

<b>PROJECT NAME:</b>	Catch Basin Inserts –Kensington Court	<b>DATE:</b>	12/14/07
<b>ADDRESS/BLOCK &amp; LOT</b>	Bethlehem Township		
<b>FACILITY TYPE:</b>	Existing Curb, Gutter and Detention System	<b>PRIORITY:</b>	>6

**1. ISSUES AND CONCERNS:**

During field evaluations, older residential subdivision developments were identified that use a traditional curb and gutter stormwater system that collects and discharges runoff from the roadways to a stormwater basin for detention purposes and eventual discharge to receiving waters. One development, Kensington Court in Bethlehem Township, was noted as containing an existing basin currently minimally maintained and containing extensive woody vegetation and significant sediment deposition. Sediment primarily consists of grit and debris from roadway surfaces and is limiting effectiveness of the system in regards to meeting its original design function as well as decreasing infiltration capacity and contaminant removal efficiency. The basin is located in an area difficult to access and reach and it is expected that routine maintenance for sediment removal would have a significant impact on existing vegetation.

**2. EXISTING CONDITION BASED ON FIELD EVALUATION:**

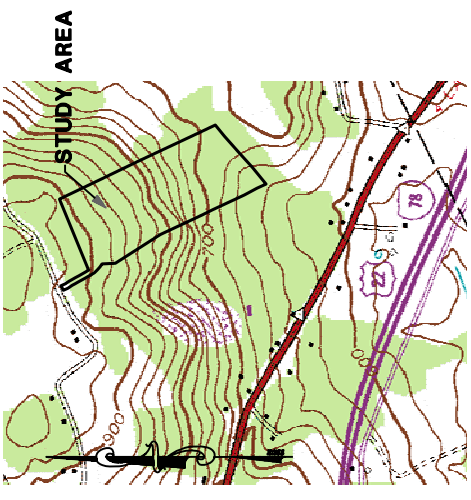
The Kensington Court development is located in the western portion of the watershed in an established residential development. The existing stormwater management basin is approximately 17,000 square feet and the drainage area is estimated at 12 acres. The basin has not been regularly maintained and has grown in with woody vegetation. Some erosion and sediment deposition is evident throughout the basin. Leaf litter exists around both the inlet and outlet structure. A rock-lined bottom serves as a low flow channel providing limited erosion control. An access easement to the basin for maintenance purposes does not appear to be provided in the site design. It is assumed that the basin is owned by the property owners association.

**3. PROPOSED SOLUTIONS:**

To address the issue of sediment deposition in the basins and potential contamination from oil, grease, metals, and PAH's associated with roadways, the plan is recommending that catch basin insert systems be considered. While extensive efforts may be needed to repair and clear the detention basins to reestablish their original design function and ensure protection of public health, safety and welfare, a retrofit to the basins to improve their water quality function is not proposed as part of this plan due to the extensive disturbance and cost associated with the work. As an alternative, the plan proposes to remove sediment from the stormwater conveyance system through catch basin inserts. Catch basin inserts filter stormwater runoff from roadways and driveways as it enters the inlets located along the curbs and traps the material before stormwater flows into the detention system. Sediment is captured near the source and can efficiently be removed from the catch basin on a routine basis minimizing disturbance to surrounding woodlands.





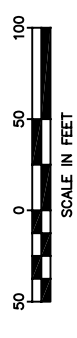


**USGS QUAD LOCATION MAP**  
(BLOOMSBURY, NOT TO SCALE)

**LEGEND**

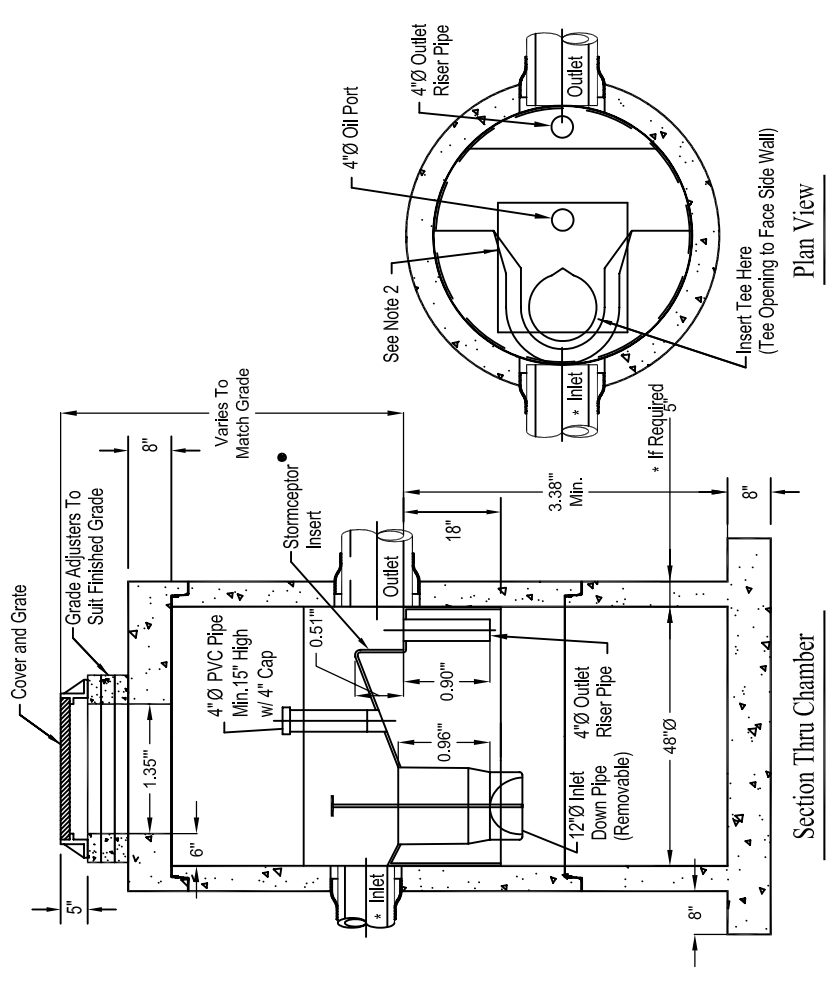
- - - DRAINAGE AREA
- - - STREAM
- SOILS
- ☒ CATCH BASIN INSERT

**SOILS:**  
 GKAPCC - Gladstone & Parker Soils, 8-15% Slopes, extremely stony  
 ParC - Parker Cobble Loam, 3-15% Slopes  
 ParEe - Parker Cobble Loam, 18-40% Slopes, extremely stony



<b>SITE PLAN</b>	
<b>KENSINGTON COURT CATCH BASIN INSERTS</b>	
DATE: DECEMBER 14, 2007	RIGHT OF WAY BETHLEHEM TOWNSHIP HUNTERDON COUNTY, NEW JERSEY
SCALE: 1" = 100'	OMNI ENVIRONMENTAL
SHT. NO. 1 of 2	321 WALL STREET PRINCETON, NJ 08540 PH: (609) 924-4821 FAX: (609) 924-4851

**STC 450i Precast Concrete Stormceptor®**  
(450 U.S. Gallon Capacity)



Notes:

1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Inlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Rinker 027

**STORMCEPTOR DETAIL - RINKER MATERIALS**  
SOURCE: [WWW.RINKERSTORMCEPTOR.COM](http://WWW.RINKERSTORMCEPTOR.COM)

NOTE: BMP DETAILS ARE GENERIC AND ARE NOT MEANT FOR DETAILED BMP DESIGN.

CATCH BASIN INSERTS

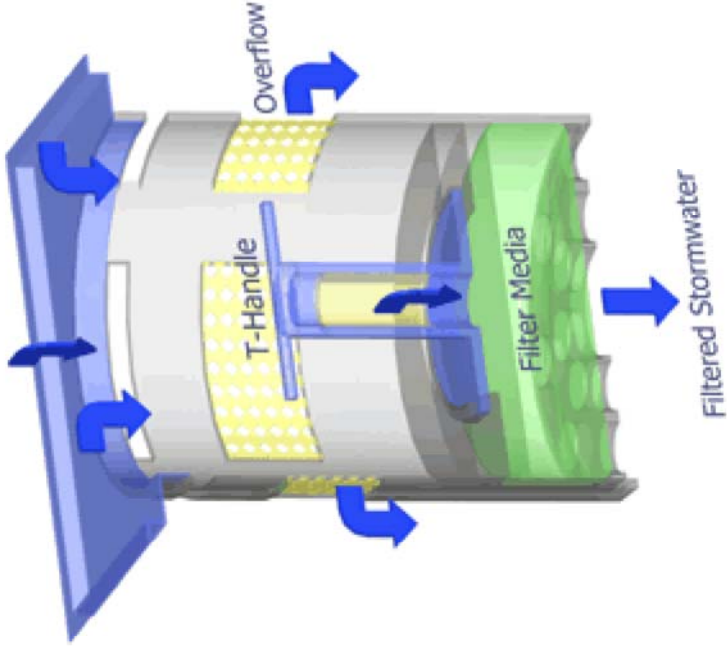
MULHOCKAWAY CREEK  
STORMWATER BMP RETROFITS

DATE: DECEMBER 14, 2007

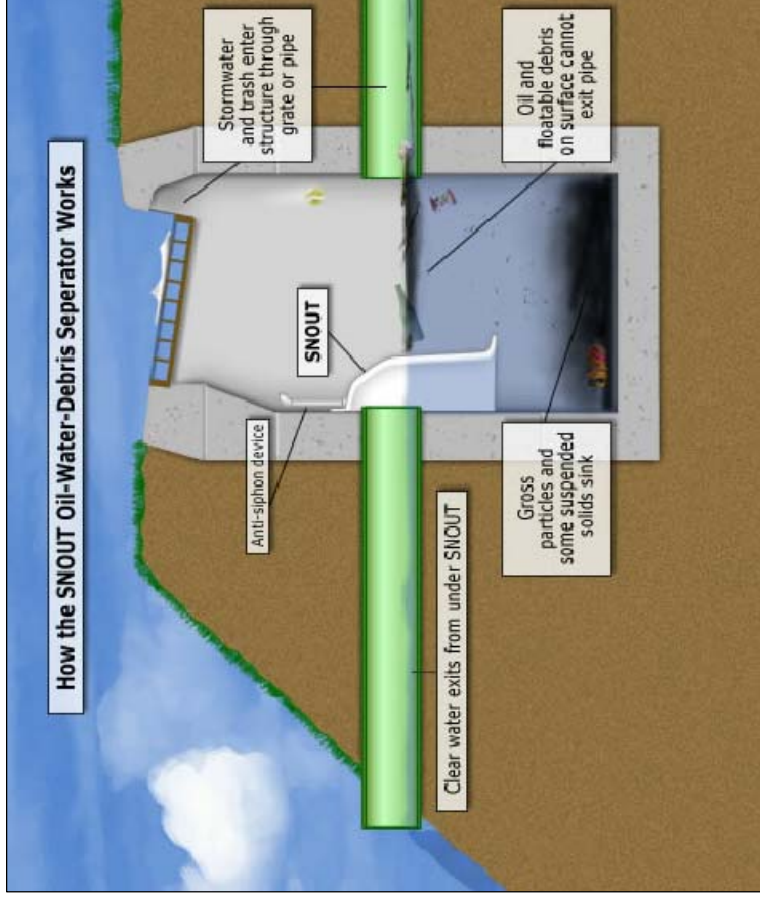
SCALE: NTS

SHT. NO. 1 of 1

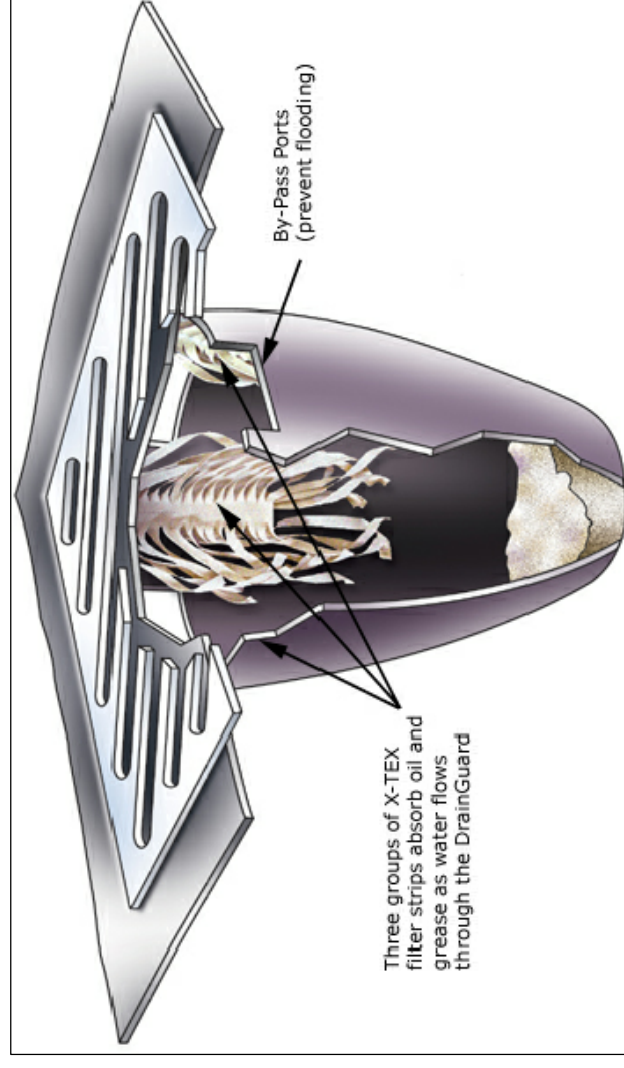
OMNI ENVIRONMENTAL  
321 WALL STREET  
PRINCETON, NJ 08540  
PH: (609) 924-8821  
FAX: (609) 924-8851



**AQUA-GUARD DETAIL - AQUASHIELD, INC.**  
SOURCE: [WWW.AQUASHIELDINC.COM](http://WWW.AQUASHIELDINC.COM)



**SNOUT DETAIL - BEST MANAGEMENT PRODUCTS, INC.**  
SOURCE: [WWW.BESTMP.COM](http://WWW.BESTMP.COM)



**DRAINGUARD DETAIL - ULTRATECH INTERNATIONAL, INC.**  
SOURCE: [WWW.STORMWATER-PRODUCTS.COM](http://WWW.STORMWATER-PRODUCTS.COM)