

Current situation

In Damascus



Harasta (northeast of Damascus) was severely damaged during the war that started in 2011.



School site is fully destroyed and not fit for renovation



Assad regime fell in 2024; rebuilding has begun, but security is still fragile.



Basic services limited: few hours of electricity, scarce clean water.

What is happening right now



Schools are rebuilt first, education is key to the future.



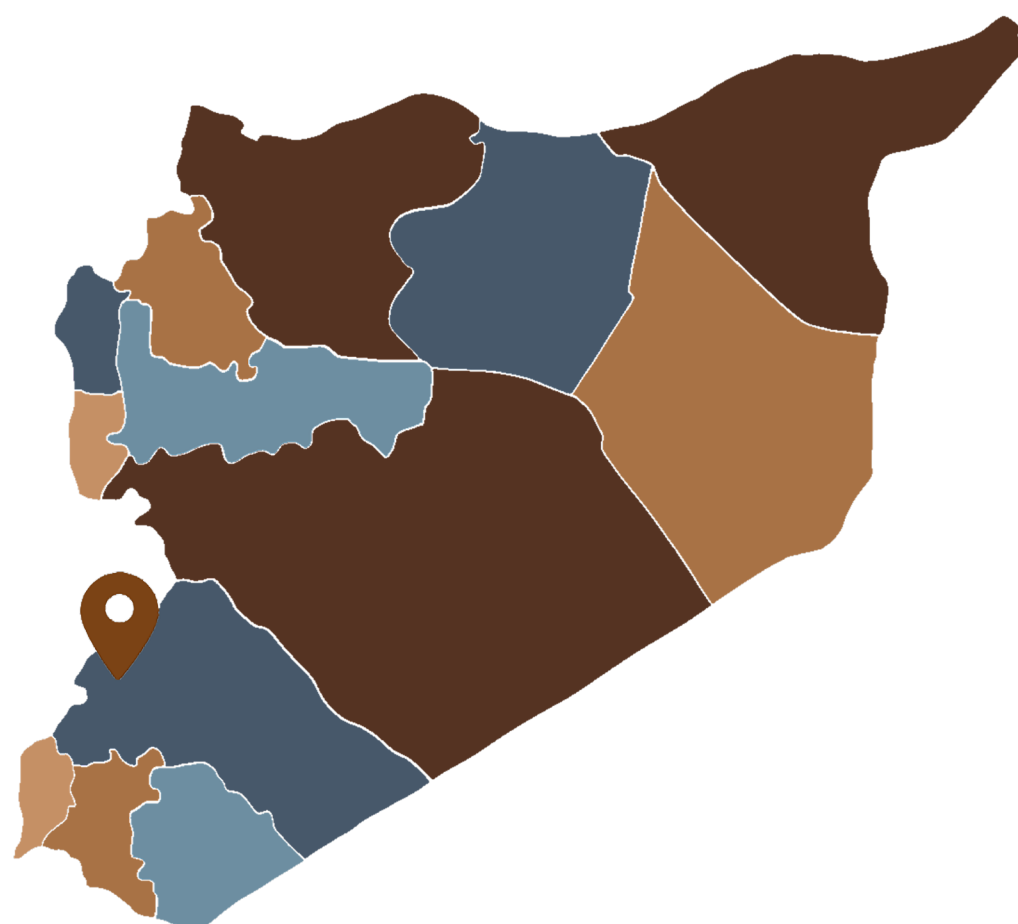
International aid supports reconstruction and learning.



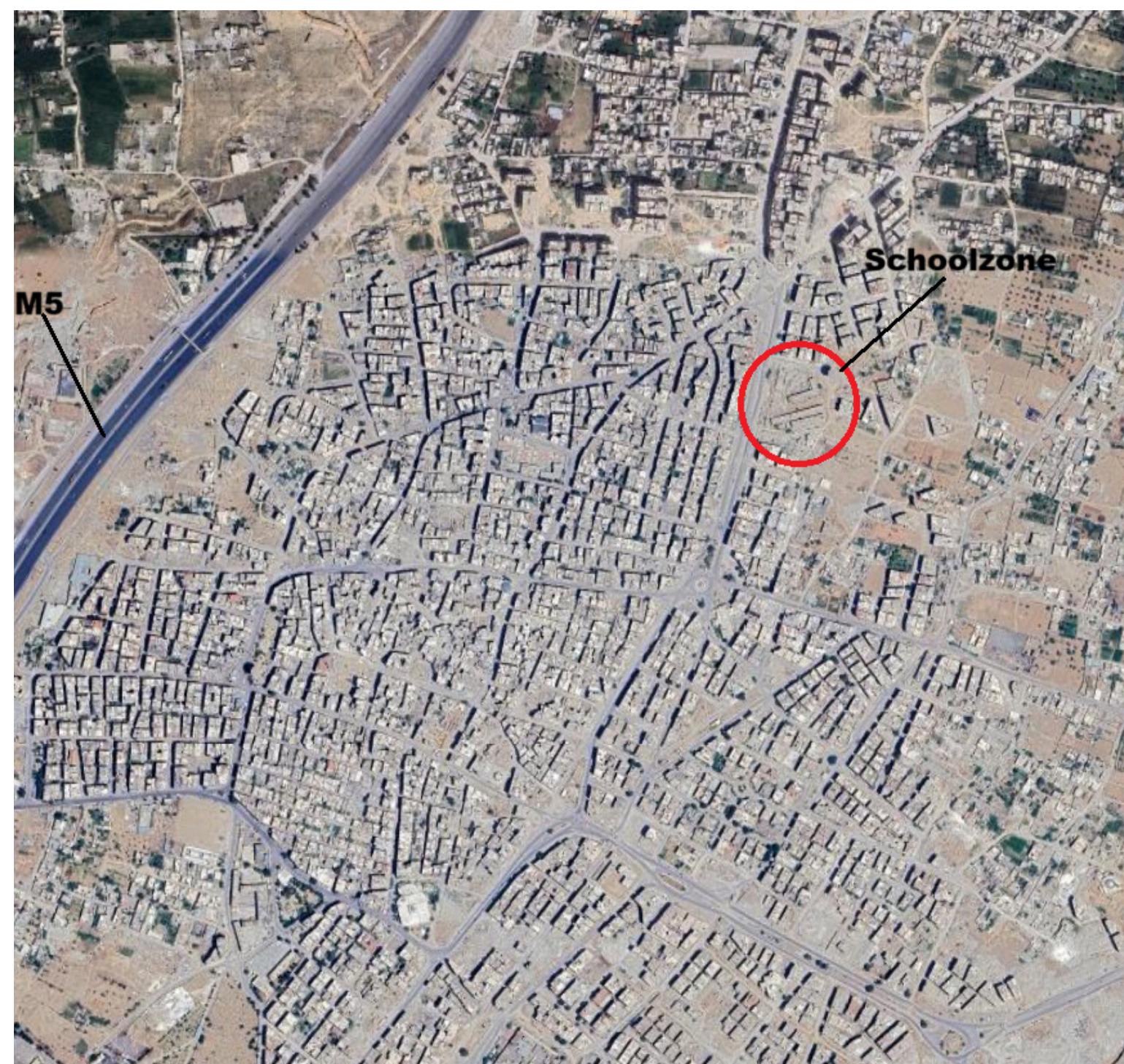
Locals contribute, despite risks and limited resources.



A new school can spark community, healing, and progress.

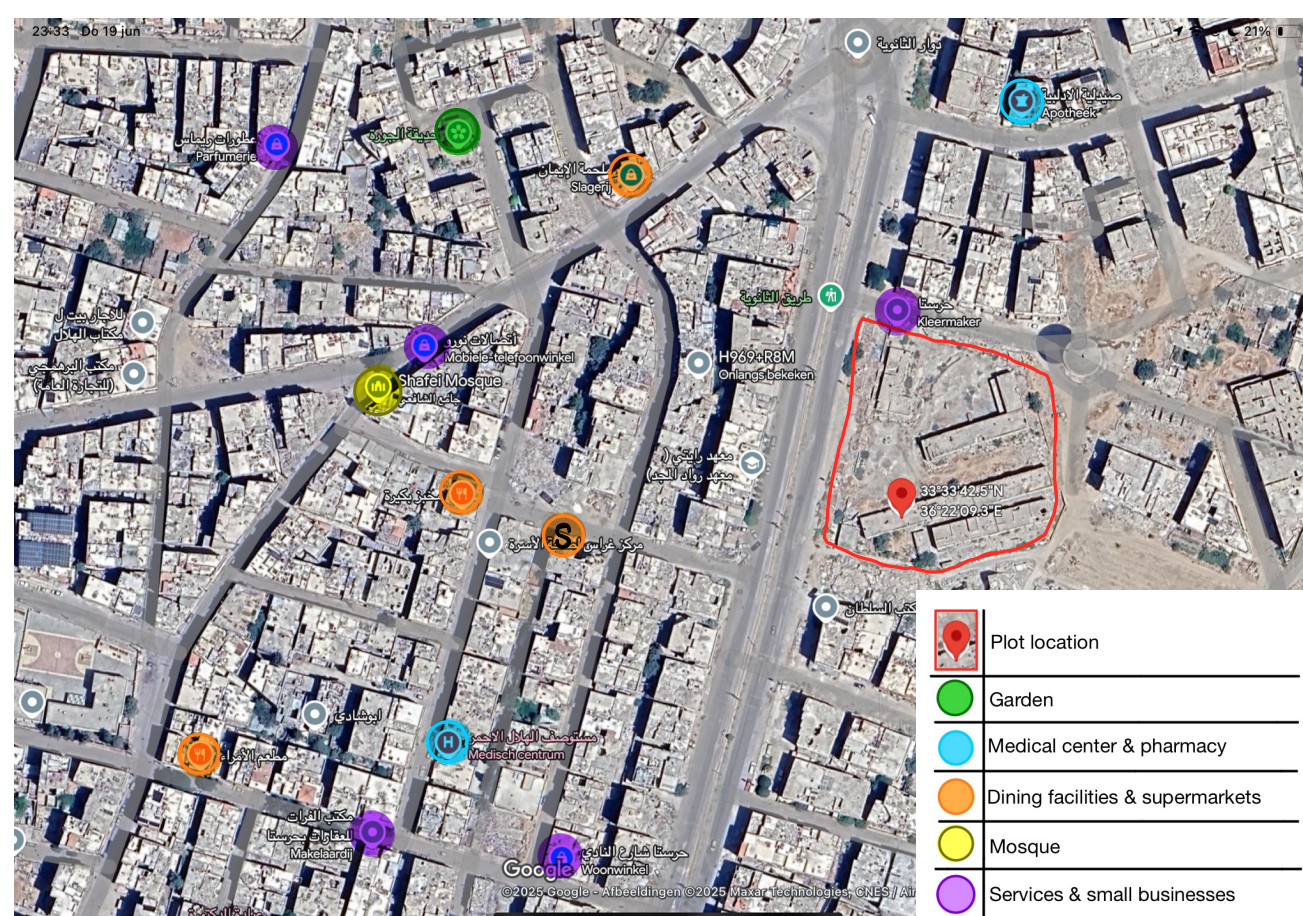


Location research



Local Facilities

- Medical center & pharmacy
- Shafei Mosque
- Dining options and supermarkets
- Services & small businesses
- Open space & construction site



- Harasta is located on the eastern edge of Damascus, near the M5 highway.
- The 6,214 m² plot lies along a main road, easily accessible by car, bike, and public transport.
- Pre-war: well-connected; since 2018, access via M5 restored.
- Connectivity remains limited due to damaged roads, checkpoints, and irregular transport.
- Mobility issues slow down reconstruction and economic recovery.
- Flat terrain with remnants of a former school building (to be cleared).

Architecture history

In Damascus

Timeline

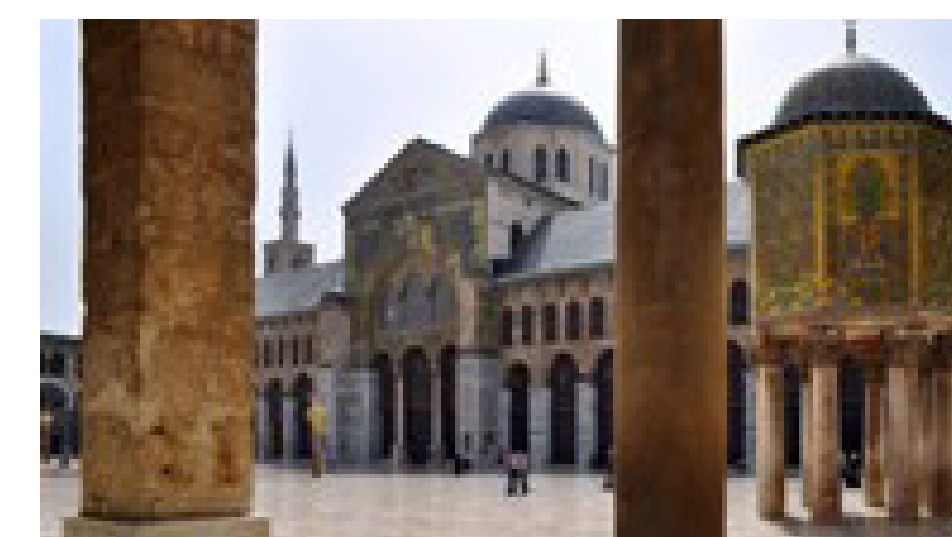
200-600



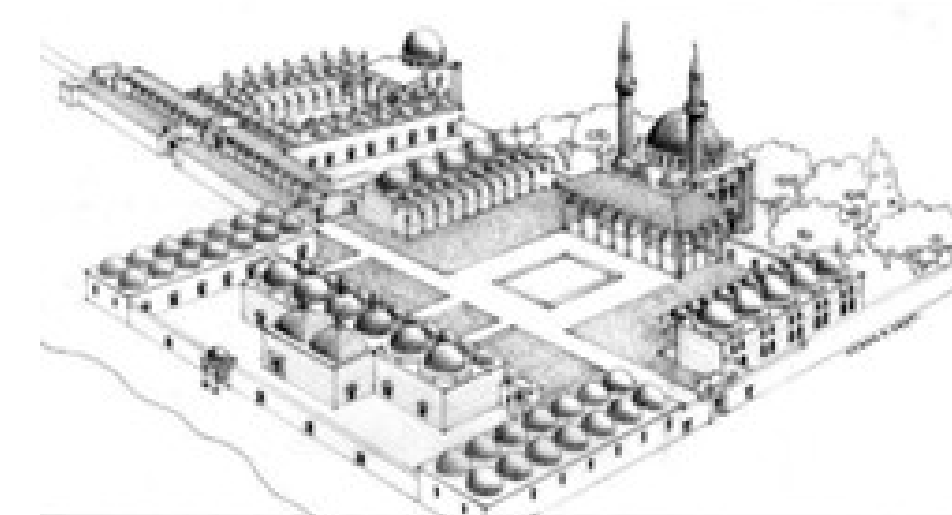
7e eeuw



661-750



1516-1918



Roman-Byzantine Influences

Features:

Columns, arches, domes

Islamic Architecture

Features:

Iwan, mashrabiya, muqarnas
Calligraphy and decorative details

Umayyad Architecture

Features:

Large courtyards
Geometric patterns and mosaics
Decorative elements as unifying features

Ottoman Architecture

Features:

Symmetry and courtyards
Fountains
Ablaq masonry (alternating light and dark stone)

Traditional Syrian Architecture

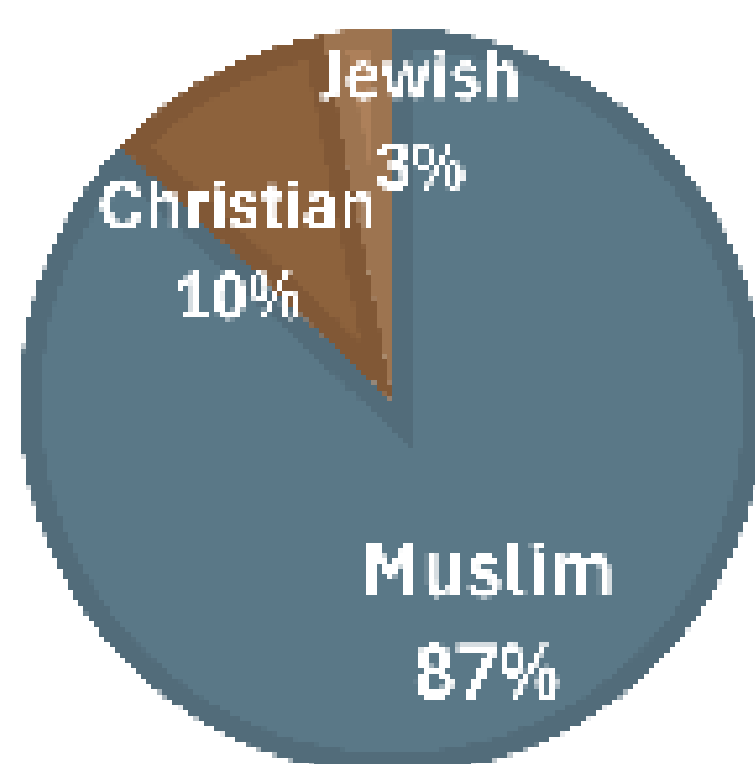
Features:

Closed façades with open inner courtyards
Local materials: limestone and rubble stone

Population survey

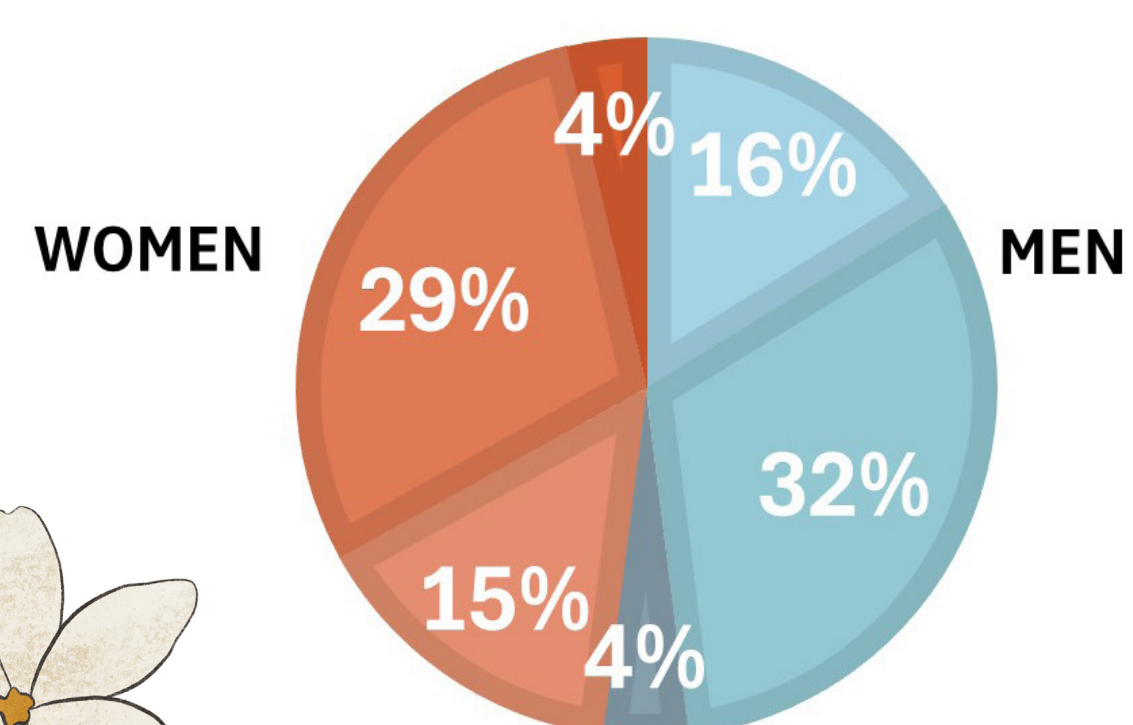
RELIGION DIVISION

■ Muslim ■ Christian ■ Jewish



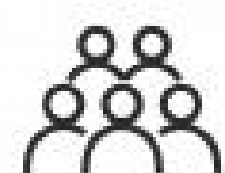
MEN AND WOMEN AGE DIVISION

■ Man 0-14 ■ Man 15-64 ■ Man +65
■ Vrouw 0-14 ■ Vrouw 15-64 ■ Vrouw +65



Population

The total population of Syria is 23.9 million.



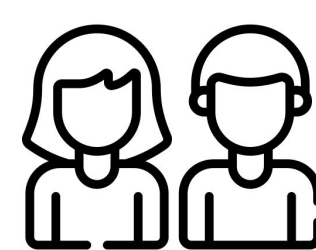
Inhabitants

Damascus has 1.85 million.



School

2.4 million children not attending school.



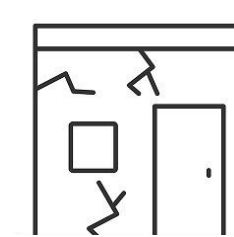
Damage

8,000 schools in Syria have been damaged.



Extreme poverty

Poverty in Syria is expected to rise from 33.1% in 2024 to 37.4% in 2025.



Climate

	min/max	neerslag	wind	zon	daglange	UV-index
januari	2° / 13°	☔	☔	☀	10 uur	1
februari	4° / 16°	☔	☔	☀	11 uur	2
maart	7° / 19°	☔	☔	☀	12 uur	3
april	11° / 23°	☔	☔	☀	13 uur	4
mei	15° / 26°	☔	☔	☀	14 uur	5
juni	18° / 29°	☔	☔	☀	14 uur	6
juli	20° / 32°	☔	☔	☀	14 uur	7
augustus	20° / 32°	☔	☔	☀	13 uur	7
september	18° / 28°	☔	☔	☀	12 uur	6
oktober	14° / 24°	☔	☔	☀	11 uur	5
november	9° / 20°	☔	☔	☀	10 uur	4
december	2° / 13°	☔	☔	☀	10 uur	2



Climate: Mediterranean – mild, wet winters and hot, dry summers



Wind: Consistent year-round, ~3 Beaufort (12–19 km/h)



Precipitation: Mainly from November to April; summers are very dry



Sunshine: Abundant year-round; intense in summer



Temperatures:
o Winter: ~13 °C (day), ~3 °C (night)
o Summer: up to 37 °C (day), ~20 °C (night)

Mashrabiya

Traditional Syrian architectural element, a projecting balcony with wooden latticework

Functions:

Air Circulation
Sun Protection
Privacy



Schools in Syria



- Simple, minimal school buildings • 2–3 stories, often multiple units
- Design should feel familiar • Focus on safety and comfort

Historical and Cultural Research



History: From farming village to modern suburb connected to Damascus



Population: Predominantly Sunni Muslim



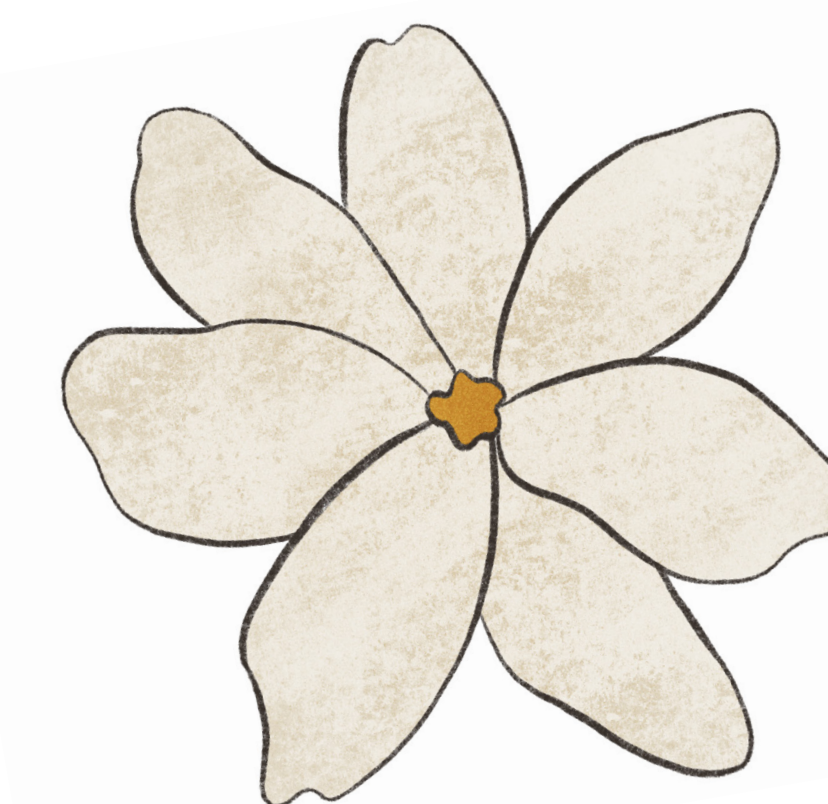
Culture: Syrian traditions, strong family ties, Islamic customs



Urban Life: Residential areas, markets, public services (pre-war)



Arts & Traditions: Syrian music, Dabke dance, Islamic holidays, local crafts & cuisine



The Jasmine Flower (Yasmin)

Symbol of Damascus: Known as the "Flower of Damascus"

Cultural Meaning: Beauty, purity, hospitality

Emotional Symbol: Evokes memories of peace, home and daily life



Program of Requirements

Quantitative Program of Requirements

School Facilities:

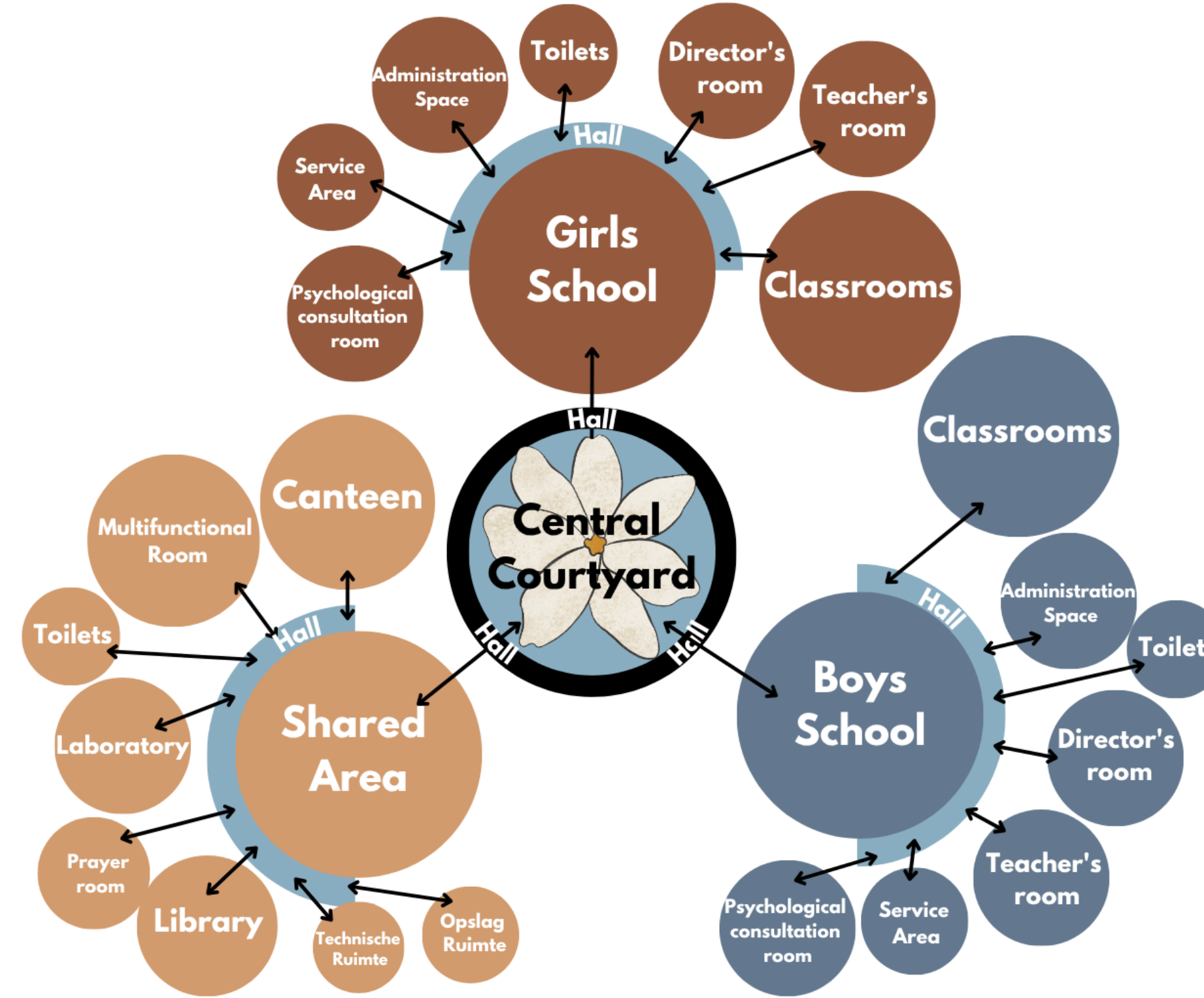
Classrooms:	48 units	32 m ² each
Teacher rooms:	2 units	32 m ² each
Principal's office:	1 unit	20 m ²
Administration offices:	2 units	15 m ² each
Psychologist's room:	1 unit	9 m ²
Service room:	1 unit	20 m ²
Toilets:	on each floor, variable in size	
Indoor and outdoor terraces:	quantity and size variable	

Shared/Common Areas:

Laboratories:	2 units	60 m ² each
Central library:	1 unit	120 m ²
Multipurpose hall:	1 unit	150 m ²
Prayer room:	1 unit	30 m ²
Canteen:	1 unit	variable in size
Storage room:	1 unit	variable in size
Technical rooms:	1 unit	variable in size
Toilets:	on each floor, variable in size	
Playgrounds:	1 unit	variable in size

- ### Qualitative Program of Requirements
- Designing a safe and child-friendly school environment.
 - The school will educate 1,440 students per day in two shifts.
 - Include the trauma of the children in the school schedule.
 - Giving space for out-of-school activities.
 - Classrooms will be for 25 to 35 students each, giving flexibility and comfort.
 - The building has cross-ventilation to improve airflow
 - Staircases at the end of each classroom wing and the beginning.
 - The prayer room will be Faced to Mekka
 - The laboratory will be faced to the North for the best lighting.
 - Include the Jasmin flower in the design for recognition with Syria
 - Making a central garden for the children to get together.

Conceptual site plan



Materials

Materials Used for Construction

1. Concrete (cast in place)
2. Aerated concrete block
3. Steel reinforcement bars

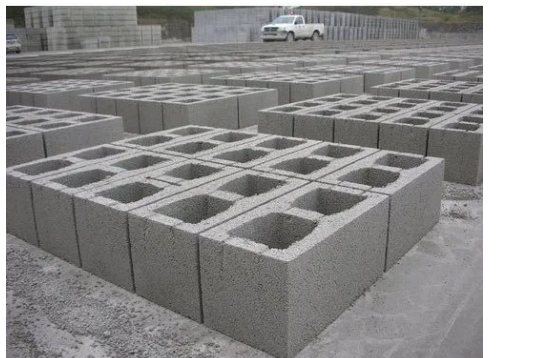
Materials used for finishing

4. Lime plaster, inside
5. Limestone, outside

1



2



3



4



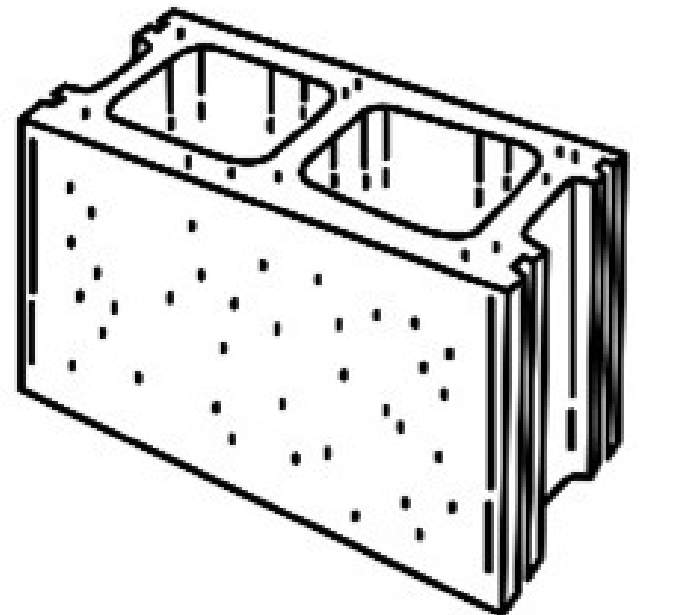
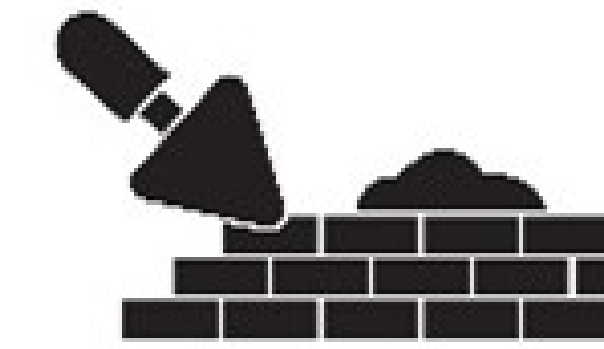
5



Construction method

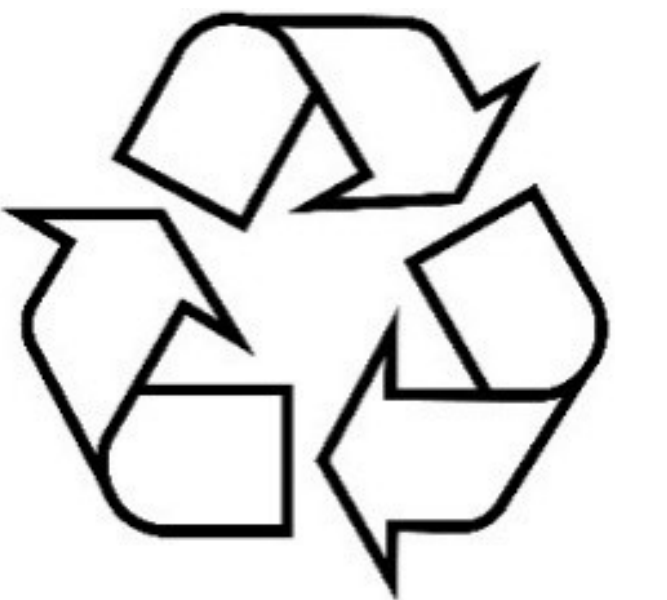
Masonry with aerated concrete blocks

- Easy to build with local labor
- Affordable, available materials



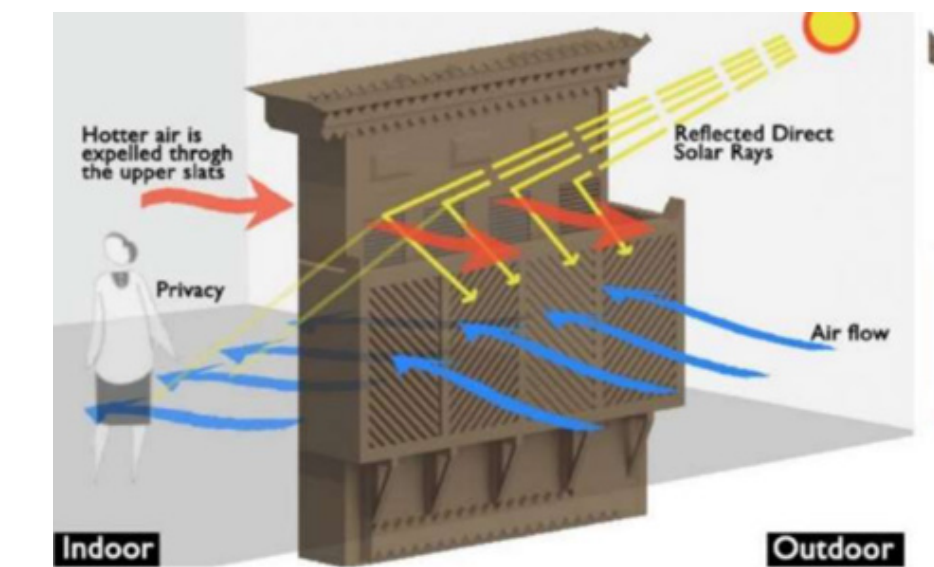
Old rubble used for non-load-bearing walls and foundations

- Cuts waste and costs
- Gives materials a second life

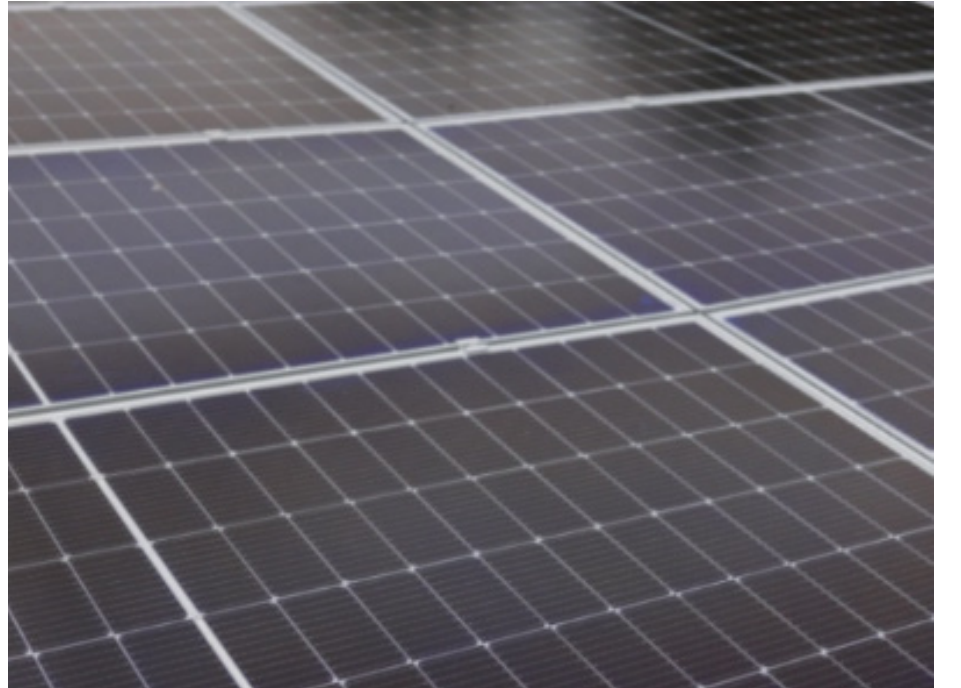


Installations

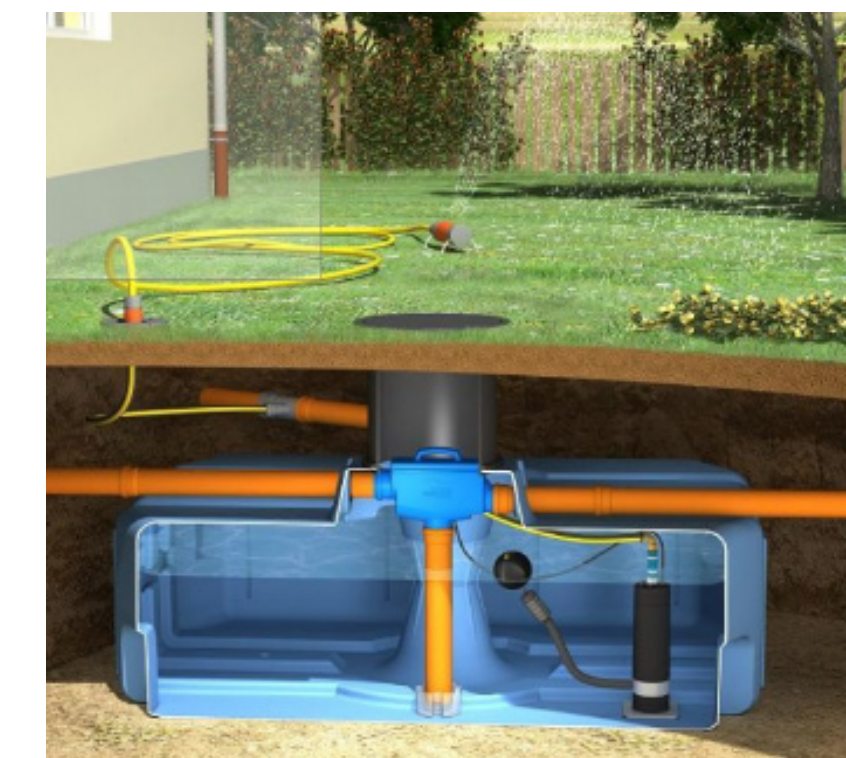
Cooling Mashrabiya



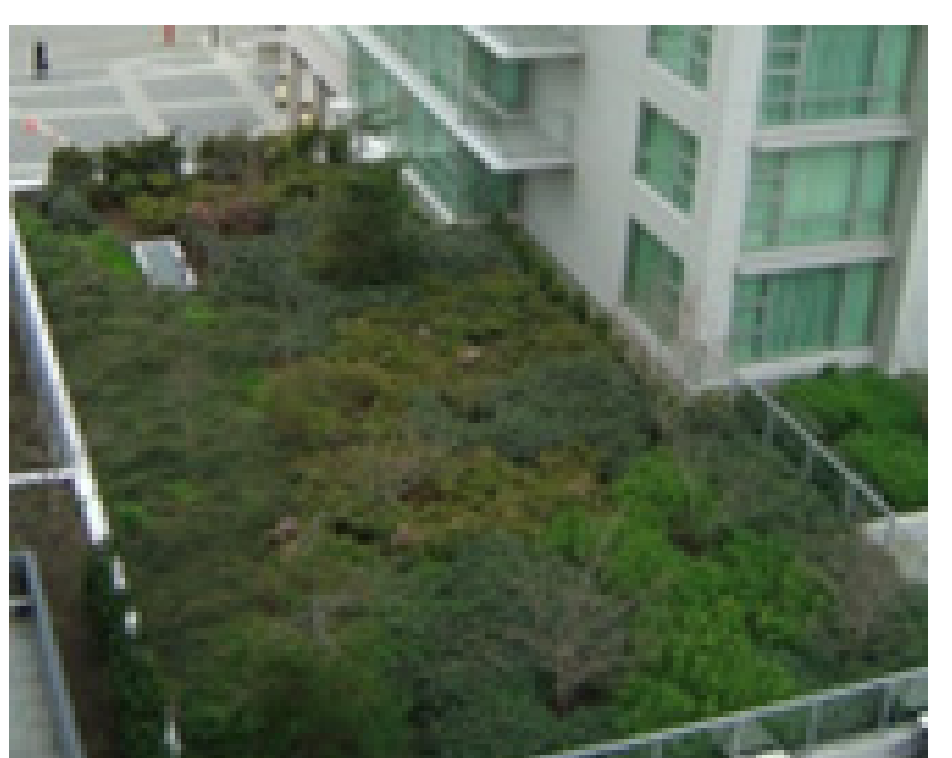
Solar panels



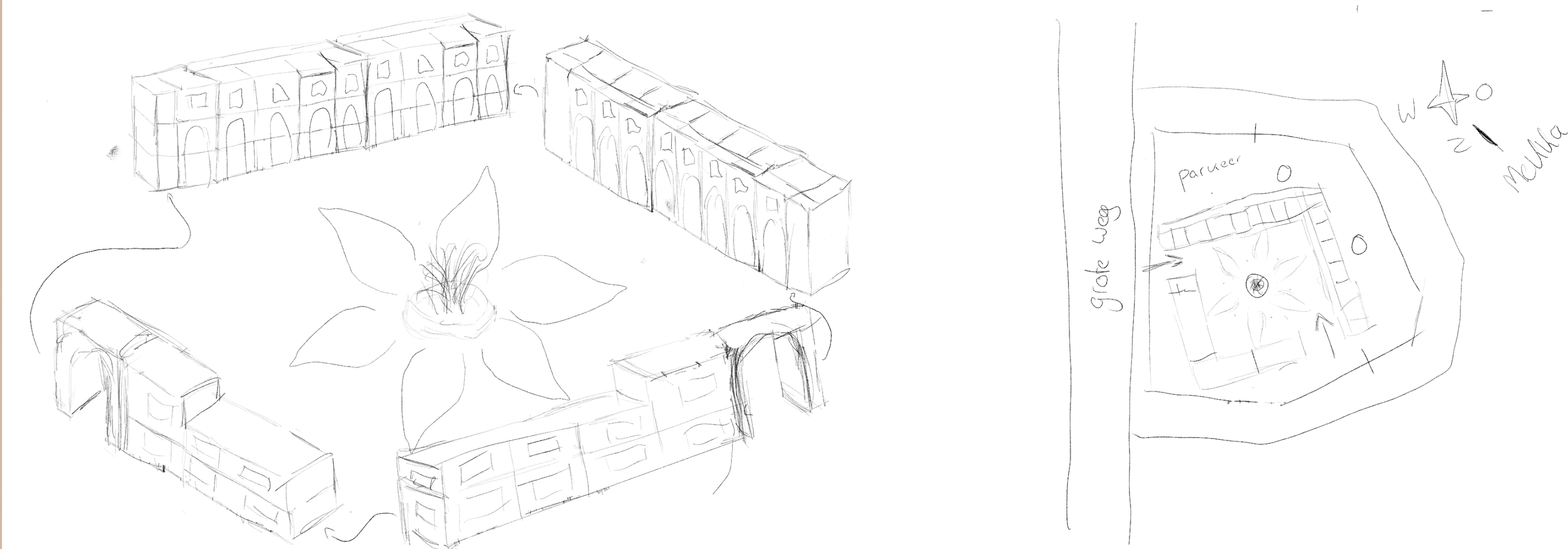
Water tank



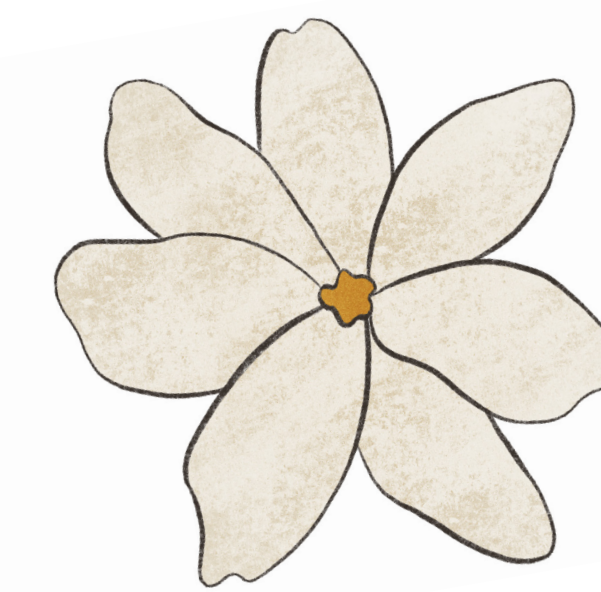
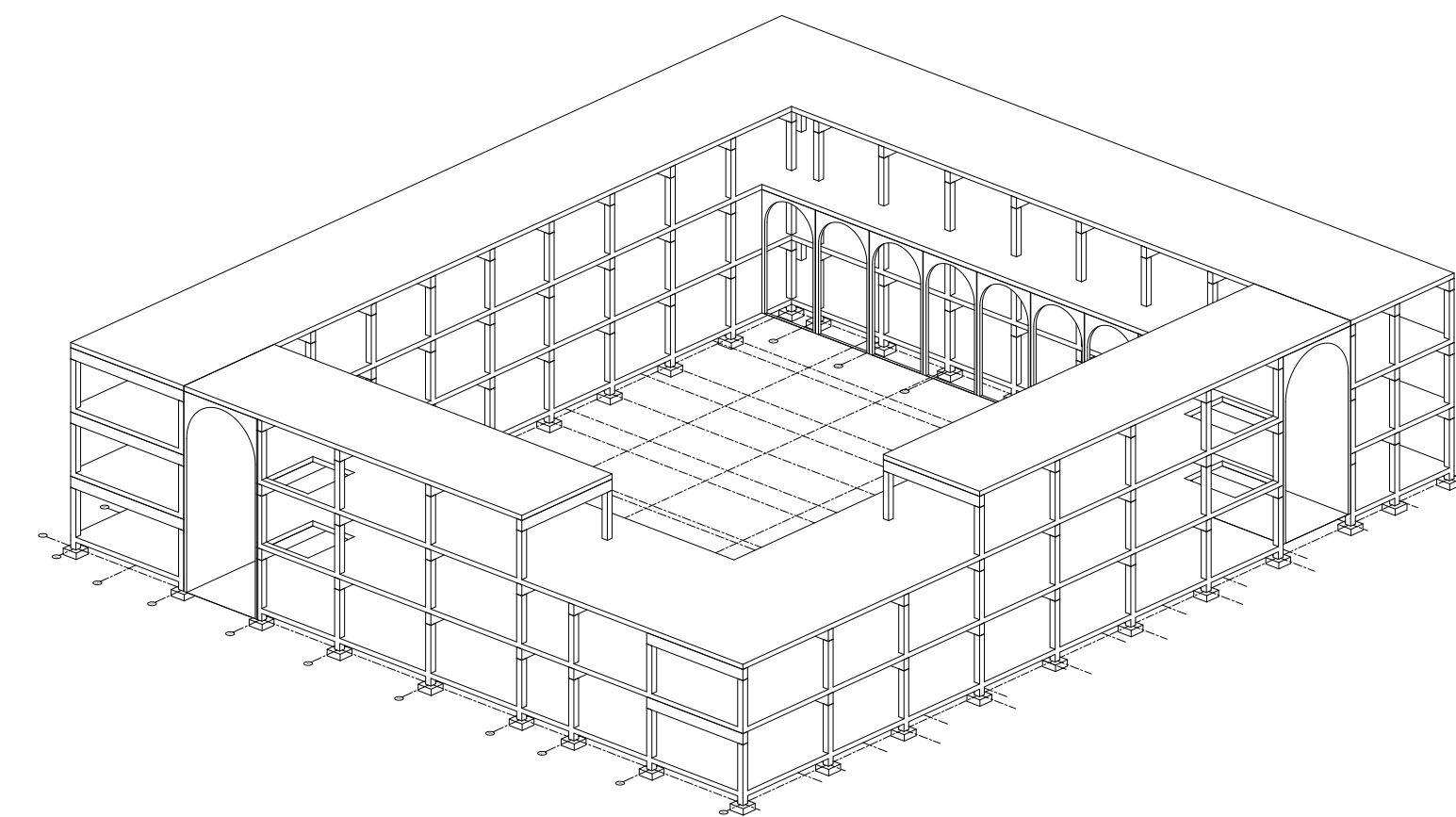
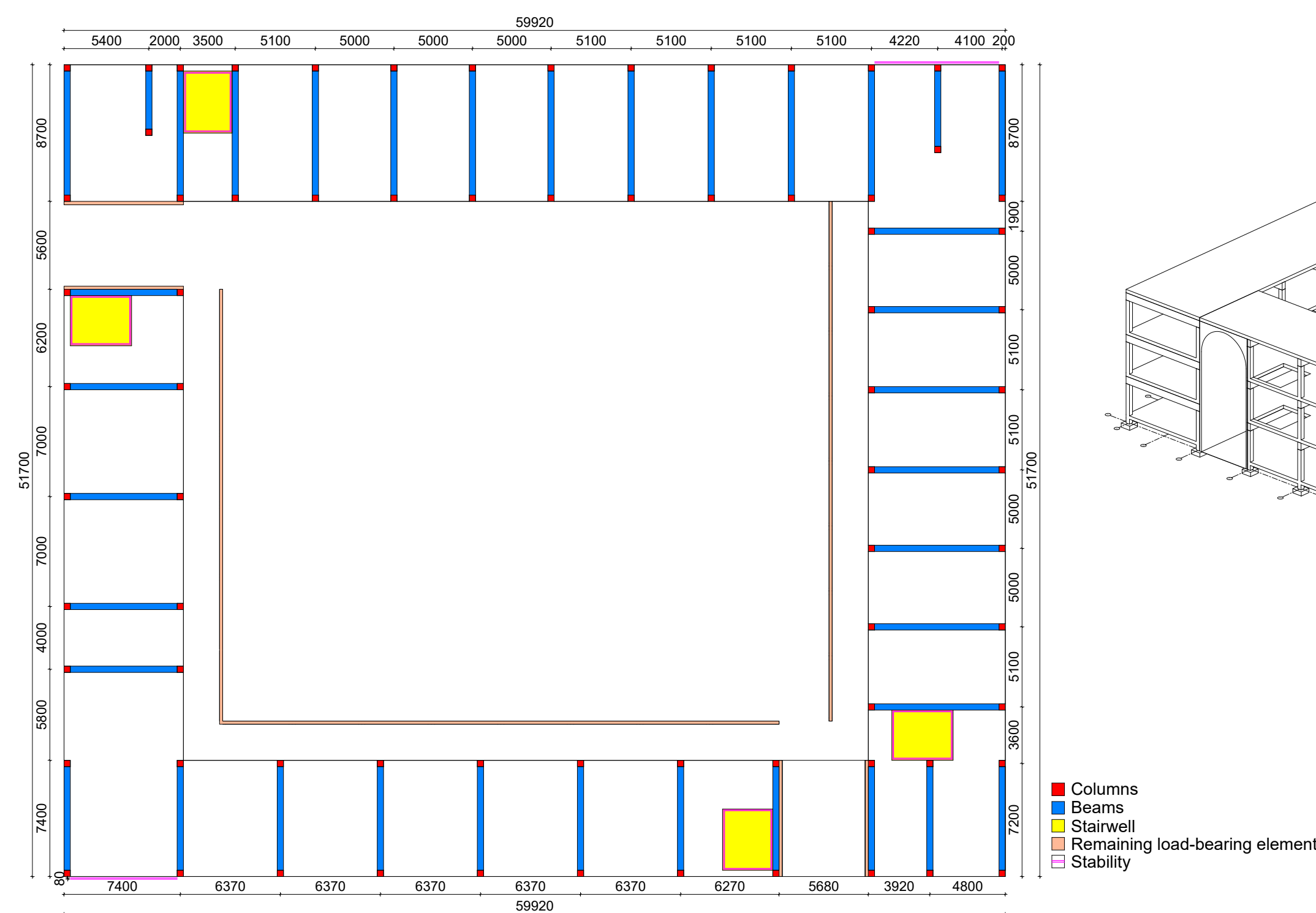
Green roof



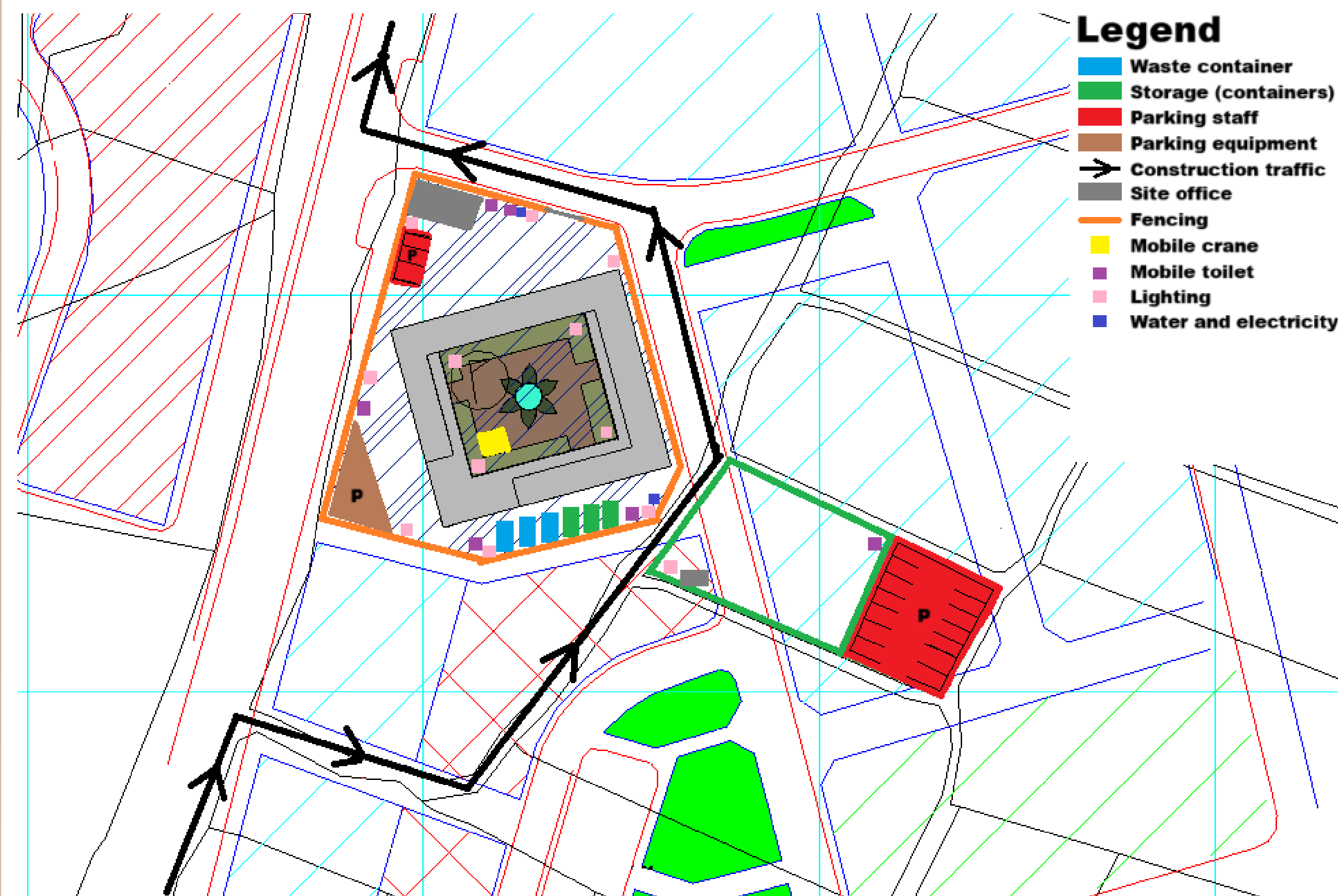
Concept sketches



Construction

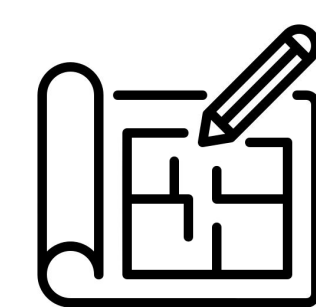


Construction site

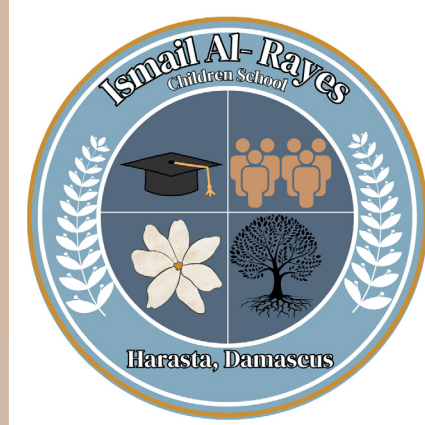


Planning and phasing

		Project in Syrie																														
		Schoolgebouw																														
		Oktober			November			December			Januari			Februari			Maart			April			Mei									
		43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	9	16	23	30	6	13	20	27	4	11	18				
Voorbereiding																																
Sloopwerkzaamheden																																
Fundatiewerkzaamheden																																
Ruwbouwwerkzaamheden																																
Gevelwerkzaamheden en dakwerkzaamheden																																
Afbouwwerkzaamheden																																
Buitenruimte en tuin																																
Oplevering																																
		20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	9	16	23	30	6	13	20	27	4	11	18				
		43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		Oktober			November			December			Januari			Februari			Maart			April			Mei									

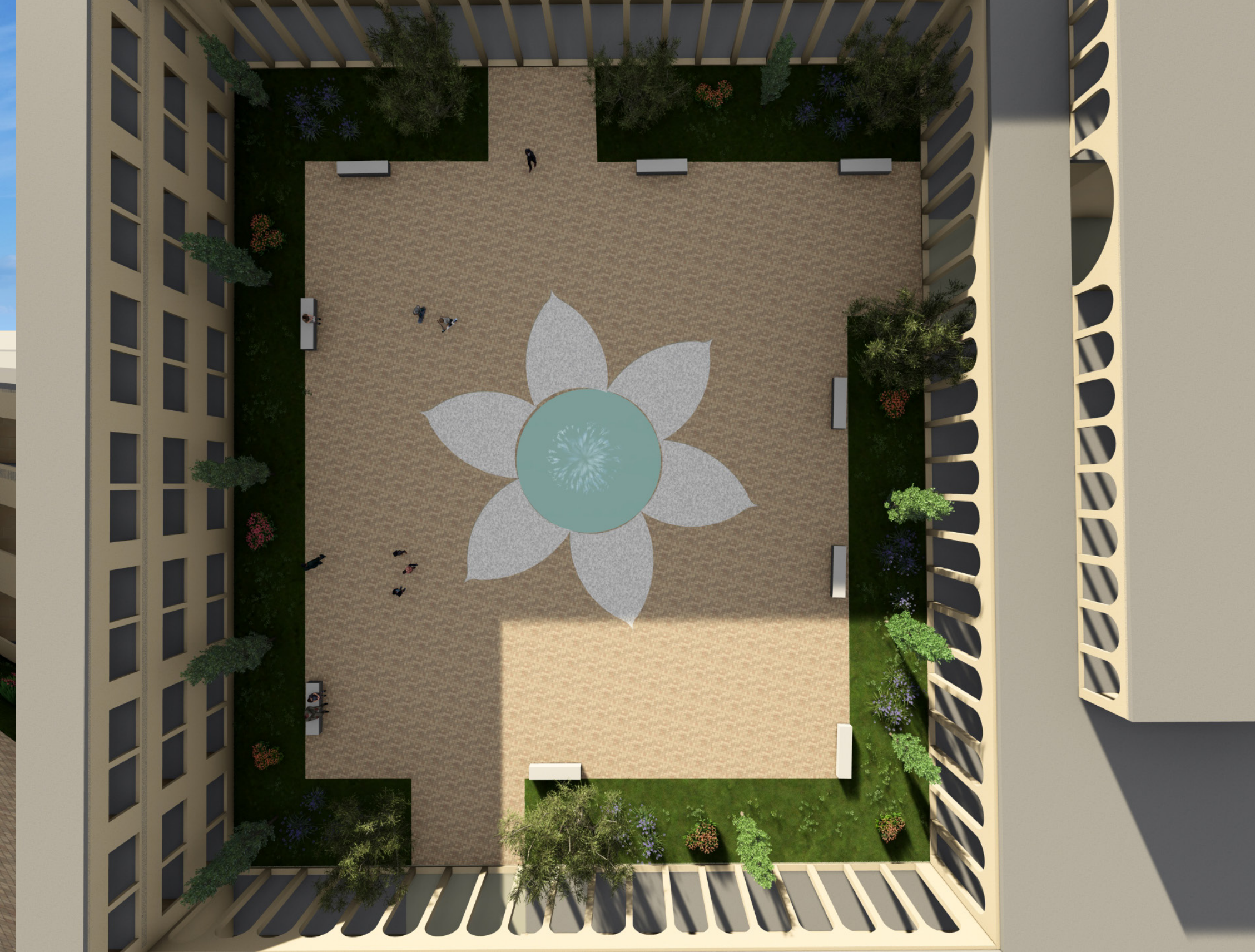


- Rough construction split into phases per building section
- Parallel work
- Less focus on insulation, unlike in the Netherlands
- More available manpower working at lower cost
- Faster and more efficient (total ~32 weeks)



ISMAIL AL-RAYES CHILDREN SCHOOL

HARASTA, DAMASCUS



Elevations



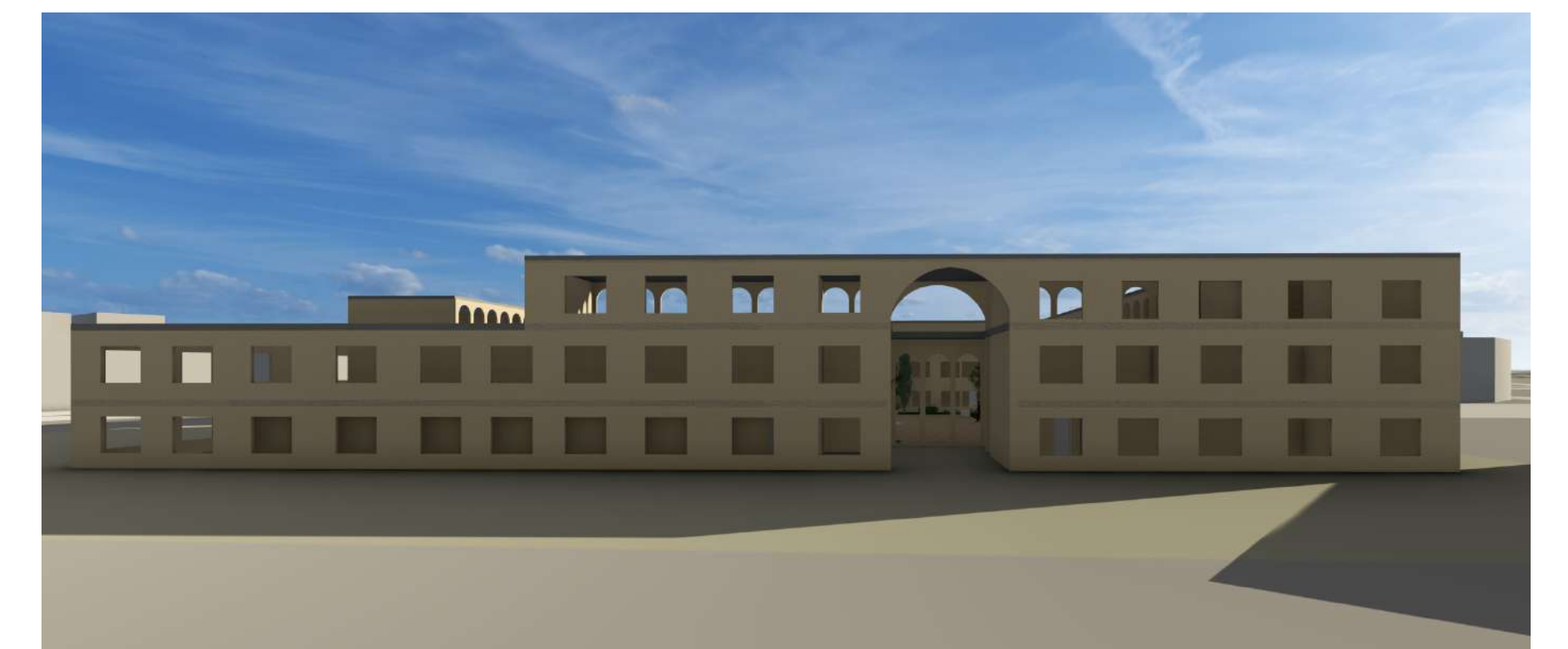
North facade



East facade

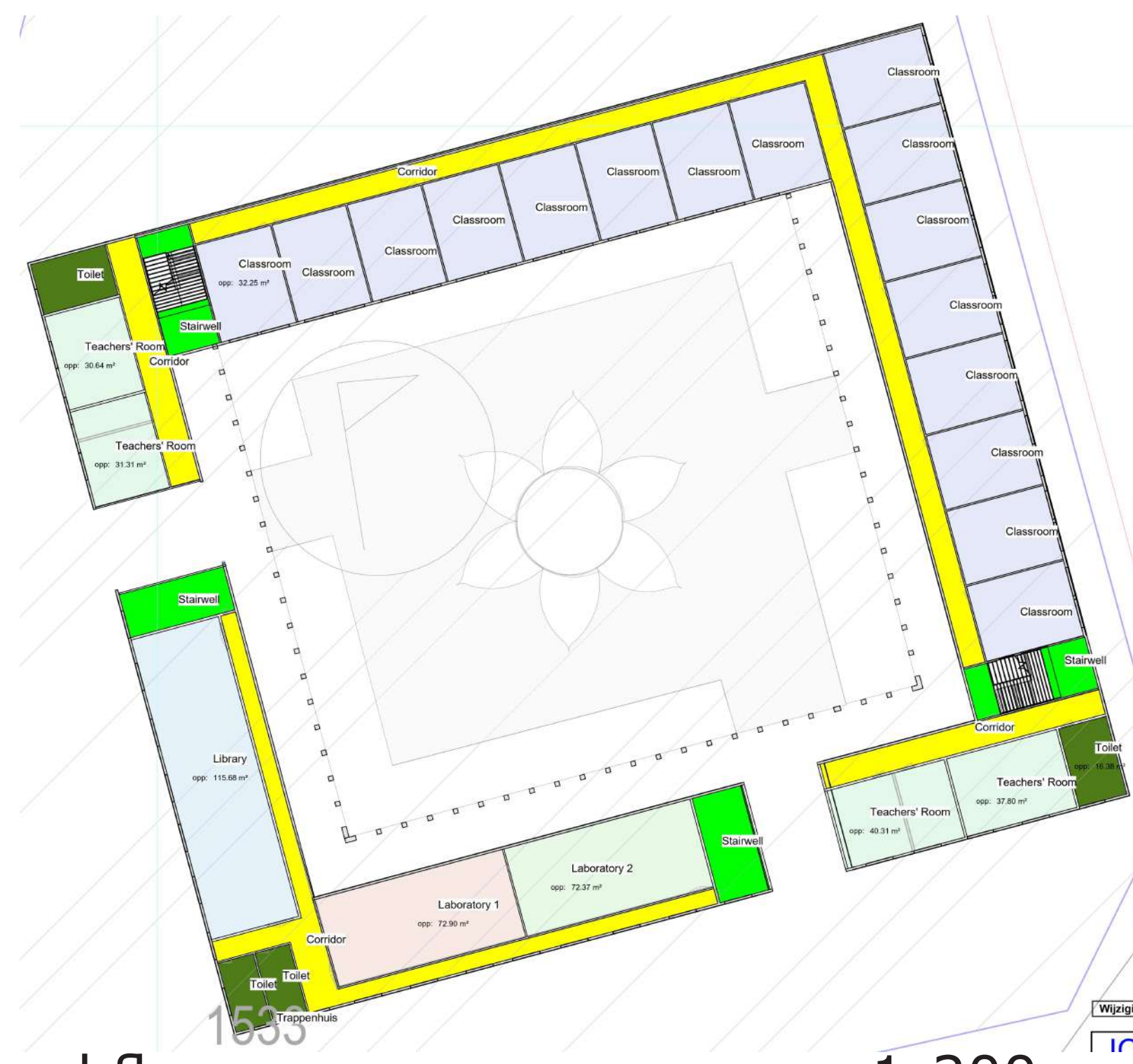


West facade



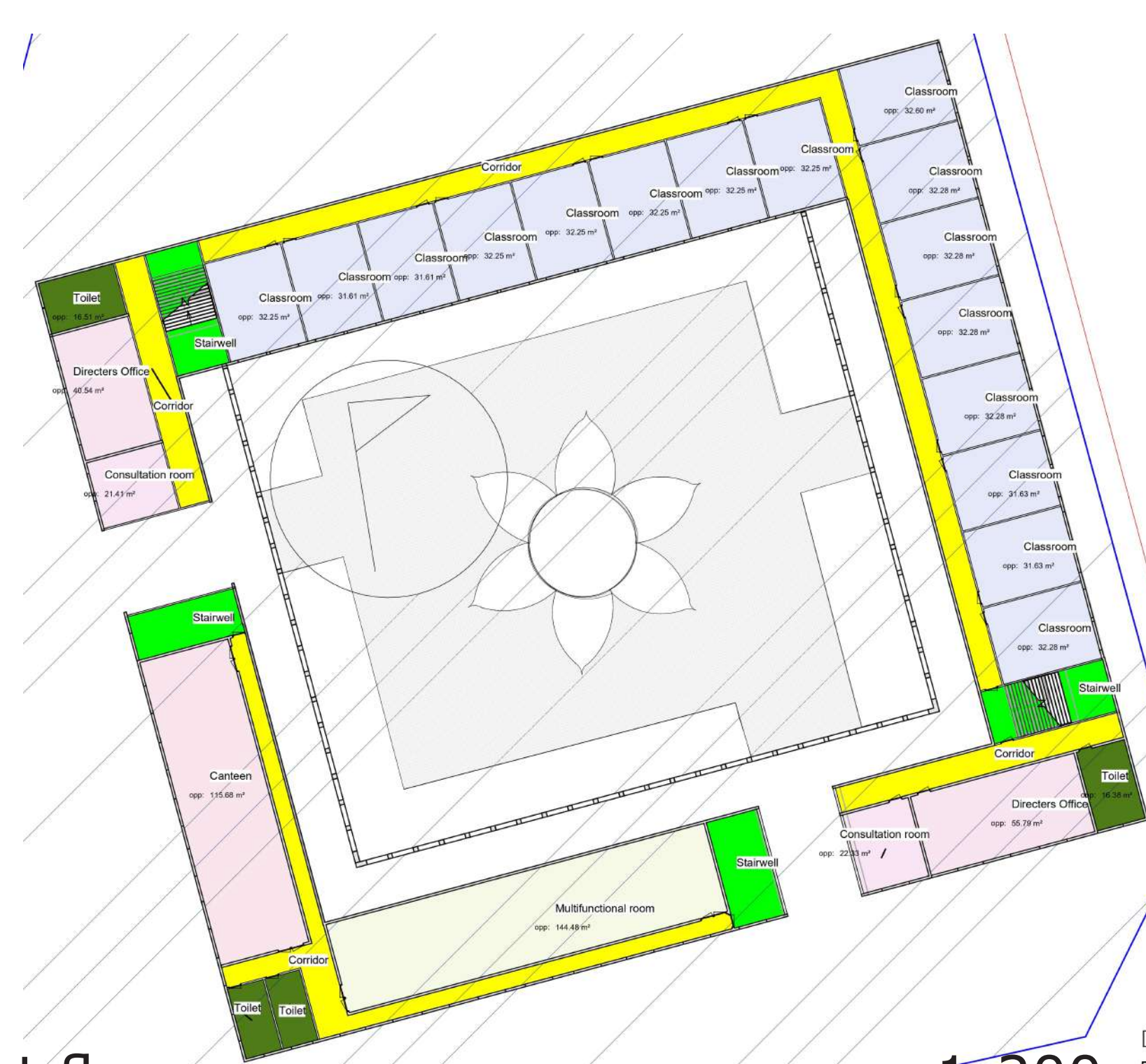
South facade

Floor plans



Ground floor

1:200



First floor

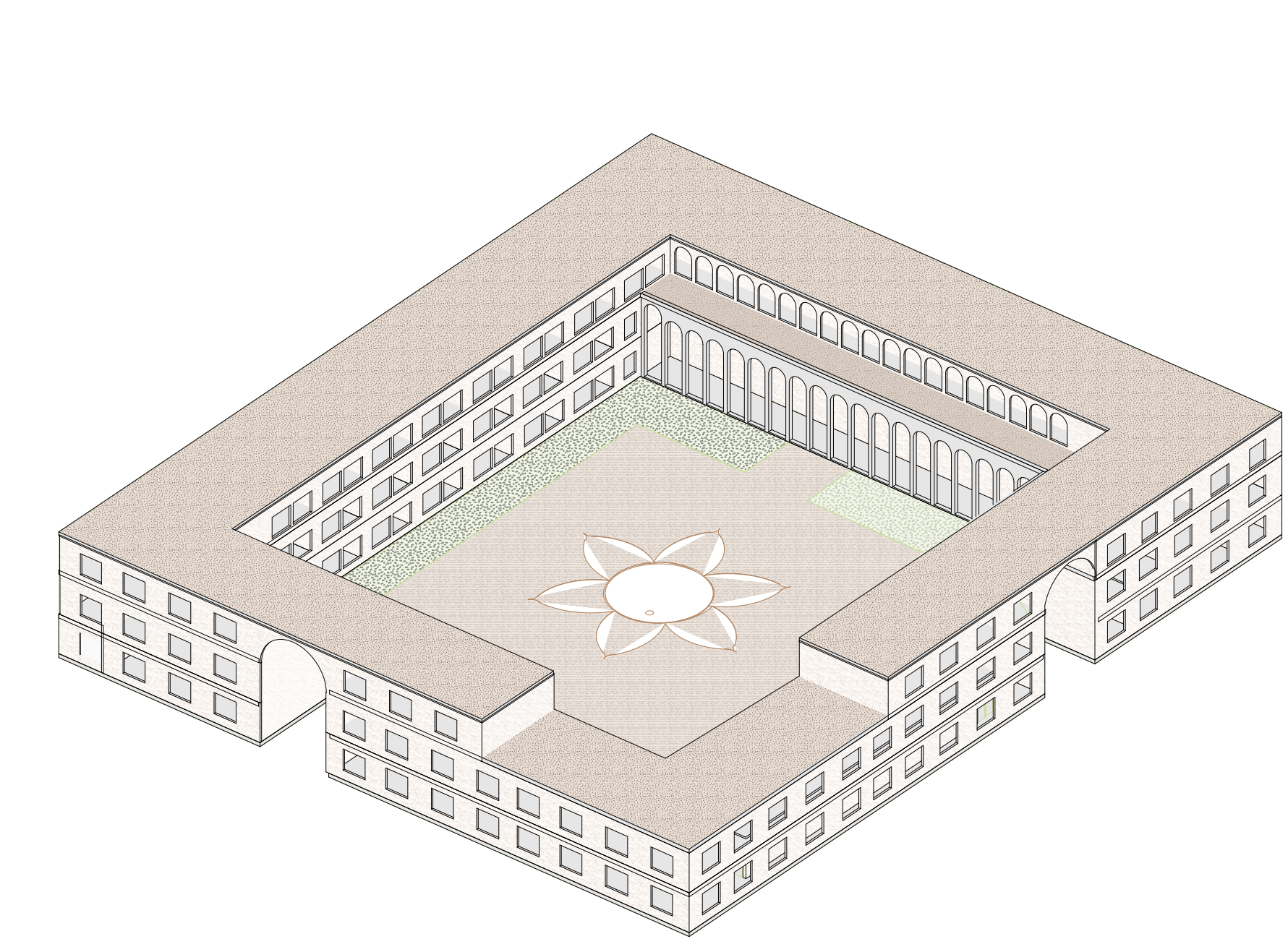
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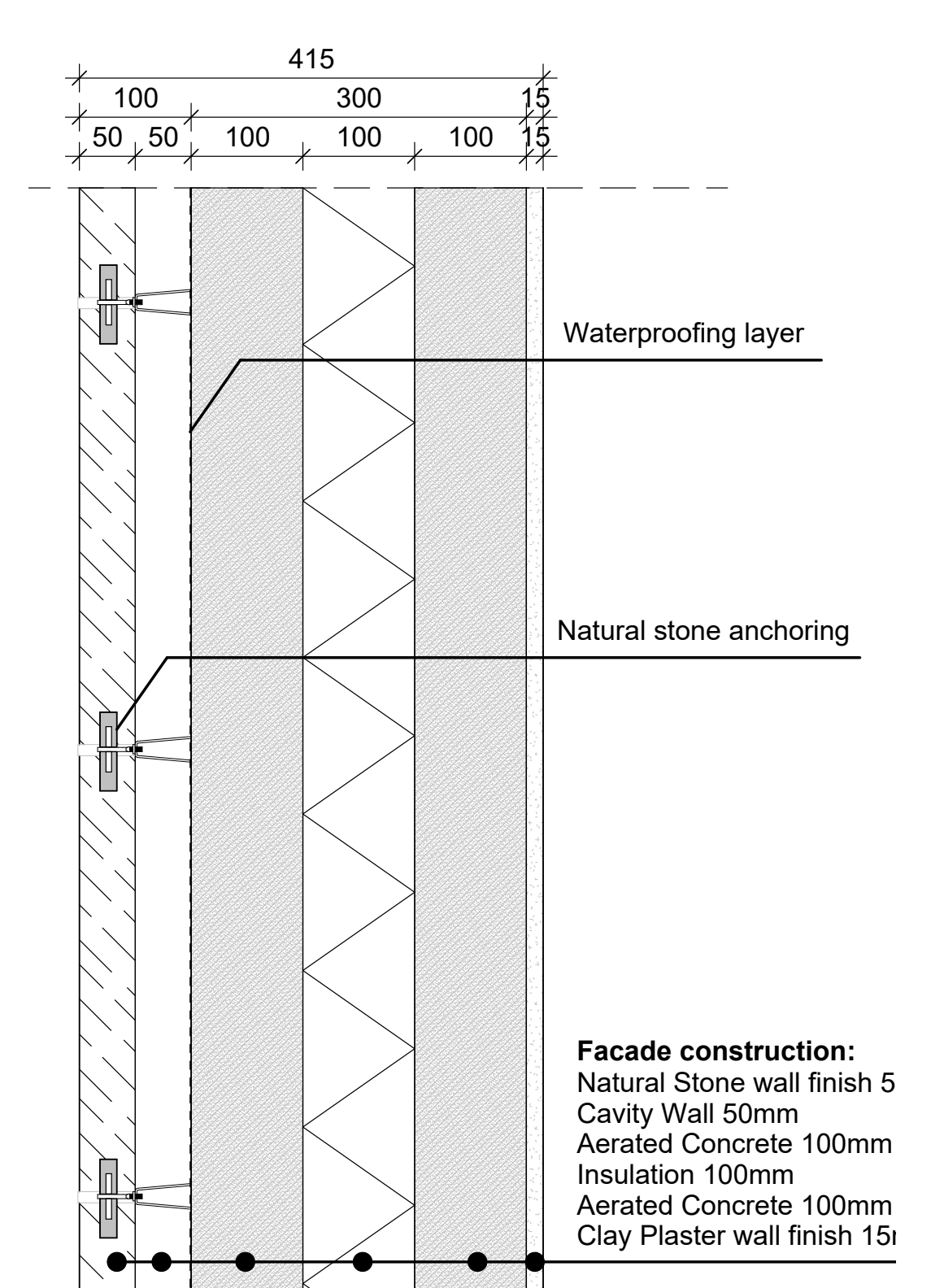
Second floor

1:200

Isometric drawing

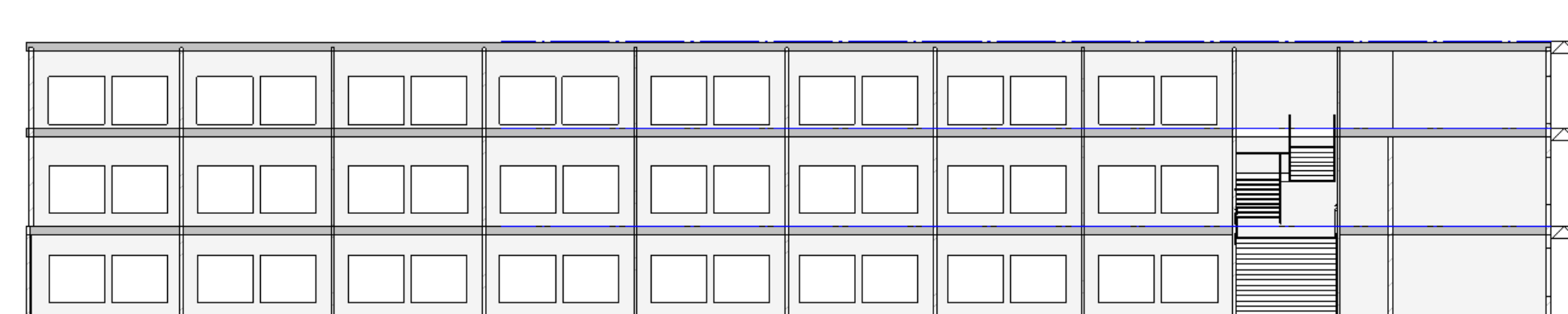


Detail

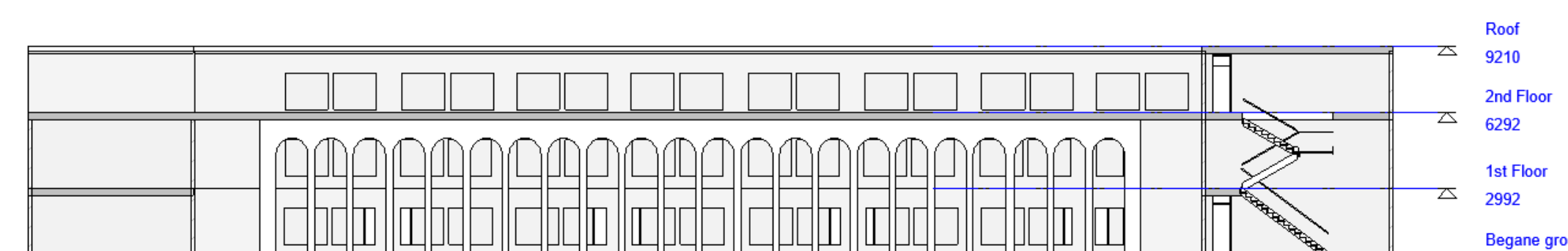


1:10

Sections



1:200



1:200

