E90 Topic Selection Memo James Golden, Yue Li Fall 2004

Water & Pollution Level Measurement System for Green Roof

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The goal of this project is to design and install a water and pollution level measurement system on the green roofs on top of Papazian and the new dorm to test the effectiveness of the implementations of the green roofs. We will design a system that can measure the flow rate of the water off of the roof, the water table level in the artificial soil and the chemical characteristics of the water leaving the roof. All of these measurements will be transmitted digitally to a data-monitoring station and stored for collection at a later time. Once the system is working properly, we will install it on a building without a green roof. We will compare the data collected from the normal roof and green roofs to see if the green roofs are economically sound.