La Spirale

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UNIVERSITY OF ARCHITECTURE CIVIL ENGINEERING AND GEODESY

isover

Multi Comfort BY SAINT-GOBAIN

SAINT-GOBAIN

1

CONCEPT

La Spirale

MASTERPLAN
EMERGENCY ACCESS

Multi Comfort
BY SAINT-GOBAIN

2. BUILDING CONCEPT

3

TECHNICAL ASPECTS

GROUND FLOOR
ACTIVITIES

La Spirale

Multi Comfort
BY SAINT-GOBAIN

La Spirale

GROUND FLOOR
ACTIVITIES

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APARTMENTS TIPOLOGY

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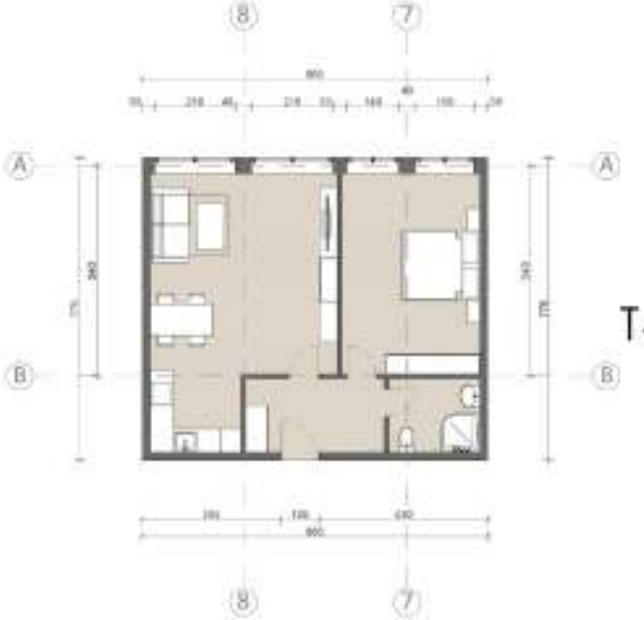
T1

T2

T3 +



T4 +

T1	29 m²
T2	42 m²
T3	58 m²
T4	61 m²
T5	72 m²
T6	85 m²
T7	93 m²
T8	97 m²

APARTMENTS TIPOLOGY

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T5

T6

T7

T8

T1	29 m²
T2	42 m²
T3	58 m²
T4	61 m²
T5	72 m²
T6	88 m²
T7	99 m²
T8	97 m²

UNDERGROUND/ GROUND LEVEL

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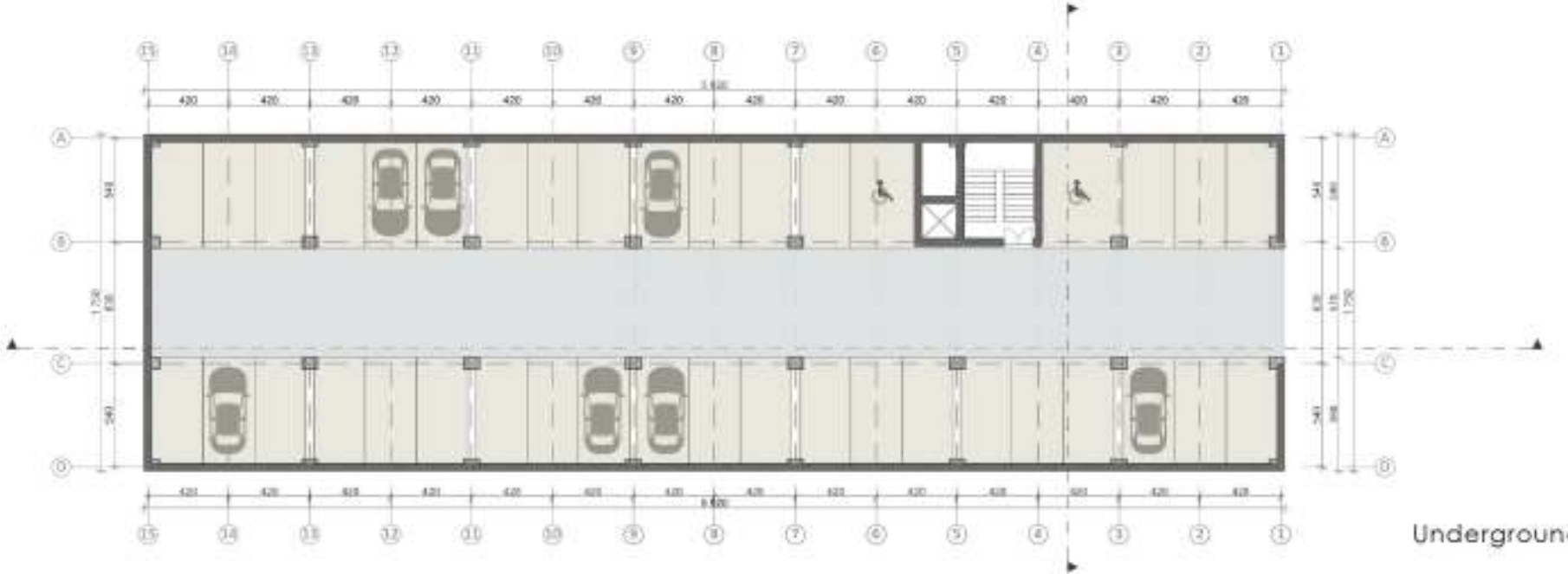
Space room

Ground Level



Underground Level

Type	Number of apartments	Area
T1	11	29 m²
T2	4	42 m²
T3	6	58 m²
T4	5	61 m²
T5	6	72 m²
T6	1	88 m²
T7	4	90 m²
T8	12	97 m²
All	53	
In all buildings	252	

1-2 Floor

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2 Floor

1 Floor

Type	Number of apartments	Area
T1	11	29 m²
T2	4	42 m²
T3	6	58 m²
T4	5	61 m²
T5	6	72 m²
T6	1	88 m²
T7	4	90 m²
T8	12	97 m²
All	53	
In all buildings	252	

3-4 Floor

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4 Floor

3 Floor

Type	Number of apartments	Area
T1	11	29 m²
T2	4	42 m²
T3	6	58 m²
T4	5	61 m²
T5	6	72 m²
T6	1	88 m²
T7	4	90 m²
T8	12	97 m²
All	53	
In all buildings	252	

5-6 Floor

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6 Floor

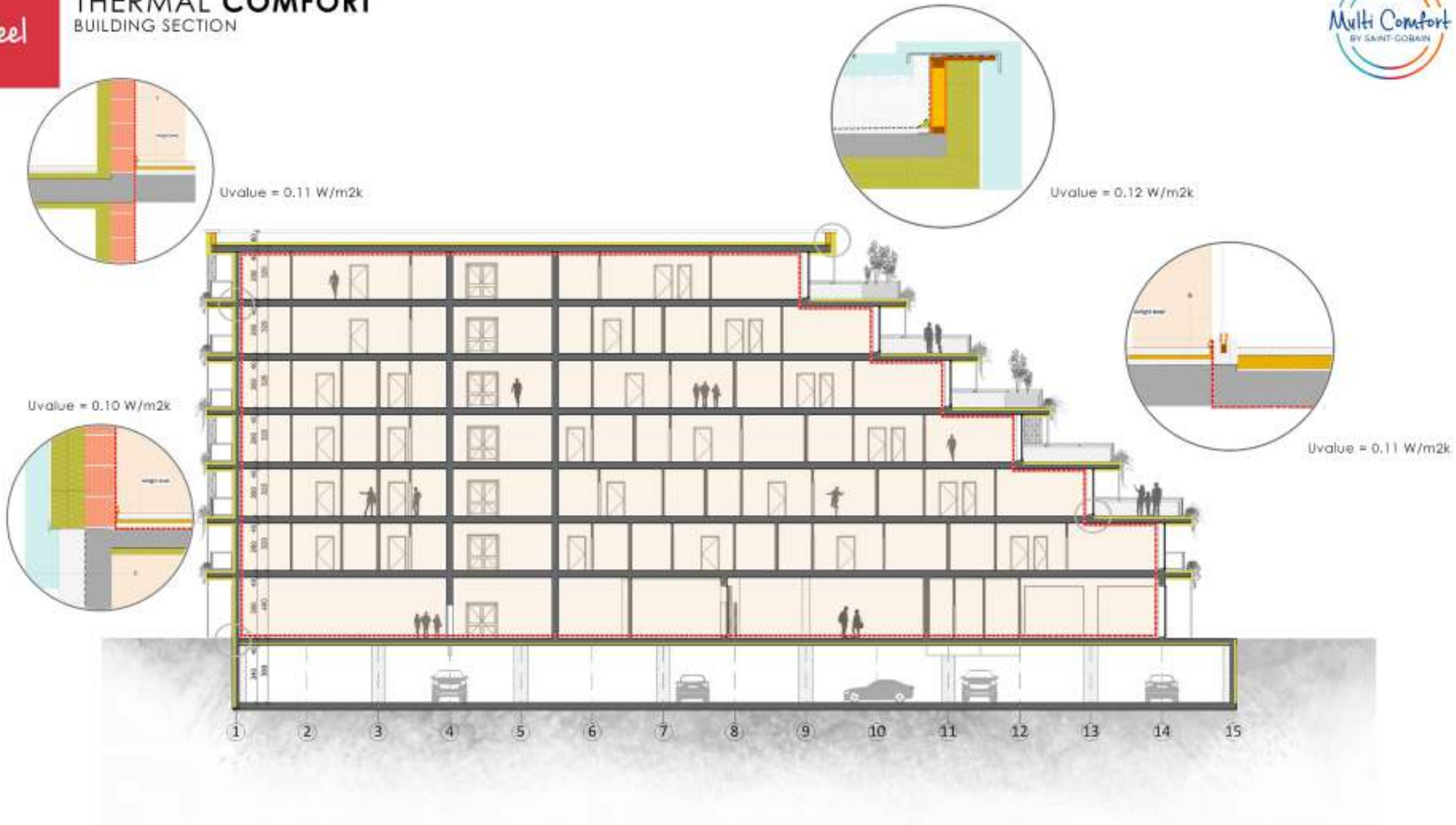
5 Floor

Type	Number of apartments	Area
T1	11	29 m²
T2	4	42 m²
T3	6	58 m²
T4	5	61 m²
T5	6	72 m²
T6	1	88 m²
T7	4	90 m²
T8	12	97 m²
All	53	
In all buildings	252	

Feel

THERMAL **COMFORT**

BUILDING SECTION



FIRE SAFETY STRATEGY
BUILDING SECTION

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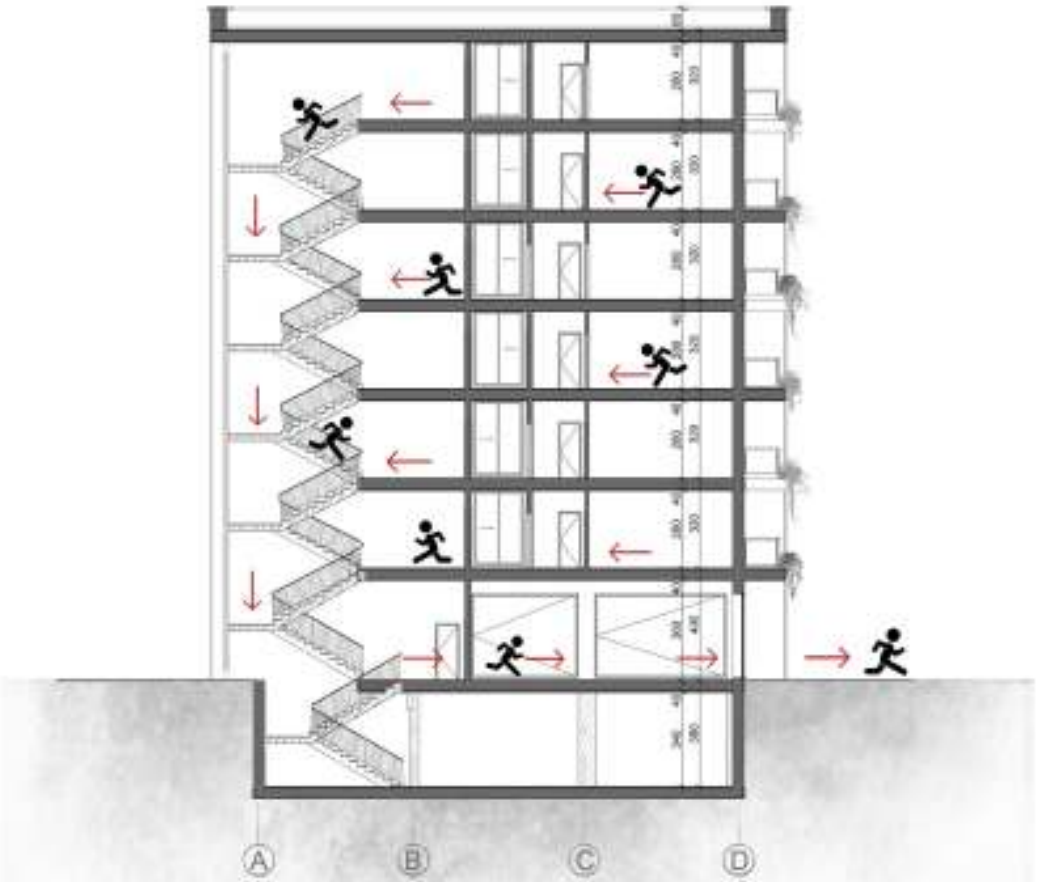

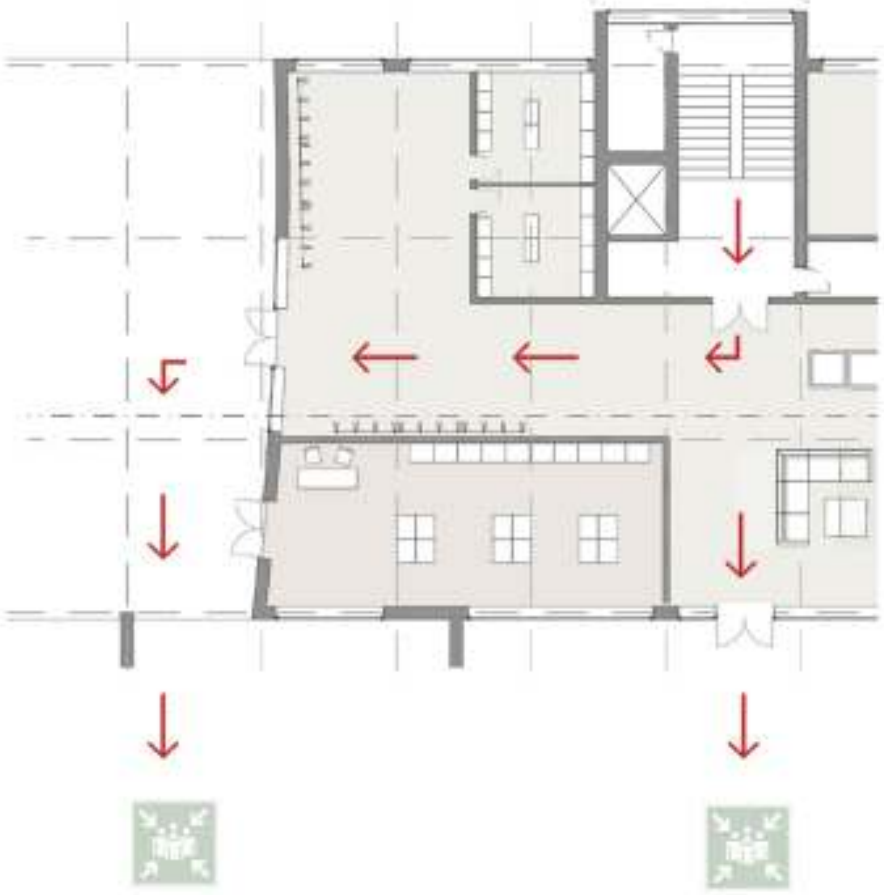

Breathe

INDOOR AIR **COMFORT**

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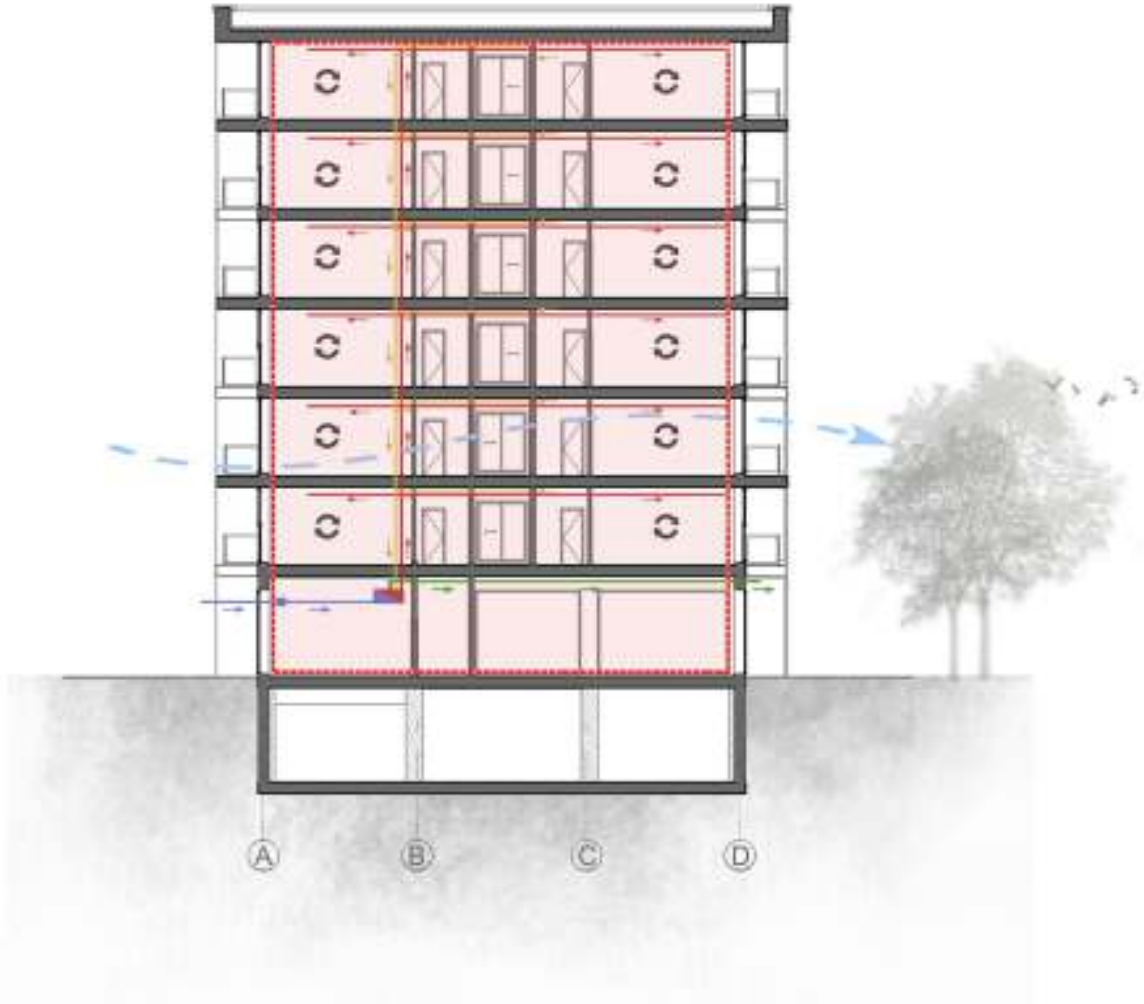
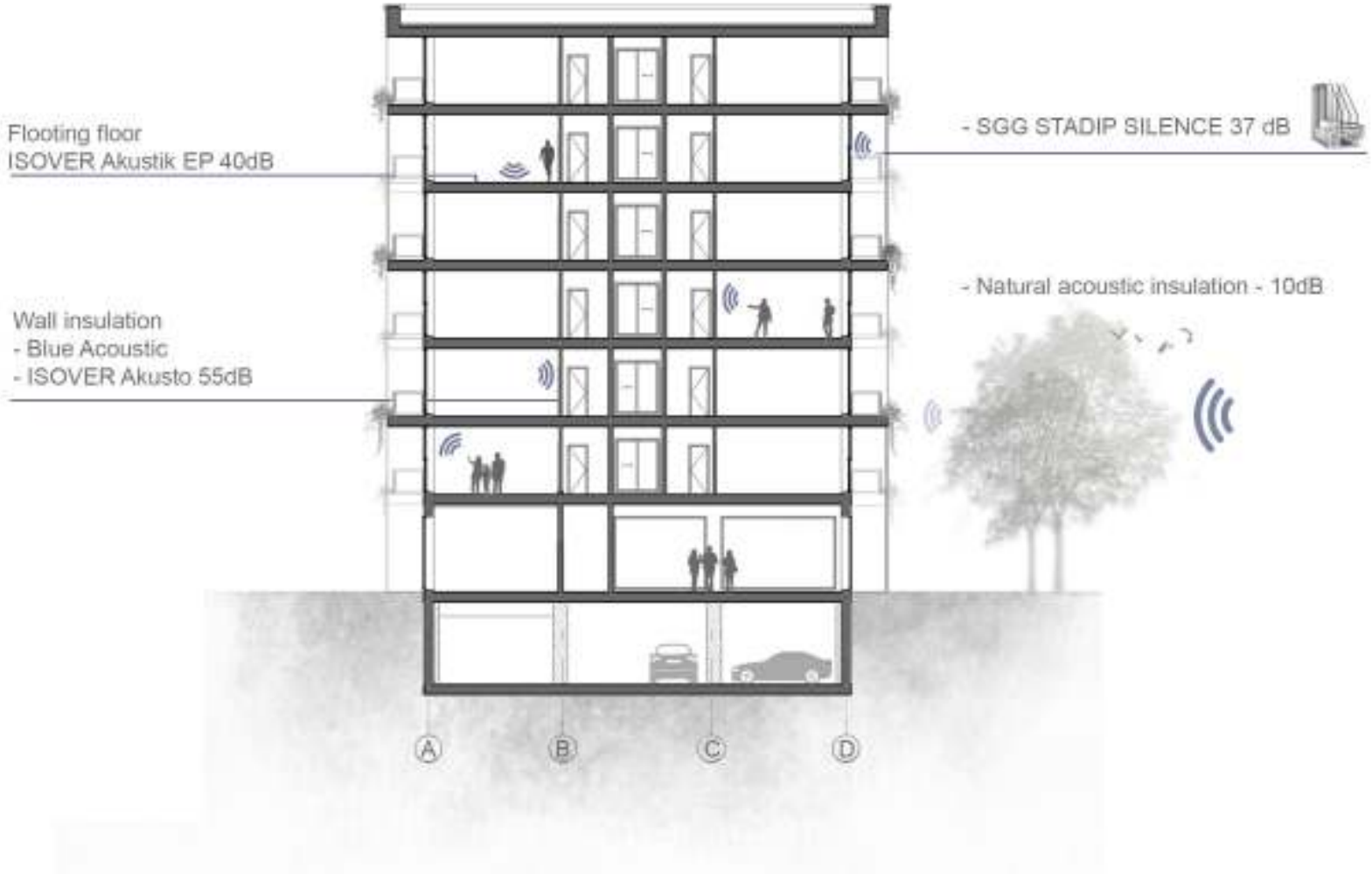
- Fresh entry air
- Supply air
- Exhausted air
- Extracted polluted air
- Natural ventilation (summer)



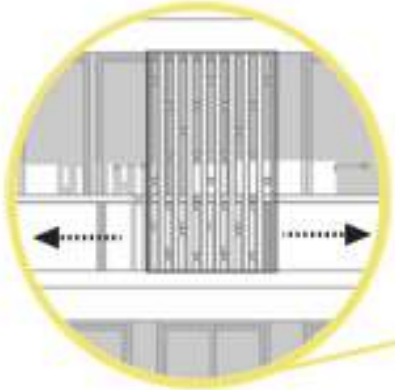
Hear

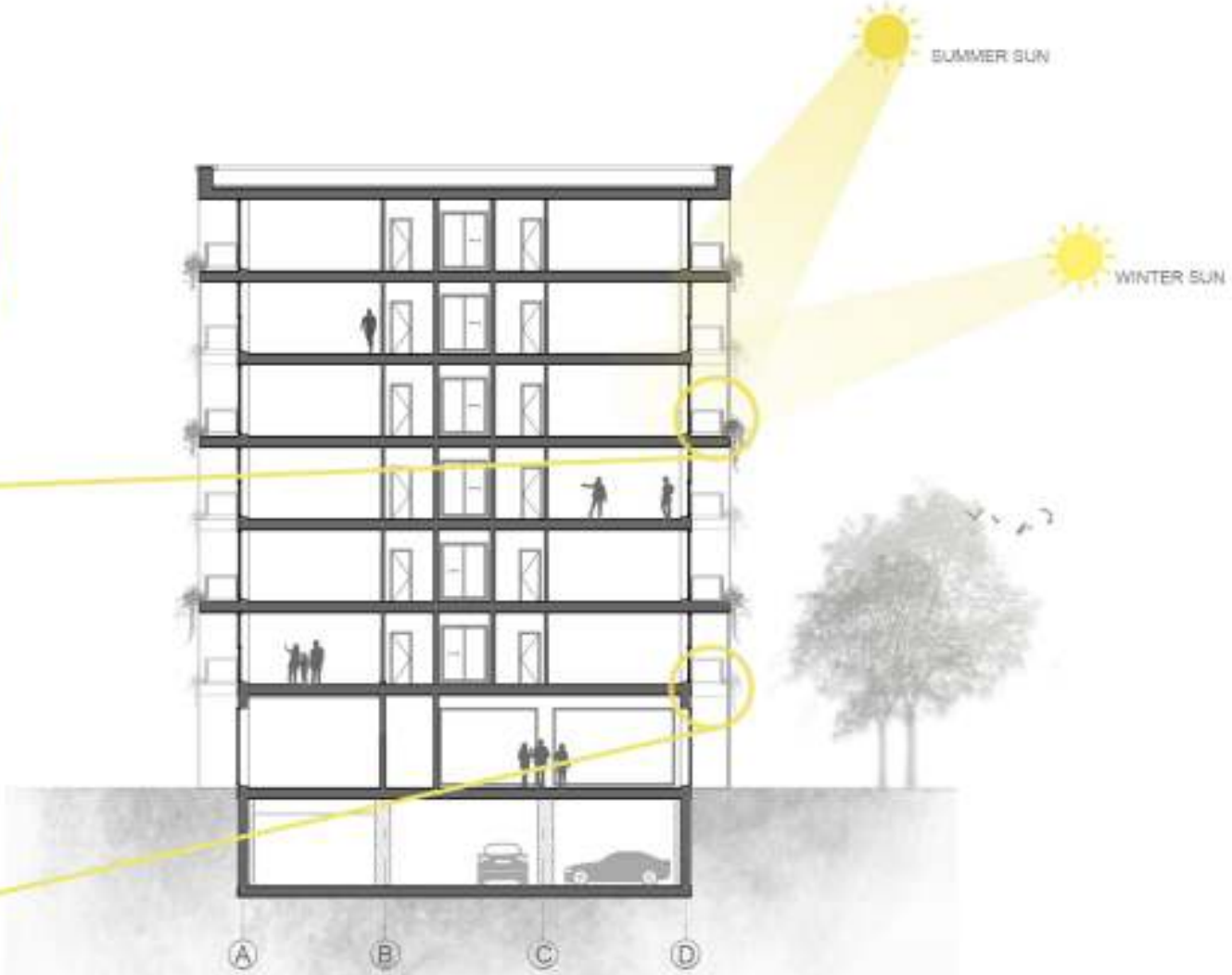
ACOUSTIC **COMFORT**



See

VISUAL **COMFORT**





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FACADE

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FACADE

USE OF NATURAL ENERGY SOURCES AND RE-USE RAINWATER

SCHOOL AND KINDERGARTEN

CONCEPT

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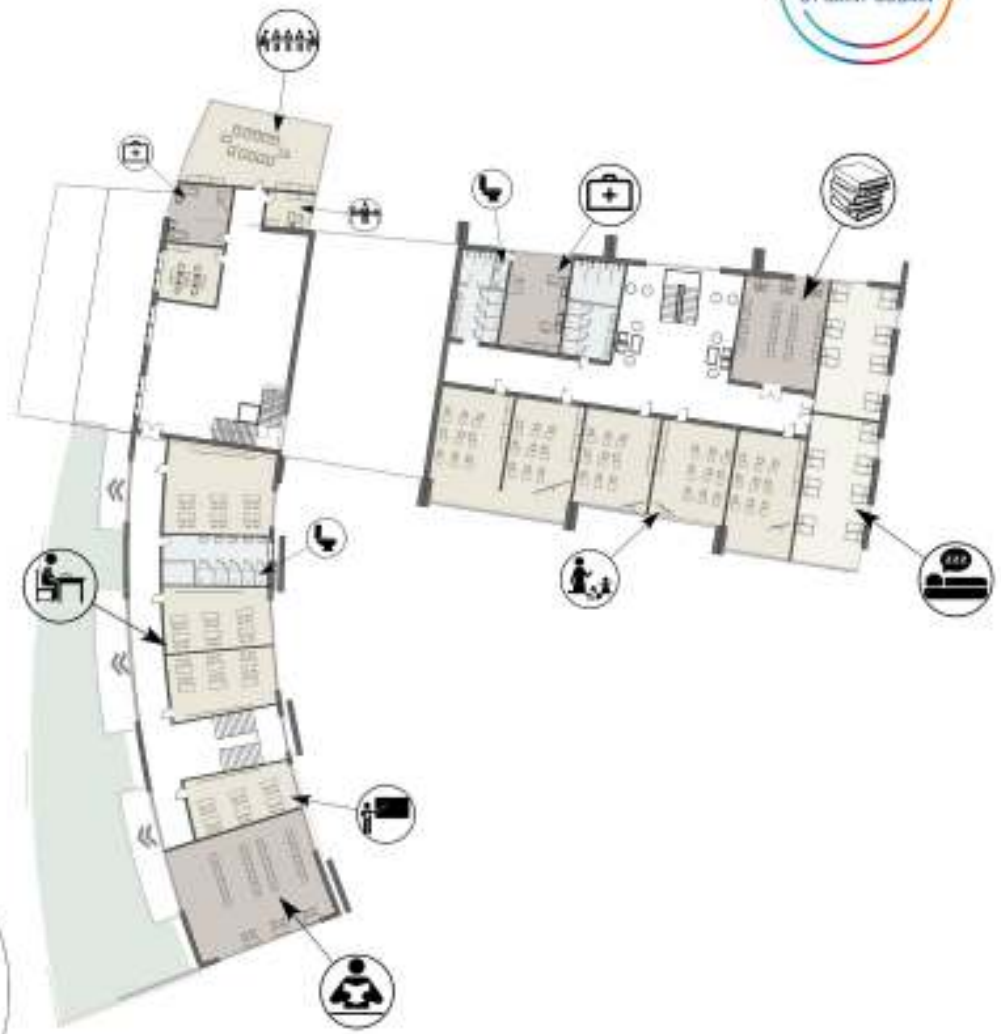
First floor



Second floor

MAISON COIGNET

CONCEPT

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THIRD FLOOR

SECOND FLOOR

FIRST FLOOR

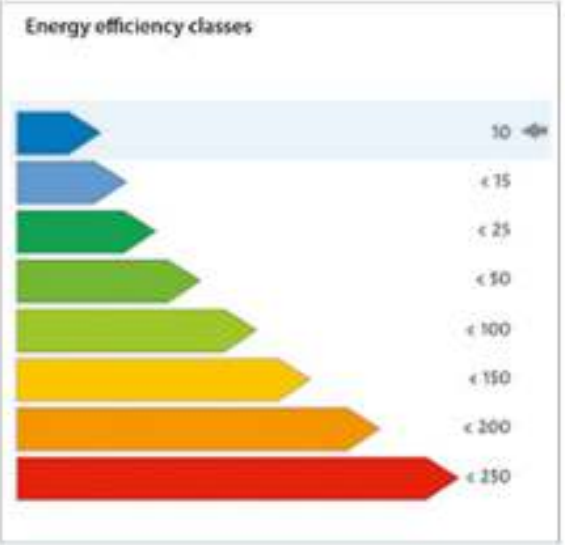
4. ENERGY EFFICIENCY CLASS

ENERGY EFFICIENCY CLASS

CALCULATIONS

Specific Heat Demand

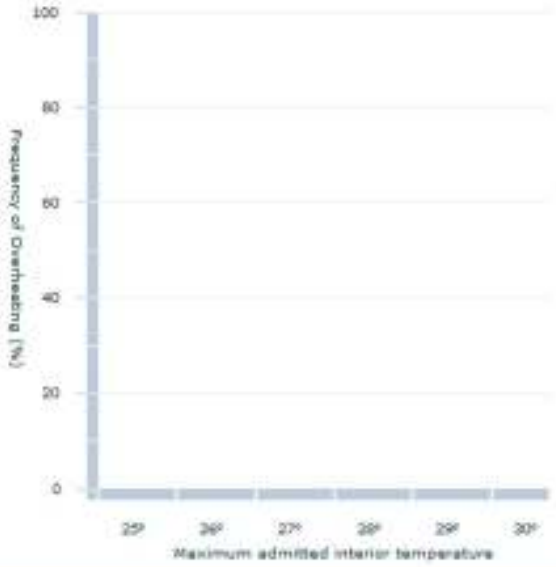
Transmission Heat Losses:	68108.25	KWh/a
Ventilation Heat Losses:	59744.48	KWh/a
Total Heat Losses:	127852.73	KWh/a
Internal Heat Gains:	55112.65	KWh/a
Solar Heat Gains:	80741.97	KWh/a
Total Heat Gains:	109642.47	KWh/a
Annual Heat Demand:	18210.27	KWh/a
Specific Heat Demand:	3.31	KWh/(m2a)

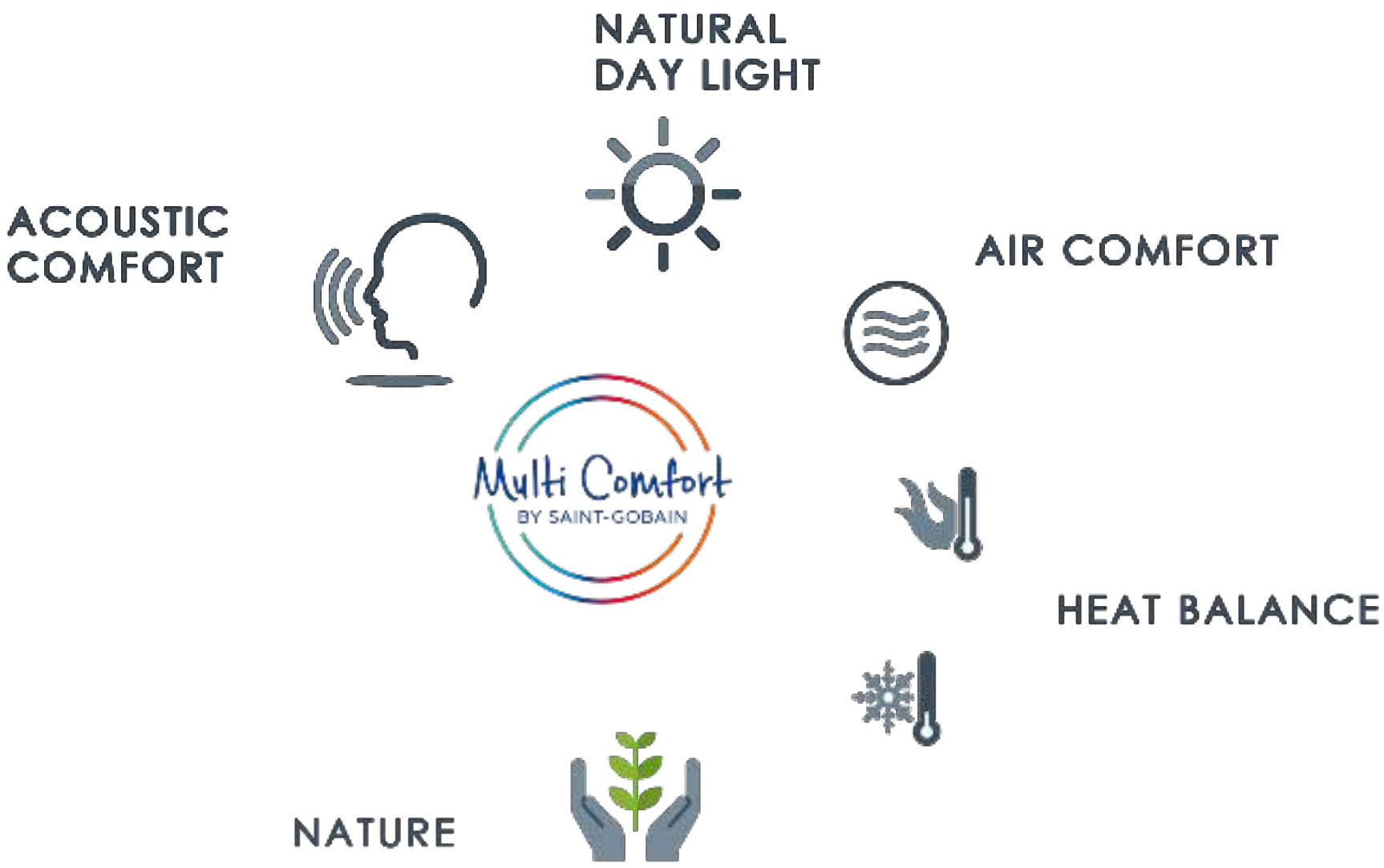


CALCULATIONS

Overheating

Exterior Thermal Transmittance:	965.06	W/K
Ground Thermal Transmittance:	6.53	W/K
Ventilation Transmition Ambient:	1001.38	W/K
Ventilation Transmission Ground:	0.00	W/K
Solar Aperture:	35.82	m2
Frequency of Overheating:	0.00	%




NATURAL
DAY LIGHT
ACOUSTIC
COMFORT
AIR COMFORT
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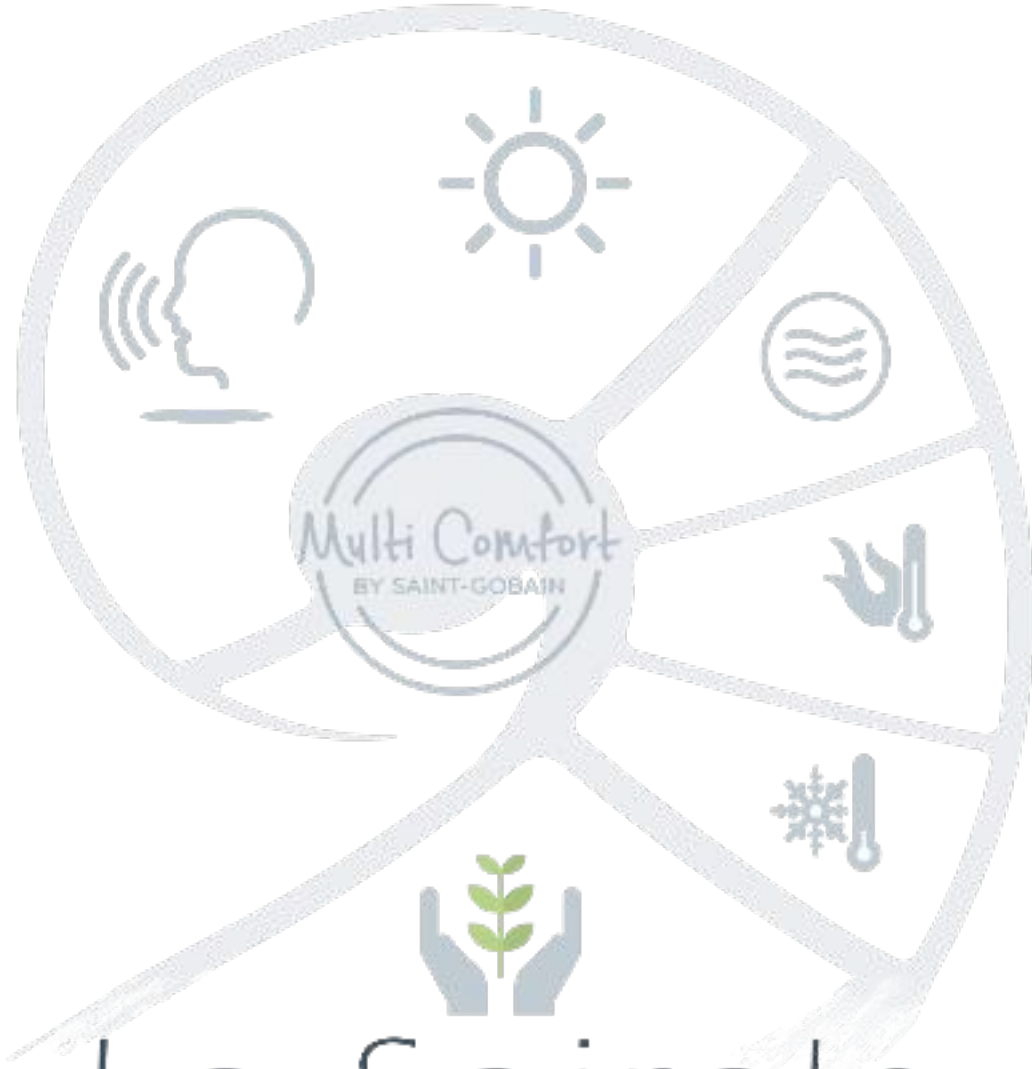
HEAT BALANCE
NATURE



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LUMION
PRO STUDENT

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Thank you for your attention!
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