Rebuilding by Design
Urban flood protection infrastructure, New York, NY, USA

Main authors
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Summary by the jury
The BIG U project addresses the vulnerability of the city of New York to coastal flooding, as experienced during the catastrophic impact of Hurricane Sandy in 2012, and proposes a protective ribbon around lower Manhattan. The master plan, to be executed in several phases, uses a raised berm strategically to create a sequence of public spaces along the raised bank. The infrastructural barrier incorporates a range of neighborhood functions and as a result offers multiple design opportunities, fostering local commercial, recreational, and cultural activities.

Appraisal by the jury
To propose a large-scale flood protection system by means of a set of small-scale interventions was viewed by the jury as an ingenious solution that could easily be transferred to other similar conditions – in an age marked by climate change and rising global sea levels. The panel appreciates the project’s conceptual framework proposing to merge the requirements of a “Robert Moses” type of hard infrastructure with the local community-driven sensitivity of “Jane Jacobs”. Here, local neighborhoods actively engage in defining specific programs, functions, and public amenities along a line that acts as a civic infrastructure belonging to the public at large.

Further authors
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Project data
Context: Landscape, urban design and infrastructure
Client: US Department of Housing & Urban Development
Background: New construction and conversion
Planned start: June 2014

Image 1: How can the mandate of large-scale protective infrastructure with meaningful community engagement be obtained? How can the requirements of a “Robert Moses” hard infrastructure combined with the local community-driven sensitivity of “Jane Jacobs” be manifest? BIG U contains a protective ribbon: 21 km (13 mi) of flood protection tailored to each neighborhood and the community it serves.

Image 2: View of BIG U from The Battery in the financial district. Berms are strategically located to protect the infrastructure below and create a protective upland landscape. The plan envisions a new maritime/environmental education facility. Flood protection in this zone protects USD 1.9 billion in potential damages (NPV), including infrastructure beneath. The system has a benefit-cost ratio greater than 5.0.

Silver Award
Image 3: The meandering protective *BIG Bench* creates unique spaces for socializing.

Image 4: The three components make up *BIG U*: *BIG Bench*, *Battery*, and *Berm*.

Image 5: *BIG Bench* flood protection is designed as if it were street furniture: attractive, fun, practical.

Image 6: Abandoned underpass becomes public space, activated by a continuous band of flood defense/amenities.

Image 7: Flip-down flood gates double as an art installation or enclosure for a winter market.

Image 8: Dark parking lots beneath highways become an urban marketplace.

Image 9: *The Berm* increases much-needed park space and connectivity; the highways now hinder pedestrian access.

Image 10: New urban civic amenities add public space and do not fear the elements; they embrace them!

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