
**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**

ibrahim nawaf joharji

**MEMBERS**

ibrahim joharji

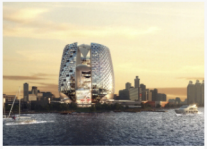
**TEAM**

Comeaux LeFevre

**MEMBERS**

Rachel LeFevre, Page Comeaux

# Finalists



**TEAM**

Chenxi

**MEMBERS**

Chenxi Wang, Tao Dong, Yunchen Lei, Rongpeng He

**TEAM**

Slav Dimitrov

**MEMBERS**

Slav Dimitrov

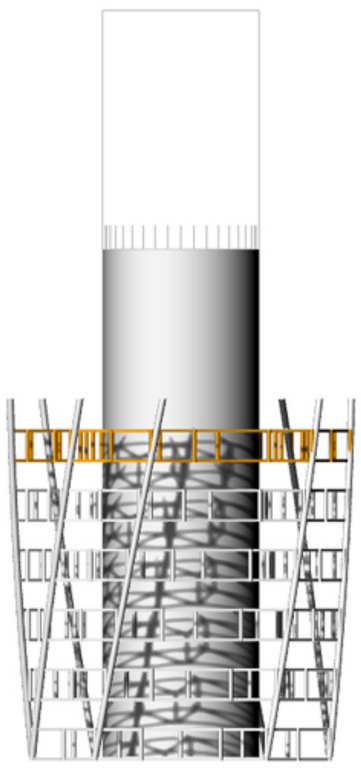
**TEAM**

MADRAS

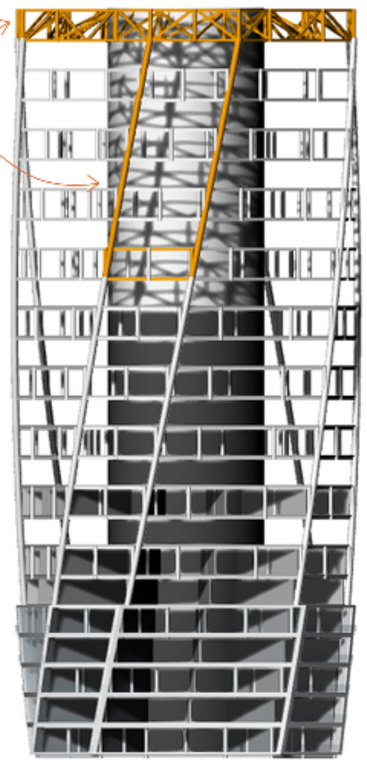
**MEMBERS**

Kalpita M, Nandita R

# REDEFINE
## THE SKYLINE



In order to redefine the skyline of Detroit, as well to give the buildings flexible functions, some 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 perfomed from bottom to top, with the core bringing all the vertical forces to the ground. Steel **vierendeel trusses** are attached to the core, with each cantilever bearing own (dead) loads and live loads and transfers them to the core. This way **each second floor is column free**. Each cantilever is 8-13m. The longest the cantilever is, the more the loads are affected on its ancor points.

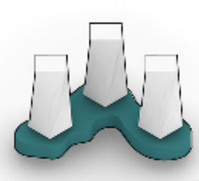


In order to reduce loads and reduce the weight of the vierendel trusses, **megacolumns** are attatched to the outer surface of each (near facade), combining them together and pulling them up. On the very top of the structure an **outrigger truss** is responsible to pull the megacolumns and transfer the loads to the core. The outriger 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 buildings is giving them additional aerodinamic and resistance to wind loads (2 degrees per floor). Due to the twist the megacolumns are rotating around the structure, giving more stability to horizontal loads.

**THREE**
towers for
3 founders

**UNITING**
citizens through
passages

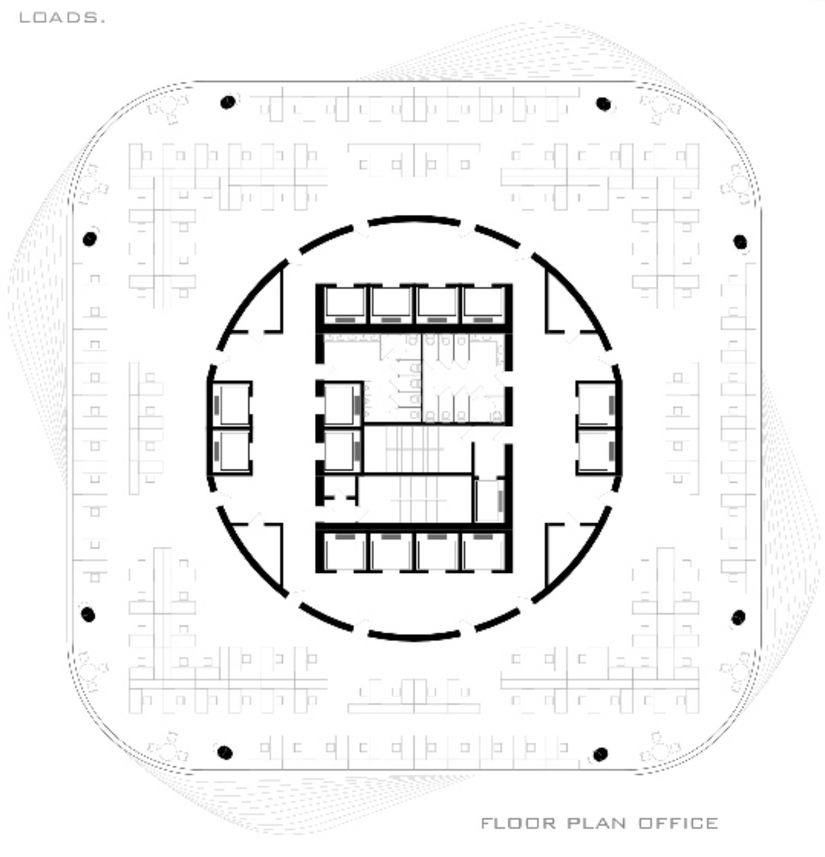
**LEVITATION**
representing the
new revival



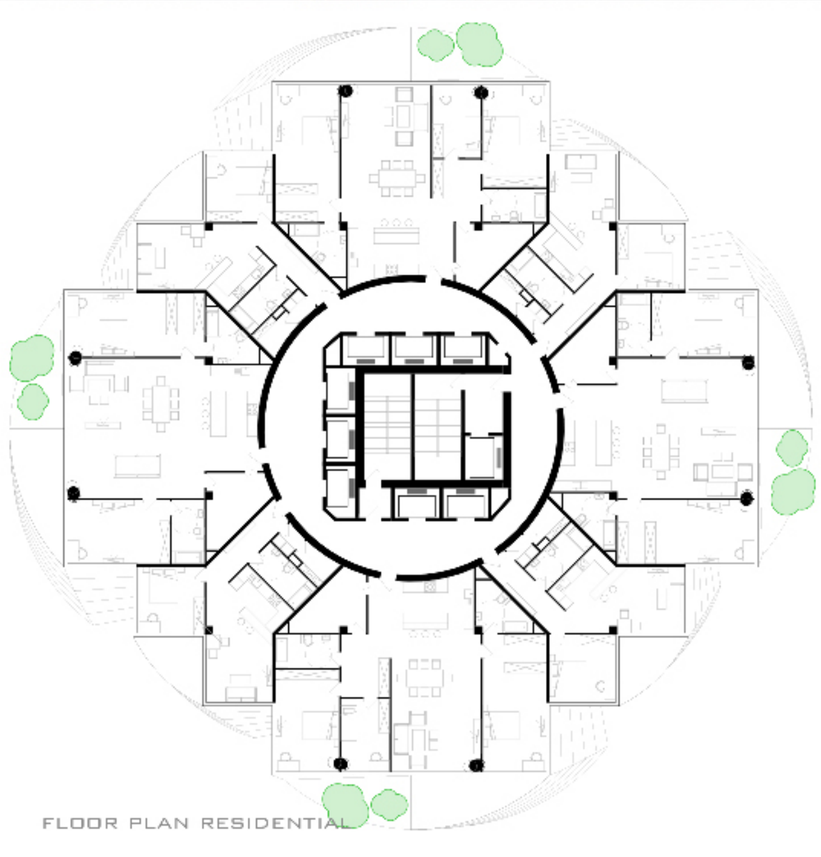
**PICTURESQUE**
forms,
oblique arppoach



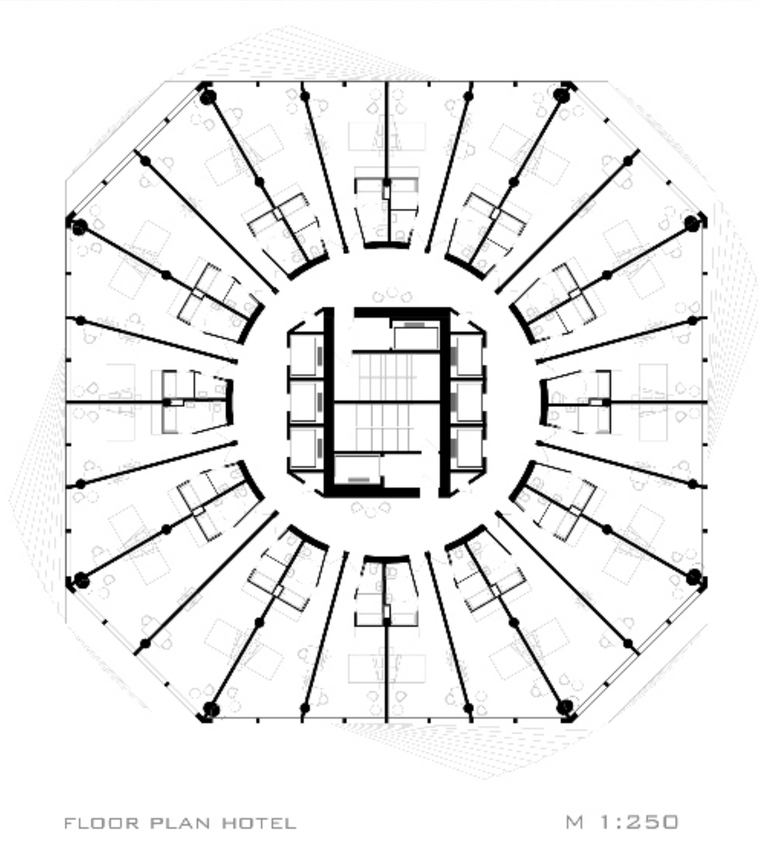
HOTEL ENTRANCE



FLOOR PLAN OFFICE



FLOOR PLAN RESIDENTIAL



FLOOR PLAN HOTEL

M 1:250

PERSPEKTIVE