DETROIT WATERFRONT DISTRICT

Brief

This is a story that few people are happy to tell. It is a story that shining downtown skyscrapers hide. However, the deep wounds on the huge body of Detroit prove it happened and still endures: countless battered dwellings, empty streets and abandoned buildings scar the city.

It is difficult to tell how “the arsenal of democracy” – Detroit grew to be known as this in the early 1940s- transformed into the largest modern-day ghost city. Yet, history is full of contrasts. The pendulum of time often changes its direction. Time and again, where a void is created an opportunity arises.

Indeed, over the last years strong winds of change have been whipping the city. They have blown the fog of the past away and dispersed the mist of decay stifling Detroit’s development for decades. As a result, many of the voids of the city – the wounds generated by depopulation and economic crisis- turned into new epicenters of urban regeneration. They became valuable canvas where to paint new masterpieces of contemporary architecture.

Detroit Waterfront District precisely focuses on the most fascinating canvas of all: the urban void overlooking the river amid downtown skyscrapers. Detroit Waterfront District is the competition promoted by Manni Group in collaboration with Sterling Group to design the future leisure and entertainment heart of the city of Detroit.

Architects will deal with the area where stood the Joe Louis Arena beside the place where- according to tradition- Detroit’s founding fathers landed. Participants will have the opportunity to design a building complex to redefine the city skyline. They will generate superb architecture masterpieces to become the symbol of the revival of one of the most iconic and controversial cities of the history of the United States of America.

Yac thanks all the architects who will take part in this challenge.
Mentions

TEAM
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MEMBERS
ibrahim joharji

TEAM
Comeaux LeFevre
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Rachel LeFevre, Page Comeaux

Finalists

TEAM
Chenxi
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Chenxi Wang, Tao Dong, Yunchen Lei, Rongpeng He

TEAM
Slav Dimitrov
MEMBERS
Slav Dimitrov

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MADRAS
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Kalpita M, Nandita R
In order to redefine the skyline of Detroit, as well to give the building flexible function, new structural proposals are being developed. The structure of the three vertical bodies is proposed to be consisting of concrete core surrounded by steel framing. Construction is performed from bottom to top, with the core driving all the vertical, through to the ground. Steel vertical trusses are attached to the core, with each cantilever representing primary load and live loads and transferring them to the core. This way each second floor is column free. Each cantilever is 11 stories high. The lowermost cantilever is the most the loads are affected by their anchor points.

In order to reduce loads and reduce the weight of the vertical trusses, megacolumns are attached to the outer surface of each inner facade, combining them together and pulling them up. On the very top of the structure an outrigger truss is responsible to pull the megacolumns and transfer the loads to the core. The outrigger truss is performed by diagonals, as they give lots of stability to the structure. The last floor is not planned to be occupied. The twist of the building in reducing the additional aerodynamic and resistance to wind loads is 6 degrees per floor. Due to the twist the megacolumns are rotating around the structure, giving more stability to horizontal loads.

Three towers for 3 functions

Levitation representing the new revival

Picturesque approach

Hotel entrance

Floor plan office

Floor plan residential

Floor plan hotel