

RE-INVENT CITIES
RE-INVENT INFRASTRUCTURES
International Architecture Competition for new urban infrastructures

DYNAMIC TRANSFORMATIONS IN BORDER CONDITIONS **Design Statement**

- >**Location:** Rijnhaven, Nieuwe maas, Kop Van Zuid, Rotterdam, The Netherlands
- >**Size:** 2 km long
- >**Type:** Mixed-use urban landscape and infrastructure
- >**Structure:** Spaceframe, pier structure

>Project description:

Buildable Water

Rijnhaven obsolete port facilities yield nowadays to vertical speculative operations over the docks. The project expects to re-activate this underused perimeter by re-defining a border that has been kept away from earlier urban planning.

The new infrastructure organizes and manages complex systems of flow, movement and exchange. It is flexible and anticipatory. Instead of progressing toward a predetermined state (as master planning strategies), the project provides a framework for evolution within a loose envelope of constraints.

The idea is to turn inside out the intervention area by building the harbour perimeter: the border is an opportunity field.

Ferry Terminal

Some interchange infrastructures like an international ferry terminal enhance the daily activity. The different levels within the infrastructure organize the flows and reduce the distances between the areas as they allow a simultaneous use of the boarding and landing ways. The "waiting gardens" work as temporary waiting areas for passengers who travel with their own vehicle.

A wide range of events may also occur over this structure, from traditional festivities to City Parties. All Rotterdam events model the new urban structure and transform it in an active area 365 days a year.

Structure

The project consists of a honeycomb structure that leans on a piles system. The central aim of the research is the development of a material system with a high degree of integration between its design and performance. The project develops a honeycomb system that is able to adapt to diverse performance requirements through the modulation of the system's inherent geometric and material parameters while remaining within the limits of available production technologies.