\$ 17,000

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
SOUTH (SITE 2) ALTERNATIVE COST ESTIMATES

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
11	CONCRETE SIDEWALK, 4" THICK	SY	25	25	0	\$ 80	\$ 2,000
12	8" x 16" CONCRETE VERTICAL CURB	LF	25	25	0	\$ 80	\$ 2,000
13	STORMWATER PUMP STATION	UNIT	1	1	0	\$ 350,000	\$ 350,000
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 180,000	\$ 180,000
						Alternative Subtotal:	\$ 781,060
						SAY:	\$ 781,000
ALTERNATIVE 5							
-	MOBILIZATION AND CLEANUP	LS	1			\$ 115,000	\$ 115,000
-	TRAFFIC CONTROL	LS	1			\$ 85,000	\$ 85,000
-	CONSTRUCTION ACCESS	LS	1			\$ 115,000	\$ 115,000
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	187	170	17	\$ 80	\$ 14,960
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	85	70	15	\$ 100	\$ 8,500
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	42	35	7	\$ 250	\$ 10,500
4	15" DUCTILE IRON PIPE	LF	80	80	0	\$ 175	\$ 14,000
5	24" REINFORCED CONCRETE PIPE	LF	290	290	0	\$ 100	\$ 29,000
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110	\$ 23,100
7	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2	0	\$ 1,200	\$ 2,400
8	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5	0	\$ 2,500	\$ 12,500
9	18" TIDE CHECK VALVE	UNIT	1	1	0	\$ 10,000	\$ 10,000
10	27" TIDE CHECK VALVE	UNIT	1	1	0	\$ 17,000	\$ 17,000
11	RETAINING WALL, CAST-IN-PLACE	SF	400	300	100	\$ 1,000	\$ 400,000
12	HEAVY DUTY SILT FENCE	LF	510	500	10	\$ 5	\$ 2,550
13	EROSION CONTROL SEDIMENT REMOVAL	CY	120	100	20	\$ 25	\$ 3,000
14	EXCAVATION, UNCLASSIFIED	CY	2000	1500	500	\$ 100	\$ 200,000
15	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	175	125	50	\$ 115	\$ 20,125
16	STORMWATER PUMP STATION	UNIT	1	1	0	\$ 350,000	\$ 350,000
17	8" x 16" CONCRETE VERTICAL CURB	LF	275	275	0	\$ 80	\$ 22,000
18	CONCRETE SIDEWALK, 4" THICK	SY	225	225	0	\$ 80	\$ 18,000
-	CONSTRUCTION CONTINGENCY (+/- 30%)	LS	1			\$ 440,000	\$ 440,000
						Alternative Subtotal:	\$ 1,912,635
						SAY:	\$ 1,913,000

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

SOUTH (SITE 2) ALTERNATIVE 2

DRAINAGE SYSTEM IMPROVEMENTS

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	132	120	12	\$ 80.00	\$ 10,560.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	35	30	5	\$ 100.00	\$ 3,500.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	20	15	5	\$ 250.00	\$ 5,000.00
4	15" DUCTILE IRON PIPE	LF	80	80		\$ 175.00	\$ 14,000.00
5	24" REINFORCED CONCRETE PIPE	LF	140	140		\$ 100.00	\$ 14,000.00
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110.00	\$ 23,100.00
7	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2		\$ 1,200.00	\$ 2,400.00
8	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5		\$ 2,500.00	\$ 12,500.00
9	18" TIDE CHECK VALVE	UNIT	1	1		\$ 10,000.00	\$ 10,000.00
10	27" TIDE CHECK VALVE	UNIT	1	1		\$ 17,000.00	\$ 17,000.00
11	CONCRETE SIDEWALK, 4" THICK	SY	25	25		\$ 80.00	\$ 2,000.00
12	8" x 16" CONCRETE VERTICAL CURB	LF	25	25		\$ 80.00	\$ 2,000.00
TOTAL:						\$	116,060.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
SOUTH (SITE 2) ALTERNATIVE 3
DRAINAGE SYSTEM IMPROVEMENTS AND FLOODWALL EXTENSION

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	132	120	12	\$ 80.00	\$ 10,560.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	35	30	5	\$ 100.00	\$ 3,500.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	20	15	5	\$ 250.00	\$ 5,000.00
4	15" DUCTILE IRON PIPE	LF	80	80		\$ 175.00	\$ 14,000.00
5	24" REINFORCED CONCRETE PIPE	LF	140	140		\$ 100.00	\$ 14,000.00
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110.00	\$ 23,100.00
7	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5		\$ 2,500.00	\$ 12,500.00
8	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2		\$ 1,200.00	\$ 2,400.00
9	18" TIDE CHECK VALVE	UNIT	1	1		\$ 10,000.00	\$ 10,000.00
10	27" TIDE CHECK VALVE	UNIT	1	1		\$ 17,000.00	\$ 17,000.00
11	CONCRETE SIDEWALK, 4" THICK	SY	25	25		\$ 80.00	\$ 2,000.00
12	8" x 16" CONCRETE VERTICAL CURB	LF	25	25		\$ 80.00	\$ 2,000.00
13	RETAINING WALL, CAST-IN-PLACE	SF	400	300	100	\$ 1,000.00	\$ 400,000.00
14	HEAVY DUTY SILT FENCE	LF	510	500	10	\$ 5.00	\$ 2,550.00
15	EROSION CONTROL SEDIMENT REMOVAL	CY	120	100	20	\$ 25.00	\$ 3,000.00
16	EXCAVATION, UNCLASSIFIED	CY	2000	1500	500	\$ 100.00	\$ 200,000.00
17	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	175	125	50	\$ 115.00	\$ 20,125.00
TOTAL:						\$	741,735.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION

SOUTH (SITE 2) ALTERNATIVE 4 (PPA)

DRAINAGE SYSTEM IMPROVEMENTS AND PUMP STATION

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	132	120	12	\$ 80.00	\$ 10,560.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	35	30	5	\$ 100.00	\$ 3,500.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	20	15	5	\$ 250.00	\$ 5,000.00
4	15" DUCTILE IRON PIPE	LF	80	80		\$ 175.00	\$ 14,000.00
5	24" REINFORCED CONCRETE PIPE	LF	140	140		\$ 100.00	\$ 14,000.00
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110.00	\$ 23,100.00
7	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2		\$ 1,200.00	\$ 2,400.00
8	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5		\$ 2,500.00	\$ 12,500.00
9	18" TIDE CHECK VALVE	UNIT	1	1		\$ 10,000.00	\$ 10,000.00
10	27" TIDE CHECK VALVE	UNIT	1	1		\$ 17,000.00	\$ 17,000.00
11	CONCRETE SIDEWALK, 4" THICK	SY	25	25		\$ 80.00	\$ 2,000.00
12	8" x 16" CONCRETE VERTICAL CURB	LF	25	25		\$ 80.00	\$ 2,000.00
13	STORMWATER PUMP STATION	UNIT	1	1		\$ 350,000.00	\$ 350,000.00
TOTAL:						\$	466,060.00

DELAWARE VALLEY REGIONAL PLANNING COMMISSION
SOUTH (SITE 2) ALTERNATIVE 5
DRAINAGE SYSTEM IMPROVEMENTS, FLOOD WALL EXTENSION, AND PUMP STATION

ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	PLAN SHEETS TOTAL	IF AND WHERE DIRECTED	UNIT PRICE	TOTAL COST
1	SOIL AGGREGATE BASE COURSE, 6" THICK	SY	187	170	17	\$ 80.00	\$ 14,960.00
2	HOT MIX ASPHALT 9.5 M 64 INTERMEDIATE COURSE	T	85	70	15	\$ 100.00	\$ 8,500.00
3	HOT MIX ASPHALT 9.5 H 64 SURFACE COURSE	T	42	35	7	\$ 250.00	\$ 10,500.00
4	15" DUCTILE IRON PIPE	LF	80	80		\$ 175.00	\$ 14,000.00
5	24" REINFORCED CONCRETE PIPE	LF	290	290		\$ 100.00	\$ 29,000.00
6	27" REINFORCED CONCRETE PIPE	LF	210	110	100	\$ 110.00	\$ 23,100.00
7	RECONSTRUCTED MANHOLE, USING EXISTING CASTING	UNIT	2	2		\$ 1,200.00	\$ 2,400.00
8	RECONSTRUCTED INLET, TYPE B, USING EXISTING CASTING	UNIT	5	5		\$ 2,500.00	\$ 12,500.00
9	18" TIDE CHECK VALVE	UNIT	1	1		\$ 10,000.00	\$ 10,000.00
10	27" TIDE CHECK VALVE	UNIT	1	1		\$ 17,000.00	\$ 17,000.00
11	RETAINING WALL, CAST-IN-PLACE	SF	400	300	100	\$ 1,000.00	\$ 400,000.00
12	HEAVY DUTY SILT FENCE	LF	510	500	10	\$ 5.00	\$ 2,550.00
13	EROSION CONTROL SEDIMENT REMOVAL	CY	120	100	20	\$ 25.00	\$ 3,000.00
14	EXCAVATION, UNCLASSIFIED	CY	2000	1500	500	\$ 100.00	\$ 200,000.00
15	RIPRAP STONE CHANNEL PROTECTION, 12" THICK (D50=6")	SY	175	125	50	\$ 115.00	\$ 20,125.00
16	STORMWATER PUMP STATION	UNIT	1	1		\$ 350,000.00	\$ 350,000.00
17	8" x 16" CONCRETE VERTICAL CURB	LF	275	275		\$ 80.00	\$ 22,000.00
18	CONCRETE SIDEWALK, 4" THICK	SY	225	225		\$ 80.00	\$ 18,000.00
TOTAL:						\$	1,157,635.00

APPENDIX N – DRAINAGE CALCULATIONS

Project Title: DVRPC Broadway Project Area 1 Existing Condition Capacity Calculations
Project Location: Brooklawn, NJ
Computed by: JC Date: 5/2/22
Checked by: KD Date: 5/2/22

Step 1: Calculate estimated flows from each drainage area

Pipe Flow Calculation													
CB ID	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Q Generated (cfs)
J01	11651	0.27	5.1	0.99	-	-	-	-	-	-	-	-	1.35
J02	33874	0.78	5.1	0.99	22815	0.52	5.1	0.7	36487	0.84	5.1	0.76	9.04
J04	6161	0.14	5.1	0.99	-	-	-	-	-	-	-	-	0.71
J05	10650	0.24	5.1	0.99	-	-	-	-	-	-	-	-	1.23

Rainfall Source: NJDOT Highway Design Manual

Step 2: Determine if existing condition is adequate to convey generated flows.

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J01	1.35

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
16	-0.004	1.40	4.19	0.333	0.012	#NUM!	#NUM!	#NUM!

*Existing

Water is sitting in the inlet. Inverts are flipped.

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J02	9.04

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.002	1.77	4.71	0.375	0.012	2.88	5.09	NO

*Existing

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
24	0.005	3.14	6.28	0.500	0.012	5.52	17.33	YES

*Existing MH

*Manhole connection before reaching creek

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J04	0.71

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
16	0.007	1.40	4.19	0.333	0.012	4.83	6.74	YES

*Existing

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J05	1.23

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
24	0.000	3.14	6.28	0.500	0.012	1.05	3.30	YES

*Existing

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
24	0.005	3.14	6.28	0.500	0.012	5.52	17.33	YES

*Existing MH

*Manhole connection before reaching creek

Project Title: DVRPC Broadway Project Area 2 Existing Conditions Capacity Calculations
Project Location: Brooklawn, NJ
Computed by: JC Date: 5/5/22
Checked by: KD Date: 5/5/22

Step 1: Calculate estimated flows from each drainage area

Pipe Flow Calculation													
CB ID	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Q Generated (cfs)
J28	31179	0.72	5.1	0.99	63390	1.46	5.1	0.75	15700	0.36	5.1	0.93	15.41
J27	14200	0.33	5.1	0.99	13881	0.32	5.1	0.87	22365	0.51	3.8	0.75	4.52
J32	697	0.02	5.1	0.99	3843	0.09	5.1	0.8	-	-	-	-	0.44
J29	3695	0.08	5.1	0.99	3240	0.07	5.1	0.8	-	-	-	-	21.11
J33	4176	0.10	5.1	0.99	2598	0.06	5.1	0.8	-	-	-	-	0.73
J30	6837	0.16	5.1	0.99	9821	0.23	5.1	0.85	-	-	-	-	1.77
J31	13411	0.31	5.1	0.99	-	-	5.1	-	-	-	-	-	1.55
J25	5943	0.14	5.1	0.99	-	-	5.1	-	-	-	-	-	0.69
J26	4187	0.10	5.1	0.99	-	-	5.1	-	-	-	-	-	0.49
Total Flow Generated =													46.71

Rainfall Source: NJDOT Highway Design Manual

Step 2: Determine if existing condition is adequate to convey generated flows.

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J28	15.41

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
15	0.004	1.23	3.93	0.313	0.012	3.77	4.63	NO

*Existing

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J27	4.52

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
8	0.030	0.35	2.09	0.167	0.012	6.52	2.28	NO

*Existing

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J29	21.11

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.004	1.77	4.71	0.375	0.012	4.06	7.18	NO

*Existing

*Invert in is calculated as an assumption of 3.0'

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J33	0.73

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.013	1.77	4.71	0.375	0.012	7.40	13.09	YES

*Existing

Project Title: DVRPC Broadway Project Area 2 Existing Conditions Capacity Calculations
Project Location: Brooklawn, NJ
Computed by: JC
Checked by: KD

Date: 5/5/22
Date: 5/5/22

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J30	1.77

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.000	1.77	4.71	0.375	0.012	0.29	0.52	NO

*Invert is flat

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J31	1.55

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.042	1.77	4.71	0.375	0.012	13.14	23.23	YES

*No size or inverts given for this inlet

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J25	0.69

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.013	1.77	4.71	0.375	0.012	7.26	12.83	YES

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J26	0.49

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
21	0.005	2.41	5.50	0.438	0.012	4.96	11.93	YES

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
Outfall Pipe	21.84

*assumed slope because outfall was inaccessible

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.004	1.77	4.71	0.375	0.012	4.06	7.18	NO

INTERNATIONAL

Project Location: Brooklawn, NJ

Date: 5/2/22

Date: 5/2/22

Step 1: Calculate estimated flows from each drainage area

Rainfall Source: NJDOT Highway Design Manual

Step 2: Determine if existing condition is adequate to convey generated flows.

***Proposed**

Reconstruct inlets. Inverts of 16" DIP to 0.5' and 0.0'

***Proposed**

*Existing MH

*Manhole connection before reaching creek

*Existing

*Existing

*Existing MH

*Manhole connection before reaching creek

Project Title: DVRPC Broadway Project Area 2 Proposed Conditions Capacity Calculations
Project Location: Brooklawn, NJ
Computed by: JC Date: 5/5/22
Checked by: KD Date: 5/5/22

Step 1: Calculate estimated flows from each drainage area

Pipe Flow Calculation													
CB ID	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Area (sf)	Area (ac)	10 YR Intensity (in/hr)	C	Q Generated (cfs)
J28	31179	0.72	5.1	0.99	63390	1.46	5.1	0.75	15700	0.36	5.1	0.93	15.41
J27	14200	0.33	5.1	0.99	13881	0.32	5.1	0.87	22365	0.51	3.8	0.75	4.52
J32	697	0.02	5.1	0.99	3843	0.09	5.1	0.8	-	-	-	-	0.44
J29	3695	0.08	5.1	0.99	3240	0.07	5.1	0.8	-	-	-	-	21.11
J33	4176	0.10	5.1	0.99	2598	0.06	5.1	0.8	-	-	-	-	0.73
J30	6837	0.16	5.1	0.99	9821	0.23	5.1	0.85	-	-	-	-	1.77
J31	13411	0.31	5.1	0.99	-	-	5.1	-	-	-	-	-	1.55
J25	5943	0.14	5.1	0.99	-	-	5.1	-	-	-	-	-	0.69
J26	4187	0.10	5.1	0.99	-	-	5.1	-	-	-	-	-	0.49
Total Flow Generated =													46.71

Rainfall Source: NJDOT Highway Design Manual

Step 2: Determine if existing condition is adequate to convey generated flows.

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J28	15.41

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
24	0.004	3.14	6.28	0.500	0.012	5.16	16.21	YES

*Proposed

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J27	4.52

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
15	0.030	1.23	3.93	0.313	0.012	9.91	12.16	YES

*Proposed

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J29	21.11

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
27	0.004	3.98	7.07	0.563	0.012	5.33	21.17	YES

*Proposed

*Invert in is calculated as an assumption of 3.0'

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J33	0.73

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.013	1.77	4.71	0.375	0.012	7.40	13.09	YES

*Existing

Michael Baker
INTERNATIONAL

Project Title: DVRPC Broadway Project Area 2 Proposed Conditions Capacity Calculations
Project Location: Brooklawn, NJ
Computed by: JC
Checked by: KD

Date: 5/5/22
Date: 5/5/22

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J30	1.77

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.003	1.77	4.71	0.375	0.012	3.48	6.15	YES

*Proposed

*Proposed Pipe. Invert changed from 1.97 to 2.14

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J31	1.55

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.042	1.77	4.71	0.375	0.012	13.14	23.23	YES

*Existing

*No size or inverts given for this inlet

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J25	0.69

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
18	0.013	1.77	4.71	0.375	0.012	7.26	12.83	YES

*Existing

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
J26	0.49

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
21	0.005	2.41	5.50	0.438	0.012	4.96	11.93	YES

*Existing

Pipe Flow Calculation	
CB ID	Q Generated (cfs)
Outfall Pipe	21.84

*assumed slope because outfall was inaccessible

Pipe Diameter (in)	Actual Slope (ft/ft)	Area (ft^2)	Perimeter (ft)	Hydraulic Radius (ft)	n (coefficient)	velocity (ft/s)	Q Capacity (cfs)	Adequate Pipe Size
27	0.004	3.98	7.07	0.563	0.012	5.33	21.17	NO

*Proposed

Existing Conditions SWMM Model Data

Project Area 1 Model Schematic



Project Area 2 Model Schematic



DVRPC Broadway LCD

WARNING 04: minimum elevation drop used for Conduit C30
 WARNING 03: negative offset ignored for Link C34

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method CURVE_NUMBER
 Flow Routing Method DYNWAVE
 Surcharge Method EXTRAN
 Starting Date 04/21/2022 18:00:00
 Ending Date 04/23/2022 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:06:00
 Wet Time Step 00:01:00
 Dry Time Step 01:00:00
 Routing Time Step 60.00 sec
 Variable Time Step YES
 Maximum Trials 8
 Number of Threads 1
 Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	2.173	5.100
Evaporation Loss	0.000	0.000
Infiltration Loss	0.000	0.000
Surface Runoff	2.149	5.044
Final Storage	0.024	0.057

Continuity Error (%) -0.006

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	2.149	0.700
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	2.171	0.707
Flooding Loss	0.000	0.000
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.031	0.010
Final Stored Volume	0.001	0.000
Continuity Error (%)	0.328	

Highest Continuity Errors

Node J34 (~473.50%)

Time-Step Critical Elements

Link C07 (88.84%)
Link C28 (11.03%)

Highest Flow Instability Indexes

All links are stable.

Routing Time Step Summary

Minimum Time Step : 0.50 sec
Average Time Step : 4.62 sec
Maximum Time Step : 11.89 sec
Percent in Steady State : -0.00
Average Iterations per Step : 2.01
Percent Not Converging : 0.06
Time Step Frequencies :
60.000 - 23.031 sec : 0.00 %

23.031 - 8.841 sec : 4.82 %
 8.841 - 3.393 sec : 73.79 %
 3.393 - 1.303 sec : 20.86 %
 1.303 - 0.500 sec : 0.53 %

 Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Imperv Runoff in	Perv Runoff in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
S1	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.04	1.41	0.992
S2	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.04	1.53	0.992
S4	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.02	0.81	0.993
S5	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.01	0.60	0.993
S6	5.10	0.00	0.00	0.00	5.05	0.00	5.05	0.16	4.30	0.990
S7	5.10	0.00	0.00	0.00	5.03	0.00	5.03	0.35	6.84	0.986
S8	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.02	0.80	0.993
S9	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.02	0.89	0.993
S10	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.01	0.59	0.993
S11	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.01	0.56	0.993
S12	5.10	0.00	0.00	0.00	5.06	0.00	5.06	0.02	0.78	0.993

 Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J01	JUNCTION	0.13	0.56	0.51	0 12:12	0.56
J02	JUNCTION	0.39	0.85	0.54	0 12:12	0.85
J03	JUNCTION	0.10	0.49	-0.33	0 12:12	0.49
J04	JUNCTION	0.05	0.27	3.25	0 12:12	0.27
J05	JUNCTION	0.13	1.63	2.02	0 00:00	0.50
J06	JUNCTION	0.07	1.33	1.70	0 00:00	0.34
J07	JUNCTION	0.04	1.44	2.99	0 00:00	0.18
J25	JUNCTION	0.12	0.42	2.39	0 12:12	0.42
J26	JUNCTION	0.05	0.25	2.25	0 12:12	0.25
J27	JUNCTION	0.16	3.02	9.79	0 12:11	3.02
J28	JUNCTION	0.35	3.25	6.86	0 12:12	3.11
J29	JUNCTION	0.30	2.89	6.34	0 12:12	2.72
J30	JUNCTION	0.41	2.82	5.55	0 12:12	2.63

J31	JUNCTION	0.29	2.42	5.15	0	12:12	2.20
J32	JUNCTION	0.04	0.23	6.69	0	12:12	0.23
J33	JUNCTION	0.05	0.24	7.94	0	12:12	0.24
J34	JUNCTION	0.37	1.95	3.13	0	00:00	0.56
J35	JUNCTION	0.04	5.93	10.68	0	12:11	1.97
J36	JUNCTION	0.04	2.00	6.34	0	12:12	1.83
Out1	OUTFALL	0.09	0.49	-0.68	0	12:12	0.49
Out2	OUTFALL	0.06	1.13	1.18	0	00:00	0.34
Out4	OUTFALL	0.05	0.25	1.38	0	12:12	0.25
Out5	OUTFALL	1.42	3.58	3.58	0	12:41	3.58

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
J01	JUNCTION	1.41	1.41	0 12:12	0.0367	0.0388	0.274
J02	JUNCTION	1.53	2.94	0 12:12	0.0403	0.079	-0.110
J03	JUNCTION	0.00	2.88	0 12:12	0	0.0769	0.014
J04	JUNCTION	0.81	0.81	0 12:12	0.0194	0.0194	-0.001
J05	JUNCTION	0.00	11.30	0 00:00	0	0.0379	-0.112
J06	JUNCTION	0.00	13.74	0 00:00	0	0.038	0.156
J07	JUNCTION	0.60	17.00	0 00:00	0.0142	0.0177	-7.609
J25	JUNCTION	0.78	0.78	0 12:12	0.0187	0.0187	0.014
J26	JUNCTION	0.56	1.35	0 12:12	0.0132	0.0319	0.002
J27	JUNCTION	4.30	4.30	0 12:12	0.158	0.158	-0.002
J28	JUNCTION	6.84	10.96	0 12:11	0.346	0.506	-0.218
J29	JUNCTION	0.00	11.56	0 12:11	0	0.52	-0.031
J30	JUNCTION	0.80	12.05	0 12:12	0.0192	0.539	0.010
J31	JUNCTION	0.00	12.83	0 12:12	0	0.561	0.007
J32	JUNCTION	0.59	0.59	0 12:12	0.0137	0.0137	-0.003
J33	JUNCTION	0.89	0.89	0 12:12	0.0214	0.0214	-0.002
J34	JUNCTION	0.00	0.17	0 00:01	0	0.000622	-82.563
J35	JUNCTION	0.00	1.26	0 12:10	0	0.00132	-53.277
J36	JUNCTION	0.00	0.16	0 12:09	0	0.000169	-64.536
Out1	OUTFALL	0.00	2.88	0 12:12	0	0.0769	0.000
Out2	OUTFALL	0.00	13.16	0 00:00	0	0.0379	0.000
Out4	OUTFALL	0.00	1.34	0 12:12	0	0.0319	0.000
Out5	OUTFALL	0.00	12.97	0 12:12	0	0.561	0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
J27	JUNCTION	0.28	2.350	0.000
J28	JUNCTION	0.11	0.811	2.779
J30	JUNCTION	0.41	1.321	4.419
J35	JUNCTION	0.13	4.680	0.000
J36	JUNCTION	0.18	0.998	7.962

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Ponded Depth Feet
J27	0.03	0.24	0 12:12	0.000	0.000
J35	0.01	0.48	0 12:11	0.000	0.000

Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
Out1	94.24	0.19	2.88	0.077
Out2	92.54	0.11	13.16	0.038
Out4	90.88	0.08	1.34	0.032
Out5	99.94	1.22	12.97	0.561
System	94.40	1.60	18.45	0.707

Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C01	CONDUIT	1.41	0 12:12	1.88	0.19	0.53
C02	CONDUIT	2.88	0 12:12	3.62	0.48	0.47
C03	CONDUIT	2.88	0 12:12	4.78	0.13	0.25
C04	CONDUIT	0.81	0 12:12	4.02	0.09	0.20
C05	CONDUIT	13.74	0 00:00	6.38	3.34	0.66
C06	CONDUIT	13.16	0 00:00	7.22	0.61	0.59
C07	CONDUIT	11.30	0 00:00	14.39	1.36	1.00
C25	CONDUIT	0.78	0 12:12	2.74	0.22	0.22
C26	CONDUIT	1.34	0 12:12	6.94	0.06	0.17
C27	CONDUIT	4.22	0 12:11	11.97	1.54	1.00
C28	CONDUIT	10.97	0 12:11	8.94	2.13	1.00
C29	CONDUIT	11.40	0 12:13	6.90	1.05	1.00
C30	CONDUIT	12.06	0 12:12	8.50	20.32	1.00
C31	CONDUIT	12.97	0 12:12	7.34	0.76	1.00
C32	CONDUIT	0.59	0 12:12	4.82	0.17	0.28
C33	CONDUIT	0.88	0 12:12	4.79	0.06	0.16
C34	CONDUIT	17.00	0 00:00	6.76	1.51	0.75
C35	CONDUIT	5.01	0 00:00	4.71	0.98	1.00
C36	CONDUIT	3.83	0 00:00	8.42	1.04	1.00

Flow Classification Summary

Conduit	Adjusted /Actual Length	Fraction of Time in Flow Class								
		Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl	
C01	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.04	0.00	
C02	1.00	0.02	0.00	0.00	0.00	0.00	0.98	0.00	0.00	
C03	1.00	0.02	0.00	0.00	0.03	0.95	0.00	0.20	0.00	
C04	1.00	0.01	0.00	0.00	0.00	0.00	0.99	0.00	0.00	
C05	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	
C06	1.00	0.00	0.00	0.00	0.06	0.94	0.00	0.08	0.00	
C07	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	
C25	1.00	0.01	0.00	0.00	0.99	0.00	0.00	0.01	0.00	
C26	1.00	0.01	0.00	0.00	0.03	0.96	0.00	0.26	0.00	
C27	1.00	0.01	0.00	0.00	0.01	0.00	0.98	0.00	0.00	
C28	1.00	0.00	0.00	0.00	0.04	0.00	0.96	0.00	0.00	
C29	1.00	0.00	0.00	0.00	0.80	0.20	0.00	0.96	0.00	
C30	1.00	0.00	0.00	0.00	0.34	0.66	0.00	0.00	0.00	
C31	1.00	0.00	0.00	0.00	0.61	0.39	0.00	0.55	0.00	
C32	1.00	0.01	0.00	0.00	0.00	0.00	0.99	0.00	0.00	

C33	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.00	0.00
C34	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.24	0.00
C35	1.00	0.06	0.70	0.00	0.19	0.00	0.00	0.04	0.92	0.00
C36	1.00	0.00	0.00	0.00	0.09	0.00	0.00	0.91	0.59	0.00

 Conduit Surcharge Summary

Conduit	----- Both Ends	Hours Full Upstream	----- Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
C05	0.01	0.01	0.01	0.02	0.01
C07	0.01	0.01	0.01	0.01	0.01
C27	0.28	0.28	0.30	0.30	0.28
C28	0.34	0.38	0.34	0.67	0.34
C29	0.29	0.29	0.41	0.05	0.05
C30	0.36	0.41	0.36	6.59	0.36
C31	0.36	0.36	11.55	0.01	0.01
C34	0.01	0.01	0.01	0.01	0.01
C35	0.13	0.13	0.35	0.01	0.01
C36	0.18	0.18	0.27	0.01	0.01

Analysis begun on: Thu Sep 22 15:04:51 2022
 Analysis ended on: Thu Sep 22 15:04:52 2022
 Total elapsed time: 00:00:01

Proposed Conditions SWMM Model Data

Project Area 1 Model Schematic



Project Area 2 Model Schematic



DVRPC Broadway LCD

WARNING 04: minimum elevation drop used for Conduit C30
 WARNING 03: negative offset ignored for Link C34

 NOTE: The summary statistics displayed in this report are
 based on results found at every computational time step,
 not just on results from each reporting time step.

 Analysis Options

 Flow Units CFS
 Process Models:
 Rainfall/Runoff YES
 RDII NO
 Snowmelt NO
 Groundwater NO
 Flow Routing YES
 Ponding Allowed NO
 Water Quality NO
 Infiltration Method CURVE_NUMBER
 Flow Routing Method DYNWAVE
 Surcharge Method EXTRAN
 Starting Date 04/21/2022 18:00:00
 Ending Date 04/23/2022 00:00:00
 Antecedent Dry Days 0.0
 Report Time Step 00:06:00
 Wet Time Step 00:01:00
 Dry Time Step 01:00:00
 Routing Time Step 60.00 sec
 Variable Time Step YES
 Maximum Trials 8
 Number of Threads 1
 Head Tolerance 0.005000 ft

*****	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
*****	-----	-----
Total Precipitation	6.724	10.600
Evaporation Loss	0.000	0.000
Infiltration Loss	0.000	0.000
Surface Runoff	6.684	10.537
Final Storage	0.041	0.064

Continuity Error (%) -0.006

*****	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
*****	-----	-----
Dry Weather Inflow	17.355	5.655
Wet Weather Inflow	6.684	2.178
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	0.000	0.000
External Outflow	21.849	7.120
Flooding Loss	2.193	0.715
Evaporation Loss	0.000	0.000
Exfiltration Loss	0.000	0.000
Initial Stored Volume	0.036	0.012
Final Stored Volume	0.014	0.005
Continuity Error (%)	0.077	

Highest Continuity Errors

Node J34 (-373.41%)

Time-Step Critical Elements

Link C07 (59.04%)
Link C30 (37.17%)
Link C28 (3.72%)

Highest Flow Instability Indexes

Link C30 (63)
Link C31 (58)
Link C29 (57)
Link C28 (47)
Link C25 (3)

Routing Time Step Summary

Minimum Time Step : 0.37 sec
Average Time Step : 3.35 sec
Maximum Time Step : 7.70 sec

Percent in Steady State : -0.00
Average Iterations per Step : 2.77
Percent Not Converging : 2.02
Time Step Frequencies :
60.000 - 23.031 sec : 0.00 %
23.031 - 8.841 sec : 0.00 %
8.841 - 3.393 sec : 42.24 %
3.393 - 1.303 sec : 55.79 %
1.303 - 0.500 sec : 1.97 %

Subcatchment Runoff Summary

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Imperv Runoff in	Perv Runoff in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
S1	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.08	3.12	0.996
S2	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.08	3.39	0.996
S4	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.04	1.73	0.997
S5	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.03	1.27	0.997
S6	10.60	0.00	0.00	0.00	10.55	0.00	10.55	0.33	10.44	0.995
S7	10.60	0.00	0.00	0.00	10.53	0.00	10.53	0.72	17.55	0.993
S8	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.04	1.72	0.997
S9	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.04	1.90	0.997
S10	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.03	1.24	0.997
S11	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.03	1.19	0.997
S12	10.60	0.00	0.00	0.00	10.56	0.00	10.56	0.04	1.67	0.997
S26	10.60	0.00	0.00	0.00	10.53	0.00	10.53	0.71	17.43	0.993

Node Depth Summary

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time of Max Occurrence days hr:min	Reported Max Depth Feet
J01	JUNCTION	0.63	1.10	1.05	0 12:12	1.10
J02	JUNCTION	0.43	1.21	0.90	0 12:12	1.21
J03	JUNCTION	0.13	0.75	-0.07	0 12:12	0.74
J04	JUNCTION	0.07	0.40	3.38	0 12:12	0.40
J05	JUNCTION	0.16	1.62	2.01	0 00:00	0.69
J06	JUNCTION	0.09	1.30	1.67	0 00:00	0.51
J07	JUNCTION	0.05	1.44	2.99	0 00:00	0.27

J25	JUNCTION	0.25	0.65	2.62	0	12:12	0.65
J26	JUNCTION	0.06	0.36	2.36	0	12:12	0.36
J27	JUNCTION	0.14	1.89	8.66	0	12:12	1.88
J28	JUNCTION	0.78	4.29	7.90	0	12:11	4.29
J29	JUNCTION	0.93	4.14	7.59	0	12:11	4.13
J30	JUNCTION	1.50	3.93	6.66	0	11:57	2.97
J31	JUNCTION	0.69	2.59	5.32	0	12:12	2.45
J32	JUNCTION	0.06	1.58	8.04	0	12:11	1.17
J33	JUNCTION	0.06	0.35	8.05	0	12:12	0.35
J34	JUNCTION	0.39	1.95	3.13	0	00:00	0.64
J35	JUNCTION	0.06	5.93	10.68	0	12:08	3.16
J36	JUNCTION	9.79	9.96	14.96	0	00:47	9.96
Out1	OUTFALL	0.13	0.75	-0.42	0	12:12	0.74
Out2	OUTFALL	0.08	1.11	1.16	0	00:00	0.50
Out4	OUTFALL	0.06	0.36	1.49	0	12:12	0.36
Out5	OUTFALL	1.55	3.58	3.58	0	12:42	3.58

Node Inflow Summary

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time of Max Occurrence days hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal	Flow Balance Error Percent
J01	JUNCTION	3.12	3.12	0 12:12	0.0766	0.0766	0.069
J02	JUNCTION	3.39	6.51	0 12:12	0.084	0.161	0.017
J03	JUNCTION	0.00	6.39	0 12:12	0	0.161	0.005
J04	JUNCTION	1.73	1.73	0 12:12	0.0404	0.0404	-0.000
J05	JUNCTION	0.00	11.27	0 00:00	0	0.0744	-0.079
J06	JUNCTION	0.00	13.57	0 00:00	0	0.0744	0.137
J07	JUNCTION	1.27	17.00	0 00:00	0.0295	0.0333	-4.212
J25	JUNCTION	1.67	1.67	0 12:12	0.039	0.039	0.042
J26	JUNCTION	1.19	2.86	0 12:12	0.0275	0.0665	0.003
J27	JUNCTION	10.44	10.44	0 12:12	0.329	0.329	0.004
J28	JUNCTION	17.55	28.00	0 12:12	0.723	1.06	-0.032
J29	JUNCTION	0.00	36.27	0 12:12	0	6.74	-0.036
J30	JUNCTION	1.72	38.07	0 12:12	0.0402	6.78	-0.523
J31	JUNCTION	0.00	39.98	0 12:12	0	6.86	0.635
J32	JUNCTION	1.24	1.24	0 12:12	0.0287	0.0287	0.006
J33	JUNCTION	1.90	1.90	0 12:12	0.0447	0.0447	-0.000
J34	JUNCTION	0.00	0.21	0 00:01	0	0.000785	-78.877
J35	JUNCTION	0.00	1.84	0 12:08	0	0.00344	-34.627
J36	JUNCTION	24.43	24.43	0 12:12	6.37	6.37	0.001
Out1	OUTFALL	0.00	6.40	0 12:12	0	0.161	0.000
Out2	OUTFALL	0.00	12.79	0 00:00	0	0.0743	0.000
Out4	OUTFALL	0.00	2.86	0 12:12	0	0.0665	0.000

Out5 OUTFALL 0.00 39.91 0 12:12 0 6.82 0.000

Node Surcharge Summary

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
J27	JUNCTION	0.02	0.636	1.134
J28	JUNCTION	0.09	1.271	1.739
J29	JUNCTION	0.03	0.609	2.581
J30	JUNCTION	0.16	1.677	3.313
J32	JUNCTION	0.01	0.750	1.390
J35	JUNCTION	0.19	4.680	0.000
J36	JUNCTION	30.00	8.960	0.000

Node Flooding Summary

Flooding refers to all water that overflows a node, whether it ponds or not.

Node	Hours Flooded	Maximum Rate CFS	Time of Max Occurrence days hr:min	Total Flood Volume 10^6 gal	Maximum Ponded Depth Feet
J35	0.01	1.78	0 12:08	0.000	0.000
J36	29.21	17.43	0 12:12	0.714	0.000

Outfall Loading Summary

Outfall Node	Flow Freq Pcnt	Avg Flow CFS	Max Flow CFS	Total Volume 10^6 gal
Out1	92.11	0.36	6.40	0.161
Out2	89.00	0.18	12.79	0.074
Out4	87.09	0.16	2.86	0.067
Out5	99.96	9.34	39.91	6.818

System	92.04	10.04	51.94	7.119
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Link Flow Summary

Link	Type	Maximum Flow CFS	Time of Max Occurrence days hr:min	Maximum Veloc ft/sec	Max/ Full Flow	Max/ Full Depth
C01	CONDUIT	3.12	0 12:12	4.03	0.30	0.55
C02	CONDUIT	6.39	0 12:12	4.63	1.06	0.73
C03	CONDUIT	6.40	0 12:12	5.98	0.30	0.37
C04	CONDUIT	1.73	0 12:12	5.01	0.19	0.30
C05	CONDUIT	13.57	0 00:00	6.36	3.30	0.65
C06	CONDUIT	12.79	0 00:00	7.16	0.59	0.58
C07	CONDUIT	11.27	0 00:00	14.35	1.36	1.00
C25	CONDUIT	1.67	0 12:12	4.10	0.22	0.28
C26	CONDUIT	2.86	0 12:12	8.64	0.13	0.24
C27	CONDUIT	10.44	0 12:12	11.97	0.72	1.00
C28	CONDUIT	28.02	0 12:12	8.92	1.56	1.00
C29	CONDUIT	36.37	0 12:12	11.58	1.56	1.00
C30	CONDUIT	38.08	0 12:12	10.63	21.77	1.00
C31	CONDUIT	39.91	0 12:12	10.04	0.80	1.00
C32	CONDUIT	1.25	0 12:12	5.87	0.36	1.00
C33	CONDUIT	1.90	0 12:12	6.00	0.12	0.24
C34	CONDUIT	17.00	0 00:00	6.76	1.51	0.75
C35	CONDUIT	5.00	0 00:00	5.24	0.98	1.00
C36	CONDUIT	7.00	0 00:00	9.00	1.09	1.00

Flow Classification Summary

Conduit	Adjusted /Actual Length	Fraction of Time in Flow Class								
		Up Dry	Up Dry	Down Dry	Sub Crit	Sup Crit	Up Crit	Down Crit	Norm Ltd	Inlet Ctrl
C01	1.00	0.02	0.00	0.00	0.01	0.86	0.00	0.11	0.80	0.00
C02	1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00
C03	1.00	0.02	0.00	0.00	0.04	0.94	0.00	0.00	0.54	0.00
C04	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.00	0.00
C05	1.00	0.00	0.00	0.00	0.99	0.01	0.00	0.00	0.00	0.00
C06	1.00	0.00	0.00	0.00	0.10	0.90	0.00	0.00	0.23	0.00
C07	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00

C25	1.00	0.01	0.01	0.00	0.21	0.77	0.00	0.00	0.06	0.00
C26	1.00	0.01	0.00	0.00	0.02	0.97	0.00	0.00	0.60	0.00
C27	1.00	0.01	0.00	0.00	0.00	0.01	0.00	0.98	0.00	0.00
C28	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
C29	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.07	0.00
C30	1.00	0.00	0.00	0.00	0.56	0.44	0.00	0.00	0.17	0.00
C31	1.00	0.00	0.00	0.00	0.46	0.54	0.00	0.00	0.53	0.00
C32	1.00	0.01	0.00	0.00	0.01	0.00	0.00	0.99	0.00	0.00
C33	1.00	0.01	0.00	0.00	0.00	0.00	0.00	0.99	0.00	0.00
C34	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.15	0.00
C35	1.00	0.00	0.68	0.00	0.32	0.00	0.00	0.00	0.96	0.00
C36	1.00	0.00	0.00	0.00	0.05	0.00	0.00	0.95	0.00	0.00

 Conduit Surcharge Summary

Conduit	----- Both Ends	Hours Full Upstream	----- Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
C02	0.01	0.01	0.01	0.04	0.01
C05	0.01	0.01	0.01	0.02	0.01
C07	0.01	0.01	0.01	0.01	0.01
C27	0.02	0.02	0.09	0.01	0.01
C28	0.26	0.26	0.26	0.29	0.25
C29	0.20	0.28	0.55	0.36	0.19
C30	0.03	0.13	0.03	25.11	0.03
C31	0.03	0.03	7.33	0.01	0.01
C32	0.01	0.01	0.03	0.01	0.01
C34	0.01	0.01	0.01	0.01	0.01
C35	0.19	0.19	0.74	0.01	0.01
C36	30.00	30.00	30.00	30.00	30.00

Analysis begun on: Thu Sep 22 15:22:33 2022
 Analysis ended on: Thu Sep 22 15:22:34 2022
 Total elapsed time: 00:00:01

APPENDIX O – FIELD MARKUP OF DRAINAGE SYSTEM ADJACENT TO ALGAE-FILLED POND

Alternate No. 1

Base Bid

ITEM NUMBER	DESCRIPTION ROADWAY IMPROVEMENTS	UNIT	AS-BUILT QUANTITIES
PAYMENT ITEMS			
2.	BORROW EXCAVATION, DESIGNATION I-11	C.Y.	400
6.	CONCRETE SIDEWALK AND CURB RAMP, 4" THICK, CLASS B WITH SCORING AND CONCRETE STENCILED RED BRICK EDGING	S.Y.	5
13.	EPOXY RESIN SHOULDER LINE, WHITE, 4" THICK	L.S.	L.S.
16.	PLANTER	UN.	8
17.	BENCH, COMPLETE	UN.	1
18.	TRASH RECEPTACLE, COMPLETE	UN.	1
21.	TREE, 2" TO 2 1/2" CALIPER B&B	UN.	4
NO SPECIFIC PAYMENT ITEMS			
A	SOIL EROSION CONTROL	L.S.	L.S.
N	CONCRETE SEALING	L.S.	L.S.
Q	MAINTENANCE AND PROTECTION OF VEHICULAR AND BICYCLIST TRAFFIC	L.S.	L.S.

INVERT 24' DEEP
15" DIP

NO CONNECTION TO
POND/BASIN SOUTH SIDE OF BROADWAY

1. CONTRACTOR TO FIT ALL MH. CASTINGS, VALVE BOXES, METER BOXES OR OTHER SIMILAR TYPE UTILITY BOXES WITHIN THE AREA OF THE PROPOSED IMPROVEMENTS TO THE ELEVATION OF THE FINISHED PAVEMENT (NO SPECIFIC PAYMENT)
2. THE LOCATION OF ALL UTILITIES ARE APPROXIMATE AND HAVE BEEN BASED ON THE MARK-UPS PROVIDED BY THE RESPECTIVE UTILITY COMPANY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL UTILITY RELOCATION WORK WITH THE PROPERTY OWNER AND SHALL MAINTAIN ACCESS TO THE PROPERTY AT ALL TIMES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DRIVEWAY IMPROVEMENTS WITH THE PROPERTY OWNER AND SHALL MAINTAIN ACCESS TO THE PROPERTY AT ALL TIMES.
5. (N.S.P.) INDICATES NO SPECIFIC PAYMENT WILL BE MADE FOR THE ITEM, THE COST SHALL BE INCLUDED IN VARIOUS ITEMS IN THE PROPOSAL.
6. ANY CONCRETE CURBING SCHEDULED FOR REMOVAL SHALL BE REMOVED FROM THE REAR SO AS NOT TO DAMAGE THE ROADWAY. ANY DAMAGE TO THE ROADWAY SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
7. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION WITH THE IMPROVEMENTS TO BE PERFORMED BY P.S.E.G. SERVICES CORPORATION, NO COMPENSATION SHALL BE PROVIDED FOR ANY CONFLICTS OR DELAYS ENCOUNTERED.
8. THE TREES(S) CHOOSE A VARIETY OF THE FOLLOWING THREE (3) TYPES:
 - a. QUERCUS PHELLOAS - WILLOW OAK
 - b. ZELKOVA SERRATA - JAPANESE ZELKOVA
 - c. GLEDITSIA TRIACANTHOS VAR. NERMIIS - THORNSLESS HOLLY LOCUST
 - d. ULMUS PARVIFLORA - CHINESE ELM
9. CONCRETE STENOLED RED BRICK EDGING PRODUCT SHALL BE BY CONCRETE TECHNOLOGY, INC. OR EQUIVALENT COMING IN A 4" X 4" X 4" COAT, TOP COAT & URETHANE SEALER, STENOLED TO NMIC RED BRICK ALONG BOTH SIDES OF THE SIDEWALK & 4" X 4.33" AIRT CLUB RAMP.

REV.	DATE	DESCRIPTION	DRWN.	CHKD.
<p align="center"><i>Construction Plan STA. 0+00 TO 4+50</i></p> <p align="center"><i>Streetscape Improvements</i></p> <p align="center"><i>To New Broadway (C.R. 551) – Phase 2, from Route 130</i></p> <p align="center"><i>Junction "Brooklawn Circle(s)" to Bridge over Timber Creek</i></p> <p align="center"><i>Borough of Brooklawn</i></p> <p align="center"><i>Camden County, New Jersey</i></p>				
DATE: 12/22/08	DRAWN BY: JD		CHKD. BY: G. Evans	
SCALE: 1"=40'	PROJECT NO. 31 – 59 BB 0202		SHEET NO. 1 of 11	
G:\Prj\31\59\Phase2\Sheet3.dwg		C.A.D. STATION: #	FIELD BOOK/PAGE: N/A	
<p align="center">CHARLES J. RIEBEL, JR.</p> <p align="center">PROFESSIONAL ENGINEER & LAND SURVEYOR</p> <p align="center">N.J.P.E. & L.S. No. 29286 P.A.L.P.E. No. 032839-E</p> <p align="center">NJ PROFESSIONAL PLANNER No. 2928</p>				



K&E ASSOCIATES, P.A.

PROFESSIONAL ENGINEERS, LAND SURVEYORS AND PLANNERS
80 S. WHITE HORSE PIKE, BERLIN, NEW JERSEY 08009 (856) 767-6361
FAX: (856) 753-1091, www.keiassociates.com

DATE _____

CONSTRUCTION TO COMPLY WITH N.J.D.O.T. STANDARD SPECIFICATIONS 2001,
ITS AMENDMENTS & SUPPLEMENTARY SPECIFICATIONS FOR STATE AID PROJECTS:

REPRODUCTION, ALTERATION AND AMENDMENT OF THIS PLAN SHALL BE PERFORMED ONLY BY KEI ASSOCIATES, PA., AND SHALL BE PERFORMED UNDER THE ABSOLUTE DIRECTION OF THE LICENSEE PROFESSIONAL WHOSE NAME AND SIGNATURE APPEARS HEREON.

APPENDIX P – MUNICIPAL RESOLUTIONS OF SUPPORT

RESOLUTION OF THE CITY OF GLOUCESTER CITY
County of Camden, State of New Jersey
#R 283 - 2022

**RESOLUTION OF SUPPORT FOR PRELIMINARY ALTERNATIVE CONCEPT
DEVELOPMENT STUDY – FLOOD MITIGATION AT COUNTY ROUTE 551
BROADWAY**

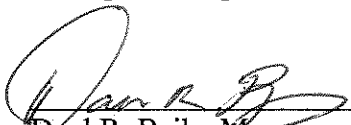
WHEREAS, under a Federal Highway Administration Grant, the Delaware Valley Regional Planning Commission on behalf of Camden County hired Michael Baker International, Inc. to complete a Concept Development (“CD”) study at County Route (CR) 551 Broadway in the City of Gloucester City to support the final concept called the Preliminary Preferred Alternative (“PPA”); and

WHEREAS, the purpose of the CD study is to provide feasible design alternatives and ultimately select a PPA improvement concept that best addresses and alleviates chronic flooding along CR 551 Broadway for both present day and future flooding events; and

WHEREAS, the project consists of two sites along CR 551; one in Brooklawn Borough and one in Gloucester City, Camden County, the project site in Gloucester City is located between MP 30.08 to 30.21 and is know as Project Area 1; and

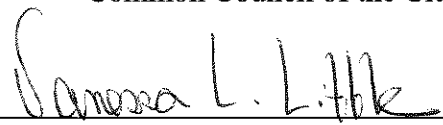
WHEREAS, the Mayor and Common Council of the City of Gloucester City (“City”) support this preliminary concept development study.

NOW, THEREFORE, BE IT RESOLVED that the Mayor and Common Council of the City of Gloucester, County of Camden and State of New Jersey support the preliminary alternative concept development study as mentioned above:



Dayl R. Baile, Mayor
City of Gloucester City

I hereby certify this is a true and exact copy of a resolution adopted by the Mayor and Common Council of the City of Gloucester this 22nd day of December, 2022.



Vanessa L. Little, Registered Municipal Clerk

RESOLUTION NO. 144-22

RESOLUTION OF SUPPORT FOR PRELIMINARY PREFERRED ALTERNATIVE FOR BROADWAY COUNTY ROUTE 551 (MP 29.46 TO 29.61) CONCEPT DEVELOPMENT STUDY FLOOD MITIGATION PROJECT IN THE BOROUGH OF BROOKLAWN, CAMDEN COUNTY

WHEREAS, the Delaware Valley Regional Planning Commission (hereinafter referred to “the DVRPC”) on behalf of the County of Camden Department of Public Works (hereinafter referred to “the County”) received a Federal Highway Administration grant to complete a Concept Development Study for flood mitigation improvements at County Route 551 Broadway (MP 29.46 to 29.61) in the Borough of Brooklawn, Camden County, New Jersey; and

WHEREAS, the goal of the project is to mitigate chronic flooding along Broadway CR 551 for both present day and future flooding events, while minimizing environmental, historic, utility, Right of Way, and traffic impacts; and

WHEREAS, through a public process of two stakeholder meetings, a public information center (PIC) meeting with municipal officials, area residents and business owners in the project area, the Preferred Preliminary Alternative (PPA) known as Alternative #4 was selected; and

WHEREAS, the Preferred Preliminary Alternative (PPA) selected through the community driven process was presented and approved by a panel of Subject Matter Experts at NJDOT; and

WHEREAS, the Borough of Brooklawn has reviewed and participated in the development of the Preferred Preliminary Alternative that has been selected through the concept development process; and

WHEREAS, the Borough of Brooklawn agrees that the Preferred Preliminary Alternative meets the goals of the concept development study; now, therefore,

BE IT RESOLVED, that the Mayor and Council of the Borough of Brooklawn endorses the selection of Alternative #4 as the Preferred Preliminary Alternative as proposed by Camden County.

THE BOROUGH OF BROOKLAWN

BY: _____



THERESA M. BRANELLA, MAYOR

ATTEST:

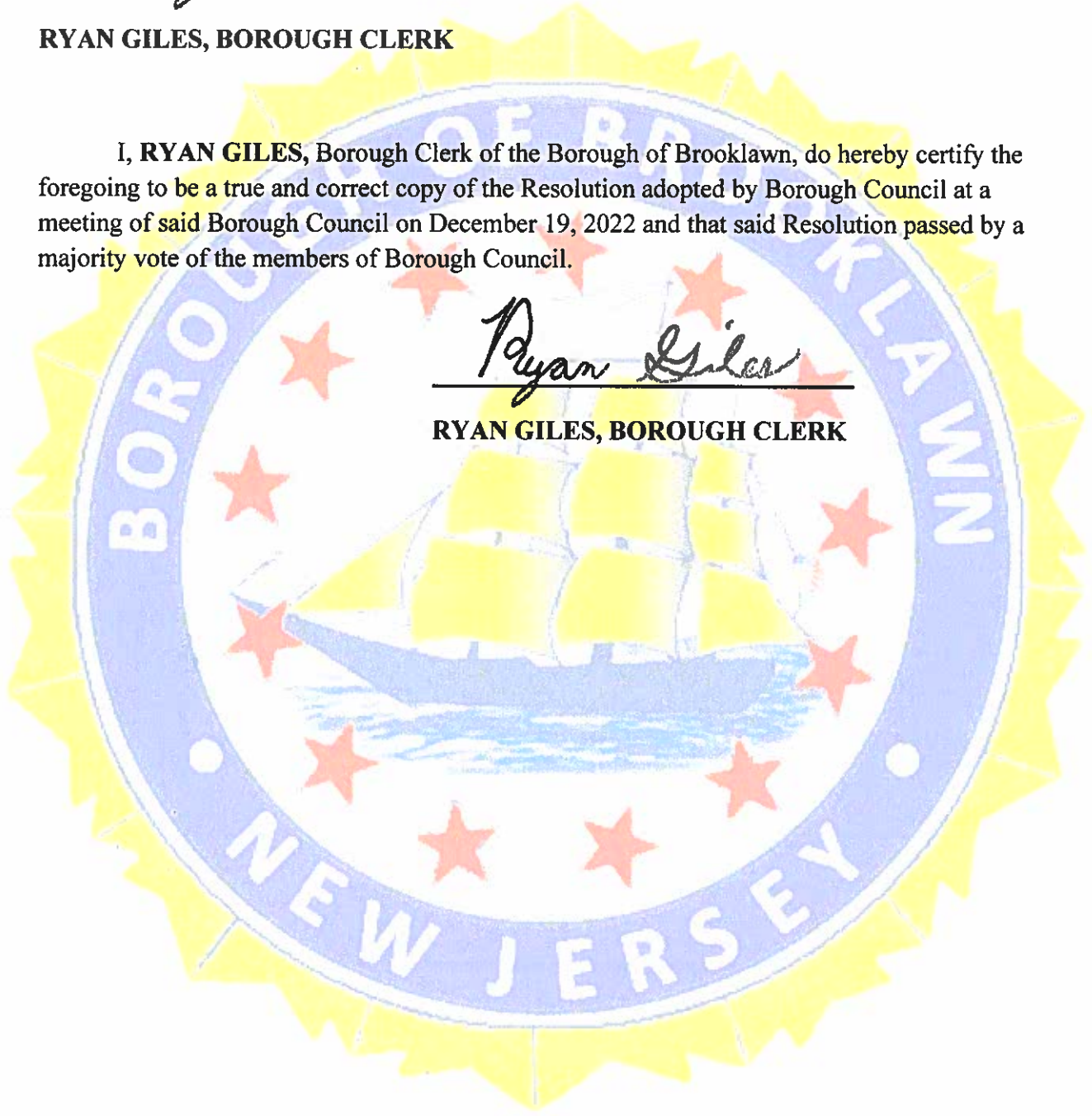
Ryan Giles

RYAN GILES, BOROUGH CLERK

I, **RYAN GILES**, Borough Clerk of the Borough of Brooklawn, do hereby certify the foregoing to be a true and correct copy of the Resolution adopted by Borough Council at a meeting of said Borough Council on December 19, 2022 and that said Resolution passed by a majority vote of the members of Borough Council.

Ryan Giles

RYAN GILES, BOROUGH CLERK



APPENDIX Q – INTERAGENCY REVIEW COMMITTEE APPROVAL LETTER



State of New Jersey
DEPARTMENT OF TRANSPORTATION
1035 Parkway Avenue
P.O. Box 600
Trenton, New Jersey 08625

PHILIP D. MURPHY
Governor

DIANE GUTIERREZ-SCACCETTI
Commissioner

SHEILA Y. OLIVER
Lt. Governor

March 20, 2023

Mr. John J. Coscia Jr.
Manager, Office of Project Implementation
Delaware Valley Regional Planning Commission
190 N. Independence Mall West
Philadelphia, PA 19106-1520

Ref.: Local Concept Development (LCD)
Broadway CR 551
Borough of Brooklawn & City of Gloucester, Camden County
Interagency Review Committee (IRC) Meeting

Dear Mr. Coscia:

On March 20, 2023, an Interagency Review Committee (IRC) meeting convened in order to determine the eligibility of advancing the subject project to the subsequent phase, Preliminary Engineering.

The recommendation of the Committee is approval to proceed to the Preliminary Engineering phase for the Broadway CR 551.

The expected Environmental Document is a Categorical Exclusion Document (CED). The project sponsor should submit a draft Request for Proposals (RFP) to the Division of Local Aid and Economic Development for environmental input into the RFP.

The project sponsor must complete the first two sections of the current CED form and submit it to the Division of Local Aid and Economic Development along with plans and documentation of public outreach in the Preliminary Engineering Phase. Permits, if required, will be obtained by the project sponsor during Final Design.

Local Concept Development (LCD)
Broadway CR 551
Borough of Brooklawn & City of Gloucester, Camden County
Interagency Review Committee (IRC) Meeting
Page 2

Should you require any additional information, please contact Thomas Berryman, Manager District 4, at (856) 414-8413.

Sincerely,



David Bruccoleri,
Manager
Division of Local Aid and Economic Development

c: Laine Rankin, NJDOT
Elkins Green, NJDOT
Pamela Garrett NJDOT
Merla Nunzio, FHWA
Thomas Berryman, Local Aid District 4
Vijesh Darji, Local Aid District 4
Bert Gonzales, Local Aid District 4