



In hot weather, the building acts as a large parasol; the glass walls don't quite touch the ground, so air can pass through freely.

RIVER HOUSE

FIRM: Kiss + Cathcart Architects
LOCATION: The Bronx, New York
INNOVATION: Green screen

The "green screen" is a combination of moss on the building and a mesh screen of growing vines.

Inspired by the cooling and filtering effects of the microclimates in a mature forest, the "green screen" being designed by Kiss + Cathcart Architects for a new public building in the Bronx will add a layer of moss to the walls and surround them with a mesh screen of growing vines. The single-story structure in Starlight Park, part of the city's regeneration of a heavily polluted section of the Bronx River, will be a headquarters for the Bronx River Alliance. Working with Paul Mankiewicz, a biologist at the Gaia Institute, Kiss + Cathcart developed a rainwater-collection system that draws from an adjacent parking lot and the building's roof to irrigate the green screen and surrounding landscape. Depending on wind speed and humidity, the screen, which sits about four feet from the wall, could help reduce temperatures by as much as 20° F. With the help of photovoltaics, the screen will help the building meet its expected net-zero energy goal. According to Gregory Kiss, a Kiss + Cathcart partner, it also acts as an instructional feature (its rainwater-collection system includes a small holding tank in the building lobby) and an air filter—especially important in an area with some of the highest asthma rates among children in the country.



Opposite page: Bottom, courtesy Kiss + Cathcart; top, John Gollings/courtesy Grimshaw Architects.
 This page: Top right, Shannon McGrath/courtesy Grimshaw Architects; bottom, courtesy Hopkins Architects