BIOSWALE

Bioswales are linear, vegetated ditches which allow for the collection, conveyance, filtration and infiltration of storm water and provide an alternative to storm sewers. Water infiltrated through bioswales helps recharge groundwater, which supplies rivers and streams with a slow, purified seep rather than surges of polluted surface runoff from roofs and other impervious areas.

The Holy Cross Project’s bioswale contains native plants that are low maintenance, adapted to Louisiana’s climate and rainfall patterns, and resistant to local pests and disease. Deep-rooted native plants are preferred to promote water infiltration and reduce maintenance. The Holy Cross bioswale includes:

- Louisiana Iris
- Horse Tail
- Huckleberry Tree
- Green Liriope

RAIN GARDENS

The Holy Cross rain gardens are located between the sidewalk and Andry Street. A rain garden is a garden bed that has a technical engineered subsurface, in the case of the Holy Cross site, a recycled plastic medium used typically for sewage treatment. Storm water flows percolate though the media and are allowed to infiltrate into the surrounding soils or evapotranspire via vegetation.
ROOF GARDEN
There is one roof garden at the Holy Cross Project site, located on the south side of the building. The roof garden absorbs rainwater into the soil and directs excess water into rain cisterns. The south side of the building is exposed to direct sunlight and thus has the most potential for solar heat gain. Roof gardens have the ability to reduce overall heat absorption of the building, which reduces energy consumption. If widely adopted, it is believed that roof gardens could reduce the urban heat island effect which could further decrease smog problems.

RAIN CATCHMENTS
The Holy Cross Visitor Center harvests the rain water that falls on all three roofs. There are two separate vessels – a 55 gallon barrel on the north side of the house and a 1,000 gallon partially-submerged rain cistern under the back porch. Ideally, this collected water would be easily treated and brought into the home for non-potable uses such as toilet flushing or clothes washing. Currently it is illegal in the state of Louisiana to use rainwater indoors; as a result, the water collected at the Visitor Center is used for landscape watering.

DRIVEWAYS
All five houses at the Holy Cross site have driveways that have limited impervious surfaces. The green space in between the tracks allows rainwater to enter the ground with ease, thus reducing the amount of polluted, puddled water.