SYMBIOSIS

an elevated habitat

Latvia
Riga Technical University
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Ada Paula VĪTOLIŅA
Team n°6

ARCHITECTURE STUDENT CONTEST

SAINT-GOBAIN

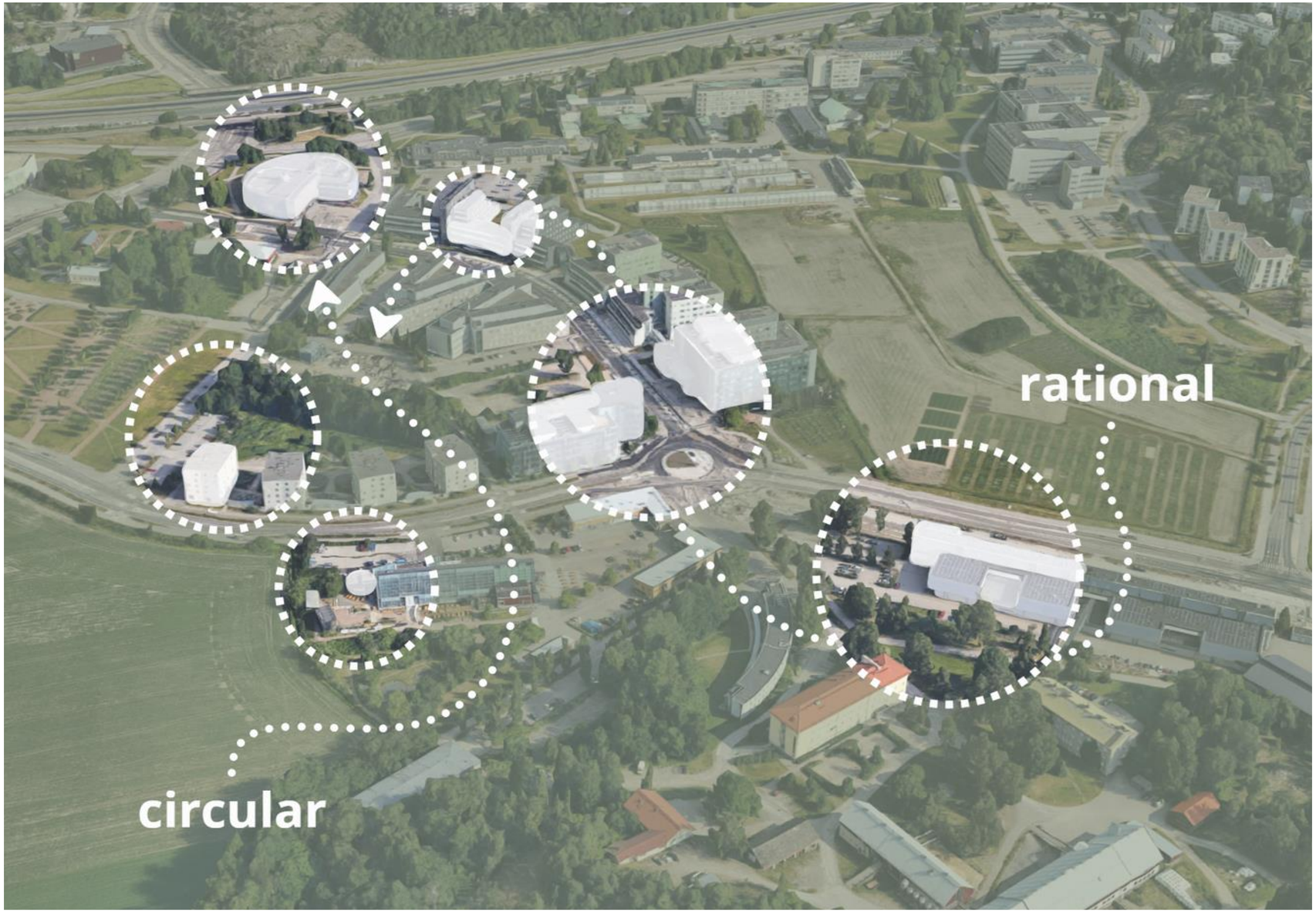
0 AUTHORS

Paula Anna Ķēbere

Aiva Līdaka-Ešenvalde

Ada Paula Vītoliņa

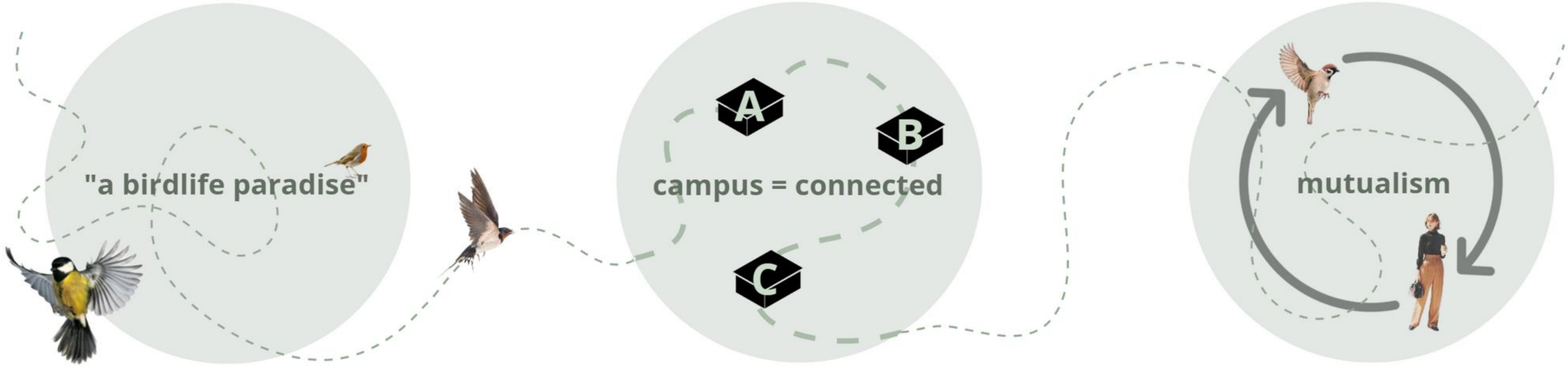
CONCEPT



ARCHITECTURE STUDENT CONTEST

SAINT-GOBAIN

CONCEPT



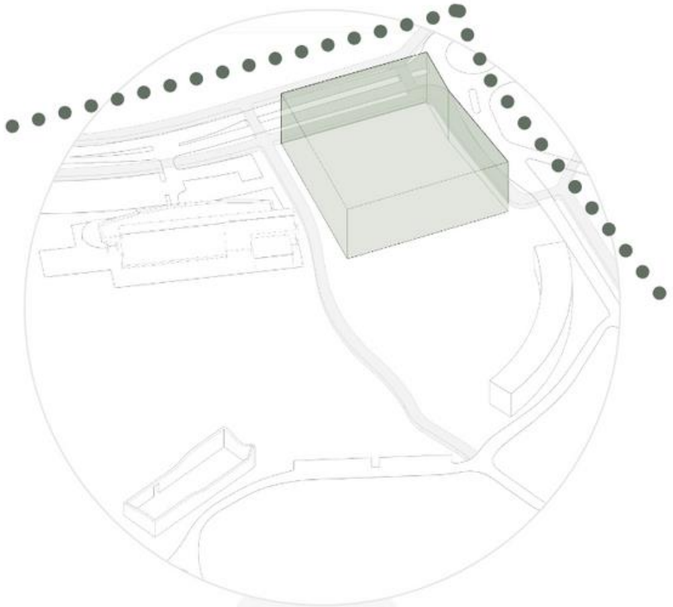
largest protected area in Helsinki

gentle connectivity for campus productivity

configuration benefiting both main parties

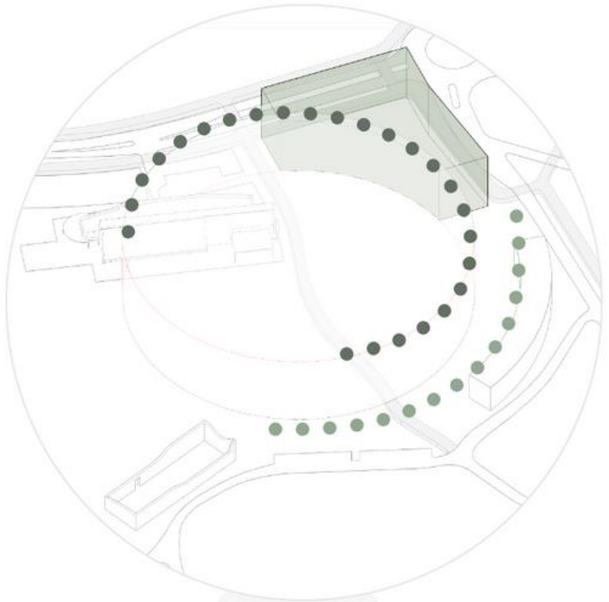
CONCEPT

ARCHITECTURE STUDENT CONTEST



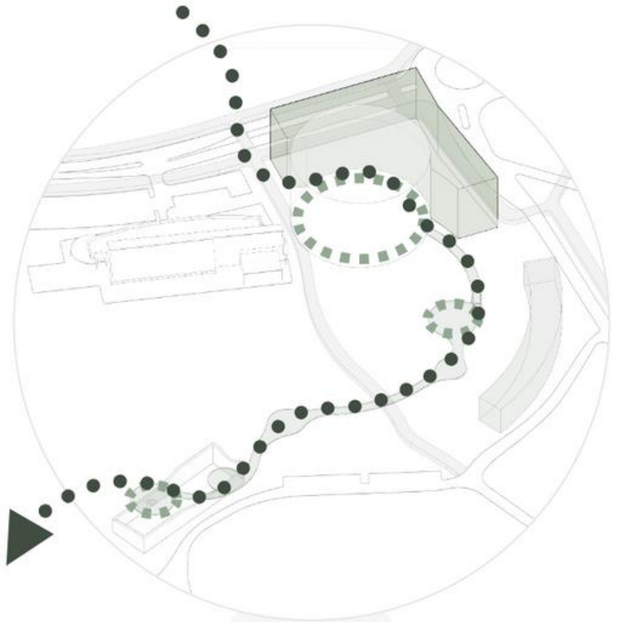
1

functionally aligning to the **outer** perimeter;



2

visually aligning to the **inner** perimeter;



3

connecting & **accentuating** access points

SAINT-GOBAIN

CONCEPT

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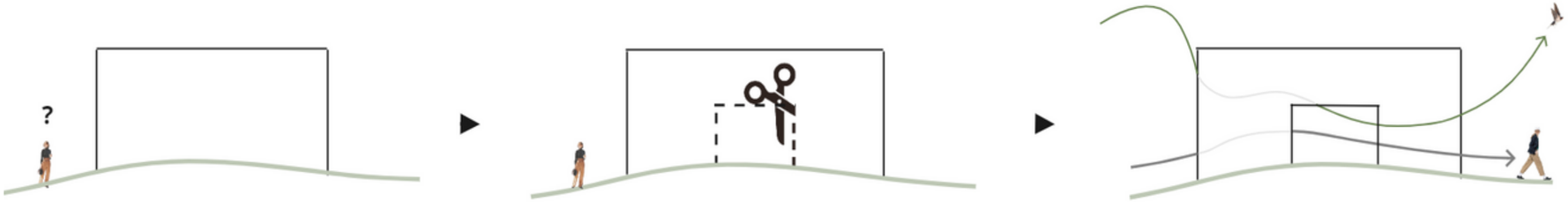
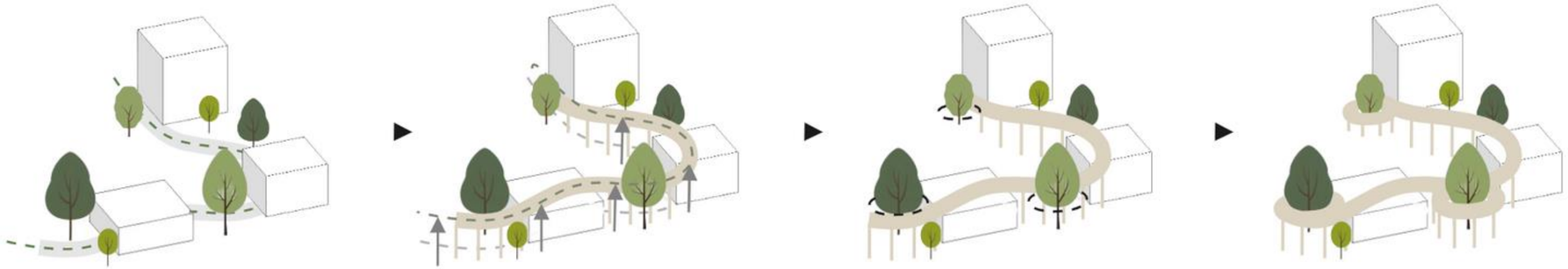
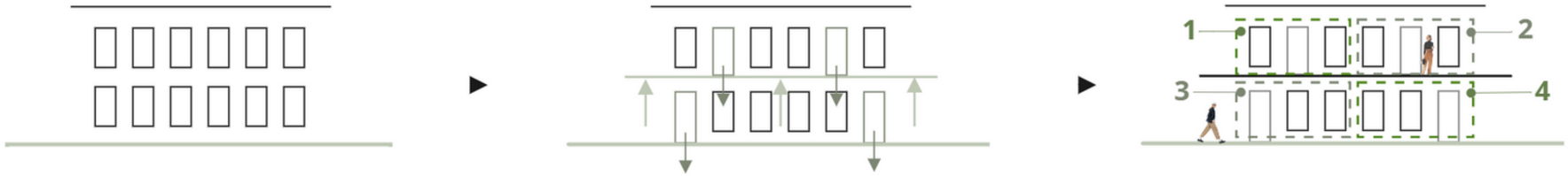
WALKABILITY



CONNECTIVITY



INDIVIDUALITY



SAINT-GOBAIN

2 MASTER PLAN

- NEW BUILDING
- RENOVATED BUILDING
- ELEVATED WOODEN PATHWAY
- WALKWAY / CYCLEWAY
- PARK / LAWN
- GREENERY
- ACTIVITY AREA
- PICNIC AREA
- EXISTING TREE
- NEW TREE
- BICYCLE STORAGE
- EXISTING BUILDING

ARCHITECTURE STUDENT CONTEST

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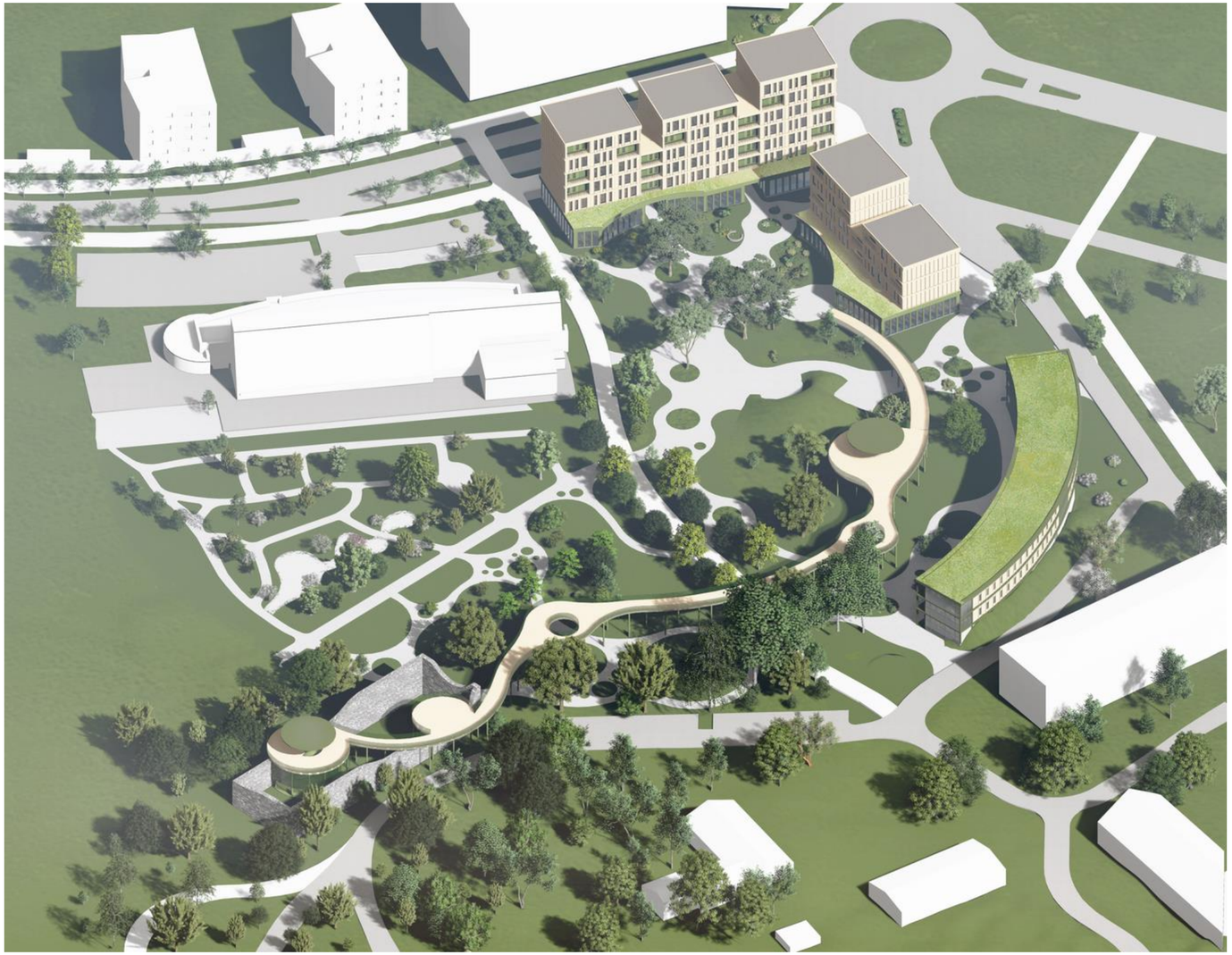
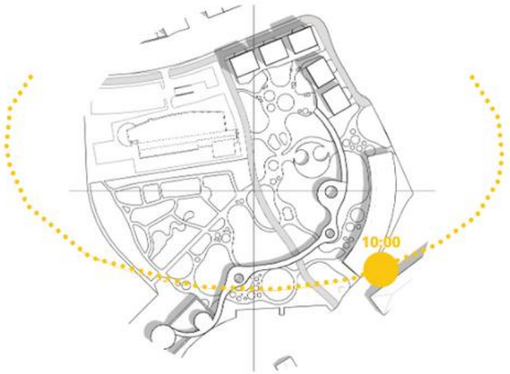
2 MASTER PLAN



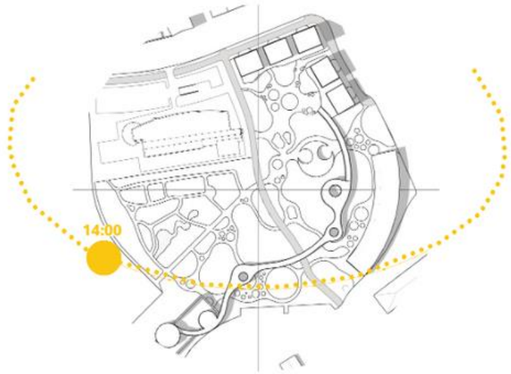
3 SOLAR ANALYSIS

ARCHITECTURE STUDENT CONTEST

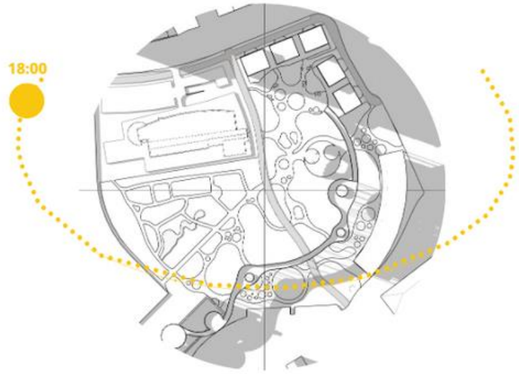
March 21st:



10:00

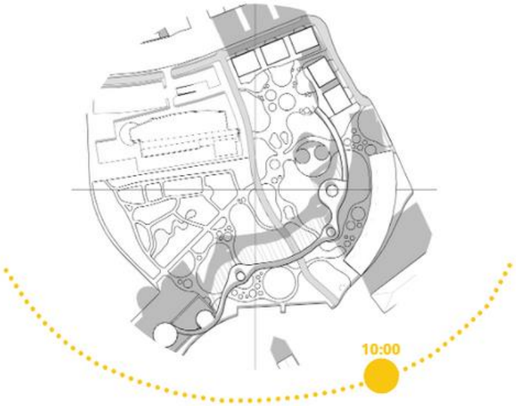


14:00

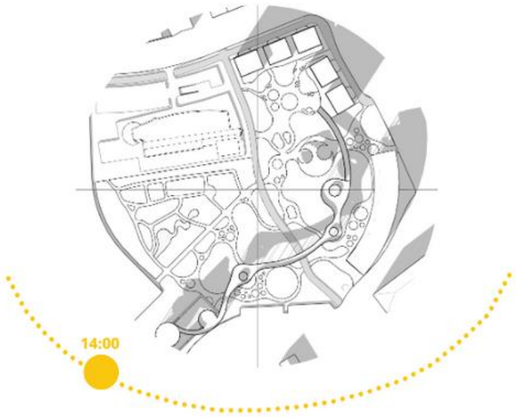


18:00

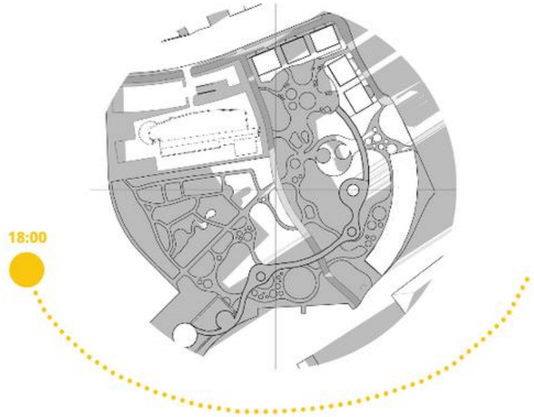
September 21st:



10:00



14:00



18:00

SAINT-GOBAIN

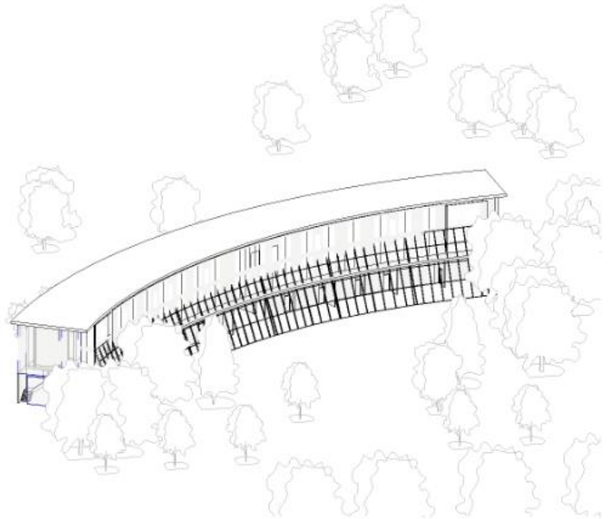
4

ZONE A: RENOVATION

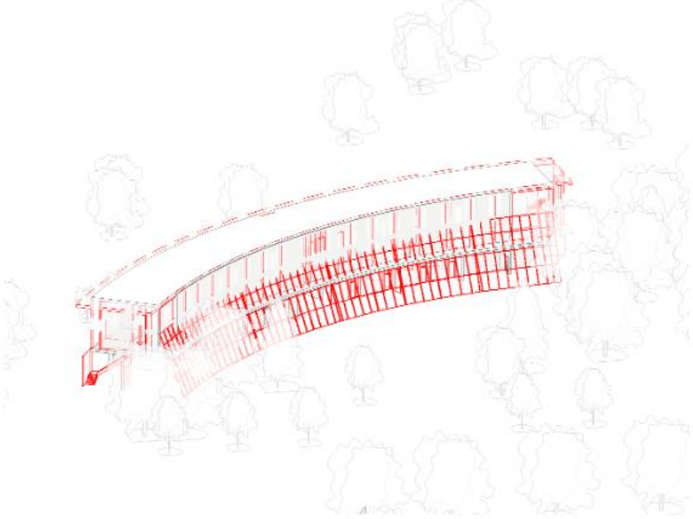
4 ZONE A: RENOVATION

ARCHITECTURE STUDENT CONTEST

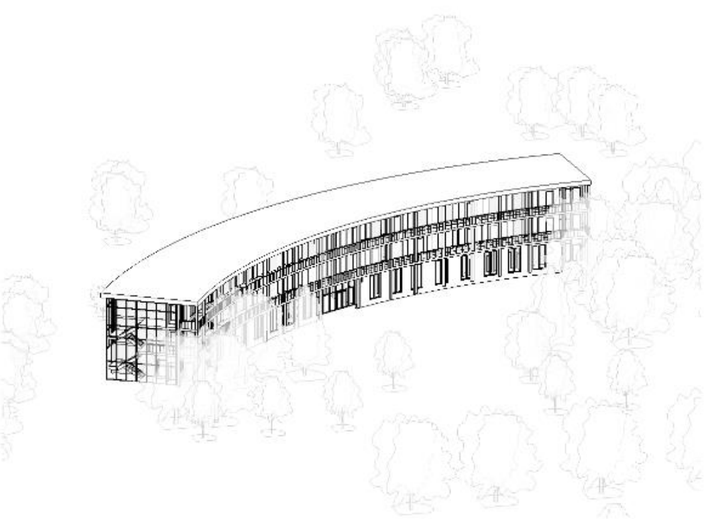
CURRENT:



ADJUSTMENTS:



NEW:

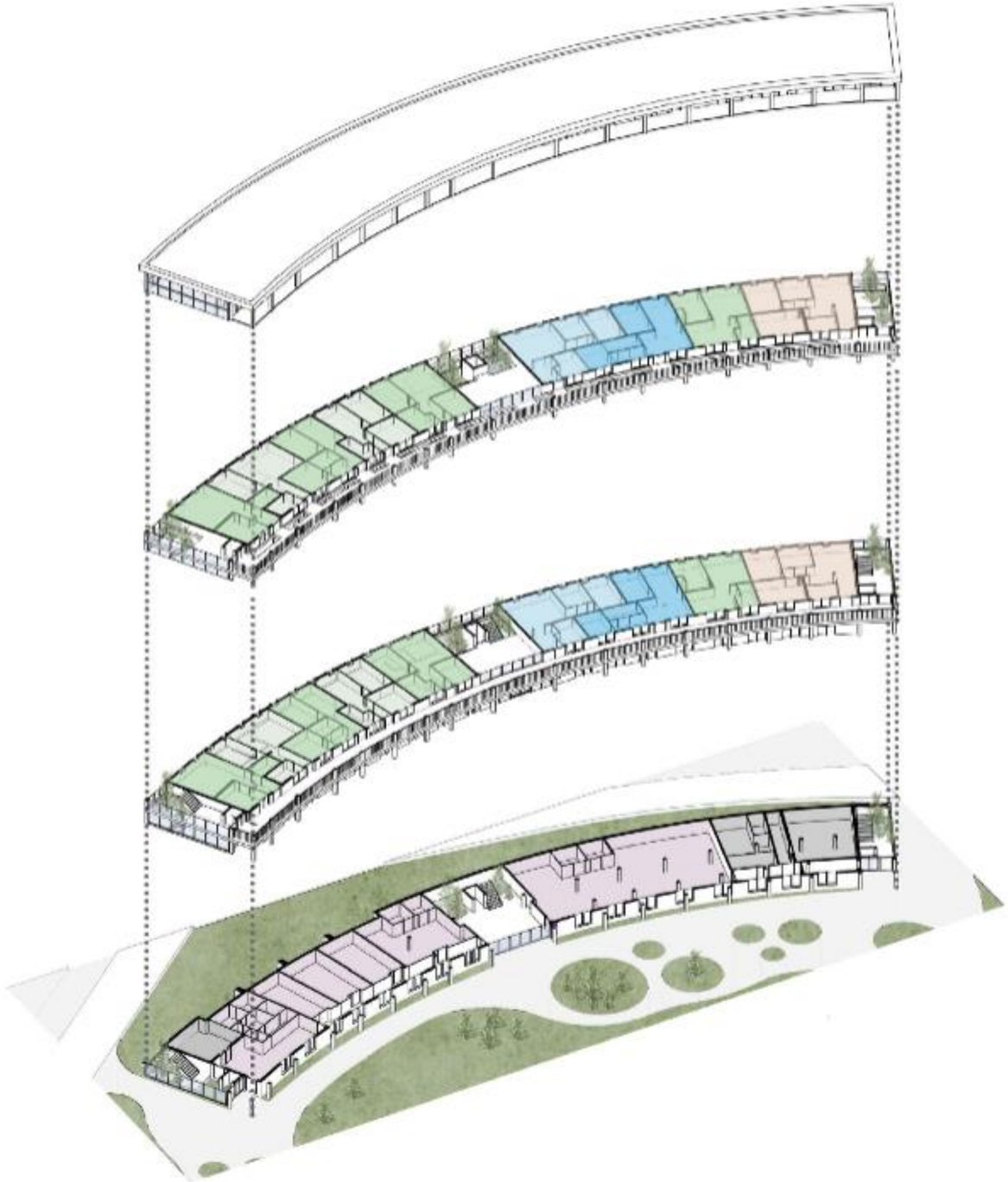


SAINT-GOBAIN

4 ZONE A: RENOVATION

2nd & 3rd floor:
apartments

1st floor:
technical & **offices**



ARCHITECTURE STUDENT CONTEST

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4 ZONE A: RENOVATION

2nd floor

1st floor

3rd floor

4 ZONE A: RENOVATION

ARCHITECTURE STUDENT CONTEST

WINTER GARDEN
STAIRWAYS

GALLERY-TYPE
PATHWAY TO APARTMENTS

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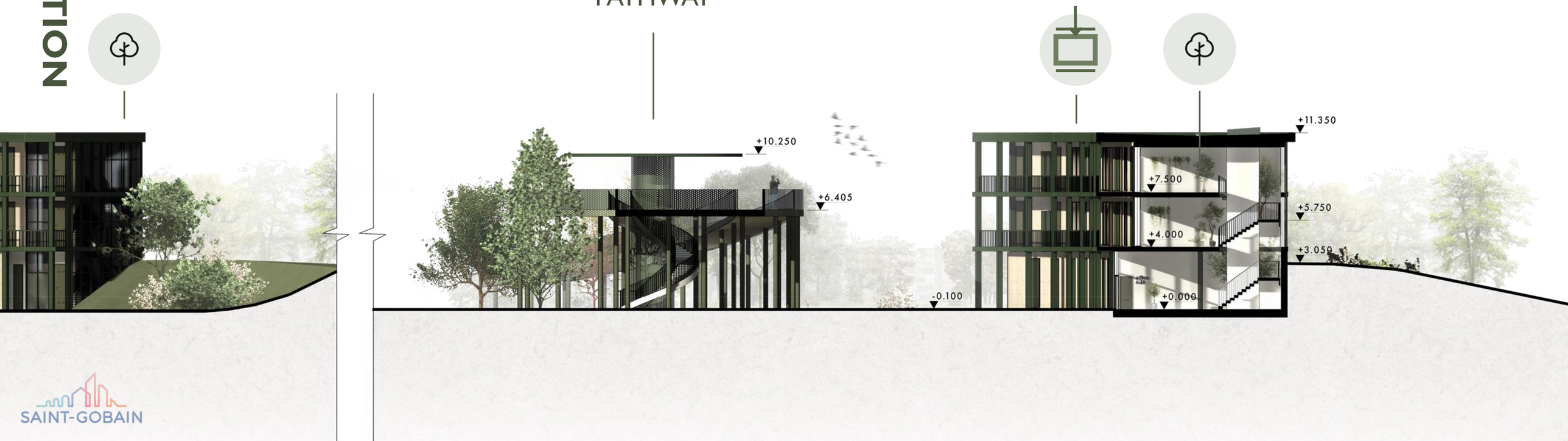
4 ZONE A: RENOVATION

ARCHITECTURE STUDENT CONTEST

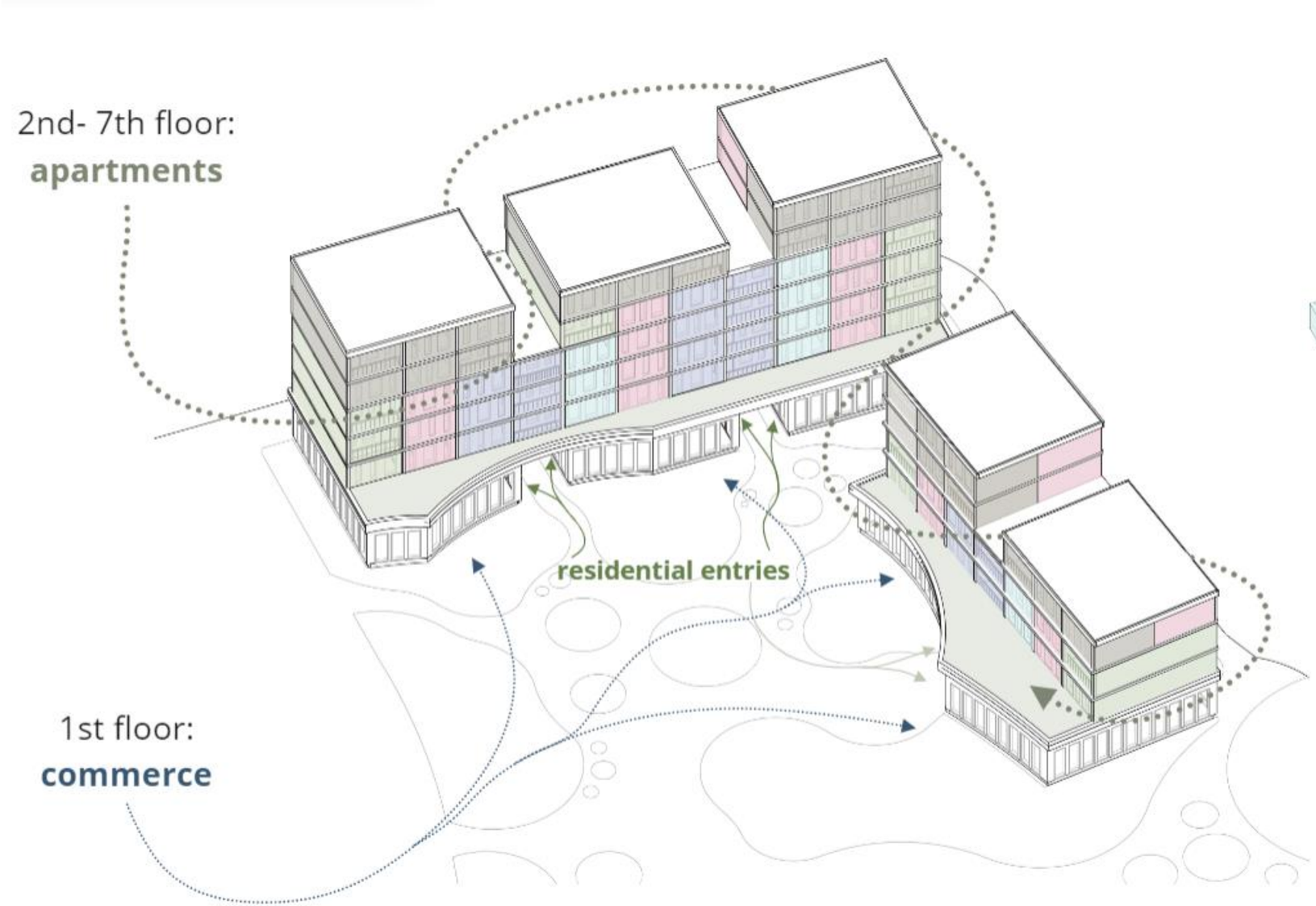
BIRD-WATCHING PATHWAY

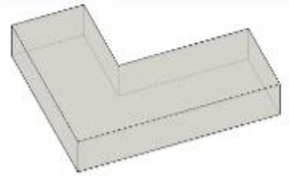


SAINT-GOBAIN

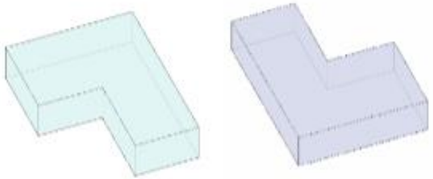
5 ZONE B:NEW CONSTRUCTION

5 ZONE B: NEW CONSTRUCTION





3 bedroom x8



2 bedroom x18

1 bedroom x12

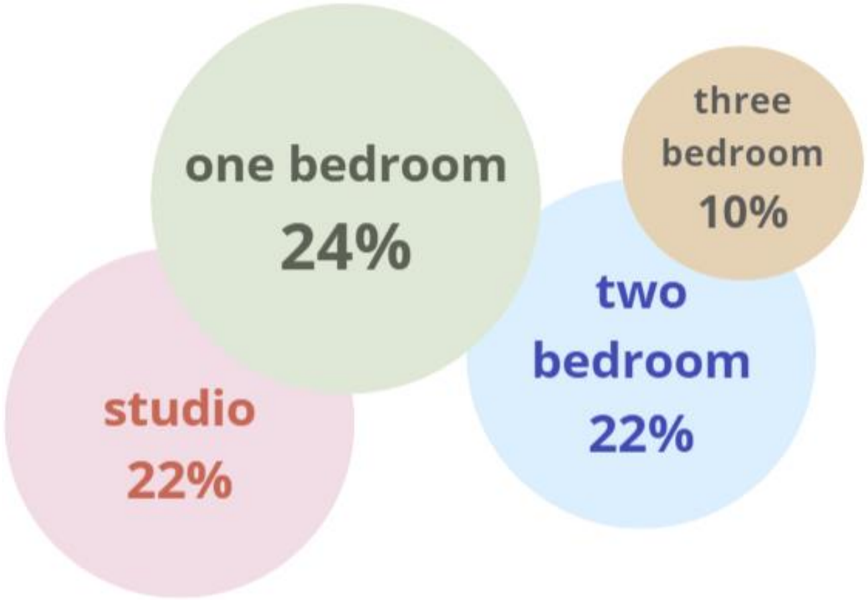
studio x23

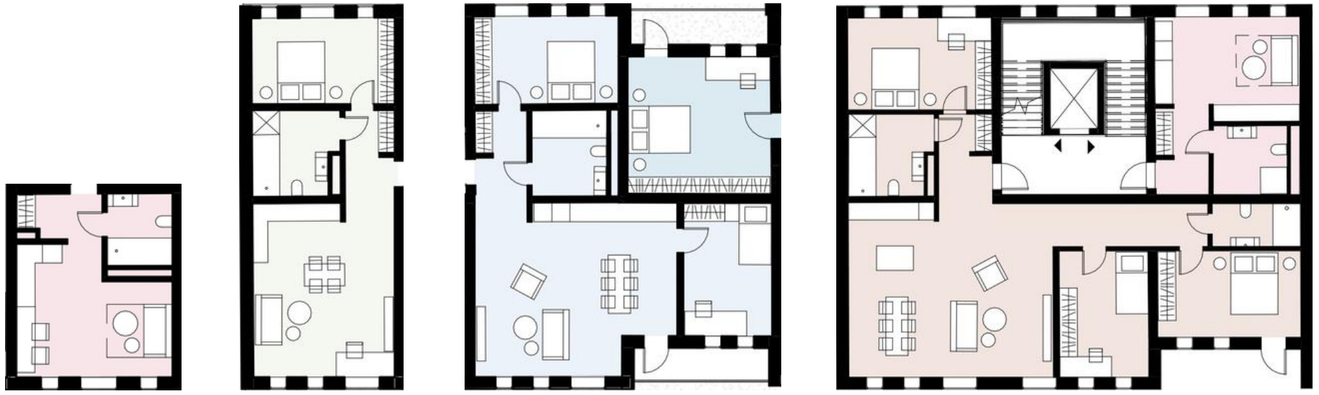
total apartment count:
61

ARCHITECTURE STUDENT CONTEST

SAINT-GOBAIN

5 ZONE B: NEW CONSTRUCTION





Studio apartment

One bedroom apartment

Two bedroom apartment

Three bedroom apartment

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5 ZONE B: NEW CONSTRUCTION

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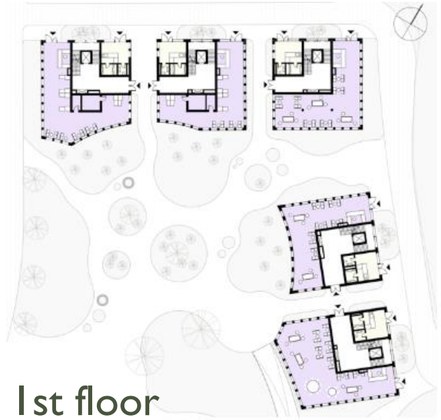
2nd floor



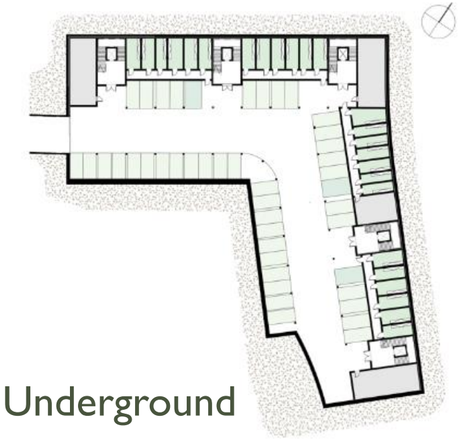
1st floor

4th floor

6th floor

3rd floor

5th floor



Underground

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5 ZONE B: NEW CONSTRUCTION

PRIVATE OUTDOOR SPACES

SUITED FOR PEDESTRIAN TRAFFIC

MINIMALISTIC GEOMETRY & SIMPLIFIED ASSEMBLY

VISUALLY DYNAMIC SILHOUETTE

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5 ZONE B: NEW CONSTRUCTION

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INTERVAL FOR GREENER SCENERY & PRIVACY

PRIVATE OUTDOOR SPACES

VISUALLY DYNAMIC SILHOUETTE

START OF BIRD WATCHING PATH

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6 ZONE C: OLD MUSEUM

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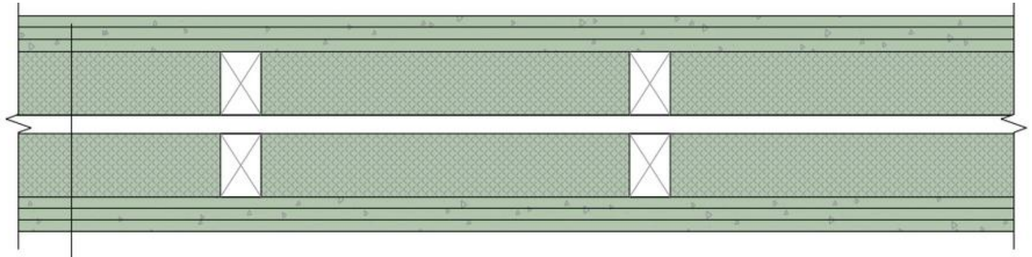
SAINT-GOBAIN

6 ZONE C: JAPANESE GARDEN

7 DETAIL DRAWINGS

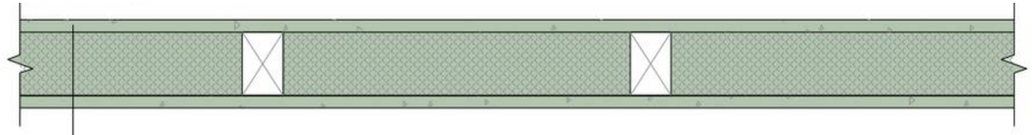
APARTMENT PARTITIONING



12.5 mm	**Gyproc GHE 13 Habito** plasterboard
12.5 mm	**Gyproc GNE 13 Normal** plasterboard
12.5 mm	**Gyproc GNE 13 Normal** plasterboard
70 mm	Wooden stud with
70 mm	**ISOVER** Wooden stud board 35, centre distance 450
20 mm	Air gap
70 mm	Wooden stud with
70 mm	**ISOVER** Wooden stud board 35, centre distance 450
12.5 mm	**Gyproc GNE 13 Normal** plasterboard
12.5 mm	**Gyproc GNE 13 Normal** plasterboard
12.5 mm	**Gyproc GHE 13 Habito** plasterboard

Sound reduction - 73 dB
Thickness - 235 mm

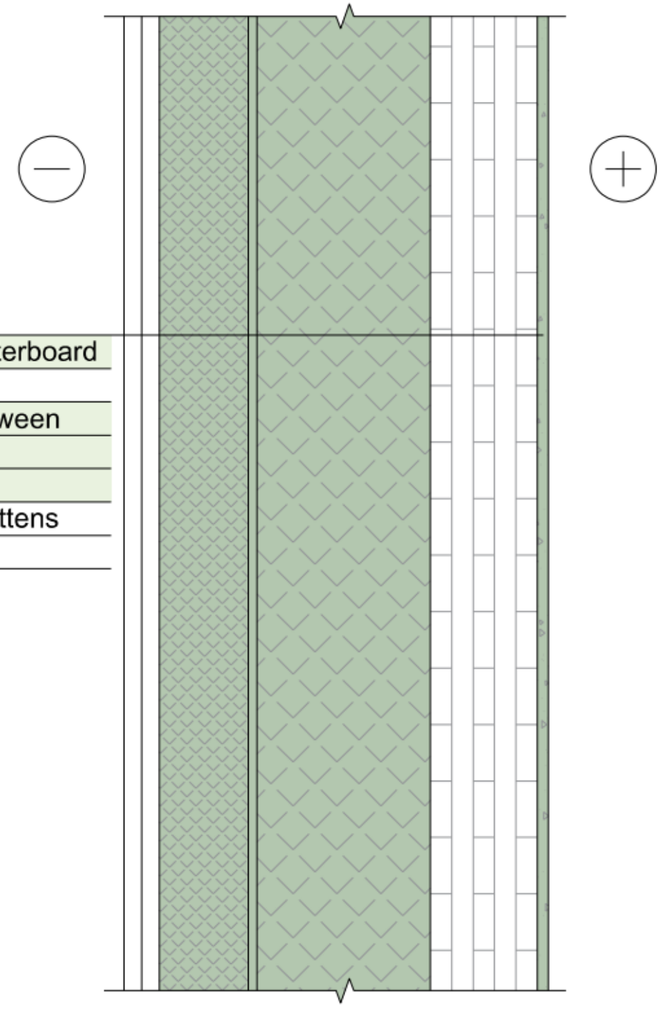
DIVIDING WALL



12.5 mm	**Gyproc GHE 13 Habito** plasterboard
70 mm	Wooden stud 45x70 with
70 mm	**ISOVER** Wooden stud board 35, centre distance 450
12.5 mm	**Gyproc GHE 13 Habito** plasterboard

Sound reduction - 38 dB
Thickness - 95 mm

EXTERIOR WALL



12.5 mm	**Gyproc GNE 13 Normal** plasterboard
120 mm	CLT element
195 mm	**ISOVER PLUS** / board 32 between
9.5 mm	**WeberTherm** 500
100 mm	**WeberTherm** 371
20 mm	Nailing battens / ventilation battens
20 mm	Wooden panel facade

Sound reduction - 56 dB
U-value for the outer wall U=0.10 W/m^{2}K
Thickness - 477 mm

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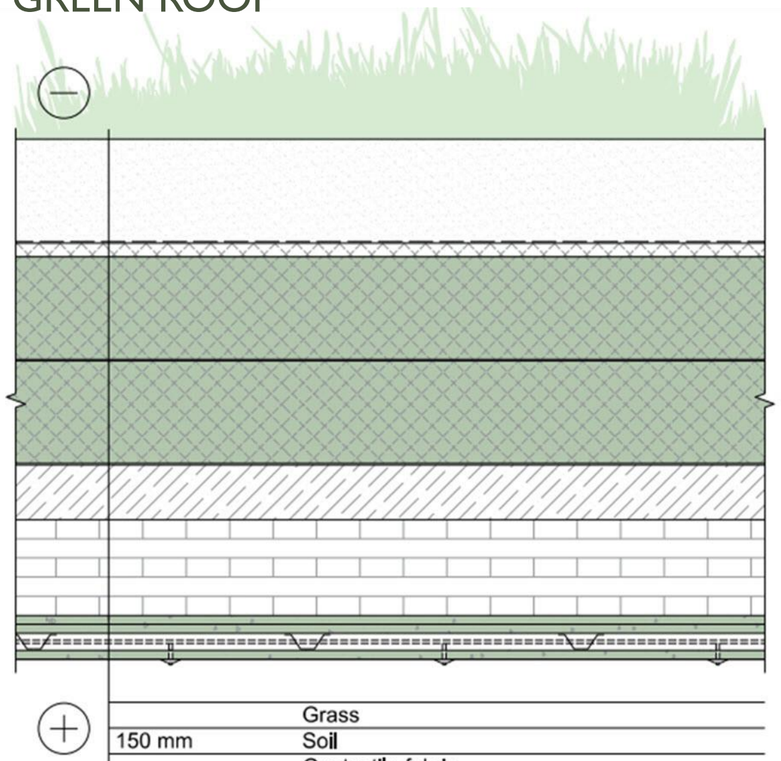
7 DETAIL DRAWINGS

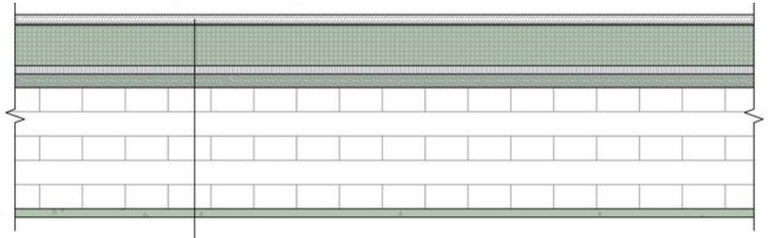
GREEN ROOF



	Grass
150 mm	Soil
	Geotextile fabric
	Drainage board
300 mm	**ISOVER** mineral wool insulation
	Drainage mat (geotextile fabric on both sides)
	Root barrier
	ISOVER BITUVER waterproofing
80-100 mm	Slope concprete 1:50
140 mm	CLT panel
2×12.5 mm	**Gyproc GNE 13 Normal** plasterboard
	Cladding (acoustic springs + sprinkler system)
12.5 mm	**Gyproc GNE 13 Normal** plasterboard

U-value for the green roof U≤0.07 W/m^{2}K
Thickness ≈ 750 mm

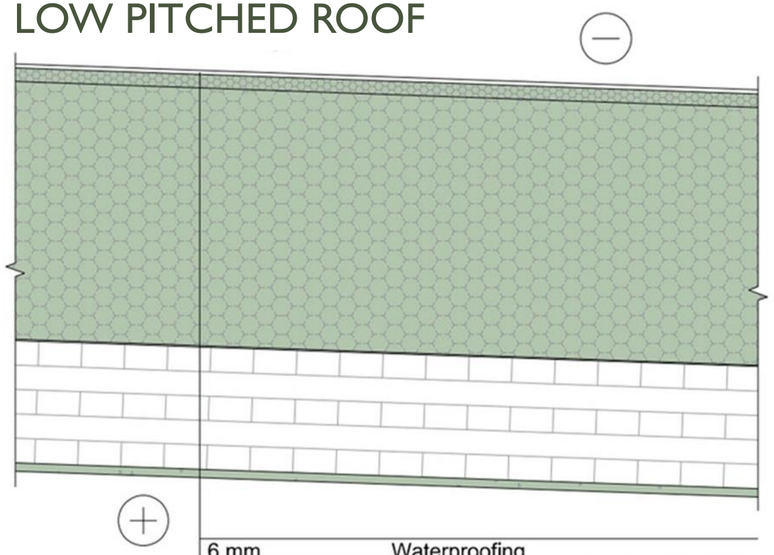
FLOORING - APARTMENTS



14 mm	Parquet
2 mm	Foam
60 mm	**Weberfloor** 150 dura
12 mm	Aprobo Decibel 4 step sound mat
20 mm	**Glava Footstep** impact sound board
180 mm	CLT element
12.5	**Gyproc GNE 13 Normal** plasterboard

Thickness - 301 mm
Sound reduction - 54 dB

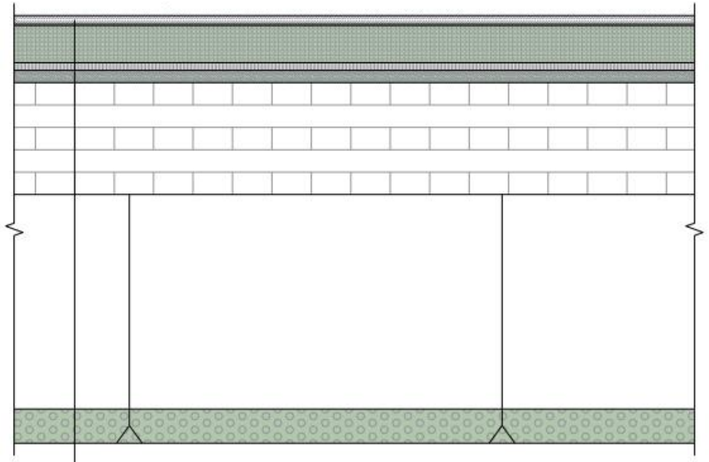
LOW PITCHED ROOF



6 mm	Waterproofing
20 mm	**ISOVER ROBUST** Ceiling Board
380 mm	**ISOVER ROBUST** Ceiling Panel
2 mm	Underlay felt
180 mm	CLT element
12.5 mm	**Gyproc GNE 13 Normal** plasterboard

U-value for the low-pitched roof U=0.07 W/m^{2}K
Thickness - 601 mm

FLOORING – SECOND FLOOR



14 mm	Parquet
2 mm	Foam
60 mm	**Weberfloor** 150 dura
12 mm	Aprobo Decibel 4 step sound mat
20 mm	**Glava Footstep** impact sound board
180 mm	CLT element
345 mm	Air Gap
55 mm	**Ecophon CombiSlon TM DUO A** suspended ceiling

Sound reduction - 62 dB
Thickness - 688 mm

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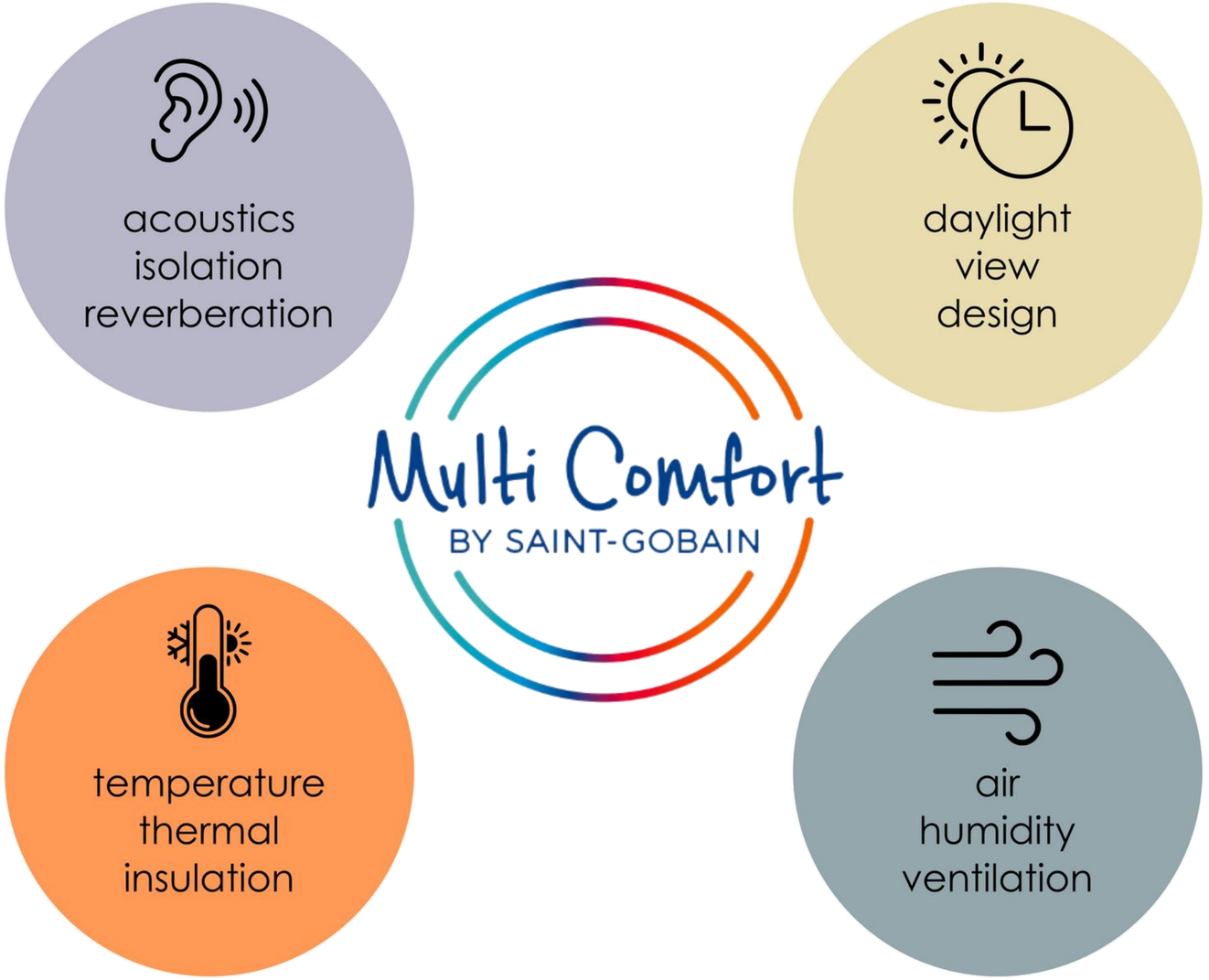

SAINT-GOBAIN

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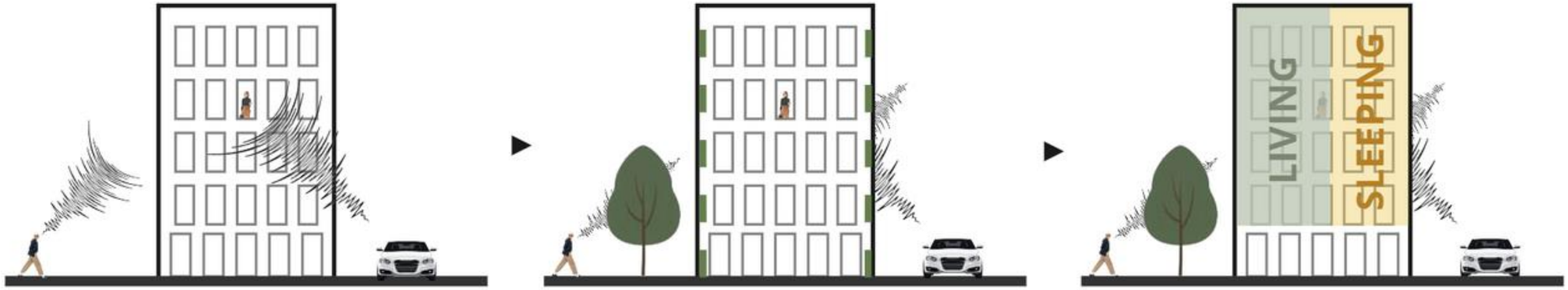
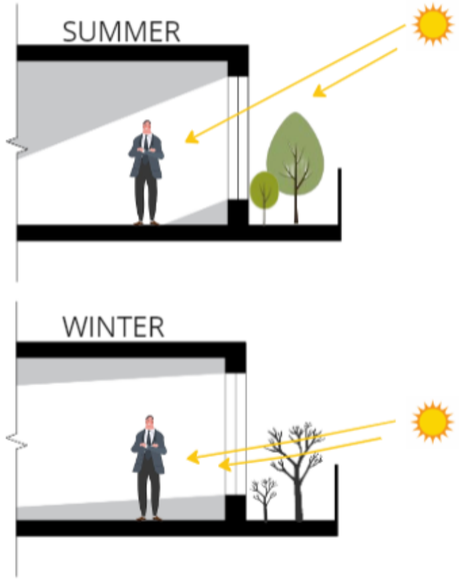
ACOUSTIC COMFORT

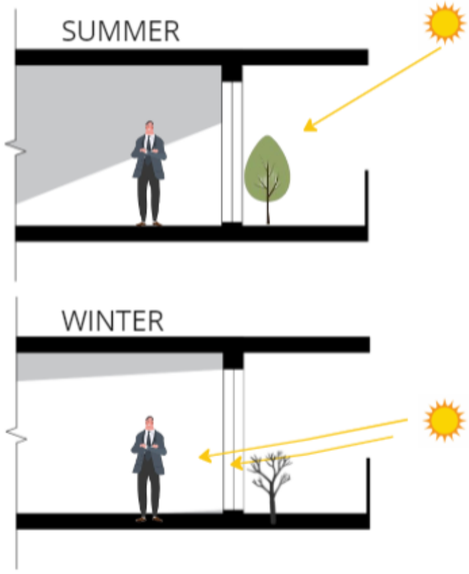


DAYLIGHT

BUILDING B



BUILDING A



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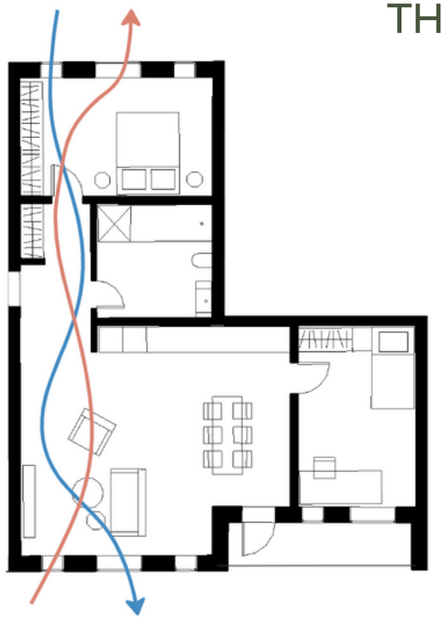
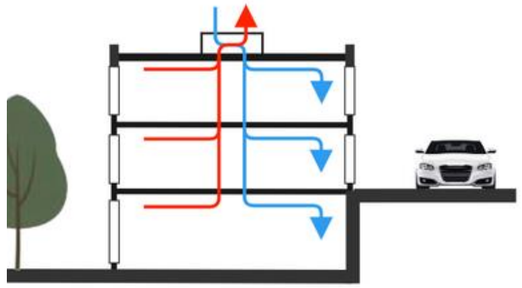
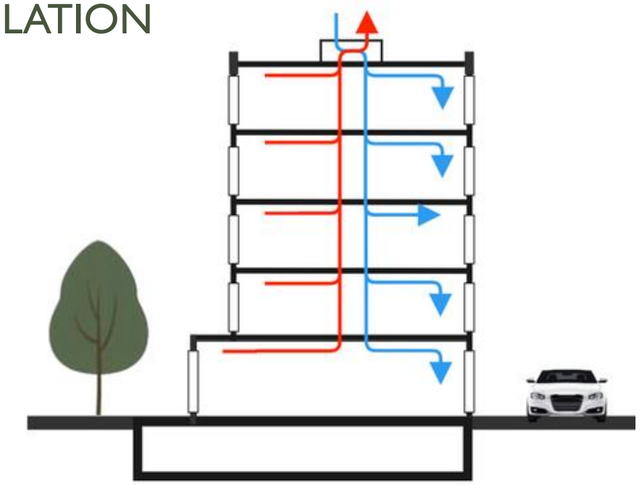
THERMAL COMFORT



VENTILATION



BUILDING A

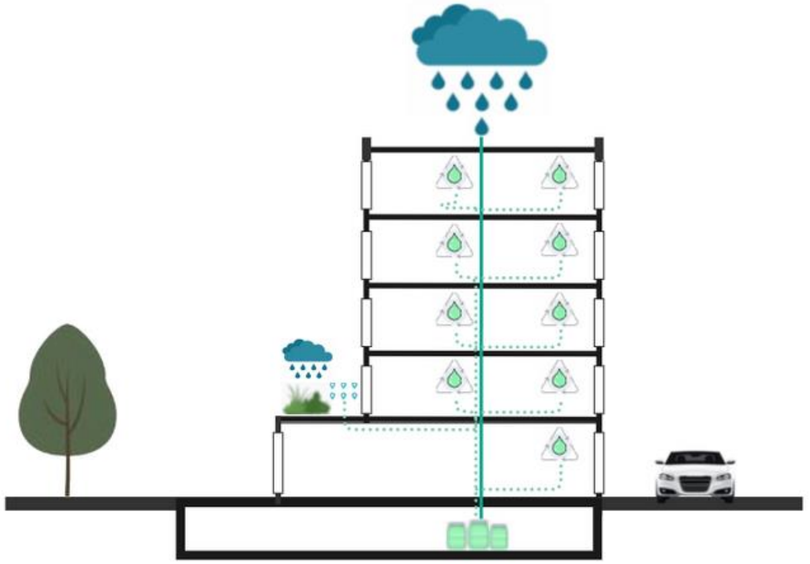


BUILDING B

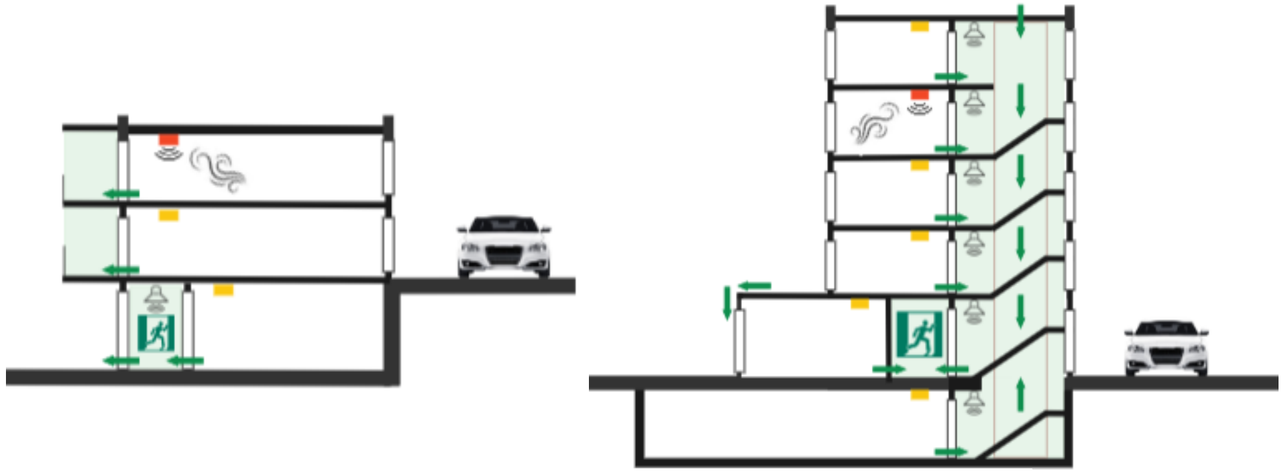
SAINT-GOBAIN

8 MULTICOMFORT

RAINWATER



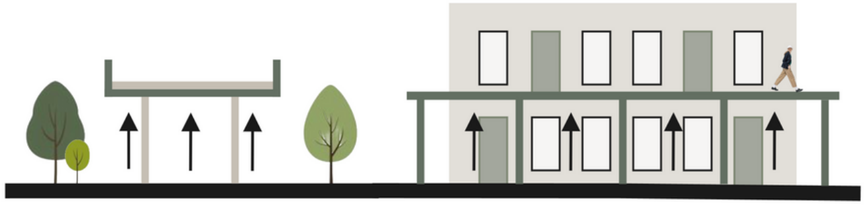
FIRE SAFETY



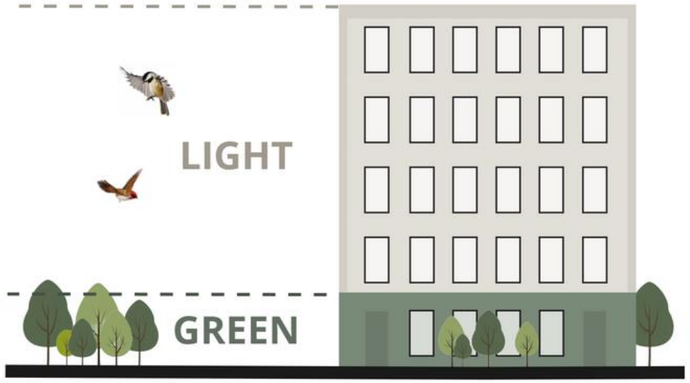
BUILDING A

BUILDING B

MINIMAL FOOTPRINT



VISUAL COMFORT



ARCHITECTURE STUDENT CONTEST

SAINT-GOBAIN

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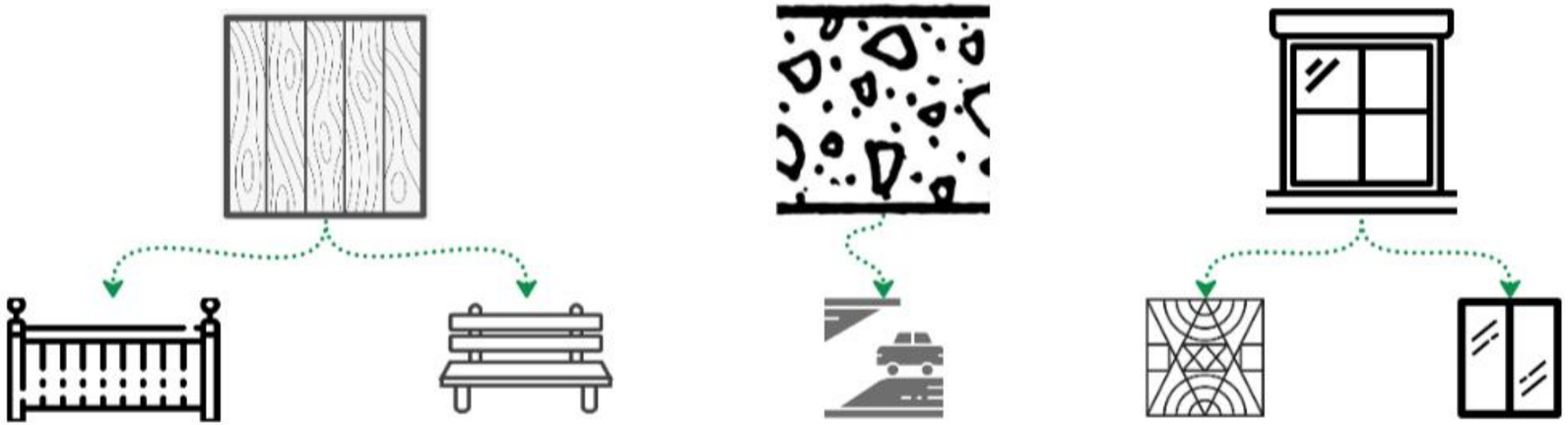
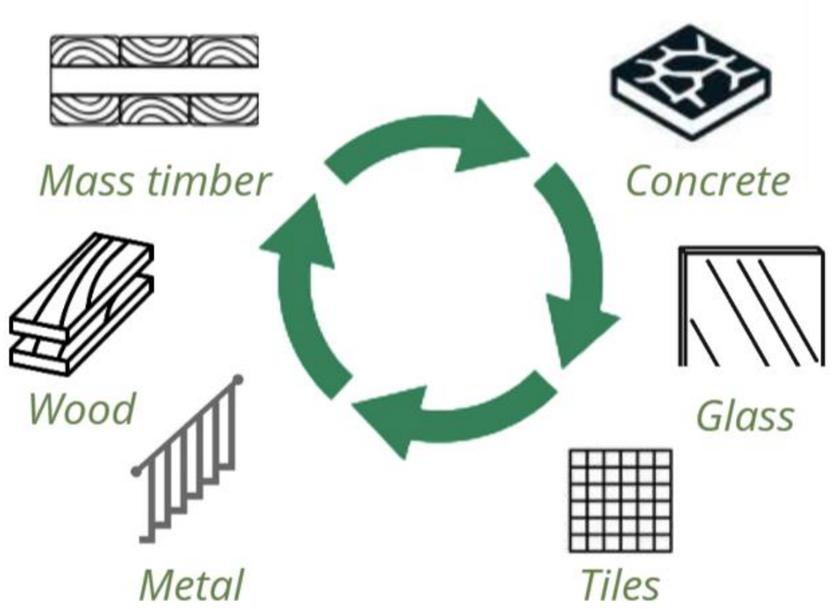
REUSE OF EXISTING MATERIALS



POTENTIAL REUSE OF NEW MATERIALS



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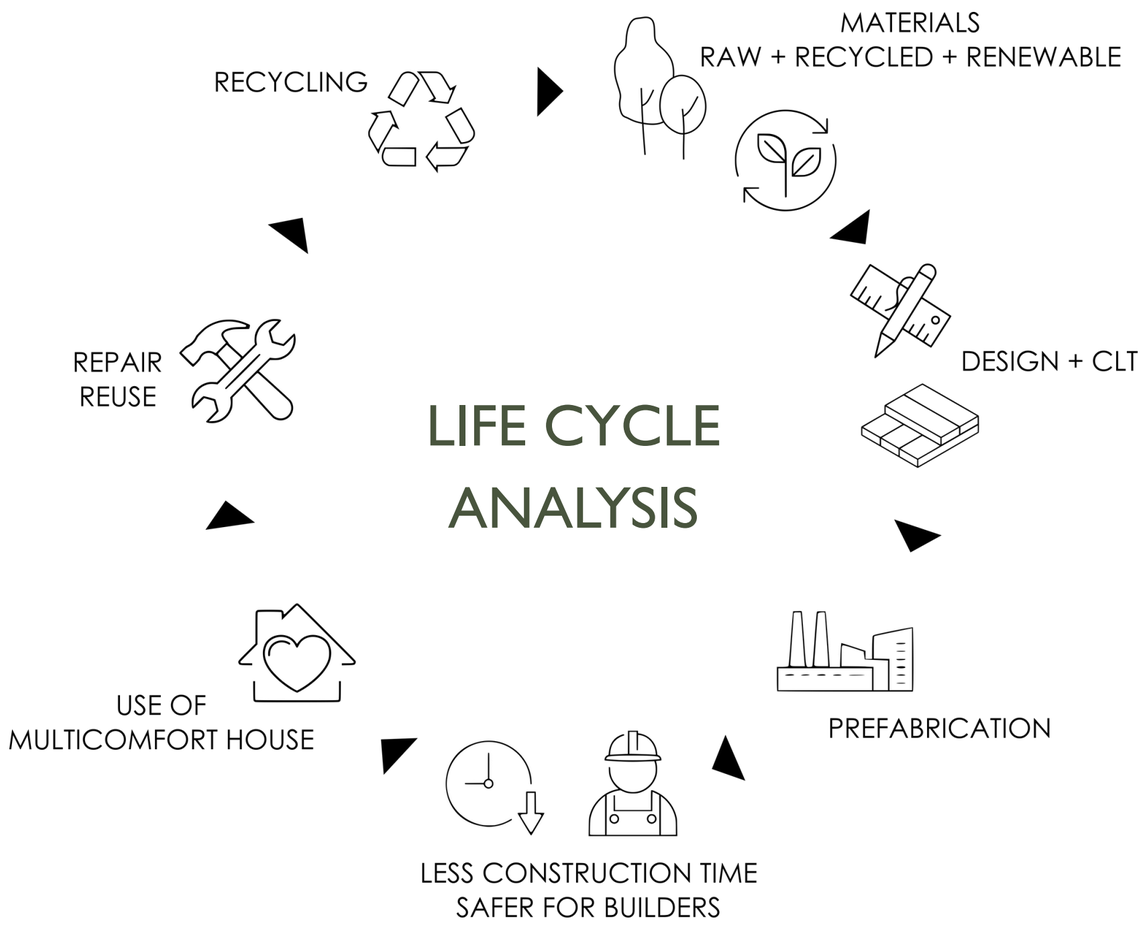
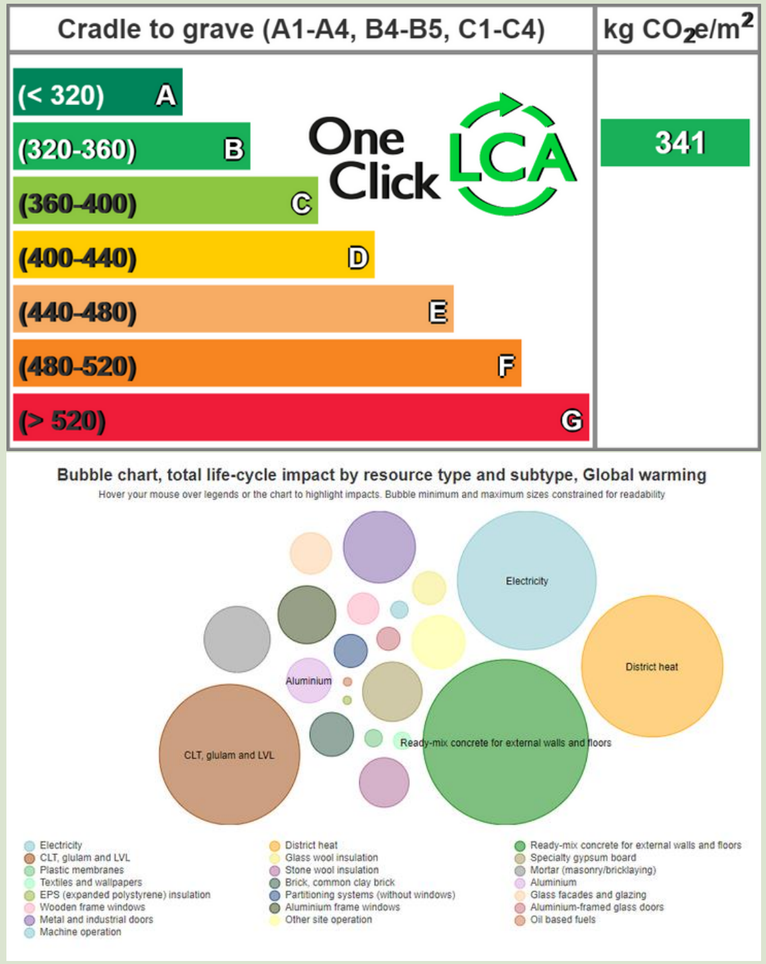
9 LCA & CALCULATIONS





ARCHITECTURE STUDENT CONTEST

Thank you for your attention!

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