



**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 1 : No Historic Properties Affected (Version 1.0)**



HPO USE ONLY
15-0565
J2014-678

<b>Application ID #</b>	NCR39808		
<b>Applicant Name:</b>	City of Brigantine		
<b>Street Address:</b>	Beach between 10th Street South and Vernon Place		
<b>Municipality:</b>	Brigantine	<b>County:</b>	Atlantic
<b>PAMS PIN:</b>	0103 101.01 1	<b>Additional Lots:</b>	None
<b>Latitude:</b>	39.404057° (Approx. center)	<b>Longitude:</b>	-74.365359° (Approx. center – see map for corners)

**Undertaking:** Undertaking consists of replacement and enhancement of existing dune crossovers, including drainage improvements in one adjoining street and seasonal installation of ADA-compliant mobility mats on the beach, along a 10-block section of the Atlantic Ocean beach in the City of Brigantine. The area of potential effects with respect to ground disturbance is approximately 1.22 acres. See continuation pages for details.

**Property Description:**

**Architecture:** Project is located in city land and right-of-way primarily on dune and beach lands adjoining an extensive Green Zone. The existing paths at 7<sup>th</sup> St. S through 4<sup>th</sup> St. S, 2<sup>nd</sup> St. S, and Vernon Pl. have timber-surface dune crossovers approximately 3.5 ft wide, with wood railings. Review of aerial images indicates the crossover structures were constructed between 1981 and 1995. The remaining four crossovers do not have structures. The APE for the drainage improvements in 4<sup>th</sup> St. S is in a macadam-paved street. Small wood-frame utility buildings are located at the beach ends of the 8<sup>th</sup> St. S and 4<sup>th</sup> St. S crossovers. The buildings are similar in design, with composition shingle roofs and vertical siding. Each stands on a low timber platform at the edge of the dunes. Review of Google Earth aerial imagery shows both buildings were originally constructed between 1995 and 2002. The 8<sup>th</sup> St. building survived Hurricane Sandy, but that at 4<sup>th</sup> St. was washed away, with only the platform surviving the storm. The latter building was reconstructed after 2/24/2013. These are the only buildings in the APE.

**Archeology:** The project occupies portions of city-owned dunelands designated as Block 101.01 Lot 1, public beach, and municipal street right-of-way on Brigantine Beach, a barrier island. As indicated in the discussion of the Undertaking, the APE for ground disturbances is estimated to be approximately 1.22 acres. The study area is not situated in an HPO archeological sensitivity grid square. Review of historical aerial imagery beginning in 1920 suggests that there was substantial loss of dunelands and shoreline retreat in the project study area between 1920 and 1970. Dune restoration apparently began in the 1970s, so the present terrain appears to have been established less than 40 years ago. No information is available to indicate whether the present dune system is partially artificial or whether it was established or stabilized by revegetation alone. The NRCS maps the soils of the study area as Hooksan-Urban land complex (HoruBr), a mapping unit comprised of beach and dune sand that have been widely altered by urban development. Given the location of the project, it has low archeological potential.

**There are no historic properties affected within the project's area of potential effects, pursuant to 36 CFR 800.4(d)(1) for the following reason(s): [Check All That Apply]**

<b>Historic Architecture:</b>	<input checked="" type="checkbox"/> Located in "Green Zone"* (Areas determined by FEMA/HPO to have low potential for above-ground historic properties)
*4 <sup>th</sup> St. South drainage improvement area only; all other parts of the APE are outside but adjacent to the mapped Green Zone.	<input checked="" type="checkbox"/> Not 48 Years of Age**
**Utility buildings.	<input type="checkbox"/> Lacks Integrity of Materials/Design
***Dune crossovers, etc.	<input type="checkbox"/> Not Within / In View of a National Register of Historic Places Listed / Eligible Historic District
	<input checked="" type="checkbox"/> Not a Building (per FEMA Definition)***
	<input type="checkbox"/> Other – Lacks Distinctive Characteristics That Make It Individually Eligible for Listing on NRHP

<b>Archaeology:</b>	<input checked="" type="checkbox"/> Low Archaeological Potential:
	<input checked="" type="checkbox"/> Located on Barrier Island
	<input type="checkbox"/> Substantially Conforms to the Original Footprint
	<input checked="" type="checkbox"/> Located on Disturbed Soils
	<input type="checkbox"/> Not Located within 500 Feet of Waterways and/or Wetlands
	<input type="checkbox"/> Not Located on Well-drained Soils
	<input checked="" type="checkbox"/> Not Identified Within a Historic Property / Historic District

**Public Consultation** Federally Recognized Tribes, Certified Local Governments, Historic Preservation Commissions, etc:  
None to date (10/26/2014). \*Property contains no known NHLs; NRHP-listed/-eligible properties; identified or potential large pre-contact Native American site, or graves, burials, or cemeteries. It is not known to be located in a CLG or other locality in which active government management of historic resources is taking place and does not involve "extensive" ground disturbance in the sense of PA Appendix D.

**HISTORIC PRESERVATION OFFICE USE ONLY**

I concur with this finding.

I do not concur with this finding for the following reason(s):

Daniel D. Saunders  
Deputy State Historic Preservation Officer

Date 10/31/14

<b>Architecture Reviewer</b>	J.C. Sexton, Tetra Tech	<b>Archaeology Reviewer</b>	C.L. Borstel, Tetra Tech
<b>Date Reviewed</b>	10/26/2014		



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15-0565
J2014-678

<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ

Continuation pages

**Undertaking:**

The City of Brigantine Beach proposes to upgrade 10 dune crossovers at the Atlantic Ocean beach to improve public access and strengthen the foredune system against storm damage. The Undertaking consists of replacement and enhancement of existing dune crossovers along a 10-block section between 10th Street South (at the south end) and Vernon Place (at the north end). Existing 3- to 4-foot-wide timber crossovers, where present (see Table 1), will be removed and replaced with dense graded aggregate (DGA) paths 10 feet wide, flanked by post-and-rail fences that are intended to protect adjoining dune areas from foot traffic. Existing path alignments

**Table 1: Existing and Proposed Crossover Path Characteristics**

Location	Existing Path		Proposed Path	
	Length (ft.) <sup>1</sup>	Timbered? <sup>2</sup>	Length (ft.) <sup>3</sup>	Mobility Mat (ft.) <sup>3</sup>
10th St.	112	No	180	100
9th St.	81	No	130	100
8th St.	170	No	220	100
7th St.	302	Yes	350	100
6th St.	315	Yes	380	100
5th St.	270	Yes	300	100
4th St.	307	Yes	400	100
3rd St.	274	No	360	100
2nd St.	257	Yes	330	100
Vernon Pl.	256	Yes	310	100
<b>Total</b>	<b>2,344</b>	<b>-</b>	<b>2,960</b>	<b>1,000</b>

Sources:

<sup>1</sup>Brigantine City conceptual plans.

<sup>2</sup>Tetra Tech field inspection on 10/14/2014.

<sup>3</sup>Tetra Tech measurement of Brigantine City conceptual plans imported as overlays into Google Earth.

and grades will be modified for improved barrier-free access and greater storm resilience. Paths currently tend to follow a direct line from the street end to the beach. The new paths will include offsets to reduce their tendency to serve as channels for storm surges and to meet ADA standards. The project includes funding to acquire 2000 linear feet of 5-foot-wide plastic mobility mat (such as Mobi-Mat® RecPath™ or equivalent), a portable and removable rollout access pathway for pedestrians, wheelchair users, strollers, and other light vehicles. The mobility mats will extend across the beach toward the surf line from the ends of the crossover paths. They will be installed each summer season with pins driven into the beach sand. During the off-season, the mats will be removed and stored off-site. The final component of the project is the installation of 340 linear feet of 24-inch perforated pipe in 4<sup>th</sup> Street South and inlets to improve local stormwater drainage. This project element will be located in 4<sup>th</sup> Street South approximately between West Brigantine Avenue and the street end of the 4<sup>th</sup> Street South crossover path.

According to Mr. James Rutala, PP, AICP, of Rutala Associates, Linwood, who is serving as the Owner's Representative for this project, most dune crossover path construction will take place within the planned 10-foot alignment, except where grade changes require work outside the planned alignment (Rutala-Tetra Tech Project Kick-off Telephone Call on 10/14/2014). Information about the planned subgrade characteristics of the paths and specific locations where excavation or filling may take place outside the 10-foot

Architecture Reviewer	J.C. Sexton, Tetra Tech	Archaeology Reviewer	C.L. Borstel, Tetra Tech
Date Reviewed	10/26/2014		

Required Documentation:  Historic Properties Map  Soils Map  USGS Quad  Property Photos

## APPENDIX 2

### **NJDEP Environmental and Historic Review** **Application for EDA and DCA/NEP Programs**

1. **Agency Name:** New Jersey Economic Development Authority
2. **Date of Application Submittal to DEP:** September 11, 2014
3. **CDBG-DR Program:** NCR – D & I
4. **Application ID Number:** NCR39808
5. **National Objective Description/Number:** LMI
6. **Grant Number:** B-13-DS-34-0001
7. **Applicant Name:** \_\_\_\_\_ City of Brigantine \_\_\_\_\_
8. **Project Location:** \_Beach between 10<sup>th</sup> Street South and Vernon Place, Brigantine, NJ  
08203 \_Atlantic \_\_\_\_ (County) \_\_\_\_\_ (Block) \_\_\_\_\_ (Lot)  
*(A separate form with a unique Application ID number is required for each geographic location.)*
9. **Detailed Project Description.**

#### 1. Contact Information

Property Owner: Jennifer Blumenthal  
City of Brigantine  
1417 Brigantine Boulevard  
Brigantine, NJ 08203  
609.266.7600 Ext.212

Project Representative: James M. Rutala  
Rutala Associates  
717 River Drive  
Linwood, NJ 08221  
609.743.0354  
[Jmrutala@comcast.net](mailto:Jmrutala@comcast.net)

#### 2. Project Description

*Brigantine City is a barrier island community located just north of Absecon Island which includes four communities: Longport, Margate, Ventnor and Atlantic City. The City has seen its ratable base reduced since Superstorm Sandy and many homes and infrastructure has been damaged. Over 1,100 homeowners in the City of Brigantine have provided the City with Letters of Interest to elevate their homes. In addition, the City well over 200 repetitive loss properties. Both Businesses and homes were damaged by Superstorm Sandy.*

*This NJEDA grant project is a Recreation, Cultural and Park Land Amenities Project in a US Census designated Low and Moderate Income Neighborhood. The project includes dune path restoration to include ten walkways from Vernon Place to 10<sup>th</sup> Street South inclusive. The scope will include the installation of gravel and split rail fencing to delineate the path and protect the dune system. This work will provide easier ADA accessible paths for the general public as well as fortify the dune system for greater protection from coastal storms. In addition, drainage improvements will be completed at 4<sup>th</sup> Street South and the beach. The scope includes the installation of perforated pipe and inlets. All work will be completed on City owned property and design work can be completed quickly by the City Engineer, hence this project can meet the June 31, 2015 deadline.*

*This NCR application meets the Priority Criteria since the planned improvements are located in or adjacent to Census Tract 101.02, Block 1; a low and moderate income neighborhood and it meets the National Objective of Low and Moderate Income Area Benefit.*

*This project will help the City of Brigantine by improving the recreational amenities and associated infrastructure in a low and moderate income neighborhood, potentially creating low and moderate income jobs to complete the identified improvements, and enhancing the “quality of life”. The enhancements at the beachfront will provide for better access for all including handicapped individuals. The planned improvements will have a direct impact on the lives of those who live in this low and moderate income neighborhood as well as the entire community of Brigantine. Without these improvements, blight can occur in the neighborhood because of its susceptibility to flooding and the public beaches will be less assessable. As is the case whenever needed open space and associated infrastructure improvements occur, the neighborhood will be enhanced and these will be a better potential that the values of the properties and the resulting ratables will increase.*

**3. Project Budget**

**Project Budget**

Beach Paths	\$75,000@	10 paths	\$750,000
Associated drainage			<u>\$55,000</u>
Subtotal			\$805,000
Engineering & Construction Management (12%)			<u>\$96,600</u>
Total			\$901,600

All engineering and construction management will be completed at the City’s expense either by the City Engineer as an in-kind service or by a consulting engineer.

TOTAL DOLLAR AMOUNT OF PROJECT COST (specific to this application):	\$901,600
TOTAL DOLLAR AMOUNT OF REQUESTED FUNDING (specific to this application):	\$805,000

A.

<b>SOURCES</b>	
(funding in hand, committed and expected)	
<b>FEMA</b>	\$0.00
<b>Other Govt. Sources</b> (that assisted damage repair)	\$0.00

<b>USES</b>	
<b>Environmental</b>	\$0.00
<b>Site Preparation</b>	\$0.00

<b>Bank Financing</b>	\$0.00
<b>Equity</b>	\$0.00
<b>Other Sources (Describe)</b>	\$0.00
<b>EDA Grant</b>	\$805,000.00
<b>City (In-kind services)</b>	\$96,600.00
<b>TOTAL PROJECT COST (including damage)</b>	\$901,600.00

<b>Site Improvements (such as utilities installation)</b>	\$0.00
<b>Construction</b>	\$805,000.00
<b>Tenant Fit-Out Allowance</b>	\$0.00
<b>Other (Describe)</b>	\$0.00
<b>Soft Costs (architectural, engineering, legal, accounting, financing costs and fees, other fees, insurance, surveyor, appraisal, environmental services, planning/zoning consultant, Green Building consultant, construction management, etc.)</b>	\$96,600.00
<b>Contingency</b>	\$0.00
<b>Developer Fee</b>	\$0.00
<b>TOTAL PROJECT COST (including damage)</b>	\$901,600.00

**4. Site Plan**

*The Site Plan is being prepared.*

**5. Previous Environmental Studies**

*NA*

**6. Miscellaneous**

*Attached*

**10. Change in Use.**

Will the project result in a change in use for the land or structure? *No*

**11. Change in Size or Capacity.**

Will the project result in a change in size or capacity of any kind? *No*

**12. Market Value (for multi-family rehabilitation projects only).**

Will the proposed project for which funding is requested result in an increase in the market value of the property, facility, or installation? *No*

**13. Attach Right of Entry Form signed by property owner.**

*Attached*



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<b>PAMS PIN:</b>	0103_101.01_1	<b>Additional Lots:</b>	None
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**Archeology:** The project occupies portions of city-owned dunelands designated as Block 101.01 Lot 1, public beach, and municipal street right-of-way on Brigantine Beach, a barrier island. As indicated in the discussion of the Undertaking, the APE for ground disturbances is estimated to be approximately 1.22 acres. The study area is not situated in an HPO archeological sensitivity grid square. Review of historical aerial imagery beginning in 1920 suggests that there was substantial loss of dunelands and shoreline retreat in the project study area between 1920 and 1970. Dune restoration apparently began in the 1970s, so the present terrain appears to have been established less than 40 years ago. No information is available to indicate whether the present dune system is partially artificial or whether it was established or stabilized by revegetation alone. The NRCS maps the soils of the study area as Hooksan-Urban land complex (HoruBr), a mapping unit comprised of beach and dune sand that have been widely altered by urban development. Given the location of the project, it has low archeological potential.

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<b>Historic Architecture:</b>	<input checked="" type="checkbox"/> Located in “Green Zone”* (Areas determined by FEMA/HPO to have low potential for above-ground historic properties)
<b>*4<sup>th</sup> St. South drainage improvement area only; all other parts of the APE are outside but adjacent to the mapped Green Zone. **Utility buildings. ***Dune crossovers, etc.</b>	<input checked="" type="checkbox"/> Not 48 Years of Age**
	<input type="checkbox"/> Lacks Integrity of Materials/Design
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**Public Consultation** Federally Recognized Tribes, Certified Local Governments, Historic Preservation Commissions, etc:  
None to date (10/26/2014). \*Property contains no known NHLs; NRHP-listed/-eligible properties; identified or potential large pre-contact Native American site, or graves, burials, or cemeteries. It is not known to be located in a CLG or other locality in which active government management of historic resources is taking place and does not involve "extensive" ground disturbance in the sense of PA Appendix D.

**HISTORIC PRESERVATION OFFICE USE ONLY**

I concur with this finding,

I do not concur with this finding for the following reason(s):

Daniel D. Saunders Deputy State Historic Preservation Officer	Date
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Architecture Reviewer	J.C. Sexton, Tetra Tech	Archeology Reviewer	C.L. Borstel, Tetra Tech
Date Reviewed	10/26/2014		



**New Jersey Department of Environmental Protection  
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HPO USE ONLY

<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ

Continuation pages

**Undertaking:**

The City of Brigantine Beach proposes to upgrade 10 dune crossovers at the Atlantic Ocean beach to improve public access and strengthen the foredune system against storm damage. The Undertaking consists of replacement and enhancement of existing dune crossovers along a 10-block section between 10th Street South (at the south end) and Vernon Place (at the north end). Existing 3- to 4-foot-wide timber crossovers, where present (see Table 1), will be removed and replaced with dense graded aggregate (DGA) paths 10 feet wide, flanked by post-and-rail fences that are intended to protect adjoining dune areas from foot traffic. Existing path alignments

**Table 1: Existing and Proposed Crossover Path Characteristics**

Location	Existing Path		Proposed Path	
	Length (ft.) <sup>1</sup>	Timbered? <sup>2</sup>	Length (ft.) <sup>3</sup>	Mobility Mat (ft.) <sup>3</sup>
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<b>Total</b>	<b>2,344</b>	<b>-</b>	<b>2,960</b>	<b>1,000</b>

Sources:

<sup>1</sup>Brigantine City conceptual plans.

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and grades will be modified for improved barrier-free access and greater storm resilience. Paths currently tend to follow a direct line from the street end to the beach. The new paths will include offsets to reduce their tendency to serve as channels for storm surges and to meet ADA standards. The project includes funding to acquire 2000 linear feet of 5-foot-wide plastic mobility mat (such as Mobi-Mat® RecPath™ or equivalent), a portable and removable rollout access pathway for pedestrians, wheelchair users, strollers, and other light vehicles. The mobility mats will extend across the beach toward the surf line from the ends of the crossover paths. They will be installed each summer season with pins driven into the beach sand. During the off-season, the mats will be removed and stored off-site. The final component of the project is the installation of 340 linear feet of 24-inch perforated pipe in 4<sup>th</sup> Street South and inlets to improve local stormwater drainage. This project element will be located in 4<sup>th</sup> Street South approximately between West Brigantine Avenue and the street end of the 4<sup>th</sup> Street South crossover path.

According to Mr. James Rutala, PP, AICP, of Rutala Associates, Linwood, who is serving as the Owner’s Representative for this project, most dune crossover path construction will take place within the planned 10-foot alignment, except where grade changes require work outside the planned alignment (Rutala-Tetra Tech Project Kick-off Telephone Call on 10/14/2014). Information about the planned subgrade characteristics of the paths and specific locations where excavation or filling may take place outside the 10-foot

Architecture Reviewer	J.C. Sexton, Tetra Tech	Archaeology Reviewer	C.L. Borstel, Tetra Tech
Date Reviewed	10/26/2014		

Required Documentation:  Historic Properties Map  Soils Map  USGS Quad  Property Photos



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Form – 1 : No Historic Properties Affected (Version 1.0)**



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<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ

path alignments is currently not available. Staging and stockpile areas will be situated at the ends of the paved streets adjacent to the street-side entrances to the paths. The stormwater drainage system will be installed in a trench measuring 42 inches wide by approximately 5 to 6 feet deep.

Application materials prepared by the City of Brigantine indicate that approximately 89 percent of the project will be funded by the New Jersey Economic Development Authority (NJEDA), using funds from the US Department of Housing and Urban Development Grant No. B-13-DS-34-0001. The Undertaking is therefore subject to review in accordance with the “Programmatic Agreement Among the Federal Emergency Management Agency, the New Jersey State Historic Preservation Officer (SHPO), the New Jersey State Office of Emergency Management, the Advisory Council on Historic Preservation, the Absentee Shawnee Tribe of Indians of Oklahoma, the Delaware Nation, the Delaware Tribe of Indians, the Shawnee Tribe of Oklahoma, and the Stockbridge Munsee Band of Mohicans as a Result of Hurricane Sandy” (PA).

**Area of Potential Effects (APE):**

With respect to potential below-ground historic resources, the APE is defined as the areas subject to ground disturbance, which consist principally of the proposed 10 dune crossover paths and the stormwater drainage improvements on 4<sup>th</sup> Street South. For completeness, the area occupied by the mobility mats is also included, but the subsurface effects of these devices appear to be minimal and would occur only in the geologically dynamic beach environment. For purposes of estimation of the surface area of potential ground disturbances, it is assumed that such disturbances will average 15 feet wide for the path, based on information that indicates construction area will normally be restricted to the 10-foot finished width of the path, but applying a 50 percent contingency to account for areas where cutting or filling extends outside the path. The trench for the stormwater system is assumed to have a potential area of disturbance up to 10 feet wide. The mobility mats are assigned a disturbance footprint equivalent to their width, though this is a highly conservative assumption of potential effects. Based upon the information in Table 1 and the stated length of the stormwater system provided by the Brigantine City Engineer (340 feet), the APE for this Undertaking for potential below-ground historic resources is approximately 45,000 (crossover paths) + 5,000 (mobility mats) + 3,400 (stormwater) = 53,400 square feet, or 1.22 acres.

With respect to potential above-ground historic resources, the APE is defined as areas immediately adjoining the proposed project elements. The tallest elements of the Undertaking will be the post-and-rail fences, with a height of 42 inches above grade. Many elements will be at or below ground surface and have little or no potential to affect possible adjoining historic resources.

In this discussion, the “study area” refers to the area of duneland , beach, and adjoining street ends within which the proposed Project will be constructed. This area is approximately 2,800 feet long, northeast to southwest, and ranges from approximately 200 to 580 feet wide. The APE are the locations within this study area where project activities with the potential to affect above- or below-ground historic resources will actually take place.

Architecture Reviewer	J.C. Sexton, Tetra Tech	Archaeology Reviewer	C.L. Borstel, Tetra Tech
Date Reviewed	10/26/2014		

Required Documentation:  Historic Properties Map  Soils Map  USGS Quad  Property Photos





New Jersey Department of Environmental Protection  
 Hurricane Sandy  
 Community Development Block Grant  
 Form – n/a



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ



Location Map – Latitude & Longitude of Study Area



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0)



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Brigantine Beach Public Access, beach between 10th Street South and Vernon Place, Brigantine, NJ





New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0) Supplement – Green Zone



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ



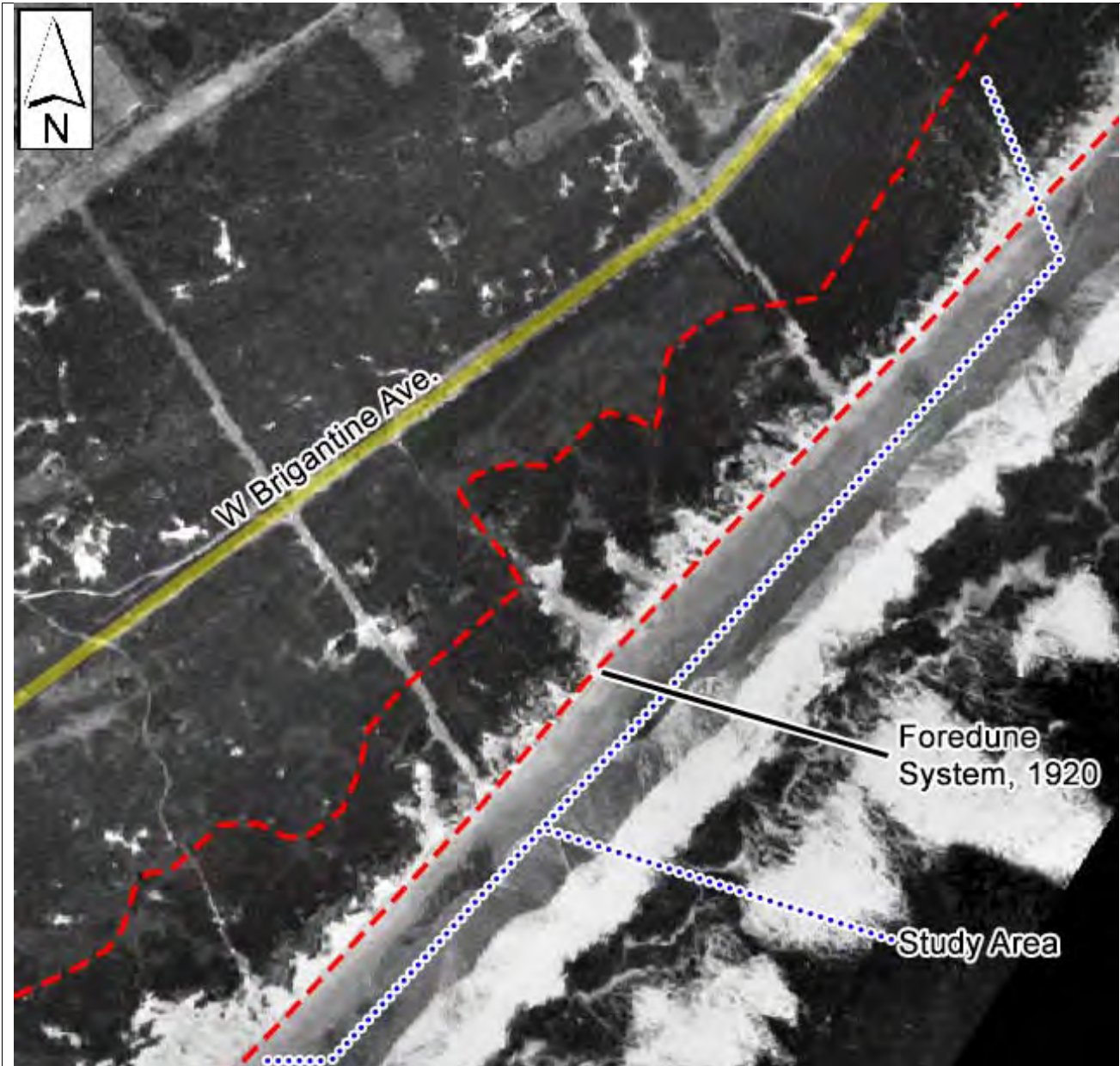
Historic Properties Map



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0) *[Supplement – Shoreline Changes, 1920-2002]*



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ



Scanned image © [Historicaerials.com](http://Historicaerials.com)

Note: Interior (northwestern) edge of foredune system is delineated through interpretation of vegetation patterns.

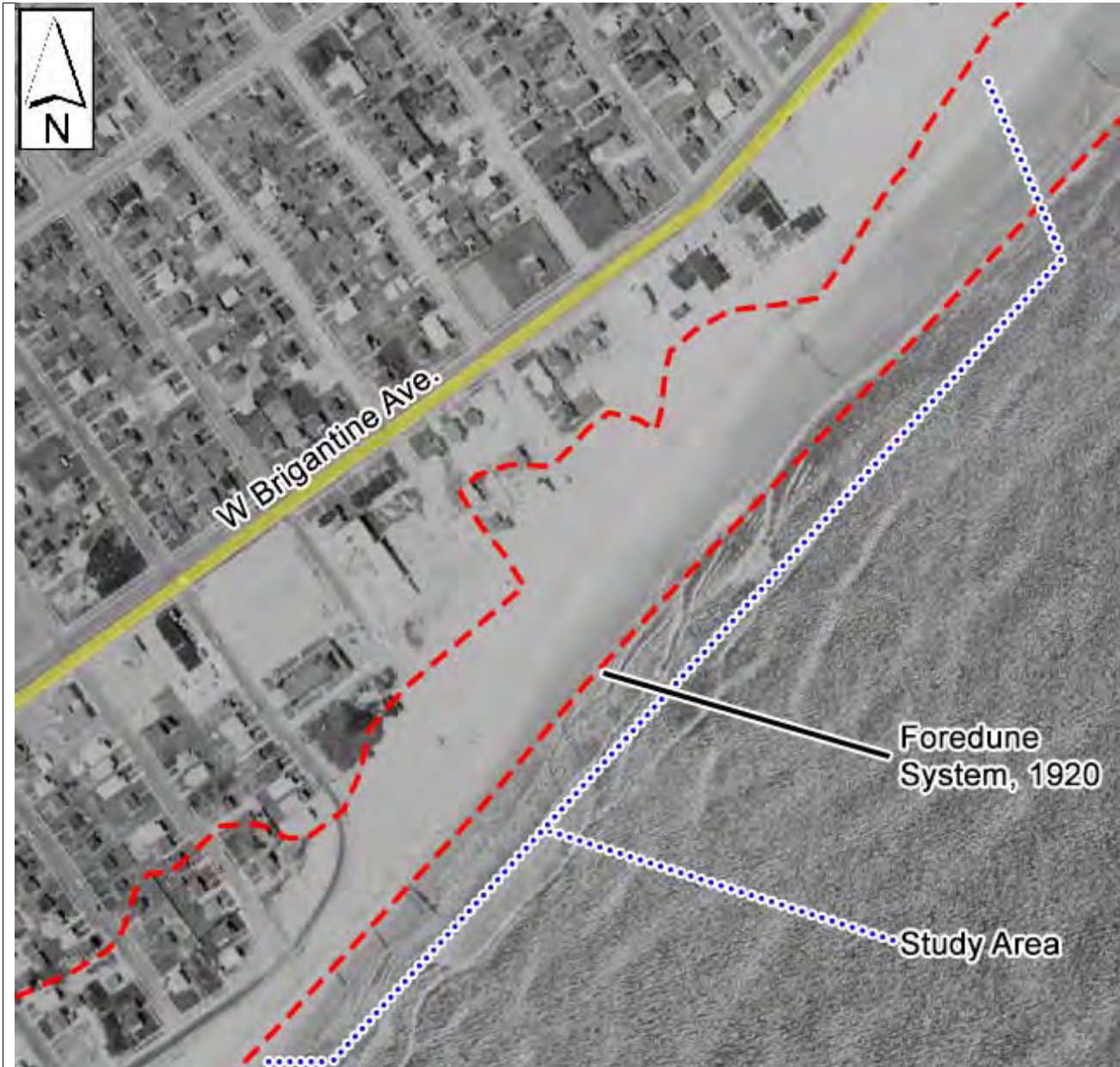
**Study Area in 1920**



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0) *[Supplement – Shoreline Changes, 1920-2002]*



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ



Scanned image © [Historicaerials.com](http://Historicaerials.com)

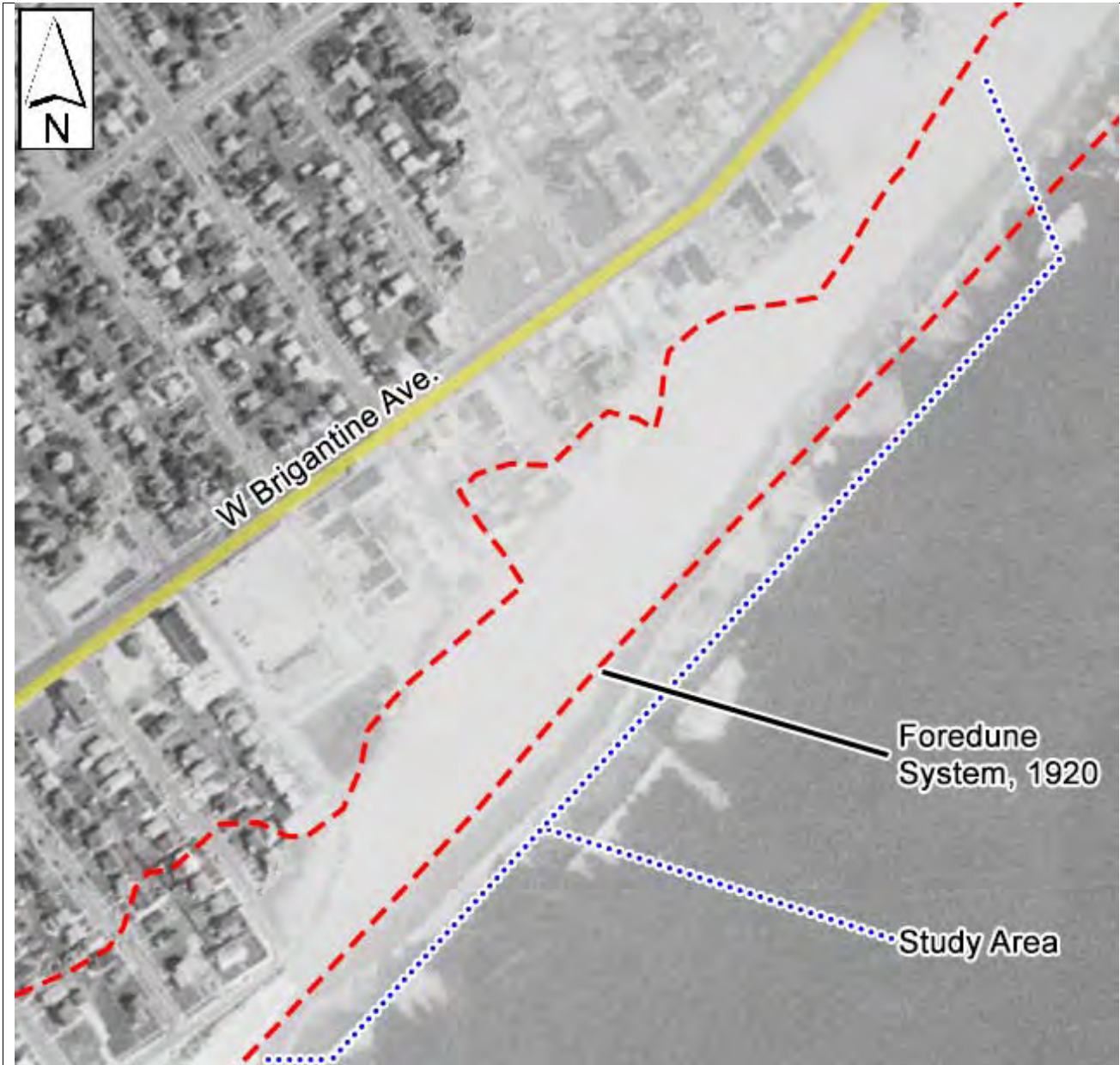
Study Area in 1963



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0) *[Supplement – Shoreline Changes, 1920-2002]*



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ



Scanned image © [Historicaerials.com](http://Historicaerials.com)

Study Area in 1970



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0) *[Supplement – Shoreline Changes, 1920-2002]*



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ



Scanned image from USGS EROS Center, Earth Explorer Imagery Database

Study Area in 1981



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0) *[Supplement – Shoreline Changes, 1920-2002]*



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ



Scanned image © [Historicaerials.com](http://Historicaerials.com)

Study Area in 1995





New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 3 (Version 1.0) *[Supplement – Shoreline Changes, 1920-2002]*



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ



Scanned image © [Historicaerials.com](http://Historicaerials.com)

Study Area in 2002



New Jersey Department of Environmental Protection  
 Hurricane Sandy  
 Community Development Block Grant  
 Form – 4 (Version 1.0)



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Brigantine Beach Public Access, beach between 10th Street South and Vernon Place, Brigantine, NJ



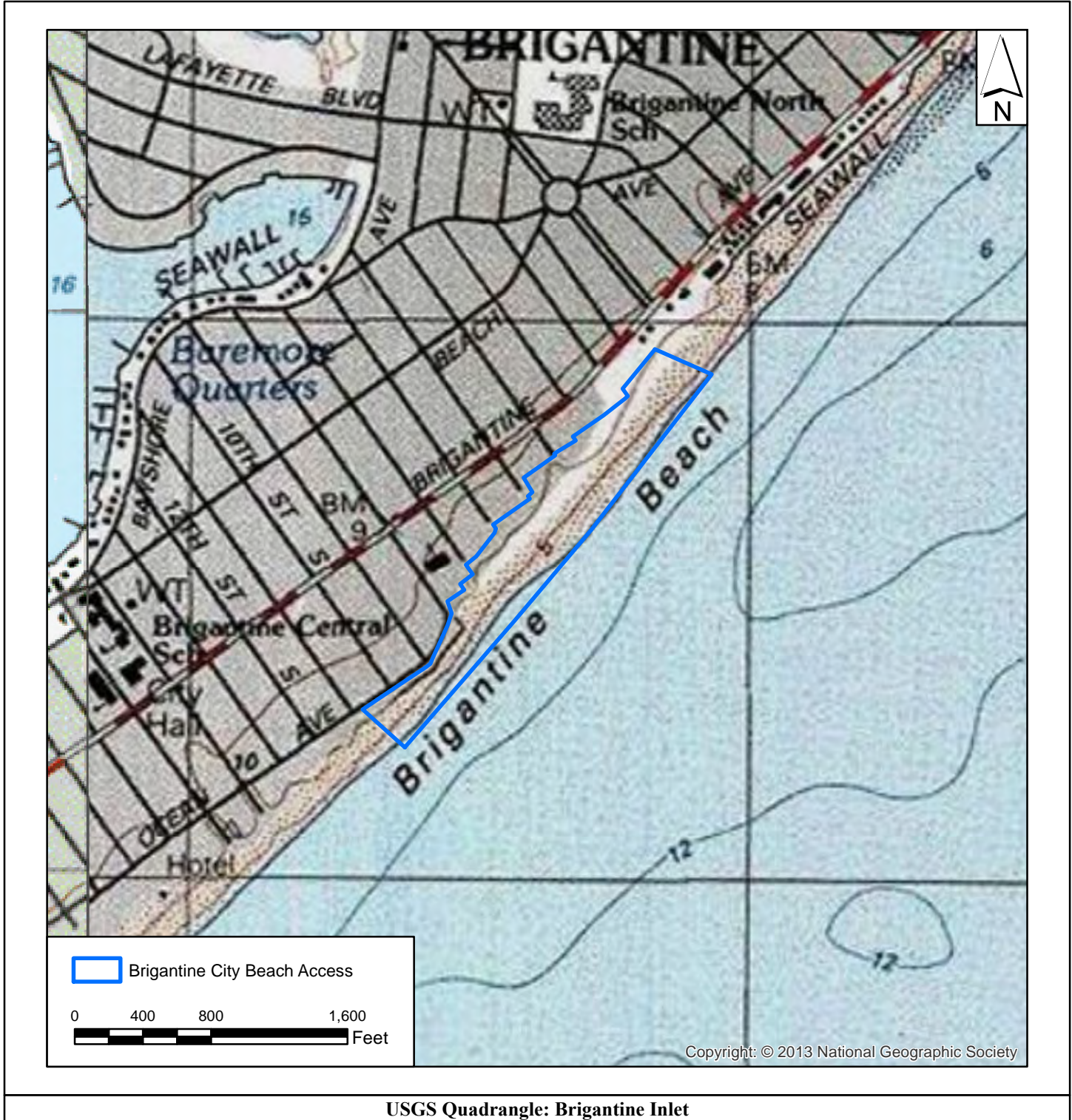
Soil Survey Geographic (SSURGO) database for Atlantic County, New Jersey (2008)



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 5 (Version 1.0)



Applicant ID #	NCR39808
Property Address:	Brigantine Beach Public Access, beach between 10th Street South and Vernon Place, Brigantine, NJ





New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

Date:	ca. 2012	Direction:	Looking west
Description:	Bing Birdseye View oblique aerial image of project location.		






**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)**



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking southeast</b>	
<b>Description:</b>	<b>10<sup>th</sup> Street South crossover. Street end.</b>	

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>10<sup>th</sup> Street South crossover. Beach end.</b>	




New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	10/14/2014	
<b>Direction:</b>	Looking northwest	
<b>Description:</b>	9 <sup>th</sup> Street South crossover. Street end.	

<b>Date:</b>	10/14/2014	
<b>Direction:</b>	Looking northwest	
<b>Description:</b>	9 <sup>th</sup> Street South crossover. Beach end.	




**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)**



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>8th Street South crossover. Street end.</b>	


<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>8<sup>th</sup> Street South crossover. Beach end.</b>	
<b>8<sup>th</sup> Street South utility building is at right.</b>		




**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)**



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northeast</b>	
<b>Description:</b>	<b>8<sup>th</sup> Street South utility building</b>	

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking southeast</b>	
<b>Description:</b>	<b>7th Street South crossover. Street end.</b>	






New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>7th Street South crossover. Beach end.</b>	

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking southeast</b>	
<b>Description:</b>	<b>6th Street South crossover. Street end.</b>	



New Jersey Department of Environmental Protection  
 Hurricane Sandy  
 Community Development Block Grant  
 Form – 6 (Version 1.0)



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>6th Street South crossover. Beach end.</b>	

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>5th Street South crossover. Looking toward street end.</b>	




**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)**



<b>Applicant ID #</b>	NCR39808
<b>Property Address:</b>	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>5h Street South crossover. Beach end.</b>	


<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking southeast</b>	
<b>Description:</b>	<b>4th Street South View from West Brigantine Avenue at location of stormwater improvement component of project. Dune crossover is to immediate left of stop sign post.</b>	



**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)**



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>4th Street South</b>	
<b>Location of stormwater improvement component of project.</b>		


<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>4th Street South crossover</b>	



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	10/14/2014	
<b>Direction:</b>	Looking north-northwest	
<b>Description:</b>	4th Street South crossover. Beach end.	


<b>Date:</b>	10/14/2014	
<b>Direction:</b>	Looking north	
<b>Description:</b>	Utility building at beach end of 4th Street South crossover	



**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)**



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>3<sup>rd</sup> Street South crossover. Looking toward street end.</b>	


<b>Date:</b>	<b>10/14/2014</b>	
<b>Direction:</b>	<b>Looking northwest</b>	
<b>Description:</b>	<b>3<sup>rd</sup> Street South crossover. Beach end.</b>	



New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

<b>Date:</b>	10/14/2014	
<b>Direction:</b>	Looking northwest	
<b>Description:</b>	2 <sup>nd</sup> Street South crossover. Looking toward street end.	

<b>Date:</b>	10/14/2014	
<b>Direction:</b>	Looking northwest	
<b>Description:</b>	2 <sup>nd</sup> Street South crossover. Beach end.	



**New Jersey Department of Environmental Protection  
Hurricane Sandy  
Community Development Block Grant  
Form – 6 (Version 1.0)**



Applicant ID #	NCR39808
Property Address:	Beach between 10th Street South and Vernon Place, Brigantine, NJ

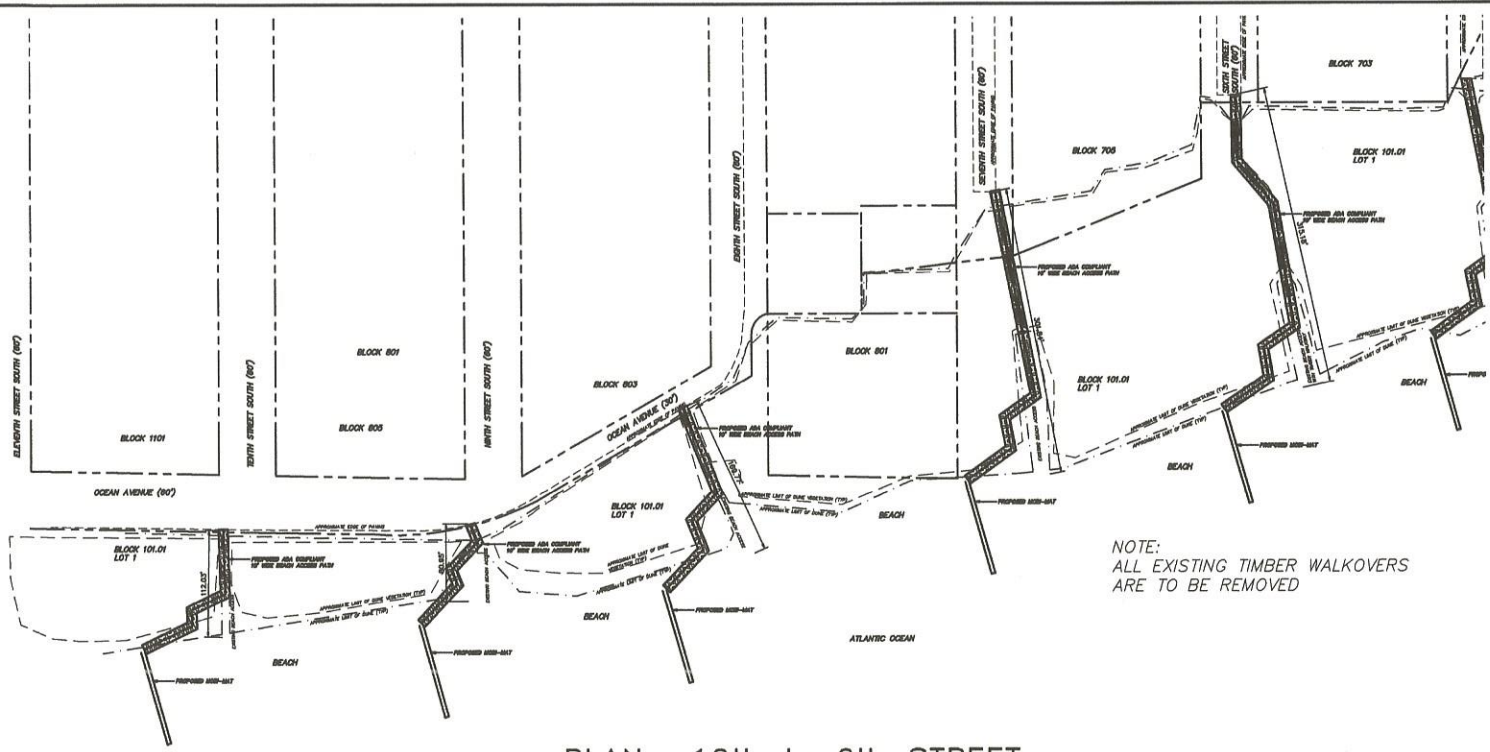
<b>Date:</b>	<b>10/14/2014</b>
<b>Direction:</b>	<b>Looking southeast</b>
<b>Description:</b>	<b>Vernon Place crossover. Street end.</b>



<b>Date:</b>	<b>10/14/2014</b>
<b>Direction:</b>	<b>Looking northwest</b>
<b>Description:</b>	<b>Vernon Place crossover. Beach end.</b>







NOTE:  
ALL EXISTING TIMBER WALKOVERS  
ARE TO BE REMOVED

**PLAN- 10th to 6th STREET**



ESTIMATE OF QUANTITIES:

- 4,433 CY EMBANKMENT
- 5,984 LF POST AND RAIL FENCE
- 3,326 SY BEACH ACCESS PATHS, DGA SURFACE, 9" THICK
- 4 UNITS TYPE E INLETS WITH LEACHING BASIN
- 357 LF 24" PERFORATED HDPeP PIPE IN STONE TRENCH
- 139 SY ROADWAY RESTORATION
- 2000 LF MOBIMAT REC PATH, TYPE AFX, 60" WIDE, BLUE

**LOCATION MAP**

**DRAWING LEGEND**

SCALE IN FEET  
(1"=60')

**ANDREW A. PREVITI**  
PROFESSIONAL BUSINESS  
NEW JERSEY LIC. NO. 246833668300

**MASER CONSULTING P.A.**  
Consulting, Municipal & Environmental Engineers  
Planners, Engineers & Landscape Architects  
State of N.J. Certificate of Authorization: 24042769500  
New Jersey New York Pennsylvania Virginia  
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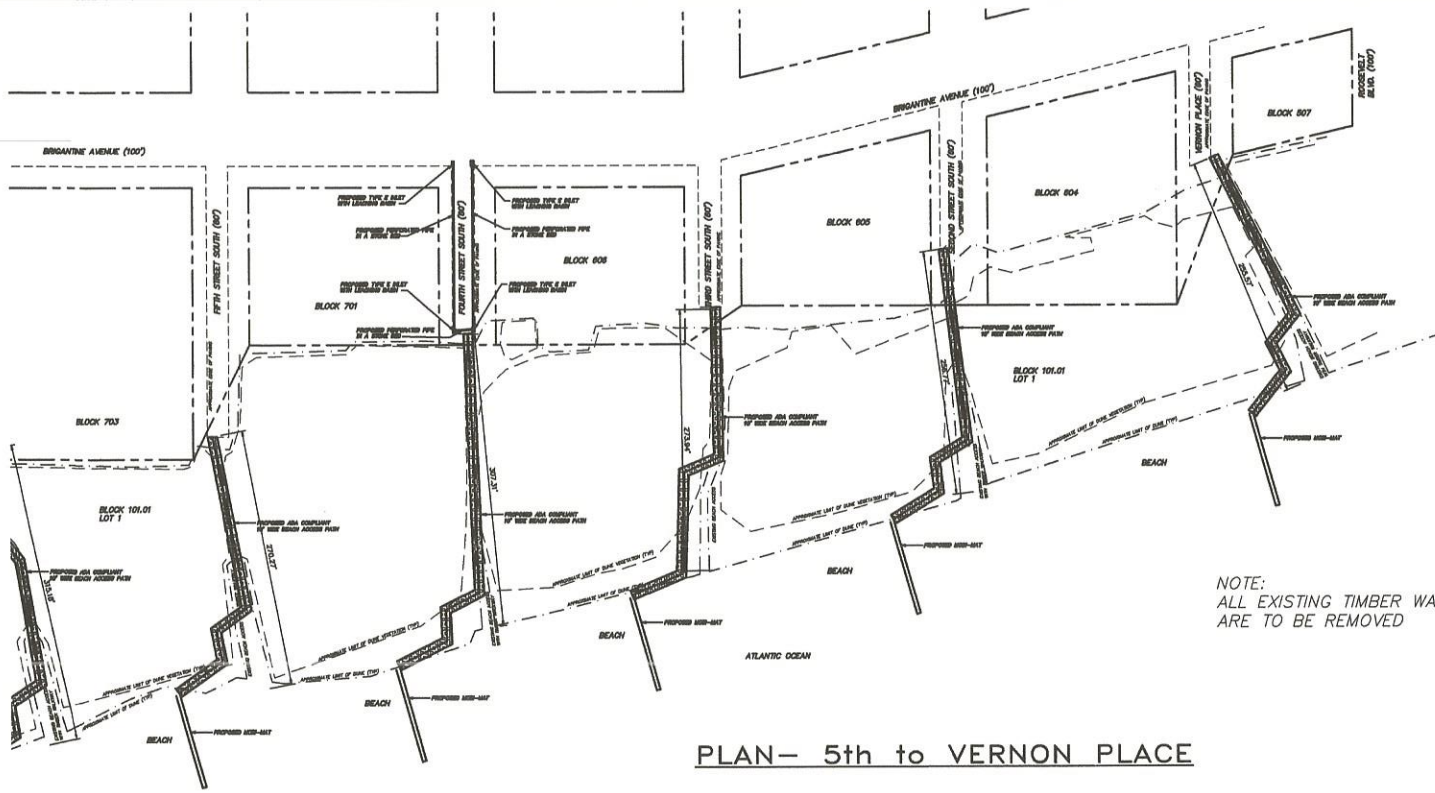
**MARLORA OFFICE**  
25 Brigantine Road  
Marlora, NJ 08228  
Phone: 609.368.1927  
Fax: 609.368.0454  
email: aad@maserconsulting.com

**BRIGANTINE BEACH ACCESS  
VARIOUS LOCATION  
FOR  
CITY OF BRIGANTINE CITY  
OCEANFRONT FROM  
VERNON PLACE TO 10TH STREET SOUTH  
CITY OF BRIGANTINE CITY, ATLANTIC COUNTY, NJ**

SCALE: DATE: DRAWN BY: CHECKED BY:  
AS SHOWN AUG., 2014 DS AAP

PROJECT NUMBER: **BIC003**

SHEET NUMBER: **1 of 3**



**PLAN— 5th to VERNON PLACE**



SCALE IN FEET  
(1"=100')

LOCATION MAP	
BRIGANTINE AVENUE	100'
10TH STREET SOUTH	80'
9TH STREET SOUTH	80'
8TH STREET SOUTH	80'
VERNON PLACE	80'

DRAWING LEGEND	
	PLAN NORTH
	SCALE IN FEET (1"=60')

REV.	DATE	BY	DESCRIPTION

**ANDREW A. PREVITI**  
PROFESSIONAL ENGINEER  
NEW JERSEY LIC. NO. 24623848300

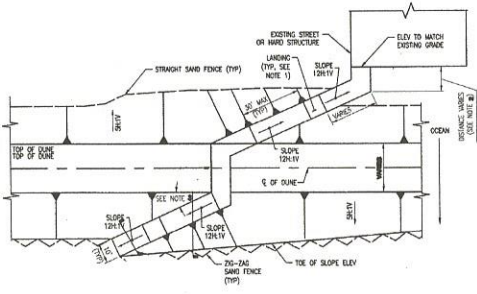
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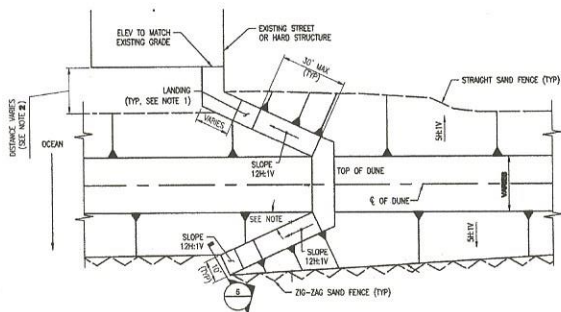
**MARIONA OFFICE**  
100 Brigantine Road  
Marion, NJ 08223  
Phone: 908.261.1577  
Fax: 908.261.0199  
email: solutions @ maserconsulting.com

**BRIGANTINE BEACH ACCESS**  
VARIOUS LOCATION  
FOR  
**CITY OF BRIGANTINE CITY**  
**OCEANFRONT FROM**  
**VERNON PLACE TO 10TH STREET SOUTH**  
CITY OF BRIGANTINE CITY, ATLANTIC COUNTY, NJ

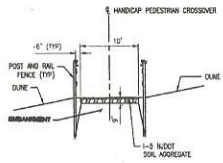
DESIGNED BY	DRAWN BY	CHECKED BY
AS SHOWN	AUG., 2014	DS
PROJECT NUMBER	BIC003	



DETAIL - HANDICAP CROSSOVER  
SCALE=N/TB

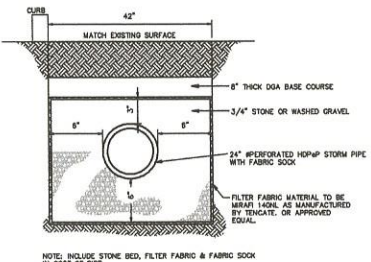


DETAIL - REVERSE HANDICAP CROSSOVER  
SCALE=N/TB

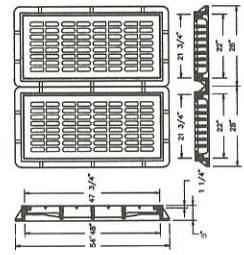


SECTION - TYPICAL FOR HANDICAP PEDESTRIAN CROSSOVER  
SCALE=N/TB

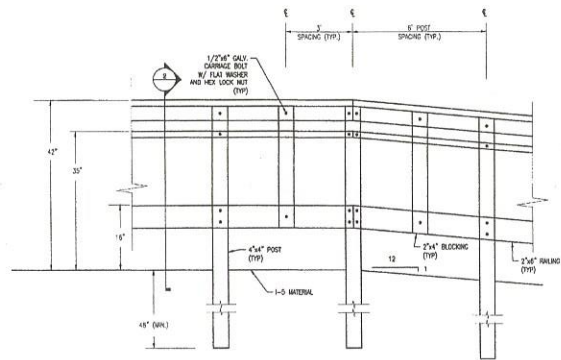
- NOTES:**
1. THE LANDING SHALL HAVE A MINIMUM LENGTH OF 5' AND SHALL BE CONSTRUCTED LEVEL (0% SLOPE).
  2. THE CONTRACTOR SHALL EXTEND ALL CROSSOVERS TO THE EDGE OF THE EXISTING STREET OR HARD STRUCTURE. SLOPES SHALL BE CONSISTENT AND MAY VARY FROM 0% TO A POSITIVE 7h:1v SLOPE IN ORDER TO MINIMIZE FILL.
  3. ANGLE MAY EITHER BE 23°37' OR 90°
  4. FENCE NOT SHOWN ON DETAILS FOR CLARITY.



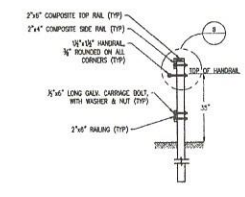
NOTE: INCLUDE STONE BED, FILTER FABRIC & FABRIC SOCK IN COST OF PIPE.  
**STORM SEWER PIPE BED DETAIL**  
N.T.S.



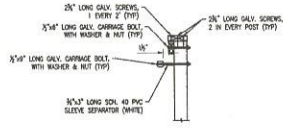
**"E" INLET FRAME AND COVER DETAIL**  
CAMPBELL FOUNDRY MODEL NO. 3425  
N.T.S.



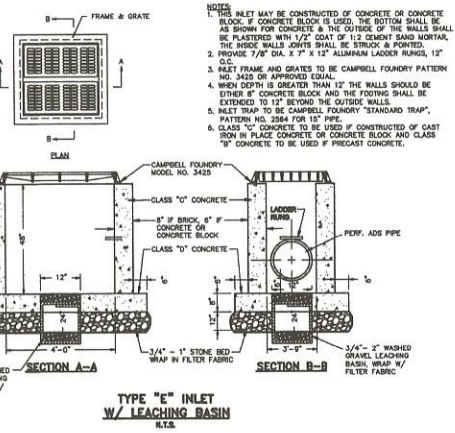
1  
DETAIL - PORT AND RAIL FENCE ELEVATION  
SCALE=N/TB



2  
DETAIL - PORT AND RAIL FENCE END ELEVATION  
SCALE=N/TB



3  
DETAIL - PORT AND RAIL FENCE HANDRAIL  
SCALE=N/TB



**TYPE "E" INLET**  
W/ LEACHING BASIN  
N.T.S.

- NOTES:**
1. THIS INLET MAY BE CONSTRUCTED OF CONCRETE OR CONCRETE BLOCK. IF CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR. THE INSIDE WALL JOINTS SHALL BE STRUCK & POINTED.
  2. PROVIDE 7/8" DIA. X 7' X 12" ALUMINUM LADDER RINGS, 12" O.C.
  3. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3425 OR APPROVED EQUAL.
  4. WHEN DEPTH IS GREATER THAN 12" THE WALLS SHOULD BE EITHER IF CONCRETE BLOCK AND THE FOOTING SHALL BE EXTENDED TO 12" BEHIND THE OUTSIDE WALLS.
  5. INLET TRAP TO BE CAMPBELL FOUNDRY "STANDARD TRAP", PATTERN NO. 2384 FOR 18" PIPE.
  6. CLASS "C" CONCRETE TO BE USED IF CONSTRUCTED OF CAST IN PLACE CONCRETE ON CONCRETE BLOCK AND CLASS "B" CONCRETE TO BE USED IF PRECAST CONCRETE.

REVISION	PROPOSED

**DRAWING LEGEND**

NO.	DESCRIPTION	DATE

DATE DRAWN BY CHECKROOM

**ANDREW A. PREVITI**  
PROFESSIONAL ENGINEER  
NEW JERSEY LIC. NO. 34625086300

**MASER**  
CONSULTING, INC.  
CONSULTING, ARCHITECT & ENVIRONMENTAL ENGINEERS  
STATE OF ALL LICENSES IN AUTHORITY: 36A2786500

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**MASONRY OFFICE**  
100 Rupperts Road  
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Phone: 609.300.0500  
Fax: 609.300.0508  
www: masonryoffice.com

**BRIGANTINE BEACH ACCESS**  
VARIOUS LOCATIONS  
FOR  
**CITY OF BRIGANTINE CITY**  
OCEANFRONT FROM  
VERNON PLACE TO 10TH STREET SOUTH  
CITY OF BRIGANTINE CITY, ATLANTIC COUNTY, NJ

SHEET NUMBER: **BIC003**

DATE: **AUG, 2014** DRAWN BY: **DS** DESIGNED BY: **AAP**



**Mobi-Mat® RecPath™ is a portable and removable rollout access pathway for pedestrians, wheelchair users, strollers, bicycles and ATVs.**

### ADA-Compliant

Firm, safe and stable, easy for any type of wheelchair, stroller or walker to maneuver on – providing a smooth continuous surface without gaps.

### Environmentally Friendly

Made of 100% recycled polyester, Mobi-Mat® RecPath™ contributes to the environment by utilizing recycled plastics. RecPath™ channels traffic along designated areas to protect sensitive dunes.



### Safe and Cool Pathway

Cool surface: permeability and 3-D design provide a comfortable surface to barefoot or handicapped users with sensitive feet. Mobi-Mat® eliminates the risk of injury commonly caused by splintered wood boards or exposed nails/screws.

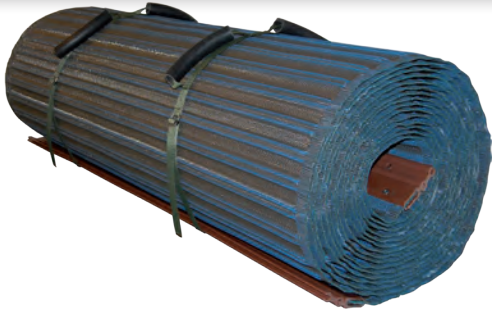
### Lightweight and Easy Installation

Mobi-Mat® is only 0.27 lbs/sqft, facilitating installation and retrieval of a 50' long section by two persons in ten minutes. Installation and retrieval can be performed by one person when using our Mobi-Roller™.

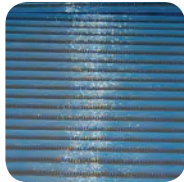
**Aesthetically Pleasing Colors:** blue or brown

### Low Maintenance:

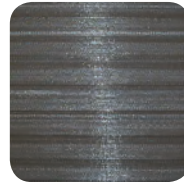
Will not sink into the sand, the Mobi-Mat® permeable structure allows sand to filter through. Mobi-Mat® RecPath™ is easily maintained by sweeping any excess sand build up with a broom or with a leaf blower.



Mobi-Mat®  
Type AFX Blue



Mobi-Mat®  
Type AFX Brown



Please, contact us for  
special color and marking



**RecPath™ - Mobi-Mat® Type AFX 0.27 lb/sqft (1.3 kg/m²)**

Width	60" (1.53 m)								78" (1.98 m)							
	16' (5 m)		33' (10 m)		50' (15.20 m)		82' (25 m)		16' (5 m)		33' (10 m)		50' (15.20 m)		82' (25 m)	
Length	16' (5 m)		33' (10 m)		50' (15.20 m)		82' (25 m)		16' (5 m)		33' (10 m)		50' (15.20 m)		82' (25 m)	
Weight rolled up	35 lb (16 kg)		50 lb (23 kg)		72 lb (33 kg)		117 lb (53 kg)		37 lb (17 kg)		64 lb (29 kg)		92 lb (42 kg)		150 lb (68 kg)	
Color	Blue	Brown	Blue	Brown	Blue	Brown	Blue	Brown	Blue	Brown	Blue	Brown	Blue	Brown	Blue	Brown
Kit P/N	191 811	191 810	191 799	191 796	191 800	191 797	191 801	191 798	191 806	191 802	191 807	191 803	191 808	191 804	191 809	191 805

\* Each kit is equipped with end connectors and eyelets to insert the staples provided in the kit

Download installation sheet on [www.mobi-mat-chair-beach-access-dms.com](http://www.mobi-mat-chair-beach-access-dms.com)



Discover our complete range on [www.mobi-mat-chair-beach-access-dms.com](http://www.mobi-mat-chair-beach-access-dms.com)



Mobi-Fence™



Helipad™



Mobi-Ramp™



Mobi-Chair®

**DMS**

DESCHAMPS MAT SYSTEMS

[info@mobi-mat-dms.com](mailto:info@mobi-mat-dms.com)

218 Little Falls Road, Unit 7 - Cedar Grove, NJ 07009 - USA

Tel. + 1 973 928 3040 - Fax. + 1 973 928 3041

[www.mobi-mat-dms.com](http://www.mobi-mat-dms.com)



# RecPath™ INSTALLATION DATA SHEET

Made from 100% recycled polyester, Mobi-Mat® range offers the RecPath™, the lightest roll-out environmentally friendly mat for creating the best ADA compliant outdoor access ways in minutes.

Supplied as a ready-to use kit in a cardboard box, the kit includes one RecPath™ roll and the necessary accessories for installation including X-shape connector bar at ends, staple pack, and pair of gloves.

## 1. Pre-installation

Prepare the area prior to installation of the RecPath™ by leveling the ground surface with a rake to clear debris, large stones and foreign objects.

## 2. Start creating your beach pathway

Unroll the RecPath™ and lay it in the desired position (Fig. 1).

Check the mat surface and place the smooth side facing up and the corrugated side facing down in contact with the ground.

Begin by aligning one end completely with the sidewalk or boardwalk you are extending it from.

Secure the starting end of the mat, using the U-shaped staples provided (Fig. 2).

On flat terrain, insert staples through the connector holes, as close as possible to the sidewalk/boardwalk so there is no gap.

On sloped or heavy traffic areas, insert staples through the connector holes and eyelets.

## 3. Stretch & Anchor your mats down

Stretch the Mobi-Mat® from the other end; utilize the U-shaped staples inserted through the eyelets as a tensioning tool to gently stretch the mat. (Fig. 3).

Secure the mat end by fastening the end with U-shaped staples inserted through the connector with a hammer (Fig. 2).

To secure the mat lengthwise, insert a staple through the eyelet positioned on the lengthwise side of the mat (Fig. 4).

## 4. Connecting Multiple RecPath™

Repeat 1 and 2 (Fig. 1 & 2).

Use end connectors: lay mat ends side by side and then slide the X-shaped connector bar into position to link both mat ends together (Fig. 5).

Repeat 3 (Fig. 3 & 2).

## 5. Maintenance

Using a broom or leaf blower is the preferred method for keeping the Mobi-Mat® surface free of sand and debris.

If too much sand accumulates underneath, roll back the mats and level the ground. Then re-do installation.

## Optional RecPath™ installation

### Creating a Change in Path Direction or Resting Areas with a "T" or "L" shape

Overlap the mats at an angle to create "T" or "L" shape paths to create a change in path direction or resting areas for wheelchair users and baby strollers. (Fig. 6).

### No visible end

Dig a 4" (10cm) deep and 3" (8cm) wide trench at the end of the RecPath™, position the mat end connector straight down at 30 degrees into the sand and anchor the mat down using the U-shaped staples and bury it.



Fig. 1

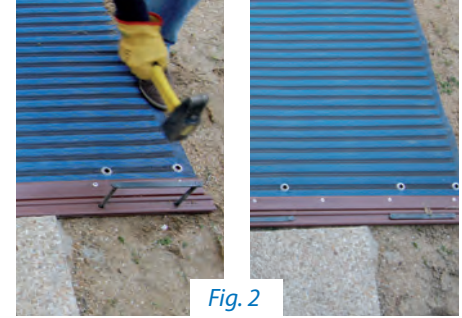


Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



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## Borstel, Christopher

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**From:** Rutala Associates <jmrutala@comcast.net>  
**Sent:** Monday, October 20, 2014 9:40 AM  
**To:** Bock, John  
**Cc:** 'Jerri Weigand'; 'McAlear, Joseph'; 'Rickman, Brett'; Williams, Beth; Fischl, Joseph; Flis, Tom; Borstel, Christopher; Sollenberger, Chris  
**Subject:** Brigantine Beach  
**Attachments:** 4th Street So. Drainage Conceptual.pdf

John, the boundary that you show on the maps is accurate, while the eastern boundary will not extend to the surf as shown and as discussed below. Regarding the other questions that we discussed during our conference call:

Cross section of the dunes where paths will be built – pre-construction. **We have not performed surveys of the dune paths and therefore cannot produce pre-construction cross sections.**

- Describe how the mobie matt will be secured? **The mobie matt is anchored with pins.** Does it remain in place year-round? **The mats will be removed after the summer season and stored at the DPW yard until the following spring.**
- Describe the length of each path segment; does the path extend on the beach? **The path terminates at the ocean side of the primary dune and the mobie matt will extend onto the beach for a short distance (100' +/-).**
- Does the alignment of the proposed paths deviate from the disturbed areas? **The City plans to utilize the existing path location.**
- Provide a plan that highlights the proposed drainage system. **I have attached a conceptual plan of the drainage improvements proposed at 4<sup>th</sup> Street South.**

Regards,

Jim

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**From:** Bock, John [<mailto:John.Bock@tetrattech.com>]  
**Sent:** Thursday, October 16, 2014 7:42 PM  
**To:** 'Rutala Associates ([jmrutala@comcast.net](mailto:jmrutala@comcast.net))'  
**Cc:** 'Jerri Weigand'; 'McAlear, Joseph ([Joseph.McAlear@icfi.com](mailto:Joseph.McAlear@icfi.com))'; Rickman, Brett ([Brett.Rickman@icfi.com](mailto:Brett.Rickman@icfi.com)); Williams, Beth; Fischl, Joseph; Flis, Tom; Borstel, Christopher; Sollenberger, Chris  
**Subject:** RE: Lafayette Park and Brigantine Beach

Jim, please find attached a map illustrating our understanding of the proposed boundary for the Brigantine Beach Access project. This encompasses the full extent of the area that may be subject to ground-disturbing activities. While we understand from Tuesday's call that paved street ends adjacent to the dune walkways would be used for vehicle, equipment, and material staging, there would be no intrusive or ground-disturbing work in those areas. Please let us know if this project boundary is accurate.

We also have the following additional questions regarding that project:

1. When were the dune walkways constructed/installed?
2. When were the dune stabilization and revegetation efforts begun on the dune system crossed by the walkways?

I haven't been able to get in touch with Jerri, so please send the materials we discussed on Tuesday to both of us.

Please let me know if you have any questions. Thanks.

**John R. Bock | Senior Environmental Scientist**

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-----Original Appointment-----

**From:** Bock, John

**Sent:** Friday, October 10, 2014 11:52 AM

**To:** Jerri Weigand; McAlear, Joseph ([Joseph.McAlear@icfi.com](mailto:Joseph.McAlear@icfi.com)); Rutala Associates ([jmrutala@comcast.net](mailto:jmrutala@comcast.net)); Williams, Beth; Fischl, Joseph; Flis, Tom; Borstel, Christopher; Rickman, Brett ([Brett.Rickman@icfi.com](mailto:Brett.Rickman@icfi.com))

**Subject:** Lafayette Park and Brigantine Beach

**When:** Tuesday, October 14, 2014 11:00 AM-11:30 AM (UTC-08:00) Pacific Time (US & Canada).

**Where:** 1-866-692-5721, Passcode 6372

Please join us for a call to discuss the Lafayette Park and Brigantine Beach projects funded through the NCR program



# NCR39808 - Brigantine Beach Access Project Project Boundary (Approximate)





Google earth

Google earth

feet  
meters



# 4th Street South Drainage Improvements