

# Atlantic City Polercoaster

Block 48 Lot 13, 18, 19  
Atlantic City, Atlantic County, NJ

Policy Compliance Report  
NJAC 7:7E-8.7 Stormwater Management  
12-10-15



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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.  
N.J. License # GE43483

### **Existing Site Conditions:**

The subject property is known as Block 48, Lots 13, 18 & 19, in the City of Atlantic City, NJ. The site contains a total area of 1.23 Acres. The site is surrounded by a mix of land uses. The property is bordered by three public rights-of-way, all fully constructed, as shown on the enclosed aerial photos. The property lies within the AE 10 Flood Zone as shown on the current FEMA preliminary FIRM map for this area, with a required based flood elevation of 10.0 (NAVD 88).

The proposed project is to demolish all existing improvements on the property and construct a new entertainment complex on the site, including a number of amusement rides, dining areas, and retail.

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 which is collected into inlets and directed toward an outfall. The existing municipal system was designed to account for runoff for all of the properties included in this development, with no level of storm water treatment.

The property is currently developed with an asphalt parking facility.

This property is located within the City of 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 intent of the proposed storm water system is to allow for the proposed building to enter the existing municipal system.

The majority of the tract will be developed with the proposed building. The building roof runoff will be directed to the outfall system by way of MLK Boulevard, as shown on the development plans.

The proposed project does not create any increase in storm water runoff volume from the historic conditions of the site. The proposed project does not intend to store or recharge storm water on site. Based on current NJDEP standards, as indicated in the policy compliance portion of this report, storage and recharge are not required for this type of project, at this location.

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

### **Storm Water Calculation Rationale:**

Method of Determining runoff Rates & Volumes:                      Technical Release 55

Software Utilized for Calculations:    HydroCAD 8.50

Storm Events Analyzed:    2 Year  
    10 Year  
    100 Year  
    WQ Storm – NJDEP

Storm Event Utilized for Storm Sewer Design:    10 Year



## **NJDEP 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 FEMA 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. Water quality will be addressed on this project through a number of approved methods including grassed overland flow and manufactured treatment devices.

The project contains a total development area of 1.23 acres. The surface breakdown of the areas being developed is as follows:

Bldg Roof Areas =	1.2 Acres
Lawn / Landscape Areas =	.03 Acres

#### **Lawn / Landscaped Areas:**

These areas are naturally treated through grassed overland flow and do not require any additional storm water treatment.

#### **Bldg Roof Area:**

These areas are recognized as clean storm water discharge, which will be directly connected into the municipal storm water system through roof leaders.

#### **Paved Areas:**

All existing paved areas will be removed as part of this project. No new paved areas requiring quality treatment are proposed.

Accordingly, the water quality policy has been met.

### **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.

