

29 maart 2011

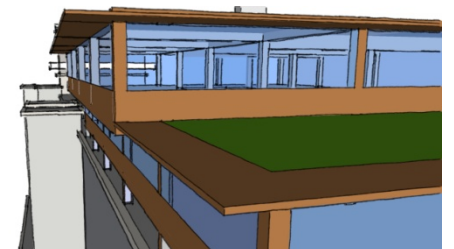
Presentatie Integrated Building Technology

Stan van Dijck
Pim van de Bunt

0751895
0750890

Final Assignment

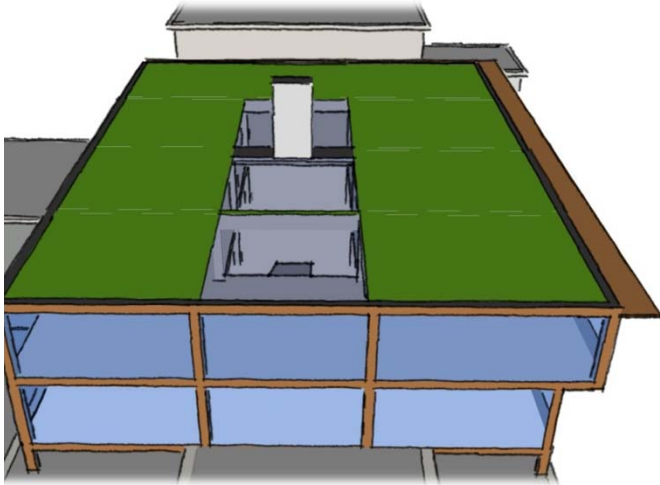
Het Klokgebouw, Eindhoven



Overview of the Design

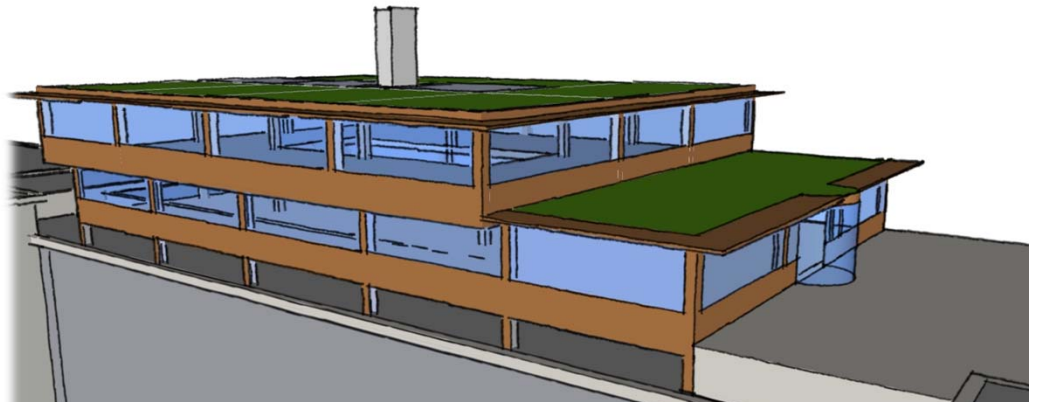
On top of the Klokgebouw

Entrance by a push tourniquet: *No electricity, heat buffer*



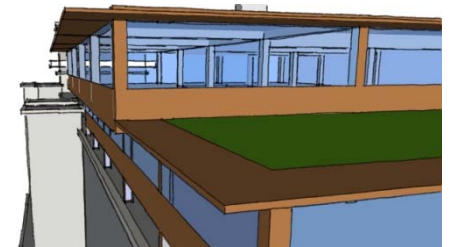
Atrium: *Daylight, central plaza, natural ventilation*

Sun blocked on the southeast and southwest facade



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Relating to the Environment

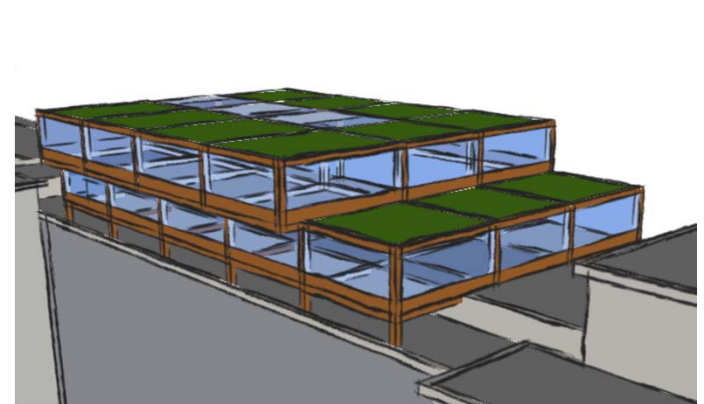
Near public transport facilities



Optimal building situation



Different use of material than surroundings



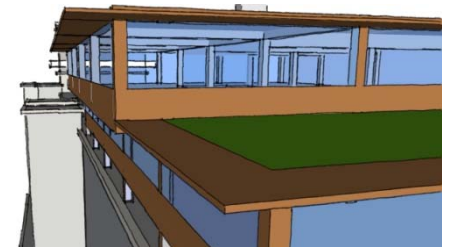
NW facade: not sun active

NE facade: low sun activity

SW and SE facade: Intense sun activity

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Defining Space

Flexible building with a column structure.

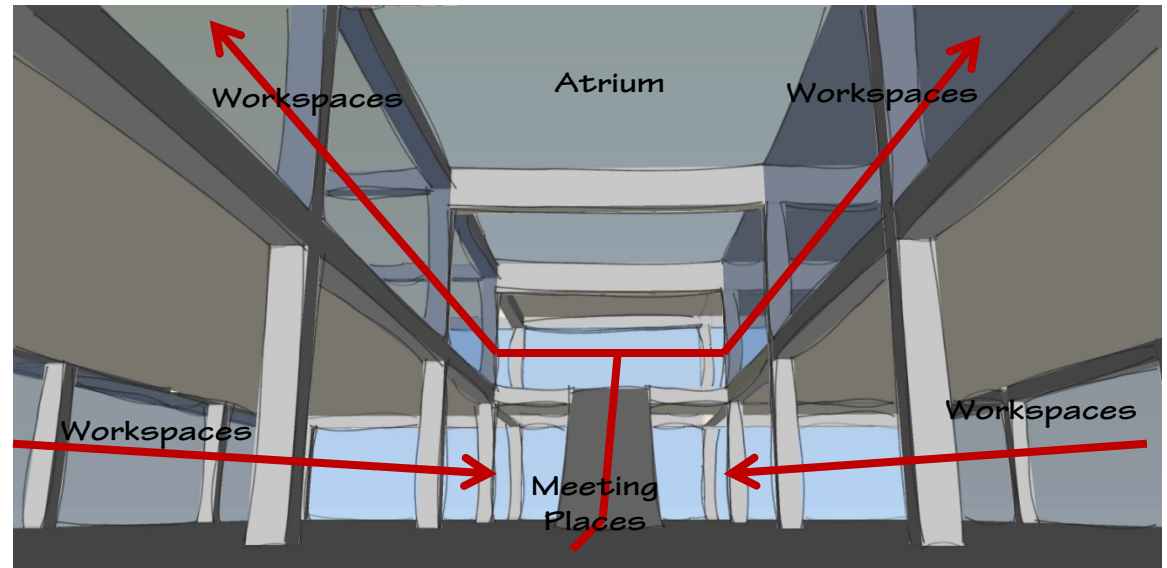
Different functions :

School

Dwelling

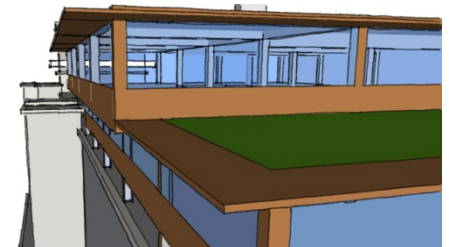
Sports hall

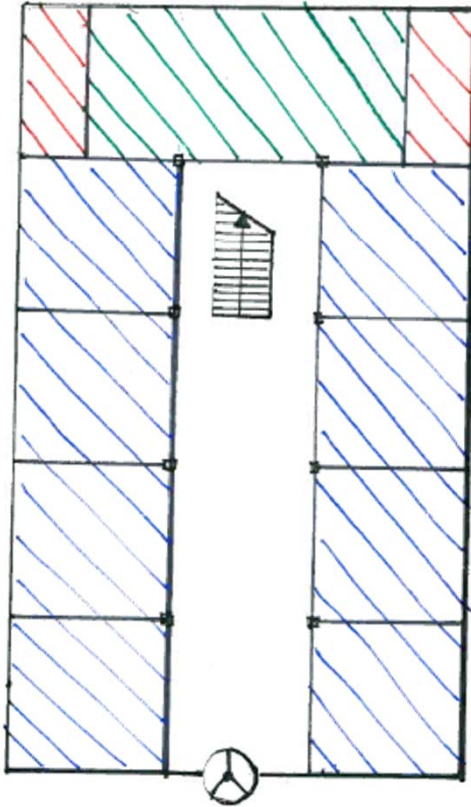
Office building



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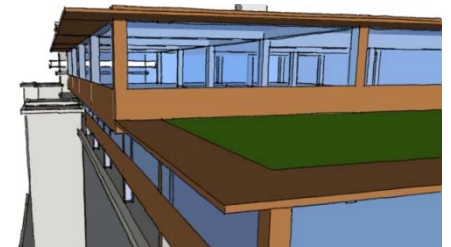
Defining Space

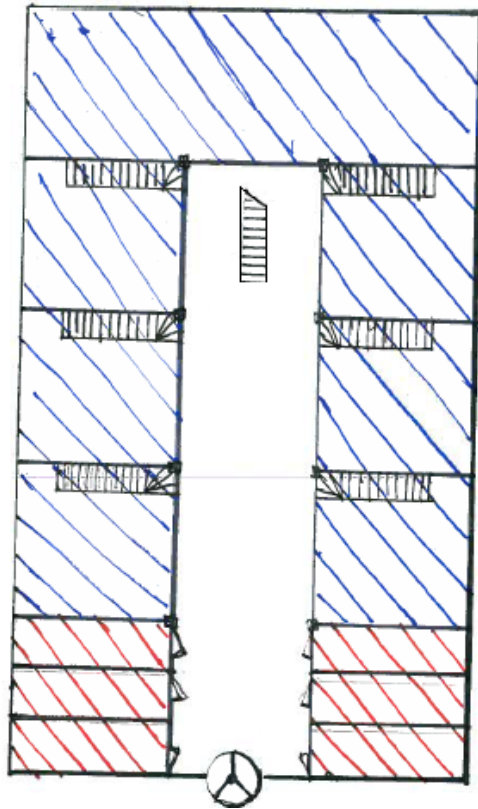
School

- = Toilets
- = Classrooms
- = Canteen
- = Atrium / Meeting place

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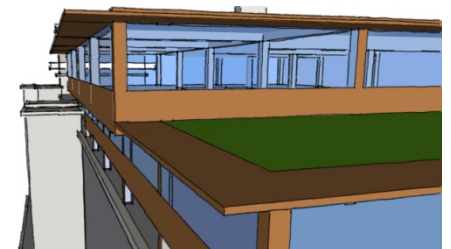
Defining Space

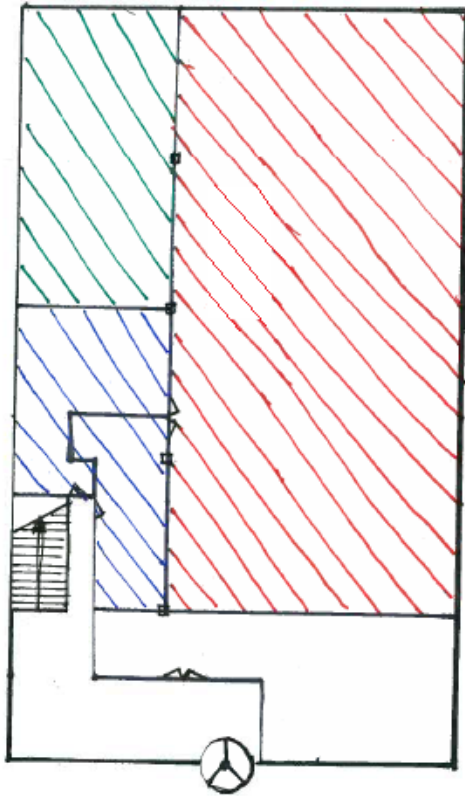
Dwelling

- = Storage
- = Apartments
- = Atrium/ Balcony

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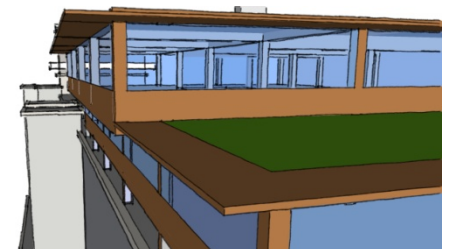
Defining Space

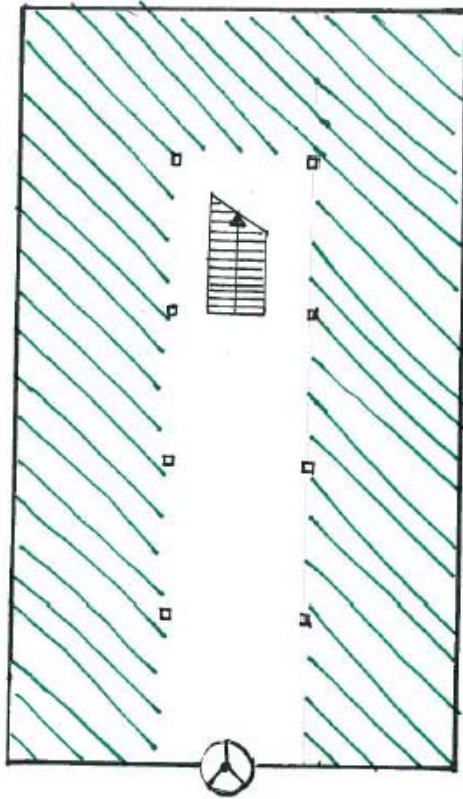
Sports hall

- = Sportshall
- = Dressing rooms
- = Storage
- = Restaurant / Entrance

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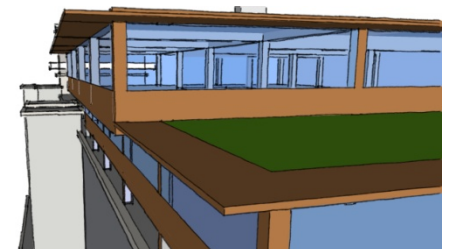
Defining Space

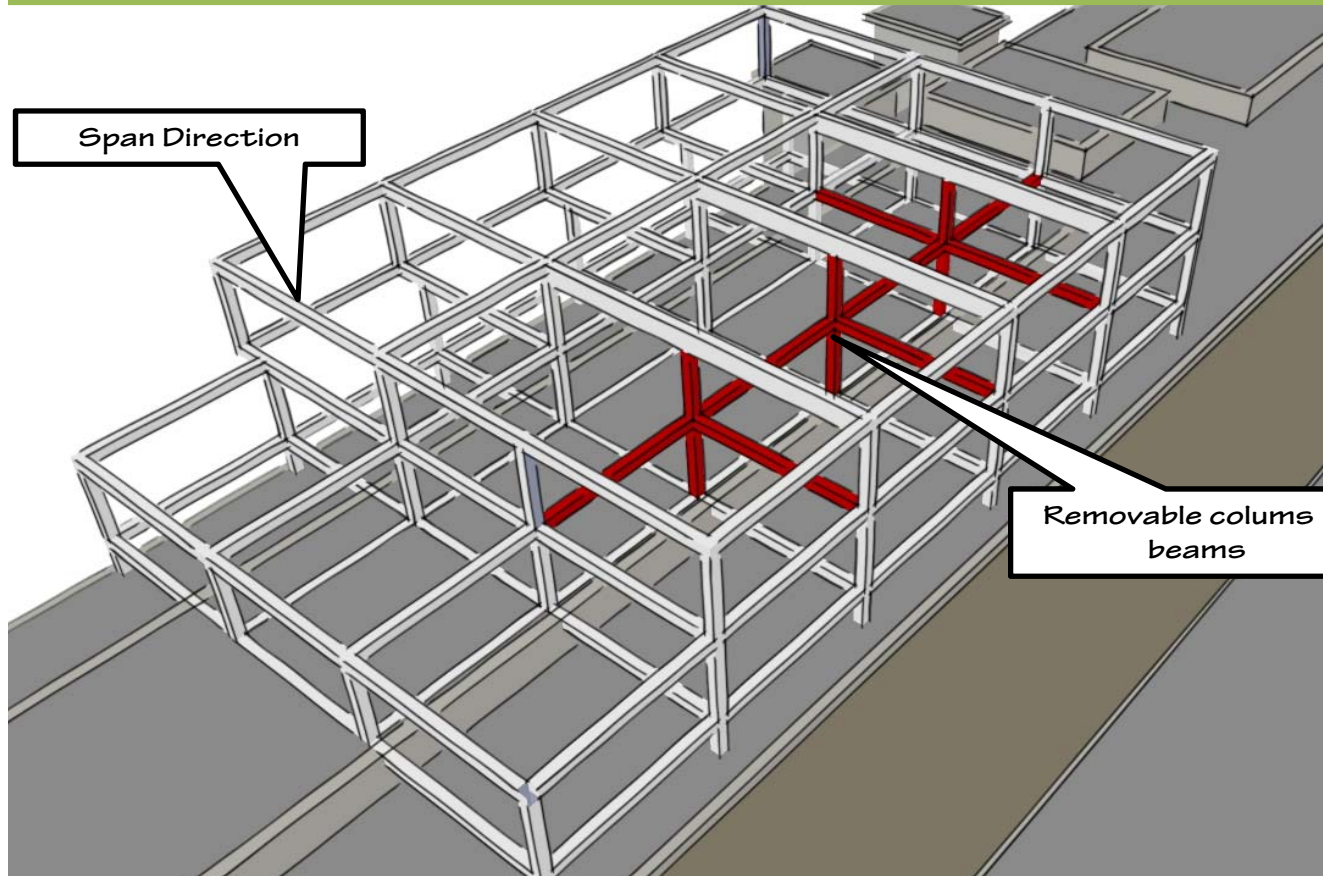
Office Building

- =Workspaces
- = Atrium / meeting place

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Strength & Stability

On top of column construction Klokgebouw

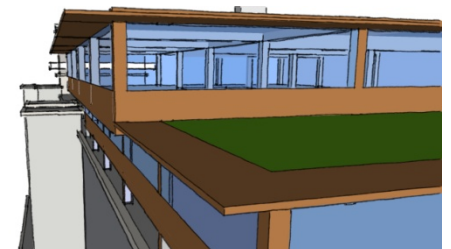
Steel construction

Removable columns and beams.

Adaptable for sportshall

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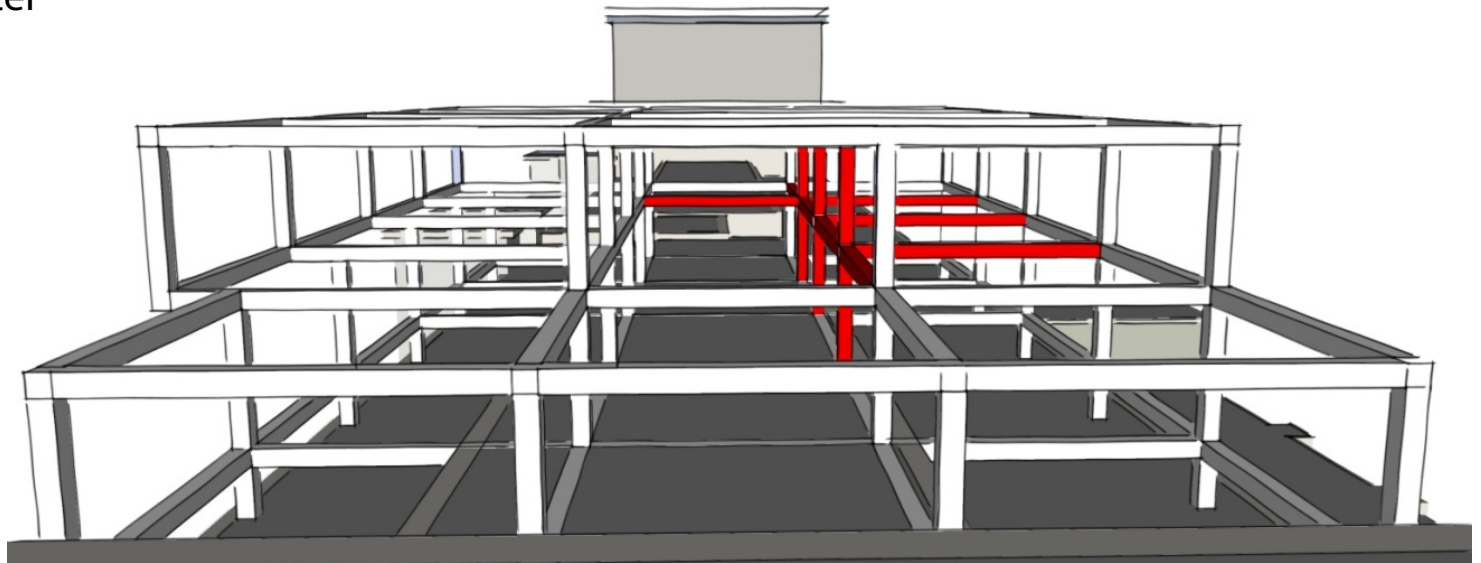
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Strength & Stability

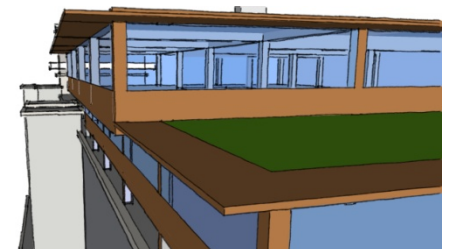
Grid: 7,2 x 7 meter

Building: 36 x 21,5 meter



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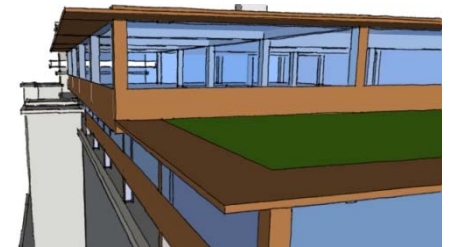
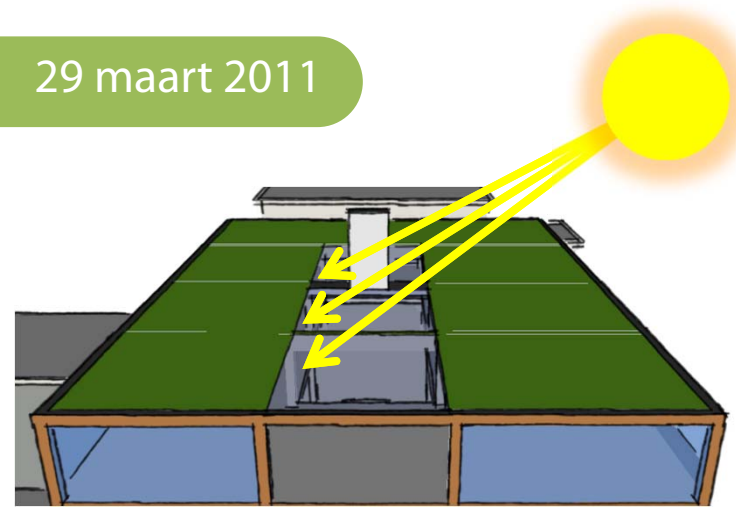
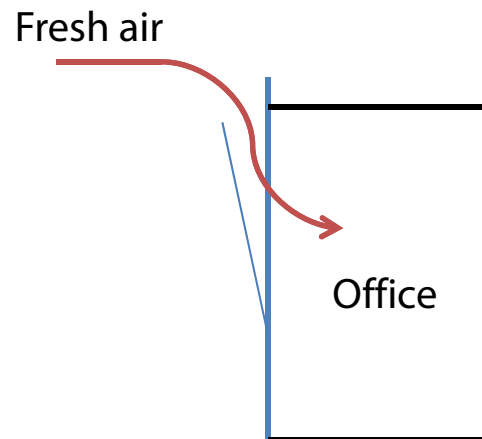


Comfort

People can open the windows

Daylight from 2 sides

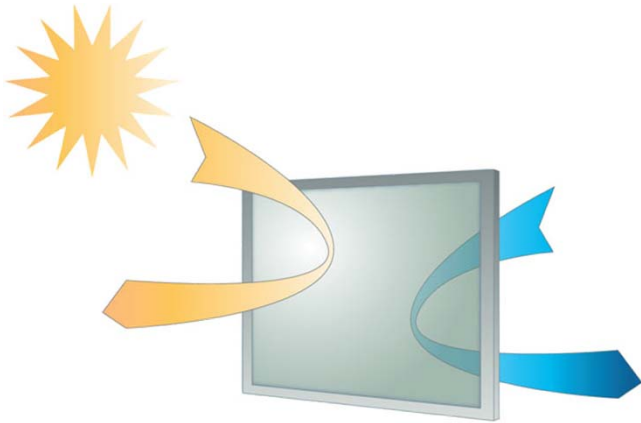
High quality isolated windows



Efficient & Effective use of Material

Re-using durable materials (wood and steel)

Sun averting glass



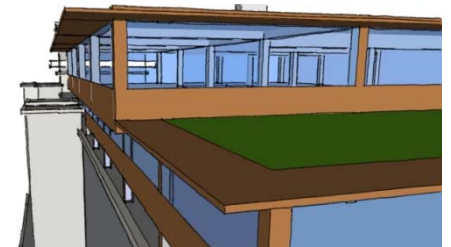
Old scaffolding wood



Used grass mat (PSV Eindhoven)

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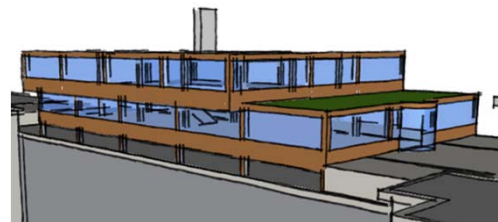
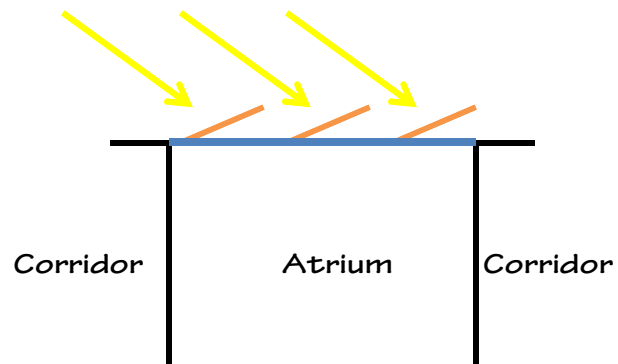


Efficient & Effective use of Energy

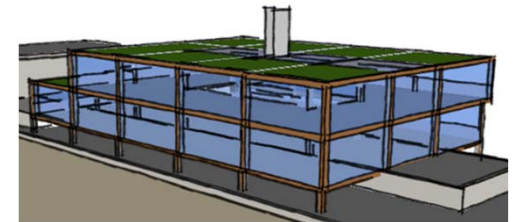
Natural ventilation due too exhaust pipe

Sun collectors on roof, preventing overheating in summer

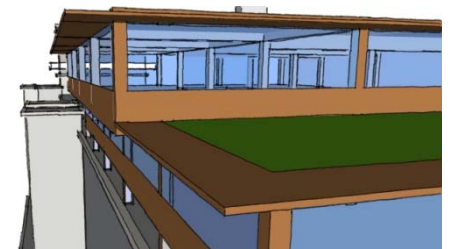
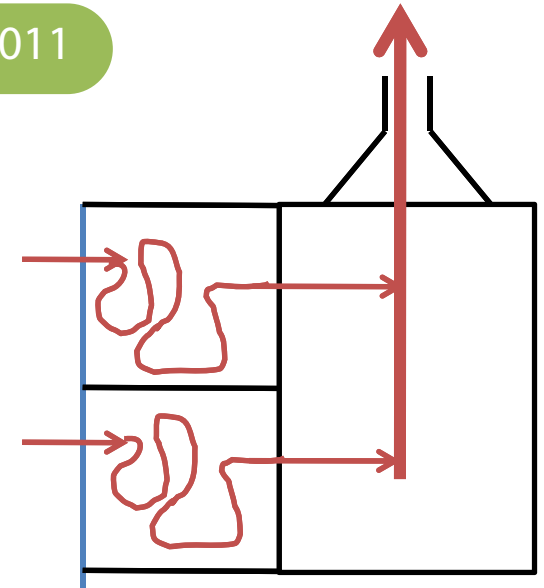
Optimal building situation



South facade

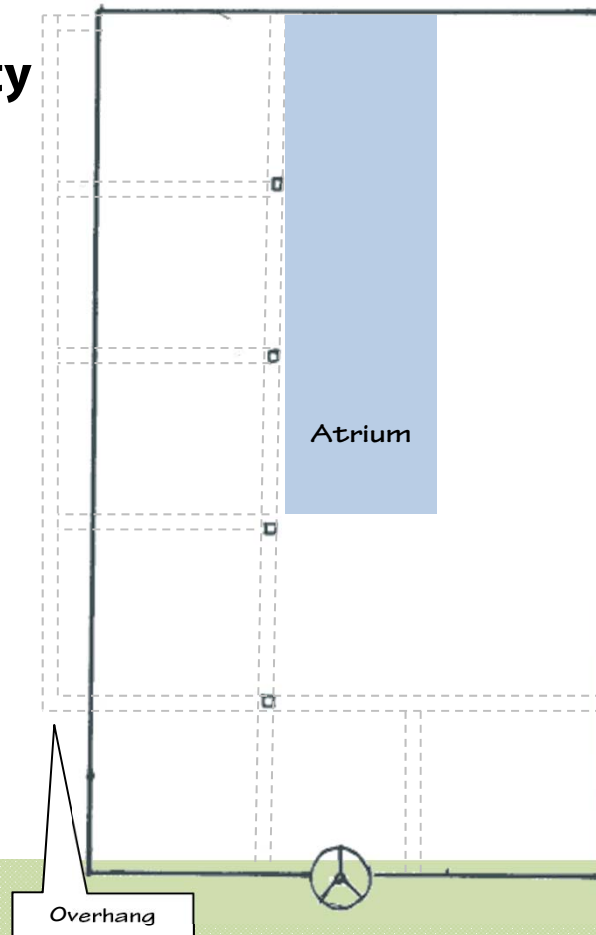


North facade



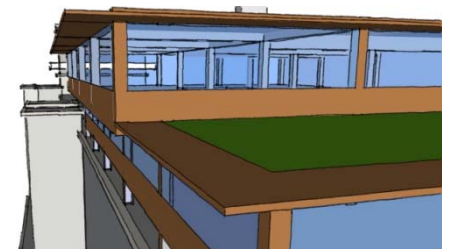
Flexibility & Adaptability

Very Flexible
Column Structure
Height 7 meters



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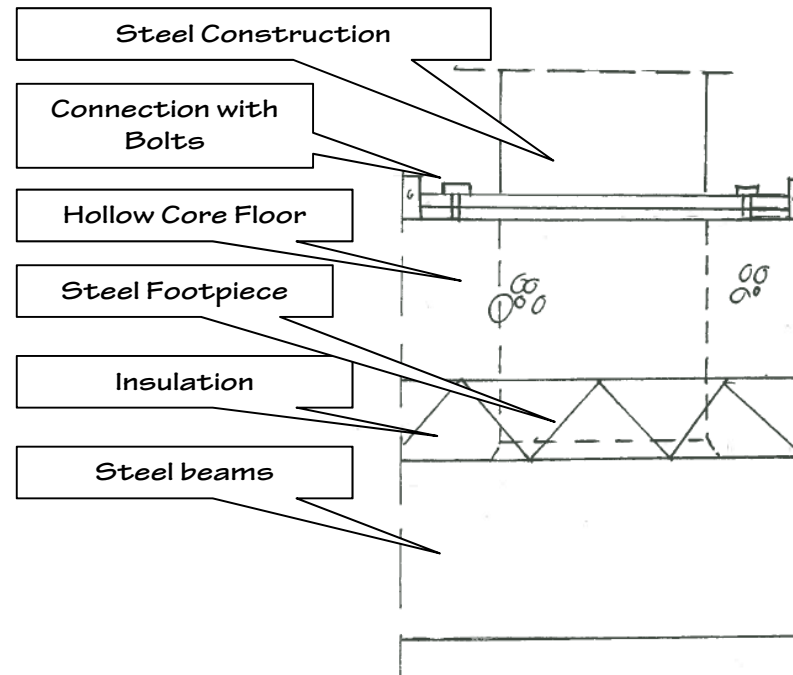


Flexibility & Adaptability

Removable Columns and beams.

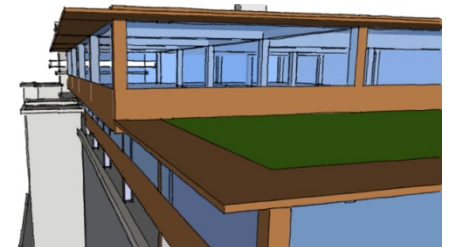
Space between floors for installations

Building function is open choice



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Spiderdiagram

