Location

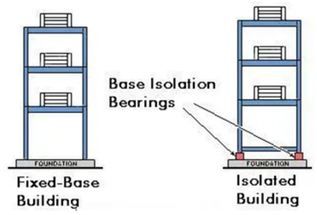
Bab al-Salameh is a village in the north of Aleppo Governorate in Syria. It is located 4 kilometers northeast of Azaz, 40 kilometers north of Aleppo and 2 kilometers south of the Turkish border at the Bab al-Salameh crossing into Kilis province. The village belongs to Nahiya Azaz in Azaz district. Nearby villages are Nayarah, 3 kilometers to the east, and Shamarikh, 5 kilometers to the northeast. In 2004, Bab al-Salameh had 1,408 inhabitants.

Legenda

- Playground
- Petrol station
- Supermarket

The mecca is located south-east of Al-Salameh. People will have to follow this direction to pray.

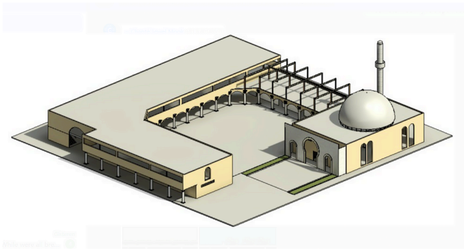
Earthquake resistenty



For an affordable and usable earthquake-resistant solution, rolling elements must be incorporated into the foundation to ensure that the building moves with it, thus reducing damage to people and structures.

Construction methods

In Syria, construction traditionally relied on stone, which is vulnerable to earthquakes. Modern practices have adopted concrete with stone formwork for durability and thermal regulation. Steel reinforcement in walls and floors is essential to withstand seismic forces, while deep pile foundations provide stability against ground movement.



Current situation

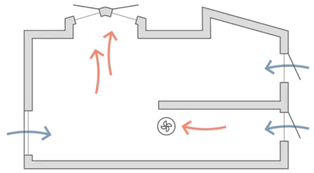
War

Earthquakes

Trauma's

Powerloss

Cooling down



- We have ventilation system A, which means that there is a natural supply and natural discharge.
- Cross ventilation is essential. This means opening windows on opposite sides of a room to create airflow.

PVE

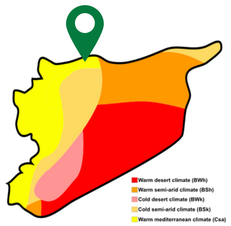
Total available area: 5650 × 5530 mm²
Mosque area: 350-400 m²

School
- 22 classrooms (30 persons per class)
- Computer room/library (media library)
- Laboratory
- Toilets for students
- Children's playground (football and basketball court)

Administration rooms:
- Director's office
- Men's teacher's room 35 m²
- Women's teacher's room 35 m²
- Small kitchen for teachers
- Toilets for teachers

Mosque
- Special room for women
- Toilets
- Ablution room (Wudu room)
- Prayer room (Musalla)
- Mihrab
- Minbar
- (Minaret)
- Meeting room
- Courtyard or patio
- Office space

Climate

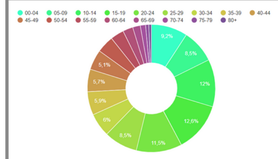


Aleppo has hot, dry summers (over 30°C) and cold, wet winters (2-5°C, 300-500 mm rain). Spring and autumn are mild (15-25°C) with occasional showers. The land is semi-arid, with limited vegetation and a mix of urban and agricultural areas.

Location project

Summers: Summers in Azaz are hot and dry.
Winters: Winters are mild to cool.
Precipitation: Most precipitation falls in the winter months
Spring and Fall: These seasons have moderate temperatures and less precipitation.

Culture



Syria has a rich and diverse culture, shaped by a long history and influences from various civilizations such as the Greeks, Romans, Arabs and Ottomans. Arabic is the official language and there is a rich tradition of poetry and literature. Most Syrians are Sunni Muslims, but there are also Christians, Shiites, Druze and Alawites. Syria is known for its historic architecture, such as in Damascus, Palmyra and Aleppo, with buildings ranging from Roman ruins to Islamic mosques.

Logistics

Important aspects	Problems
• Planning and coordination • Timeline • Durable materials • Local materials	• Safety risks • Restricted access • Resources shortage • Safety issues • High cost

Architecture

Nomadic structures (tent) are built in a simple and flexible way, so that they can be easily disassembled and assembled and secured with strings and large nails.

These houses contain special areas for animals such as horses and sheep. These houses also have a large garden separated from the outside by a low wall.

As for the houses in the cities, they are distinguished by their size and decoration, and the main feature is privacy, as they are closed on all sides from the outside environment, which gives residents a feeling of comfort and security.

Local Sources

Natuursteen

Ceramic tiles

Beton

Earth construction

Building method

Bouwmethode Prefab Beton	--	-	+	++
Aardbeving bestendig		■		
Kosten			■	
Duurzaamheid				■
Beschikbaarheid			■	
Lokaliteit			■	
Vereiste kennis		■		

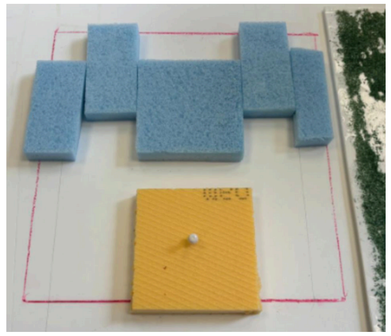
Bouwmethode Klei	--	-	+	++
Aardbeving bestendig	■			
Kosten				■
Duurzaamheid				■
Beschikbaarheid				■
Lokaliteit				■
Vereiste kennis			■	

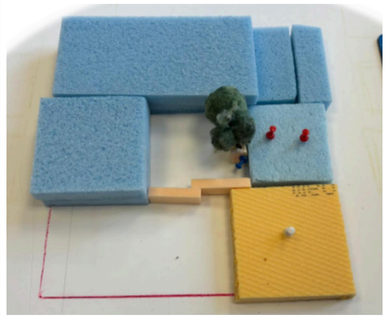
Bouwmethode Staal	--	-	+	++
Aardbeving bestendig				■
Kosten		■		
Duurzaamheid			■	
Beschikbaarheid				■
Lokaliteit			■	
Vereiste kennis	■			

Models

Blue is the school
Yellow is the mosque
These are two models that we have developed from two designs. the first model is of Fenna's design and the second model is of Lilaf's design.

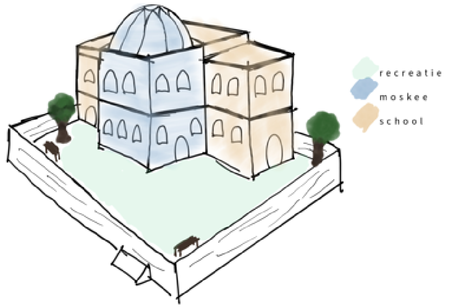
We also received feedback from the teacher and applied this in our final designs.



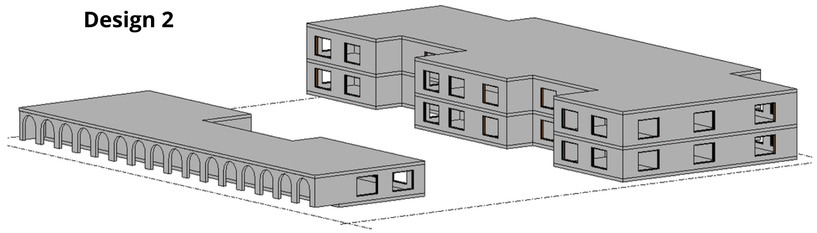


Designs

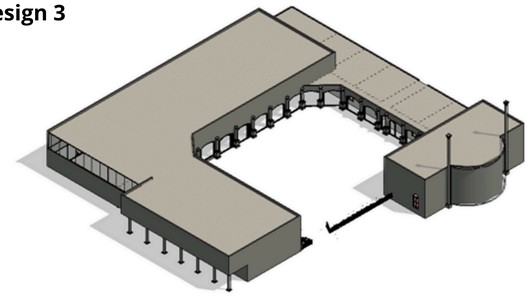
Design 1



Design 2



Design 3



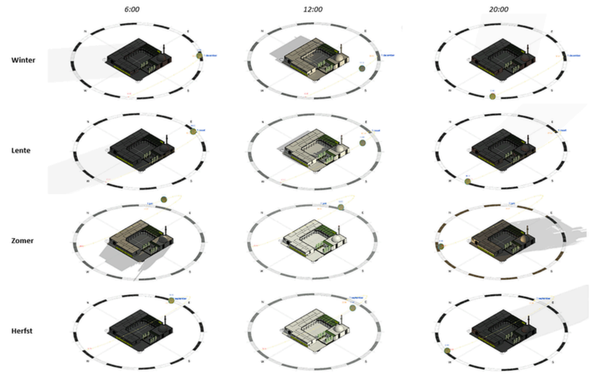
Criteria

Ontwerp 1 Nisrine	--	-	+	++
Duurzaamheid			■	
Omgeving			■	
Veiligheid				■
Functioneel		■		
Onderwijsfaciliteiten			■	
Aardbeving bestendig		■		
Materiaal		■		

Ontwerp 2 Fenna	--	-	+	++
Duurzaamheid			■	
Omgeving		■		
Veiligheid			■	
Functioneel				■
Onderwijsfaciliteiten				■
Aardbeving bestendig		■		
Materiaal				■

Ontwerp 3 Lilaf	--	-	+	++
Duurzaamheid				■
Omgeving				■
Veiligheid			■	
Functioneel				■
Onderwijsfaciliteiten				■
Aardbeving bestendig			■	
Materiaal			■	

Sun Path



Installing solar panels on the roof of the school is a smart and environmentally friendly solution to energy problems. With a lot of sun and an unreliable energy supply, solar energy can offer many benefits.

Building conclusion

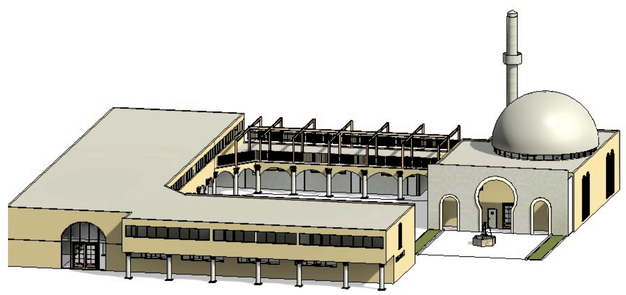
The structure is built of prefab concrete. This is very strong against earthquakes due to the reinforcement applied. The floor is a hollow building block floor that has a maximum span of 10 meters. This means there is no possibility of collapse. This is poured with concrete. This is a common method in Syria.
The walls are finished with clay. This is also a common finishing method and offers several advantages.

- It gives a warm and natural appearance
- It can absorb heat well.
- It has good sound insulation properties.
- It is fire resistant.

Easily different textures and colors possible.
All this ensures a fine finish of the construction. With the help of coating, the exterior finish is also waterproof. It is easy to apply with the help of concrete adhesion primer.

Designs conclusion

This design scores by far the highest on most criteria. Much thought has been given to green spaces and the courtyard here. This courtyard can therefore be closed off by means of a fence. This provides a safe play area for the children. The classrooms are also designed in such a way that they are adjacent to the playground on the ground floor. This design fits well with the environment. The appearance of the school is fairly sleek compared to the mosque. This makes the building interesting to look at. Furthermore, the layout of both the school and the mosque meets the client's requirements.

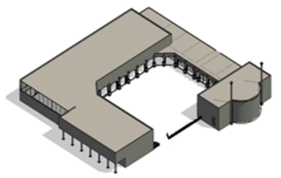


Construction conclusion

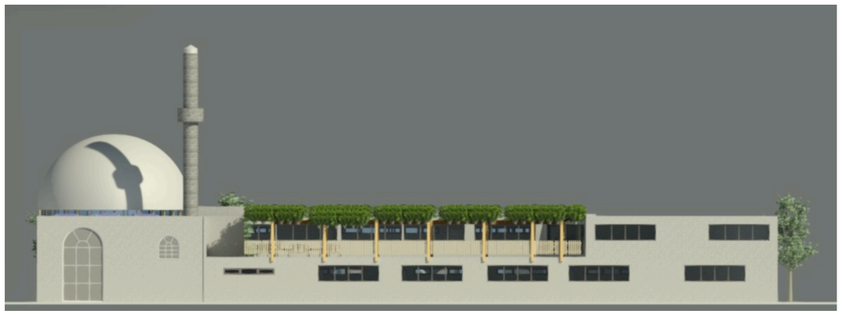
For the construction of the project, we have chosen a hybrid approach that combines the robustness of concrete with the efficiency of prefabricated load-bearing elements. This methodology enables us to realize a structure that is not only durable and sturdy but also offers the flexibility required in the event of earthquakes.
The construction is designed so that all walls of the building have a load-bearing function, effectively transferring the weight to the foundation. This ensures an optimal distribution of the load and contributes to the overall stability of the structure.
For the support of the loads from the higher floors, beams are used that are seamlessly integrated into the prefab elements. These beams are essential for the structural integrity and ensure an even weight distribution throughout the building.
The finishing of the building will be carried out with clay, a choice that is not only aesthetically pleasing but also ecologically responsible. Clay has excellent natural properties that contribute to the thermal mass and the indoor climate of the building, resulting in increased comfort and energy efficiency.
With this approach, we aim to create a construction that will withstand the test of time and have a positive impact on both the users and the environment.

Design improvement

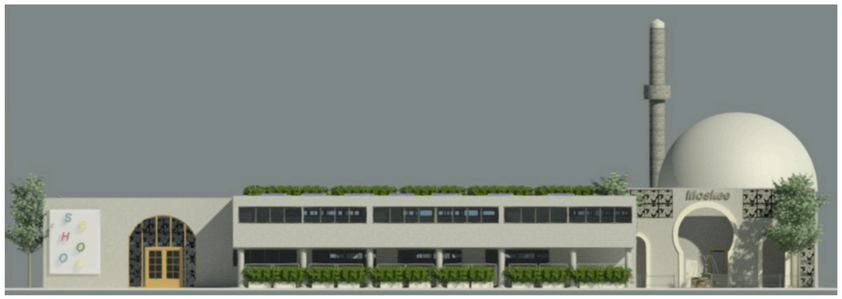
I made several improvements to the initial design.
First, I added a dome to the mosque to help cool the building and effectively transmit the imam's voice throughout the mosque. I also included colored glass windows in the dome, which provide bright, colorful lighting for the entire mosque. The dome with these windows will make the space appear larger than it actually is.
Secondly, I removed the semicircular wall to create more space and reduce construction time and costs. Prefabricated curved parts typically require precise measurements and specialized production, which increases time and expenses.
Third, I added an area enclosed by a wooden fence and covered with a grape arbor, providing a space for women to gather and spend time together.
Fourth, I added a water fountain in the courtyard of the mosque, which gives a comfortable and soothing feeling to visitors and attracts birds and butterflies to the water



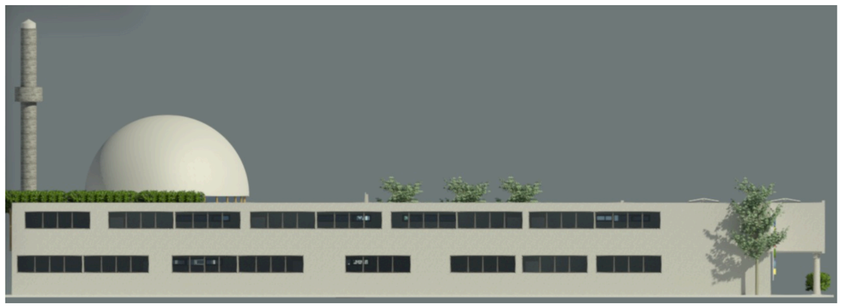
Views



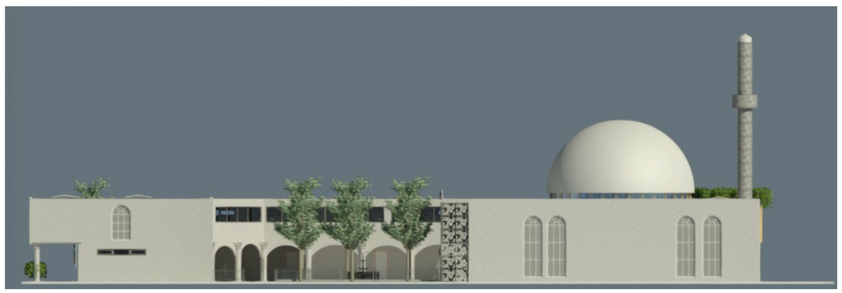
Backview



Frontview



Left side view

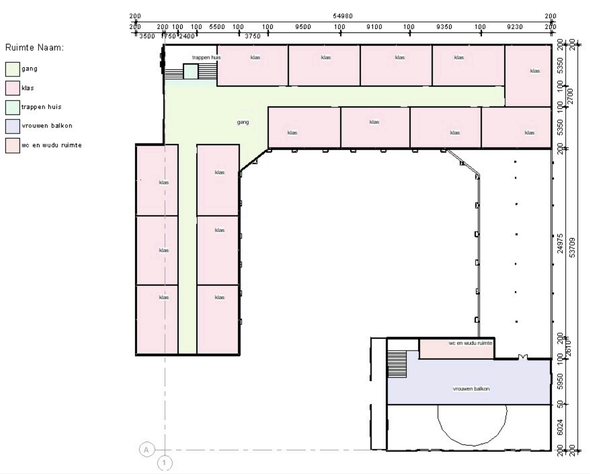


Right side view

Maps

First floor

Second floor



Renders