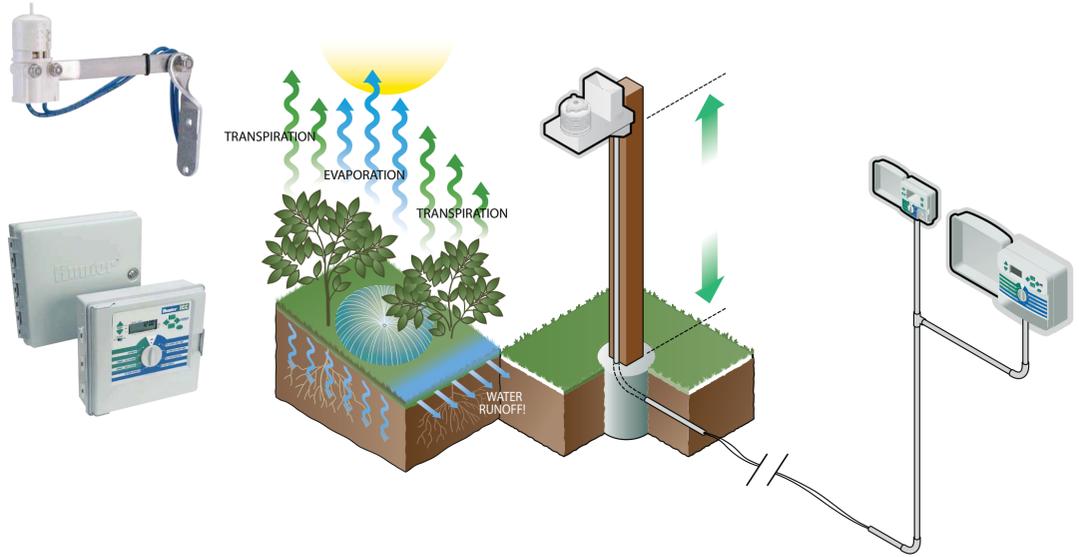


# Rain Sensors for Sprinklers

Often times the most sustainable solutions are simple and inexpensive, particularly in terms of saving water. One particular case to mention is IIT's sprinkler system which can often be seen watering the grass while nature is already doing its job with rain.

Upon contacting facilities inquiring how we can work towards the installation of a rain sensor system for campus we discovered it already on the agenda with the planned installation of the Hunter ET System by April.

We assembled a series of experiments to test sensor accuracy, sensitivity, and to determine the amount of money and water actually saved by the improvement, however due to scheduling conflicts and set-backs we have yet to actually put these experiments in action.

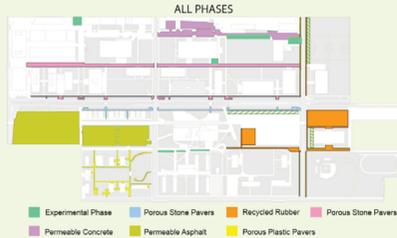


# Experiment

## Permeable Paving

In the advancement of the groundwork put in place by previous semesters of IPRO 311, the permeable paving experiment takes the next step towards the campus-wide implementation of permeable paving by looking at how different permeable paving systems actually behave.

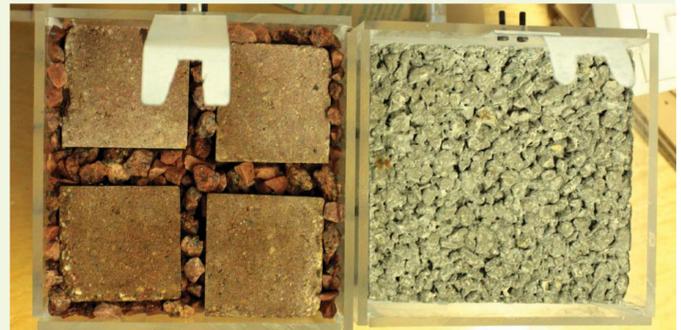
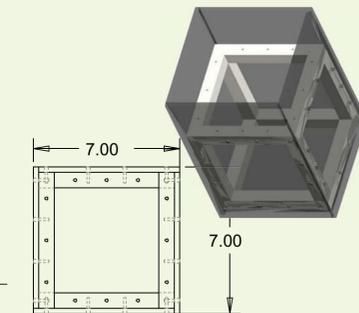
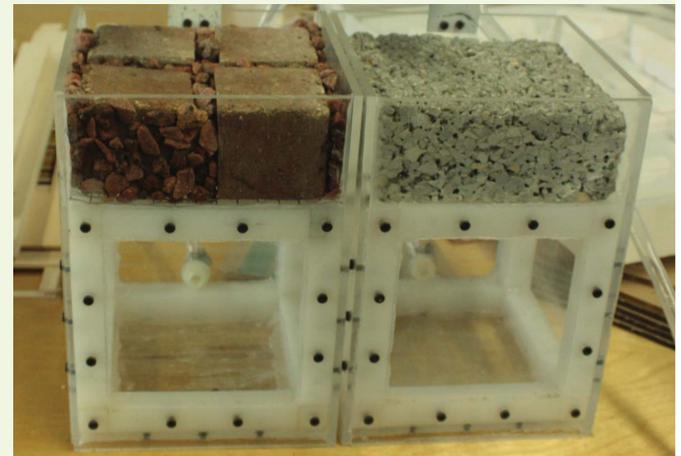
The original proposal by IPRO 311 broke the installation into seven phases, which each phase focused on the installation of a different type of permeable paving.



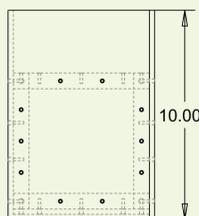
Our experiment process centered on contacting suppliers and manufacturers in order to test which particular products performed best under Chicago's Conditions.

Paving System	Cost per Square Foot (Installed)
Regular Asphalt	\$0.50 to \$1.00 (\$9.50 to \$11.50 when storm water management is included)
Regular Concrete	\$1.00 to \$3.00
Porous Asphalt	\$1.00 to \$5.00
Porous Concrete	\$2.00 to \$6.50
Grass/gravel pavers	\$1.50 to \$5.75
Interlocking Concrete Paving Blocks	\$5.00 to \$10.00
Recycled Rubber Paving	\$6.00 to \$9.00
Plastic porous pavement	\$3.00

\*Dependent on depth of base and site accessibility, per conversation with Maryland Unilock representative (2002)



In order to prepare the samples for demonstration we prepared a identical acrylic display cases.



One system of particular interest to use, the Bio-Aquifer Storm System from Advanced Pavement Technologies



This system takes a slightly different take on permeable paving. Precipitation travels through three layers and is lead into a drainage pipe. This pipe then directs the water to a new desired location, also allowing for stormwater collection.