

**Endeavor AC, LLC**  
Atlantic City, NJ

Policy Compliance Report  
NJAC 7:7E-8.7 Stormwater Management  
6/3/15



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A handwritten signature in black ink, appearing to read "Jon J. Barnhart", is written over a horizontal line.

Jon J. Barnhart, P.E.  
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## **Existing Site Conditions:**

The project site to be developed as the proposed Atlantic Beach Hotel & Casino is an approximately 13.9 Acre tract of land formerly known as the Atlantic Club Casino Hotel.

The property has historically utilized the municipal storm drainage system which exists in multiple locations adjacent to the site. The historic flow path includes sheet flow toward the Atlantic Ocean, which is collected into inlets and directed toward outfall piping located at the street end of Boston Avenue. The existing municipal system was designed to account for runoff for all of the properties included in this development.

The property is currently fully developed as follows:

Block 183 (Lots 9-19) = 53,000 SF – Existing asphalt surface parking facility  
Block 184 (Lots 2-13) = 95,511.69 SF – Existing asphalt surface parking facility  
Block 185 (Lot 9) = 96,582.44 SF – Existing parking garage structure  
Block 25/Block 26 = 211,677.87 SF – Hotel/Casino Structure & Porte-Cochere  
Block 1 (Lot 36 – To High Tide Line) = 152,355 SF – Existing Beach Area

This property is located within Atlantic City, which has been declared a CAFRA Center and is in need of redevelopment.

N.J.A.C. 7:8-1.2 – Definitions section of the storm water management act defines Urban Redevelopment Areas as, “previously developed portions of areas designated as CAFRA Centers, Cores, or Nodes. Accordingly, this property would clearly be considered an Urban Redevelopment Area.



### **Proposed Site Conditions:**

The project proposal is to renovate and expand the existing structures as shown in the enclosed development plan set. Refer to the architectural plans for all details of the proposed building, design and layout.

Block 183 (Lots 9-19):

Existing Asphalt Parking Facility to remain, no change

Block 184 (Lots 2-13):

Remove existing asphalt parking Facility and construct a new 70,000 SF waterpark structure.

Block 185 (Lot 9):

Existing parking garage structure and existing asphalt parking facility to remain. The garage structure will be renovated/repared as needed to service the project. The existing asphalt surface will remain with no change.

Block 25/Block 26:

The existing hotel and casino structure will be fully renovated for the proposed development. A portion of the building will be demolished along the ATLANTIC City Boardwalk, allowing a new structure to be built in its place for use as a water park area on the boardwalk. The existing porte-cochere will remain with no change.

Block 1 (Lot 36 – To High Tide Line):

The existing beach area will be developed with a permanent restaurant Facility which will also include the expansion of the public boardwalk. This parcel will also be utilized for seasonal beach amenities as well.

### **Design Intent:**

The intent of the proposed storm water design is to utilize the existing municipal system to the greatest extent feasible to accommodate the project.

The proposed project does not create any increase in storm water runoff volume from the historic conditions of the site.

It is the intent of this report to indicate the project's compliance with the applicable storm water management regulations that took affect in February 2004.

## **Policy Compliance:**

N.J.A.C. 7:8 Subchapter 5 is entitled Design and Performance Standards for Stormwater Management Measures. Section 7:8-5.1 of the subchapter indicates the scope of this section to be defined as, "establishing design and performance standards for storm water management measures for major development intended to minimize the adverse impact of storm water runoff on **water quality** and **water quantity** and the **loss of groundwater recharge** in receiving water bodies. It is these three considerations that must be met in complying with the criteria set for storm water in the state of New Jersey. The following is a list of the applicable policy sections, with indication of how this project intends to meet those policies.

### **N.J.A.C. 7:8-5.4 Erosion Control, Groundwater recharge and runoff Quantity Standards:**

The project will apply for and receive Soil Erosion and Sediment Control plan certification from Cape Atlantic Soil Conservation Service.

According to section 5.4(a)2ii groundwater recharge requirements do not apply to projects within Urban Redevelopment Areas.

Within this same section it is indicated that projects lying within a tidal flood hazard area need not provide storm water quantity analysis unless an increase in flood damage could occur below the point of discharge. Since the project lies within an AE10 flood zone as identified on Preliminary FEMA FIRM mapping and will be tied into the already existing municipal storm water system, this potential for flood damage will not occur.

As stated, the requirements of N.J.A.C. 7:8-5.4 are met by virtue of the location of the project.



## **N.J.A.C. 7:8-5.5 Storm Water Runoff Quality Standards:**

This section indicates that storm water management measures shall be designed to reduce the total post-construction load of total suspended solids (TSS) in storm water runoff generated from a water quality design storm by 80% of the anticipated load from the developed site, expressed as an annual average. This water quality design storm is 1.25 inches of rainfall in a two hour period.

The site proposes greater than one acre of disturbance and greater than ¼ acre of new impervious coverage; therefore, water quality standards do apply to this application. However, no portion of the proposed development will require storm water quality treatment as per the NJDEP regulations. The surfaces will comply with the requirements of this section as follows:

### **Block 183 (Lots 9-19):**

Existing Asphalt Parking Facility to remain, no construction will take place on this parcel, therefore, no new storm water quality measures are required.

### **Block 184 (Lots 2-13):**

The existing asphalt parking surface on this parcel will be removed to make way for a new 70,000 SF water park facility. The balance of this parcel will be landscaped area and/or sidewalk areas for pedestrians. The proposed roof area of the structure, the landscaped area and the sidewalk areas do not require storm water quality measures as per the rules.

### **Block 185 (Lot 9):**

Existing parking garage structure and existing asphalt parking facility to remain. The existing asphalt surface will remain with no change. No new storm water quality controls are required for this parcel.

### **Block 25/Block 26:**

The existing hotel and casino structure will be fully renovated for the proposed development. A portion of the building will be demolished along the Boardwalk, allowing a new structure to be built in its place for use as a water park area on the boardwalk. The existing porte-cochere will remain with no change. All new areas of construction will be roof areas that do not require quality treatment. The existing asphalt surfaces on this parcel will not be changed, therefore they also do not require new storm water quality measures.



**Block 1 (Lot 36 – To High Tide Line):**

The existing beach area will be developed with a permanent restaurant Facility which will also include the expansion of the public boardwalk. This parcel will also be utilized for seasonal beach amenities as well. All of these structures will be for pedestrian use only and will not see any type of pollutant loading. The structures will be roofed as well, therefore, storm water quality measures are not required for this parcel.

Based upon the above, the project does not propose any new areas of development that will require storm water quality measures to be implemented. Therefore, the policy is satisfied.

**N.J.A.C. 7:8-5.6 Calculation of Storm Water Runoff:**

All storm water calculations for this project have been performed utilizing the Rational Method and Modified Rational Method for estimating storm water runoff. This is an accepted design method as per this section, and therefore the project complies.

**N.J.A.C. 7:8-5.7 Standards for Structural Storm Water Management:**

Requirements of this section are not applicable to the proposed storm water management system. Accordingly, the project complies with this policy.

**N.J.A.C. 7:8-5.8 Maintenance**

A maintenance plan has been indicated on the project design plans. The plan includes maintenance requirements and scheduling of all maintenance. The applicant will be responsible to insure that an entity is assigned the responsibility of maintaining the storm water management system. The project complies with this policy.

**Summary:**

The project meets the storm water management requirements as indicated in this narrative.

## Storm Sewer Pipe Calculations for Block 184:

### Proposed Bldg Roof Area:

Total Bldg Roof Area = 1.6 Acres (Divided into 2 drainage areas)

Utilizing Rational Method ( $Q = CIA$ )

$A = 0.8$  Acres

$C = 0.99$  (See Appendix)

$T_c = 15$  min

$I = 5.5$  in/hr (25 year storm)

$Q = 0.8 * 0.99 * 5.5$

$Q = 4.35$  CFS

Proposed Roof Leader Pipe Size (Ductile Iron) = 18"

Therefore, the proposed 18" ductile iron pipe roof drains to be constructed on the project site to be tied into the existing municipal drainage system will contain adequate capacity to convey a 25 year storm, as required by ordinance.

