

Carrolltowne 2A– Gemini Drive Stormwater Management Facility Retrofit

Background:

The Carrolltowne 2A stormwater management facility is located in the South Branch - Patapsco Watershed. The pond was functioning as a dry detention pond for the Carrolltowne subdivision and is located off of Gemini Drive. Due to the facilities failing weir wall and erosion at the storm drain outfalls the County was looking to retrofit this facility. The facility will be brought up to current standards thereby ensuring that the facility is capturing and adequately treating runoff from all of the drainage area which was intended to drain into the facility.

Scope of Work:

The site was analyzed by Carroll Land Service Inc. to determine if the facility was capturing the intended drainage area. The design for the facility included collecting drainage from two storm drain systems, and conveying them to the facility in a non erosive manner. A new embankment with a cut off and core trench was constructed. A concrete weir wall was constructed, and all of the slopes were at least 4:1 to allow efficient machine mowing. The bottom of the facility included a 18” layer of #8 stone with 6” and 8” HDPE type “SP” pipe laying on top to draw any excess water off the surface. The pipe was topped with 18” of a 4:1:1 mixture of sand-soil and green wood chips. Landscaping was planted around adjacent properties which had significant tree removal. Overburden from this site was hauled to the Barnes property and Klapp Farm per the approved Sediment and Erosion Control plans. The facility was designed to meet and exceed all current county and state stormwater management regulations.

Sequence of Construction:

The County contacted the HOA in the Spring of 2012, a community meeting was held on September 18, 2013. The county entered into a license agreement with the HOA allowing the design and survey to be completed. A portion of the parcel was transferred to the County prior to construction. State and Federal permits were obtained for the retrofit of this facility. The facility went out to bid on June of 2013 with bids due back July 17, 2013. The job was awarded to CJ Miller, LLC.

The contractor completed the project in July, but had to wait for a 2” stand of grass to be established before the grading completion certificate was issued. The grading completion certificate was issued on November 25, 2014. The as-built was accepted by the County on December 2, 2014.

Project Details:

Watershed:	South Branch Patapsco
Drainage Area:	87.73 acres
Impervious Surface Treated:	44.75 acres
Costs: Engineering	\$ 36,920.00
Landscaping	\$ 3,507.60
Construction	\$ 866,837.51
Time Frame:	35 Months

Submitted By:

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