**PC-28  INFILTRATION BASIN**


**BMP Objectives**
- ☑ Perimeter Control
- ☑ Slope Protection
- ☑ Borrow and Stockpiles
- ☑ Drainage Areas
- ☑ Sediment Trapping
- ☑ Stream Protection
- ☑ Temporary Stabilizing
- ☑ Permanent Stabilizing

**Definition and Purpose**
An infiltration basin is used to capture and treat a volume of stormwater runoff. This BMP consists of an excavated basin (sometimes rock-filled) in which runoff is collected and percolated to the surrounding soils. Grass channels, filter strips, or forebays can be used to reduce sediments entering the basin. The basin has a flat floor with an underdrain system and an outfall to drain higher volumes of flow.

**Appropriate Applications**
- Can be used to enhance stormwater quality, reduce peak discharges, and recharge groundwater.
- Should not be used on or adjacent to steep slopes and should not be used within fill soils.
- Can be used to pre-treat portions of the water quality volume if used as an upstream stilling basin.
- Typically used for drainage areas less than 5 acres.
- Should only be used with well-drained soils of Hydrologic Soil Groups A or B.
- Should not be installed in highly permeable sand or gravel seams that are directly connected to aquifers.
- Can be directly connected to parking lot drains, roof downspouts, or other inlet structures.

**Design Parameters**
- The bottom of the basin should be 4 feet higher than the seasonal high water table or bedrock.
- Generally, basins are designed to infiltrate retained runoff within a 48-hour period.
• A dense vegetative cover needs to be established over all contributing pervious areas before runoff can be conveyed to the basin.

• Dewatering methods need to be designed in the event of a failure. For the basin, underdrain pipe systems will accommodate excess flows.

• Observations should be made to determine the time needed for water to infiltrate into the soil after a storm event.

Maintenance and Inspection

• Conduct inspections as required by the NPDES permit or contract specifications during construction.

• Periodic inspection and maintenance will be required based on post-construction site conditions.

• Make any repairs necessary to ensure the measure is operating properly.

• Periodic observations should also be made to monitor any decrease in performance.

• Regular maintenance is necessary to remove surface sediment, trash, debris, and leaf litter, and dead or diseased plant material.