



Storm Water Pollution Prevention Low Impact Design Installation Initiative  
Department of Facility Maintenance



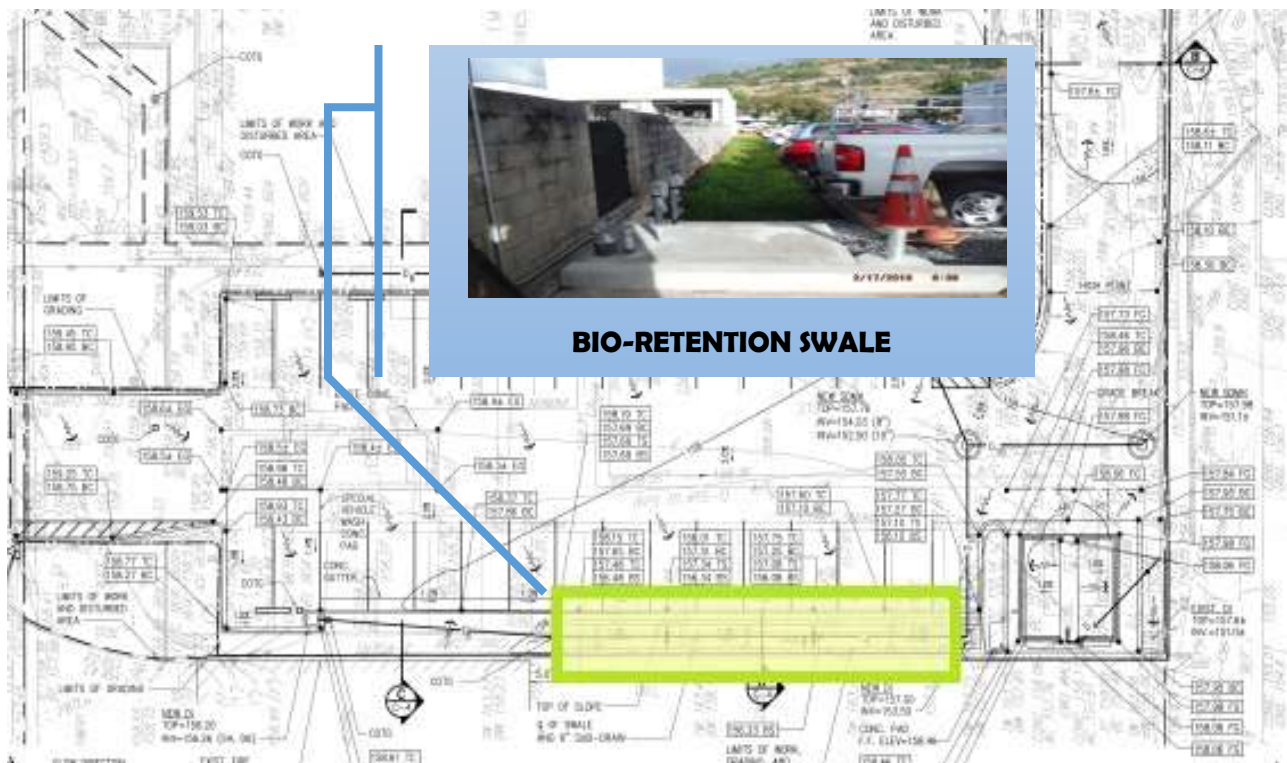
**OWNER:** City and County of Honolulu  
**DESIGNER:** The Limtiaco Consulting Group  
**FACILITY:** Kalihi Police Station  
**ADDRESS:** 1865 Kamehameha IV Road, Honolulu Hawaii 96819  
**PROJECT TITLE:** Honolulu Police Department Police Station NPDES Small MS4 Permit Program Improvements, 3/23/2015  
**TMK:** 1-3-024:006

**REFERENCES:**

1. City and County of Honolulu Stormwater Best Management Practice Manual, New and Redevelopment, July 2014.
2. NPDES Permit for City and County of Honolulu, MS4, Small MS4, Industrial Facilities; HI S000002; effective February 16, 2015; Part D.1.e.(1)(iii) which requires management practices prioritized to favor infiltration, evapotranspiration, or harvesting/reuse follow by treat and release practices.

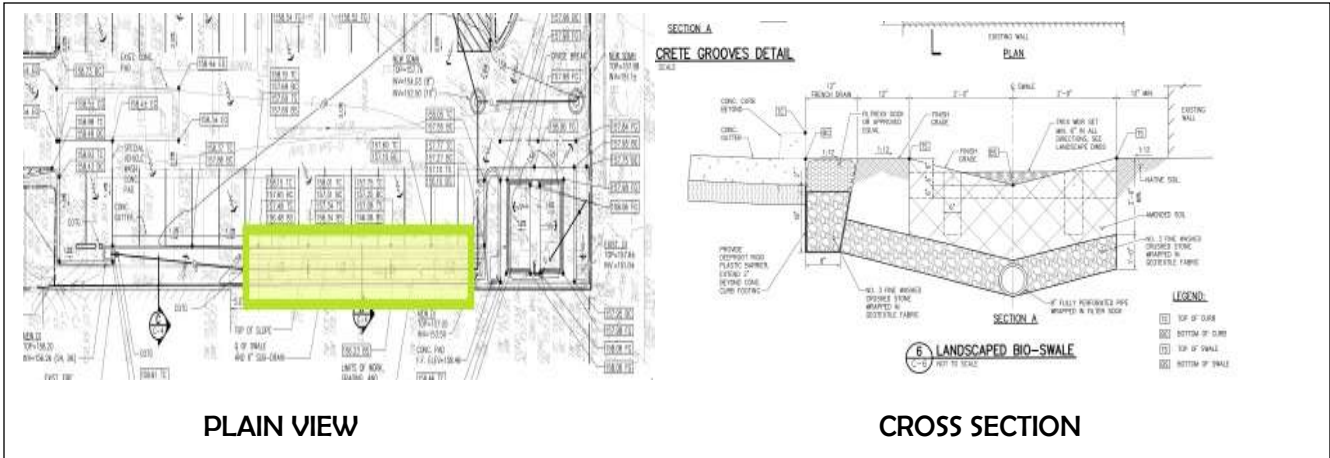
**PROJECT SUMMARY:**

The design was done prior to the City's Stormwater BMP Manual for New and Redevelopment dated July 2014 and the new MS4 permit. However, the project included post construction treatment control BMPs. Treatment control consisted of about 60 lineal feet of bio-retention swale downstream of parking area and supplemented with trench drain filter. For small storm events, runoff from pavements and associated pollutants are retained and infiltrated in the bio-retention swale. In addition, a special vehicle wash area was also built and installed with automatic diversion valves that direct wash water to sewer and rain to the storm drain.





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**City Treatment Control BMP; Bio-Retention Swale:** The bio-retention swale is a stormwater best management practice that uses filtration to treat stormwater runoff. Vegetation, such as shrubs and grasses, are used to remove pollutants from stormwater runoff. The first flush stormwater runoff filters through a planted layer with amended soil. Pollutant removal includes filtration, adsorption to soil particles and biological uptake by plants.