Rotterdam Green House

4NCZGL

THE CITY
Rotterdam is one of the most important capital of contemporary architecture is Europe. Long row of emblematic buildings were born here, determining the new directions of creative art. Stunning structures were designed here by the most remarkable architect's and architect fems. They created during the last few decades revolutionary living spaces, awe inspiring commercial buildings, iconic bridge, state of the art terrestrial, gigantic skyscraper, ultra modern urban layout, and many more.

THE BINNENROTTE
The Binnenrotte is a lively and characteristic square situated in the centre of Rotterdam between Plompenburg and the Blaak and becomes a hotspot when the city market is held. The square is well connected to it's surroundings and a cosmopolitan area featuring hypermodern architecture like the Markthal. The square has been completely rebuilt and reenovated for two years with lots of greenery, paving contrast and waterfall. It is also a pleasant place when there is no market.

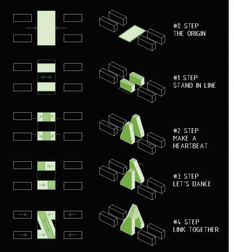
URBAN CONTEXT
The new Green House building will create a new volumes of the square: the building will block the urban space from the north, and the square will be visually framed by walls on each side. The longitudinal axis of the Binnenrotte will have two endpoints: the Blaak Station and the new Green House.

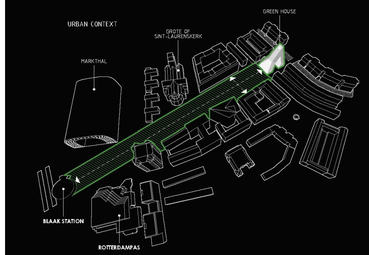
ARCHITECTURAL INSPIRATION
Based on Rotterdam's rich contemporary heritage and the numerous emblematic modern buidings at the close neighbourhood of the design site (namely the Blaak Station, Markthal, Rotterdam Library, the Cube Houses, „The Pencil" Blaak Tower, The City Building) it was essential for us that the new Green House Condominium has to orient to the building named above.

ARCHITECTURAL CONCEPT
The new Rotterdam Green House Condominium at the Binnenrotte has to be a contemporary architectural sign. The building has to be stunning, attractive and also reflective to the complex urban ambience. We formed a simple, geometric, sculpture-like building mass which is easily recognizable but shows interesting views from different angles at the same time. Initially we had a simple regular prism which was formed with energetic cuttings according to the flow or impact of the neighborhood.

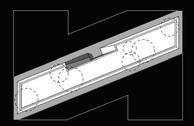
SEQUENCES OF THE FLOW

3D MASS MOVEMENTS

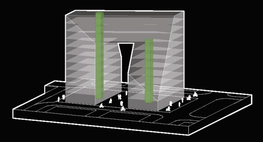




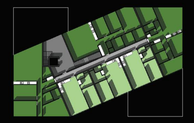
ROOFGARDEN



VERTICAL CIRCULATION

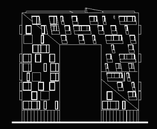


9-10-11 FLOOR PLAN

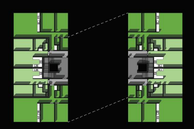


FRONT ELEVATION (x2)

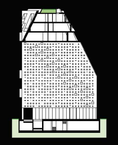
SIDE ELEVATION (x2)



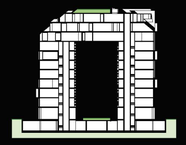
2-8 FLOOR PLAN



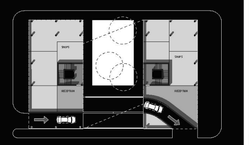
CROSS ELEVATION

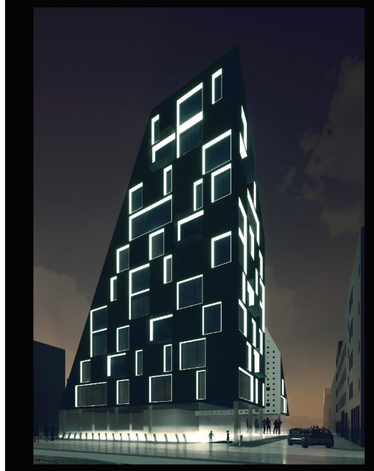


LONGITUDINAL SECTION

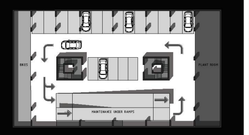


GROUND FLOOR PLAN





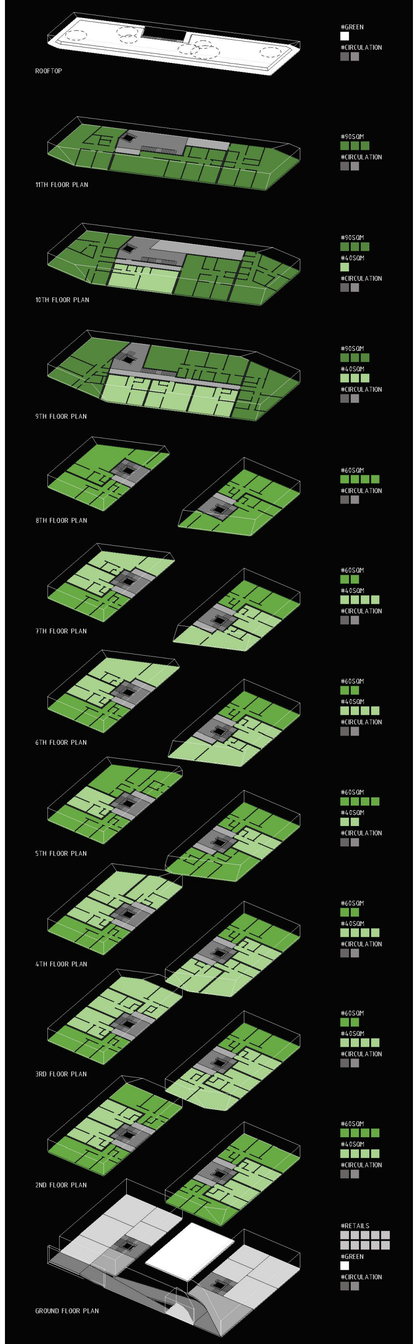
GARAGE FLOOR PLAN



FUNCTIONAL ANALYSIS
The new Green House Condominium is a residential building with typically three types of apartments at the 2nd-11th floor. Most of the apartments have balcony facing to the Eastern or Western side. There are two vertical core with elevators and staircase, in both legs of the building. The northern elevator reach the rooftop, the southern elevator lasts until the 8th floor. There are two, spacious reception halls, both directly connecting to the vertical circulation cores at the ground floor level. Ten shop units can be reented in various size at the ground floor. Each shops have direct link to the street and have proper display surface. Outdoor garden area at the entrance level located between the building legs ensure pleasant environment for also the residentials and the costumers. There is a lush roof garden at the top floor exclusively reserved for the residentials of the condominium. Spectacular view and full panorama towards the city is provided from the top.
There are 91 parking places, 100 pcs bicycle storage, M&E and maintenance areas at the garage floor.The traffic is led in one direction, we planned a scissor-like ramp system. The entry of the vehicles to the garage take place from the Lombardstraat street, the exit is towards the western side to Binnenrotte street.

MATERIALS
Refer to the old Binnenrotte character we selected brick painted green as the main coverage of the new Green House. The cutted elevations receive bright and shiny aluminium sheet cover. The balcony parapet is made from white frosted glass.

LOW CARBON FOOTPRINT
We are strongly comitted using environmentally friendly building technologies and design sustainable buildings. Our attention was to minimize the carbon footprint of the building using innovative CLT (Cross Laminated Timber) panels for the construction. It is a proven technology that can replace concrete in large building application. It is easy to install, fire and earthquake resistant. We also care of proper insulation, natural lighting and shading, source and procurement of building materials, transportation, waste generation, proper disposal, decrease the need for energy use.



BASIC DATAS

Function	Unit	Pcs		GFA	Subtotal
Apartments (2nd - 11th floor)	~40 sqm	30		1201 sqm	
	~60 sqm	20		1650 sqm	
	~90 sqm	9		1117 sqm	
Total apartments:			59		4468 sqm
Retails (Ground floor)	~45 sqm	5		228 sqm	
	~75 sqm	4		192 sqm	
	~15 sqm	1		16 sqm	
Total retails:			10		346 sqm
Garage (-1 floor)	Parking	79		233 sqm	
	Bikes	100		104 sqm	
	Plant room	1		150 sqm	
	Maintenance	2		101 sqm	
Total garage:					588 sqm
Circulation (incl. elevators, stairs, ramps, other areas)					1762 sqm
Green areas (ground floor & rooftop)	Courtyard			134 sqm	
	Roof garden			367 sqm	
Total green areas:					501 sqm
TOTAL GROSS FLOOR AREA					7665 sqm