Green Roof - October 2008

On Saturday, October 25, 2008 several members of the GW community came together to install the Green Roof. Below, is a description of the step by step process on how the roof was installed.

**Set-up**

At 8am students begin to stage supplies outside of 1957 E Street.

Meanwhile, Adele Ashkar, Director of the Sustainable Landscapes Design Program displays the plant design for the roof.
Red section = Red Leafed Sedum.
Yellow section = Green Leafed Sedum that will produce yellow flowers.
Clear section = a mix of several varieties of Sedum.

Installing the Layers of the Green Roof

3” of rigid insulation is placed on top of a clear protective plastic sheet.

The image to the left of the new insulation is the pre-existing insulation and pavers that were already part of the roof.
Root barrier is then installed on top of the insulation.

Filter fabric is placed on top of the root barrier.

6" high pavers are then placed as a border to separate the 'green' portion of the roof from the surrounding 'paved' area.

At this time roof drain access boxes are installed over the top of existing roof drains. Here is an example of one of the roof drain access boxes found on the roof.
Once the border is complete and the access boxes are in place the students begin placing the 1" of drainage medium. This consists of inorganic material that allows for water to gather under the plants. To prevent debris and pieces of the drainage medium from clogging the drains larger pieces of stone are placed around the drainage box. (see image below)

Once 1" of the drainage medium is evenly distributed over the roof, another layer of filter fabric is installed. As you can see in the picture below, students are resourceful at keeping the filter fabric down as the winds begin to pick-up.
Immediately after the 2nd layer of filter fabric is in place, the crane begins to lift the bags of growth medium up to the roof.

The contractor cuts slits into the bottom of these large bags and moves them along the planting area of the roof. This expedites the process greatly and assists in even distribution of the material.

Students use rakes to evenly distribute the 70-90% inorganic growth medium to a depth of 3-4".
Planting

The contractor shows students how to properly removing the Sedum plugs from the containers they were transported in.

Another student shakes the plugs on to the growth medium. Sedum are hardy succulent plants.
The students lay out the design with string and begin to install the appropriate plants to achieve the final design.

This student is planting one of the 4,000 Sedum plugs. Unlike many plants, Sedum like to be planted slightly below the surrounding surface, rather than being slightly elevated.
GW Students, Faculty, Staff and Alumni worked together throughout the day to make sure that the Green Roof was installed in spite of the cold, rain and wind.

It was a long day, but in the end the Green Roof was completed!