

Denver Botanic Gardens – Mordecai Children’s Garden Green Roof

This site was added to our list of BMP test sites in April 2011. Almost 0.5 acres of this 3-acre garden sits on top of a parking structure. UDFCD, working with Denver Botanic Gardens, constructed a sampling manhole designed to collect runoff from the green roof underdrain. Grade is built up on the north side of the structure and meets the portion of the garden that is a green roof. This is a very active area with wide trails, a faux mountain structure and lots of garden space with varying depths of green roof media.

Along with the sampling manhole (see photo), we also installed a rain gauge and anemometer on the west wall of the garden. When both flow is detected at the underdrain outlet and rain is detected at the rain gauge, an automated sampler starts collecting water from the underdrain and measuring flow. The anemometer allows us to correct rain gauge data to account for losses in measurement associated with wind speed.

UDFCD plans to collect data for a minimum of four years and will report on volume reduction and stormwater quality runoff.

Denver Botanic Gardens provides data on their first [green roof](#), built in November 2007.

Green Roof Water Quality Summary Report

A water quality and load reduction summary for the Denver Botanic Garden green roof



Mordecai Children's Garden Green Roof shortly following construction



Stormsewer Sampling Manhole



Rain gauge and anamometer