Merging Borders
Rijndam Rehabilitation and Wellness Center
Assignment

Problem statement

Motivation and concept

Site

Context

Design proposal
- Site
- Building Contents
  - Organization
- Facades and detailings
- Interiors and fittings
Please check out the sketch book and walk through the building
Rijndam rehabilitation and wellness center
the new Rijndam rehabilitation center on Westersingel Rotterdam
Is physical restoration the only goal in rehabilitation?
The research findings

The important part of a patient's physical rehabilitation life are the connections in different levels at different purposes.

**Family:**
Mental support and post-rehab care

**Other rehab patients:**
In every day activities
Sharing experiences

**Public:**
Rehabilitation techniques
Education
Social awareness

Physical rehabilitation is not about an individual, but it is a public awareness and appreciation.
The social value of Rijndam rehabilitation center

**Urban level** - possibilities of public integration
**Organization** - atmosphere and interaction
The current building with an introvert image
The building cut off the view to the park behind. The only entrance is through the service area.
The organization of space that limit the interaction between patients of different injuries
The organization of the corridor that block the light and view from the outside. Within the corridor spaces and common area, the users lost their sense of place.
motivation

this rehabilitation center will ..........

- Create the new connection to the society with the design that embraces various environmental aspects of the surroundings - physical and activities-wise.
- become a built environment that is environmental responsive. The site planning that improves the physical atmosphere of the area.
- Break the concept of the enclosed and private facility by introducing the “openness” that is tailor-made for this complex.
- encourage the patients and other rehab personnel to enjoy the nature and environment by emphasize the idea of nature healing.
- become an educational facility for the people outside whose family member or friend is coping with the injuries.
- become a facility that promotes health and wellness.
How to represent the “new openness” of a rehabilitation center through architecture?
How can the environment becomes parts of the center?
Design Proposal
The site
10-storey residential building

The pump station

National monument

Maasdam building
Childcare facilities 0-13 yr

Multi-storey housing (split-level typology)
Designed by Bakema

Westersingel rowhouses
Some are national monument

Museumpark
A park with art pieces

Westzeedijk

10-storey residential building

Tree lines

Maasdam building
Childcare facilities 0-13 yr

The pump station
National monument
breaking down/ opening up
creating the mass
Courtyard typology expresses a protective feeling
creating different courtyards, creating different level of publicness
height differences in responses to its surrounding
the series of voids to create the connection between the two sides
the solid form
large plaza with a pocket park

the balcony that reduce that break down the mass and let the building yearn for the ground
the park that runs through the building to the other side of the area.
the entrance behind the pumpstation, visitors enter the building through this transition zone between park and building
The opening in the building becomes a background that contains both rehab and park activities, showing the effort of merging the rehab with its surroundings.
The building fragments itself down as it gets closer to the park
organization of the floor plan
organizing elements: courtyard with different function

public courtyard that brings park into the building

collective courtyard that connect main activities in the building together.
connection from the wellness center to the collective court
Terraces are used as a transition to the indoor and outdoor as well as breaking down the massive building.
shared collective spaces distributed around the facility
“A sharing facility”
centralized function
<table>
<thead>
<tr>
<th>Treatment and wellness</th>
<th>Collective functions for public awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool facility</td>
<td>education center</td>
</tr>
<tr>
<td>massage</td>
<td>cafe</td>
</tr>
<tr>
<td>sport hall</td>
<td>conference room</td>
</tr>
<tr>
<td>Gym</td>
<td></td>
</tr>
</tbody>
</table>
Wellness center
Public awareness and Education Center
Offices and treatments
Children ward and Limited mobility patients
Wards for mobilitized patients
Public awareness and Education Center
Wellness center
Health awareness
Wellness center, the park and the public
rehabilitation and education
open up the close-off facility while keep the functions running
the conference rooms can function separately
collective courtyard for patients with connection to the wellness center
be secluded yet included

elevated open space overlooking public//collective areas
common space used by patients in the rehab located in the center where two rings are merged
functions inspired rhythm on the facade
composition of functions that maximize the transparent surface
a wall in a park
blending in with the surroundings
Emphasizing the corner openings to the courtyard
atmosphere when comparing to the existing situation
Merging the facade
Rhythms in transition
transition of facade from the public courtyard to the collective courtyard

around the courtyard

facade facing the street and the park

8100mm

public courtyard

collective courtyard

transition of facade from the public courtyard to the collective courtyard
more solid on the exterior to emphasize the voids and for the protective feeling
Windows are put close to the exterior brick facade to create the solidity.
the same system of facade is applied throughout the building. Different rhythms were given to the different courtyards. This gives the courtyards their own atmosphere.
Transition of facades and the greenspace they are attached to
layer of brick transition of solid and transparency
corners are more transparent. timber is used to relate the areas to the courtyards.
Bringing outside to the inside
Interior and the fittings
bringing material from the outside to the inside on the corridor space, remove ducts from the ceiling. Place the outlets on the wall of the adjacent space.
112.5mm paving brick, ceramic coating leveling sand
0.2mm polythene separating layer
140mm EPS thermal insulation
bitumen separating layer
500mm concrete load bearing wall

112.5mm paving brick, ceramic coating leveling sand
30mm mortar bed
90mm underfloor heating screed
0.2mm polythene separating layer
30mm sound insulation
30mm thermal insulation
10mm welded bitumen sheeting
200mm concrete slab
25mm cedar floor mat
70mm raised floor for drainage
separating layer
30mm wooden board
separating layer
180mm EPS thermal insulation
elastomer asphalt
150mm concrete deck

timber blade louver
VIN ceiling concealed duct unit
800mm concrete beam
VRV and Radiant floor heating
placing the outlet above the openings to reduce the air drafts
conclusion
the openness
A rehabilitation center that integrate different parts of its environment by embracing various urban components into the facility.

A rehabilitation center that concerns the development of rehabilitation by opening itself up to public awareness.
Merging the borders of
urban area and park
private and public
exterior and interior
thank you