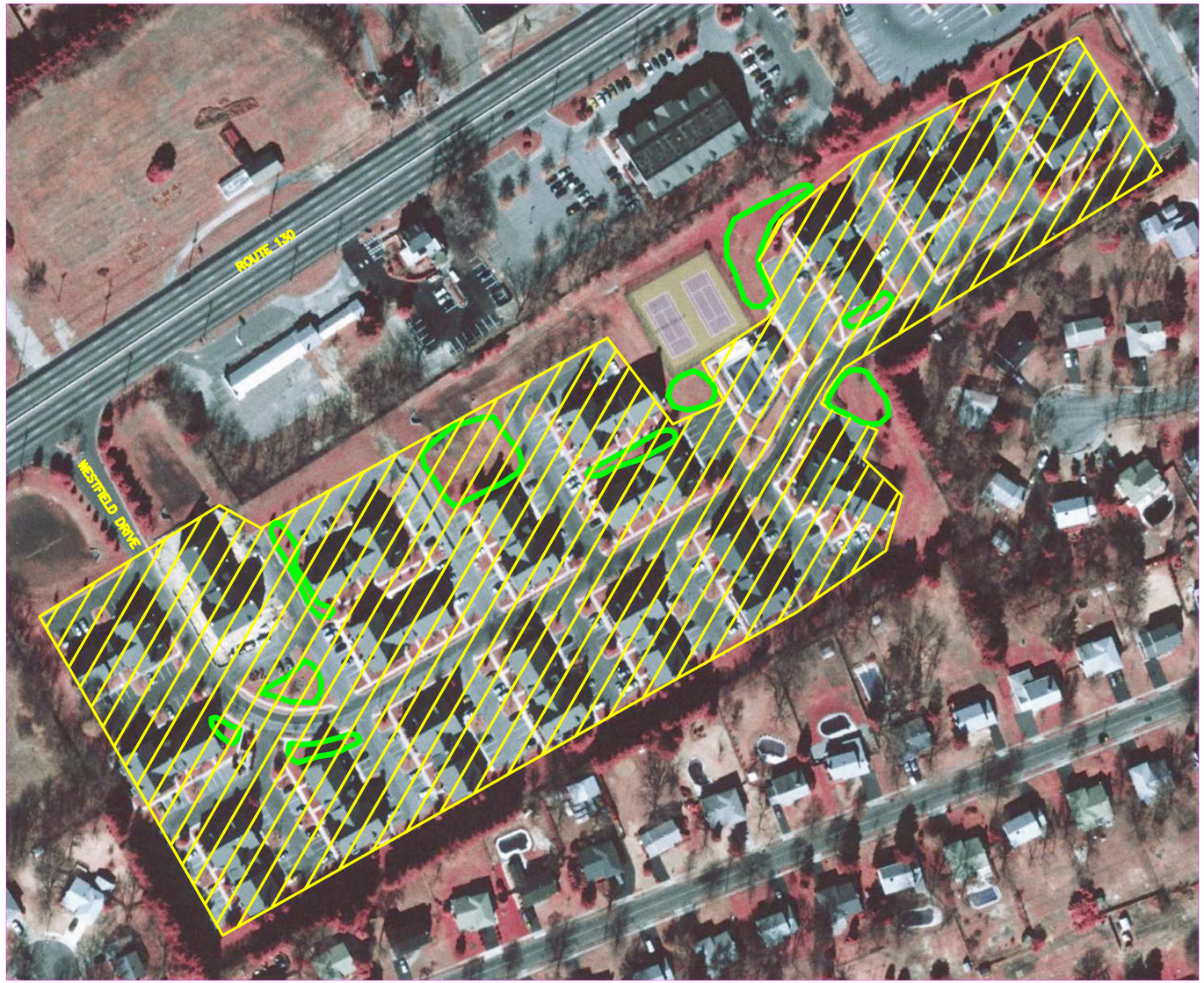

NOTES:

1. THE TARGET AREA OF THIS PROJECT IS A 12 ACRE, HIGH DENSITY RESIDENTIAL AREA. THE UNITS ARE PACKED SO CLOSE TOGETHER FOR THE MODEL CONSTRUCTED TO DETERMINE THE STORMWATER RUNOFF FROM THE SITE WAS DONE BY TREATING THE WHOLE SITE, PERVIOUS AND IMPERVIOUS AS ONE AREA WITH A CURVE NUMBER FOR 93. RCE FEELS THAT VERY LITTLE INFILTRATION WILL OCCUR WITH EVEN THE PERVIOUS SURFACE BECAUSE IT WILL RUNOFF AND QUICKLY HIT IMPERVIOUS SURFACES.

2. THE BIORETENTION SYSTEM DESIGNED FOR THIS SITE IT DESIGNED TO HOLD AND TREAT A NJ WATER QUALITY STORM FOR THE ENTIRE SITE. THIS SITE GENERATES 0.033 AC-FT FOR EACH NJ WATER QUALITY STORM. 90% OF ALL RAIN EVENTS IN NEW JERSEY ARE LESS THAN OR EQUAL TO THE NJ WATER QUALITY STORM. FOR AN ENTIRE YEAR, THIS RAIN GARDEN PROGRAM WILL INFILTRATE ADDITIONAL 12 MILLION GALLONS A YEAR INTO THE GROUNDWATER.

3. USING AERIAL LOADING RATES FOR HIGH DENSITY RESIDENTIAL LAND USE THIS SITE CURRENTLY PRODUCES ABOUT 16.8 LBS OF PHOSPHORUS, 180 LBS OF NITROGEN AND 1680 LBS OF TOTAL SUSPENDED SOLIDS. THE PROPOSED BIORETENTION SYSTEM WILL REMOVE POLLUTANTS THAT ARE PICKED UP BY THE RUNOFF AND CLEAN THE WATER. AFTER THE PROPOSED SYSTEM IS INSTALLED 9.072 LBS, 48.6 LBS AND 1360.8 LBS OF PHOSPHORUS, NITROGEN AND TOTAL SUSPENDED SOLIDS.

5. THE BIORETENTION SYSTEM BASINS WILL BE NO GREATER THAN 1 FOOT DEEP. THE SYSTEM SHOULD EASILY BLEND INTO THE NATURAL SURROUNDINGS OF THE SITE AND IF MAINTAINED PROPERLY WILL ADD MORE NATURAL FEEL TO THE COMPLEX.

LEGEND

SITE OF INTEREST

RAIN GARDEN OUTLINE

SCALE 0 50 100 200

DRAFT

CHRISTOPHER C. OBROPTA, Ph.D., P.E.
PROFESSIONAL ENGINEER - NJ LICENSE # 37532

DESIGNED SPW | CHECKED CCO | APPROVED | DATE

REVISION | DATE

MILESTONE 4 OF REGIONAL STORMWATER MANAGEMENT PLAN FOR THE POMPESTON CREEK

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

HIGH DENSITY RESIDENTIAL INFILTRATION CINNAMINSON,NJ

RAIN GARDEN RETROFIT

RUTGERS New Jersey Agricultural Experiment Station
WATER RESOURCES PROGRAM
14 COLLEGE FARM ROAD
NEW BRUNSWICK, NJ 08901

JOB POMP | CONCEPT SHEET # 12 | BIO 12 | TOTAL 12

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