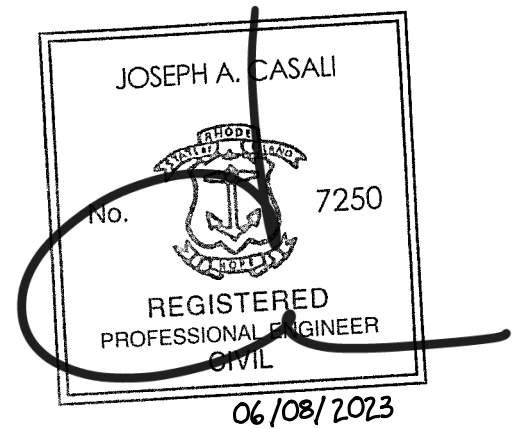


**Project Narrative**  
For  
**Briarwood Estates**  
**A 14-Lot Major Subdivision**

**AP 18-3, Lots 1023 & 1026**  
**Cranston, Rhode Island**

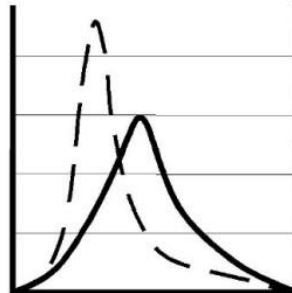
**Prepared for:**  
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**Submission Date:**  
February 2023  
Revised June 2023

**Submitted by:**

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## **1 INTRODUCTION**

On behalf of the Applicant, Universal Realty, LLC, Joe Casali Engineering, Inc. (JCE) has prepared the following Stormwater Management Report to identify existing and proposed site conditions related to a proposed 14-lot major subdivision project located off New London Avenue in Cranston, Rhode Island. The subject properties are located on the west side of New London Avenue, between Warfield Avenue and Southview Terrace and can be identified as Tax Assessor's Plat Map (AP) 18-3, Lots 1023 and 1026. The property lies within the Residential A-8 Zoning District.

The scope of work includes subdividing the two (2) subject parcels into 14 residential lots of which 12 lots will be new construction and two (2) lots will contain existing residential homes. Other improvements include a new 1,070 linear feet proposed roadway extension, utility infrastructure, stormwater mitigation and landscaping improvements.

## 2 SITE DESCRIPTION

### 2.1 Existing Conditions

The proposed project encompasses two (2) parcels of land, specifically AP 18-3, Lots 1023 and 1026. According to a February 2022 Class I Comprehensive Boundary Survey performed by E. Greenwich Surveyors, LLC, the total area of all the subject parcels is 5.80 acres. AP 18-3, Lot 1026 is approximately 2.86 acres with frontage on New London Avenue and consists of a single-family residence (1365 New London Avenue) with a detached garage and in-ground pool. A 50-ft right-of-way is established providing access via a shared driveway to the subject parcel's detached garage, and adjacent parcels AP 18-3, Lot 2033 (#1335) and AP 18-3, Lot 2035 (#1365). The rear of Lot 1026 is currently vacant and heavily wooded. AP 18-3, Lot 1023 is approximately 2.94 acres. This parcel is located southwest of Lot 1026 and consists of a single-family residence (1375 New London Avenue). The parcel does not have frontage on new London Avenue; however, it utilizes a 12-ft access easement on AP 18-3, Lot 810 for access. Outside of the single-family residence and associated lawn, the remaining portion of the lot is vacant woodland.

The project site is bound by New London Avenue to the east, Interstate Route 295 to the west, the terminal end of Briarwood Road and residential properties to the north, and residential properties to the south. Please refer to Figure 1 – Locus Map for general site location information.



**Figure 1 - Locus Map**

NOT TO SCALE

## 2.2 Soil Classification

Natural Resources Conservation Service (NRCS), produced by the National Cooperative Soil Survey, the soils on-site consist of Hinckley loamy sand, 0-3 % slopes and 8-15% slopes (HkA and HkC). These soils generally consist of sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist. HkC soils are excessively drained and have a very low runoff class. HkA soils are excessively drained and have a negligible runoff class.



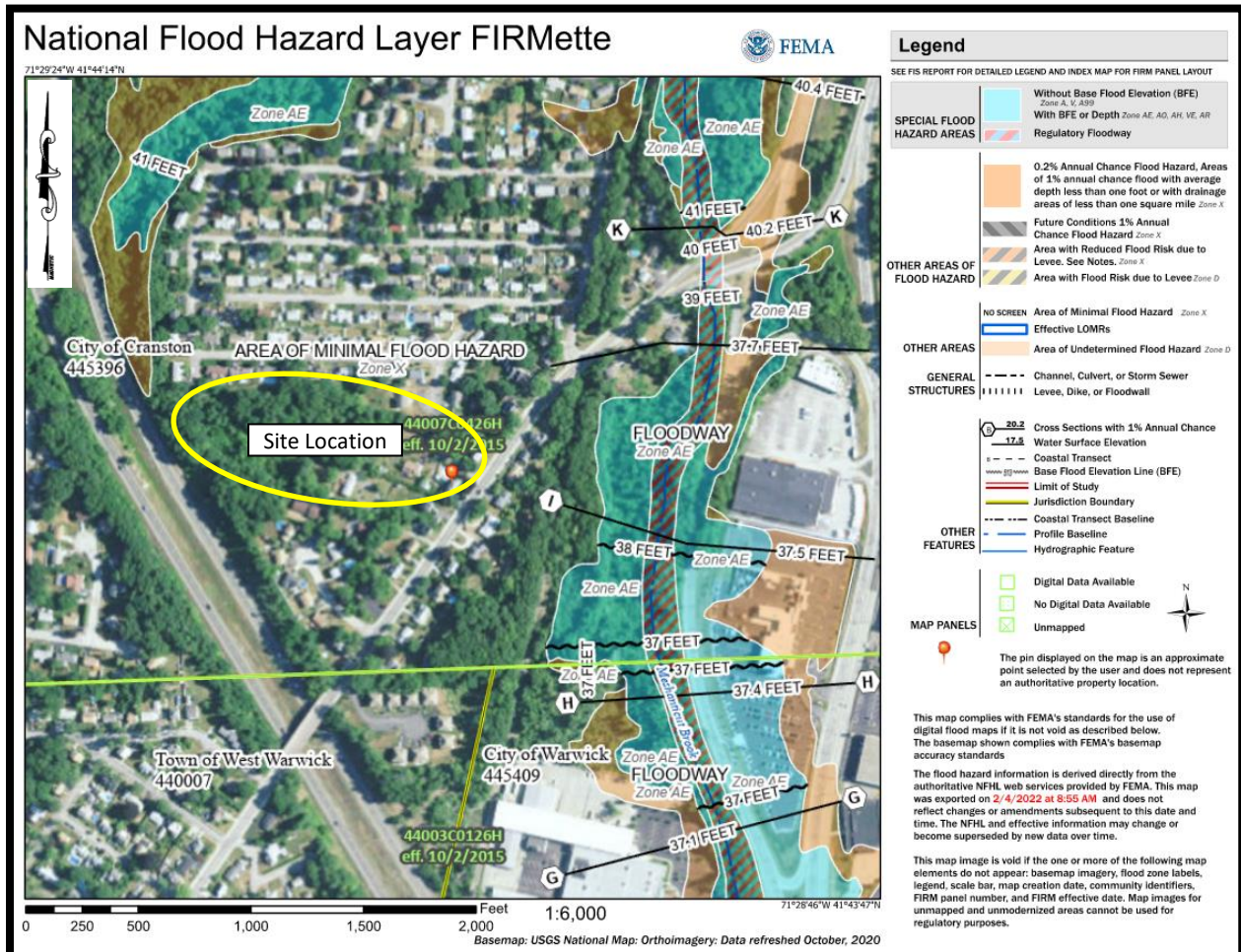
**Figure 2 - Soils Map**  
NOT TO SCALE

Soil evaluations were observed and documented by JCE in October 2022 to determine the depth to the seasonal high groundwater table (SHGWT) and to estimate infiltration capacity of existing in-situ soils for the design of stormwater mitigation measures. Ten (10) soil evaluation test pits were excavated, ranging in depth from about 96-inches to 120-inches below the ground surface. In general, the SHGWT ranged from about 36-inches to 70-inches below the existing ground surface when encountered. Ledge was not encountered. A Soil Evaluation Test Pit Location Plan and Soil Evaluation Test Hole Logs are included in Appendix A.



### 2.3 FEMA Flood Hazard

The site is located on the Flood Insurance Rate Map for the City of Cranston, Rhode Island, Map Number 44007C0426H, effective date October 2, 2015. Based on this FEMA Flood Insurance Rate Map, the project site and all adjacent properties, are identified as lying within FEMA Flood Zone X - areas determined to be outside the 0.2% annual-chance flood elevation.



**Figure 3 – FEMA Flood Insurance Rate Map**

NOT TO SCALE

### 2.4 Natural and Recreational Resource Inventory

According to the Rhode Island Department of Environmental Management (RIDEM) Environmental Resource Map, there are no wetlands within or adjacent to the subject parcels. The project site is located within RIDEM's Groundwater Classification Zone GA, which is defined as "groundwater resources, which like GAA, are known or presumed to be suitable for drinking water use without treatment." The parcel is not located in a land conservation area, natural heritage area, or a wellhead protection area. There are no known existing public, recreational or cultural resources within the subject site. The parcel is not located in a historic planning district or land conservation area.

## 2.5 Watershed

The site is located within the Pawtuxet River Watershed (RIDEM Inventory #010900040901). Stormwater runoff from the eastern portion of the site flows in a northeasterly direction and ultimately drains to the Meshanticut Brook (RI0006017R-02), a third order stream. Stormwater runoff from the western portion of the site flows in a northwesterly direction and ultimately drains to an unnamed tributary to the Meshanticut Brook (RI0006017R-02), a second order stream. Both the tributary and the brook are listed as impaired and have an established TMDL for enterococcus. Any development of the subject parcels will require a stormwater management design in accordance with the RI Stormwater and Installation Standards Manual, implemented December 2010, amended March 2015, and will be required to mitigate impairments identified for the tributary and Meshanticut Brook. Best Management Practices (BMPs) recommended to remove bacteria include sand filters and infiltration basins.

## 2.6 Zoning

According to the City of Cranston Zoning Maps, the site is currently zoned as Residential A-8. This district is intended for single-family dwellings on lots with a minimum area of 8,000 square feet. The surrounding properties are also zoned A-8 apart from the properties to the north of the site being zoned Residential A-6. The following are the dimensional requirements for the current zoning classification for the A-8 District:

<b>Requirement</b>	<b>A-8 Zone</b>
Minimum Lot Area	8,000 sq. ft.
Minimum Lot Width and Frontage	80 ft
Minimum Front Yard Setback	25 ft
Minimum Rear Yard Setback	20 ft
Minimum Side Yard Setback	10 ft
Maximum Lot Coverage	30%
Maximum Building Height	35 ft

## 2.7 Easements

Based on the February 2022 Class I Comprehensive Boundary Survey performed by E. Greenwich Surveyors, LLC, there is a right-of-way, so-called “Pelli Drive” within AP 18-3, Lot 1026 that provides access to AP 18-3, Lot 2033 (#1335) and AP 18-3, Lot 2035 (#1365) from New London Avenue. There is an existing 25-ft wide sewer easement within AP 18-3, Lot 1026. The easement generally follows the centerline of an existing right-of-way, conveying sewer from New London Avenue through the subject parcel to Gaunt Drive.

AP 18-3, Lot 1023 (1375 New London Avenue) utilizes a 12-ft access easement on AP 18-3, Lot 810 for access to New London Avenue.

## 2.8 Utilities

Water: The existing residences within the project site are serviced by public water and fall under the jurisdiction of Kent County Water Authority (KCWA). A 6-inch water stub exists at the terminus of Briarwood Road. A 12" water main exists along the western edge of New London Avenue. There also an existing hydrant on New London Avenue in front of the dwelling located at 1335 New London Avenue (AP 18-3, Lot 2033).

Sewer: The existing residences within the project site are serviced by public sewer. There is an existing 8-inch main located within New London Avenue which crosses through the subject parcels via a 25-ft sewer easement and continues to Gaunt Avenue.

Gas: Gas services are provided to the existing dwellings; gas services are provided by RI Energy.

Electric/Communications: Electric and communication services are provided to the existing dwellings via overhead lines from New London Avenue to an existing utility pole located within the existing right-of-way.

## 3 PROPOSED CONDITIONS

### 3.1 General

The proposed scope of work includes the subdivision of AP 18-3, Lots 1023 and 1026 into 14 residential lots, of which 12 lots will be new construction with a new single-family dwelling proposed on each, and two (2) lots will contain the existing residential homes. The existing Lot 1026 containing the existing single-family dwelling (#1365), detached garage and in-ground pool will be subdivided to have a new area of approximately 18,058 sq. ft. (0.41 acres). The remaining portion of the lot is approximately 100,345 sq. ft. (2.30 acres). Lot 1023 containing the existing single-family dwelling (#1375) will be subdivided and have a new area of approximately 53,279 sq. ft. (1.22 acres). The remaining portion of the lot is approximately 80,694 sq. ft. (1.85 acres).

The undeveloped portions of Lots 1023 and 1026 have a total area of approximately 181,039 sq. ft. (4.15 acres) and will be utilized as part of the proposed twelve (12) new lot residential subdivision, entitled "Briarwood Estates". A single-family home will be constructed on each lot with associated utility services and driveways.

The proposed project has been designed in general accordance with the current City of Cranston's Land Development and Subdivision Regulations. All proposed residential lots have been designed to conform to the dimensional requirements of the A-8 Zone. The former Pelli Drive (private) 50-foot right-of-way will be improved and extended through the project, eventually connecting into the Briarwood Road dead-end. The new public roadway has been designed with a 24-foot-wide paved width, 40-foot right-of-way and will be approximately 1,070 linear feet long. The roadway will be designed and constructed in general accordance with City Standards.

A 32-foot-wide right-of-way has been incorporated between Lots 11 and 12 to provide access to the abutting parcel, AP 18-3, Lot 2006 from the new extended subdivision road. Other improvements associated with the proposed subdivision include new utility services, stormwater mitigations and landscaping improvements.

### **3.2 Utilities**

Water: Water service is available to the project area. A water main runs along New London Avenue and within Briarwood Road. The proposed development will require an extension of the existing water main to provide domestic water and fire protection to the proposed subdivision. It is anticipated that a new water main will be looped from New London Avenue to Briarwood Road. Fire hydrants will be located per the City Fire Marshal's requirements. The water main extension and service design will require review and approval by the Kent County Water Authority.

Sewer: Sewer service is available within the project area. An 8-inch main runs through the eastern portion of the site within a 25-foot-wide sewer easement. The proposed residential lots will be serviced by municipal sewers. The sewer main is owned and maintained by Veolia Water. The sewer and service design will require review and approval by the City and Veolia Water

Electric/Communications/Gas: Electric services, communication services, and gas services are proposed to be extended to the proposed subdivision via existing services within New London Avenue.

## **4 STATE AND LOCAL PERMITTING**

### **4.1 Planning Board of Review**

According to the City of Cranston's Land Development Regulations, the proposed development is considered a Major Subdivision. The permitting schedule is as follows, and consists of abutter notification, public meetings, and Planning board Approval: Master Plan; Preliminary Plan; and Final Plan.

The project was presented before the Cranston City Plan Commission for a Pre-Application Review on April 5, 2022. The project appeared before the City Plan Commission again on June 7, 2022 where it received approval for Master Plan.

The project will require two (2) waivers. A waiver to allow a reduction in proposed right-of-way width from the required 40 feet to 32-feet; relief requested for 8 feet. A second waiver is requested to not install sidewalks at minimum on one side of the proposed new public street to match existing conditions of Briarwood Road.

### **4.2 Veolia Water**

The proposed sewer main extension and sewer services will require review and approval from Veolia Water and the City of Cranston Department of Public Works.



#### **4.3 Kent County Water Authority**

The proposed water main extension and water services received approval from the Kent County Water Authority on May 17, 2023. The Kent County Water Authority's review consisted of the development of a hydraulic model evaluation to determine impacts of the development on the Kent County Water Authority water system as well as a review of design plans to determine conformance of the proposed water main extension design with the Kent County Water Authority Regulations (i.e. conflicts with existing utilities, conformity of proposed materials, sufficient number of valves and proper spacing, etc.).

#### **4.4 Rhode Island Department of Environmental Management (RIDEM)**

The proposed project will received a Groundwater Discharge Permit and a Rhode Island Pollutant Discharge Elimination System (RIPDES) Construction General Permit from the Rhode Island Department of Environmental Management (RIDEM) on April 24, 2023.

#### **4.5 Rhode Island Department of Transportation (RIDOT)**

The proposed project will require a Physical Alteration Permit (PAP) from the Rhode Island Department of Transportation (RIDOT) for the proposed curb cut for the new roadway connection to New London Avenue (Route 33), a state highway. RIDOT has reviewed the application and provided comments. Comments have been addressed and RIDOT approval is forthcoming.

#### **4.6 Building Permit / Fire Department**

A Building Permit will be required from the City of Cranston Building Official for construction of the proposed single-family dwellings.