

A summary statement of the concept primary factors:

- ✓ The urban concept reconnects the historical physical and visual accesses crossing the site and emphasize Al HADBA minaret as the main visual access in the complex and the old city, in addition of patching the damage in the urban fabric, by utilize the same traditional alley's compact planning system.
- ✓ The prayer hall transparent roof maintains an interior view for the withstanding dome to symbolize the openminded relation with the original value of Islam, away from fanaticism, Intolerance and narrow mindedness. The skylight is covered by a CNC retractable aluminum roof ornamented by Islamic patterns, to control the solar gain and the direct sun at hot seasons.
- ✓ The proposed courtyard in front of the prayer hall achieves;
 - Dedicated open space and summer prayer area for the worshipers separated from the open public central plaza,
 - Shape the mosque main accesses and make a gradual transit from outside to inside.
 - Provide connection with the traditional mosques planning type.
 - Improve the visual and physical relation with AL HADBA minaret.
- ✓ Inspire the complex main entrance from a well-known historical alley's entrance in Mosul, in addition to the side alley's vault traditional entrance (QANTARA).
- ✓ The traditional environmental solutions utilized in the concept design are;
 - the open to sky courtyards toward the north-west direction with surrounding porticos in the school and the institute buildings achieve natural cross ventilation for the spaces.
 - The pergola shaded porticos, partially covered with polycarbonate sheets, to achieve shaded accesses for the pedestrian.
 - The windows screen (MASHRABIA) to reduce the interior sunlight glare.
 - The roof small central skylight (PADGEER) for the classes natural lighting and ventilation.
- ✓ Utilize the traditional building materials and construction techniques to minimize the cement concrete usage in the project;
 - Walls built of local stone with lime mortar.
 - Roofs by jack system and lime concrete cover.
 - Alabaster arches and columns for the porticos.
- ✓ Utilizes the site existing change in level to accommodate the underground car parking under the plaza and connect its end with the events hall lobby.
- ✓ Provide eleven small shops in the entire site for the traditional crafts to achieve;
 - Bring back the historical relation between the mosque and the bazar.
 - Serve the site open spaces users and encourage the community to interact with the project.
 - Revive the local traditional crafts and activities.
 - Ensure the alleys attendance in the entire day for safety feeling purpose.
 - Reduce the discontinuity distance of AL FAROOQ road commercial usage along the site west elevation.
- ✓ The covered portico in front of AL FAROOQ road provides visual and physical continuity of the road as it was intended at the mid of the previous century.
- ✓ The economy factor achieved by utilizing simple planning, local material, local construction techniques, and friendly traditional environmental solutions, in addition to the usage of steel structure with sandwich panel system to cover the large spaces functions.

The concept main objectives

- ✓ The complex form, functions, details and urban solutions shall inspire the traditional Mosulian architecture, as well as the traditional material and local environmental solutions, in order to design a sustainable project.
- ✓ Emphasize Al HADBA Minaret as the main visual land mark in AL NOORI site and the whole old city as well.
- ✓ Provide a simple, practical and economic design.
- ✓ Treat the defragment of the site compactness and the urban fabric damages, by re-connecting the original pedestrian alleys and bridge the urban fabric gaps.
- ✓ Reveal the atypical relation between the mosque and Al-HADBA Minaret, compared to the typical mosque planning at the same era.
- ✓ Change the main entrance location and design, from the south corner to a proper location and form.
- ✓ Bridge the boundary roads elevations and identifications.
- ✓ Bring back selected commercial facilities around the mosque.
- ✓ Maintain and emphasize the withstanding parts of the prayer hall.

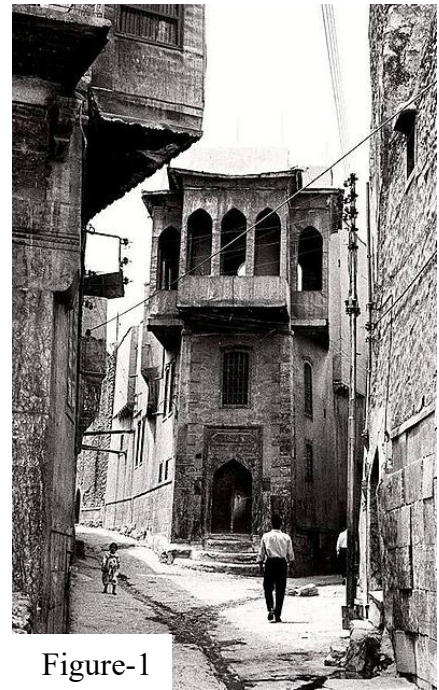


Figure-1

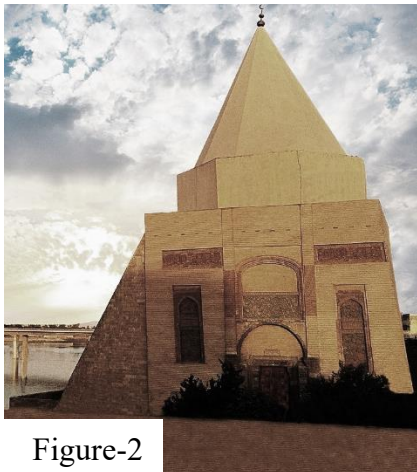


Figure-2



Figure-3

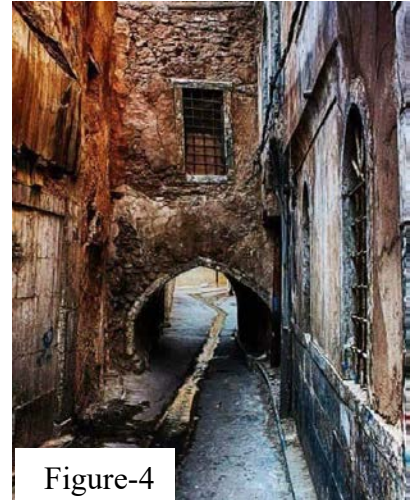


Figure-4



Figure-5

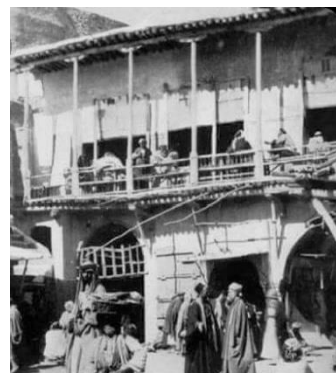


Figure-6

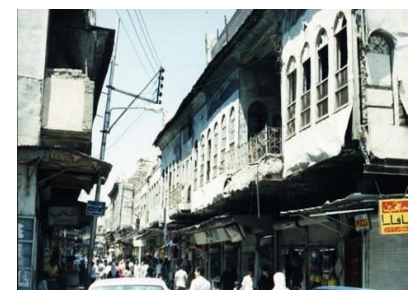


Figure-7

The concept responses

- ✓ The new extension at the west zone proposed in three irregular tringles pointing toward the two main road intersection at the site south west corner to form a traditional alleys entrance inspired from a well-known traditional existing iconic Mosul alley entrance (Figure-1,8,10).
- ✓ The two alleys divaricate from the complex entrance pointing toward AL HADBA minaret and the mosque side entrance and reconnecting the original pedestrian and physical roots cross the site (Figure-8).
- ✓ reshape the open yard in front of the prayer hall and allocate it functionally to a public zone and a mosque courtyard (Figure-8).
- ✓ Utilize the site level deference to accommodate the car underground parking and the plaza hardscape (Figure-8).
- ✓ An extension proposed in front of the prayer hall to shape a mosque front courtyard surrounded by porticos to provide shaded passages for the public, using or crossing the site, which encourage more people to use the adjacent spaces in all seasons.
- ✓ Inspired from the historical relation between Bazars and mosques, small shops with portico frontage have been proposed along the internal west elevation of the mosque extension as well as the internal alley to encourage the public attendance in the internal alleys and serve the main plaza, as well as provide jobs opportunities for the local community to increase their interaction with the development. Another two shops proposed along AL FAROOQ road to avoid disconnect the commercial usage continuity of the commercial road. All the commercial activities in the project shall be carefully selected to support the project main target in reviving the traditional crafts.

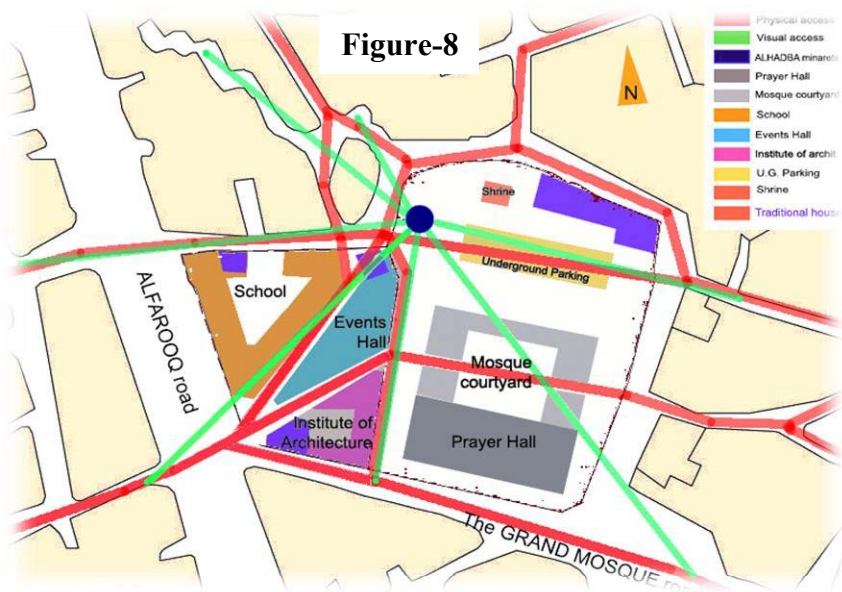
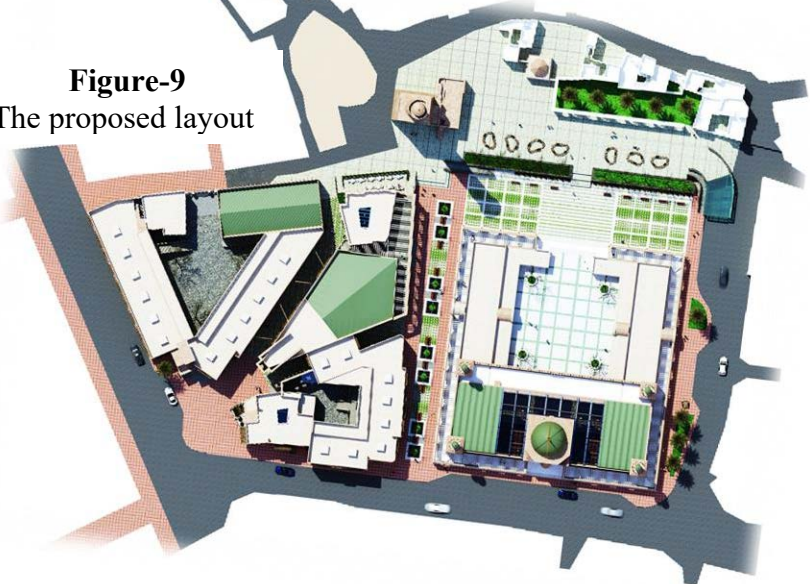


Figure-9
The proposed layout



- ✓ A wide coffeeshop balcony overlook and shape the main plaza west side was inspired from traditional “CHAIKHANA” to increase the public attendance and interaction, in functional connection between the events hall and the main plaza (Figure-6).
- ✓ The portico elevation proposed on the west elevation to enhance the continuity of the original design of AL-FAROOQ road, as it was inspired from AL-RASHEED road at Baghdad when first planned at 1940
- ✓ Maintain an interior view for the withstanding conserved parts in the prayer hall by adding a skylight roof around the existing dome.
- ✓ Inspire the traditional environmental solutions by utilizing the courtyard system, the thick walls, the small opening, the cross ventilation, the natural light through skylights, as well as the shaded alleys and porticos (Figure-15).



Figure-10

The complex main entrance yard at the junction of the two main roads accommodates the entrances of the school, the main office, the institute as well as the two main alleys toward the plaza and the mosque.

Detailed concept response and justifications for each part;

The Mosque:

- 1- **The extension** in front of the prayer hall proposed to shape square courtyard to serve the following objectives;
 - ✓ The front courtyard (SAHAN), historically, form an essential element in most of traditional mosques, which clearly missed in all Al Noori previous revisions.
 - ✓ To bring back formal balance to the existing atypical prayer hall mass, by careful design of the extension's height and form, but without any negative impact on the prayer hall original shape.
 - ✓ Enhances the relation between the mosque and Al HADBA minaret.
 - ✓ Separates the mosque open space from the public space to boarder an open to sky summer prayer area and substitute the mosque required fence.
 - ✓ Accommodate the required mosque additional functions.
 - ✓ Reshape the complex central open space to enhance the site compactness and visual proportions.
 - ✓ Shape a main access and entrances and provide a gradual transition in spaces from outside to inside.
 - ✓ Provide an external portico passages around the mosque for the public, as well as internal portico around the courtyard for the worshipers.
 - ✓ The external portico proposed to be covered with pergola, and partially with poly carbonate sheets to allow partial sunlight and maintain the air flow.
- 2- **The prayer hall** structure proposed to be built as it was, with the following changes:
 - **A skylight**, with retractable cover, proposed around the central area to serve many purposes;
 - ✓ Maintain the dome and the other conserved structure view from inside the mosque for their symbolic value, as the only withstander structure from the explosion.
 - ✓ symbolize the openminded relation with the original value of Islam, away from fanaticism, Intolerance and narrow mindedness.
 - ✓ Reduce the deadload imposed from the roof on the central conserved structure.
 - ✓ Bring the sunlight vitality to the prayer hall interior in cold seasons.
 - ✓ The skylight proposed to be optimized for thermal performance, a triple-insulated glazing of the skylight's envelope shall be protected by a retractable roof canopy which incorporates perforated aluminum panels in "Islamic patterns shape" to provide external solar shading in hot days. The perforations within the panels shall vary in size to allow differing degrees of sunlight within the interior spaces in accordance to its requirements, solar gain, and orientation.
 - ✓ Glass used for skylights proposed to be "safety glazing," tempered and laminated glass.
 - **The mosque external walls** thickness reduced from 1m to 60cm at +3.5 m level to reshape the prayer hall external elevations and reduce their imposed dead load on the foundation.
 - **The mosque four minarets** shape subject to minor change in their dimensions, texture, proportions and locations for better visual relation.

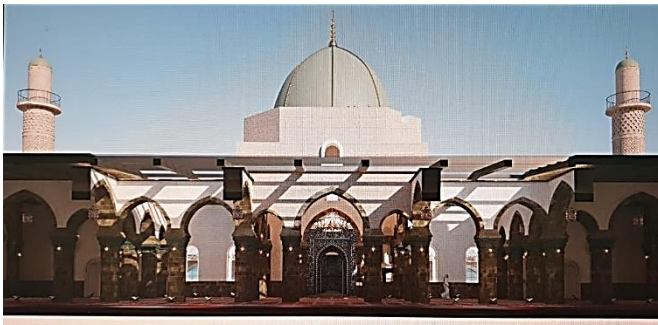


Figure-11



Figure-12

The new extension at the complex west side

the extension layout proposed in three triangles, point toward the adjacent road's junction of AL FAROOQ and the GRAND mosque roads to shape the main entrance of the whole complex and to form two main alleys (Figure-1,8,9,10). The first alley between the school and the events hall shapes a physical and visual access connecting the complex entrance bay and AL HADBA minaret reconnecting the old existing pedestrian root cross AL FAROOQ road with the alleys beside AL HADBA minaret, while the other alley, between the events hall and the institute, open through a traditional vault (QANTARA) toward the mosque courtyard side entrance cross the proposed central pedestrian street. (Figure-4,8,9,10)

The school

A triangular layout with an open courtyard proposed for the school with two entrances. The open wide access from the north alley, at the triangle north side, provides separate safe entrance for the student, leads to the central courtyard. The other entrance at the triangle apex point, which facing the complex main entrance is dedicated for the staff. The school is aligned with AL FAROOQ road in its second side, while forming an important visual access alley with the events hall by its third side. The school layout at first floor, shaped in two wings for different genders, and meets together at the staff entrance point. The internal courtyard elevations inspired from the traditional Mosuli's school style. The proposal utilizes house no-9 near the student entrance as a school library in two floors.

The institute of architecture

The institute building proposed in right angle triangle, aligned from one side with the GRAND MOSQUE road at south side, while the other side form the central complex street with the mosque west elevation, which leads to the central plaza. The institute building structure extend above the alley, on its third side, to shape traditional arched vault (Figure-10). The main entrance of the building located at the triangle hypotenuse open from the complex main entrance yard and leads directly to the open to sky courtyard with its central staircase leads to the classes at the first floor. The courtyard internal elevations inspired from the traditional Mosuli's school style. House No-10 at the apex of the building layout conserved to be used as two-story library for the institute.

The Events hall building

The events hall building layout shape the third triangle, intermediates the two educational building to have its main lobby entrance at the triangle base facing the mosque west extension block cross the major walking street, while in the opposite side, the triangle apex has the main office entrance from the complex main entrance yard to shape the division point from the entrance of the two alleys (Figure-10). House No-9 at the north side of the building, conserved to be used as a coffee shop serving the lobby in its ground floor and the main open public balcony at the first floor.

The shrine

The shrine building proposed in its original location facing the main plaza. the shrine proposed form with its octagonal pyramid dome inspired from the Mosuli YAHYA ABU ALQASIM shrine from the same era. (Figure-2)

The Plaza

The public open plaza proposed at the north side of the complex between AL-HADBA minaret at its north west corner, with the arcade wall border the plot limits in front of the existing houses at the remaining part of the north side and the proposed shrine between them facing the plaza, and the prayer hall extension, bordering the plaza south side with its portico front. The existing one-meter difference in the site level utilized to accommodate semi-basement parking for 34 lots along the plaza dividing it in to two levels, the mosque yard level at 0.00 and the minaret yard level at +1m. A landscape strip with shallow water feature proposed parallel to the wall formed by the level change.

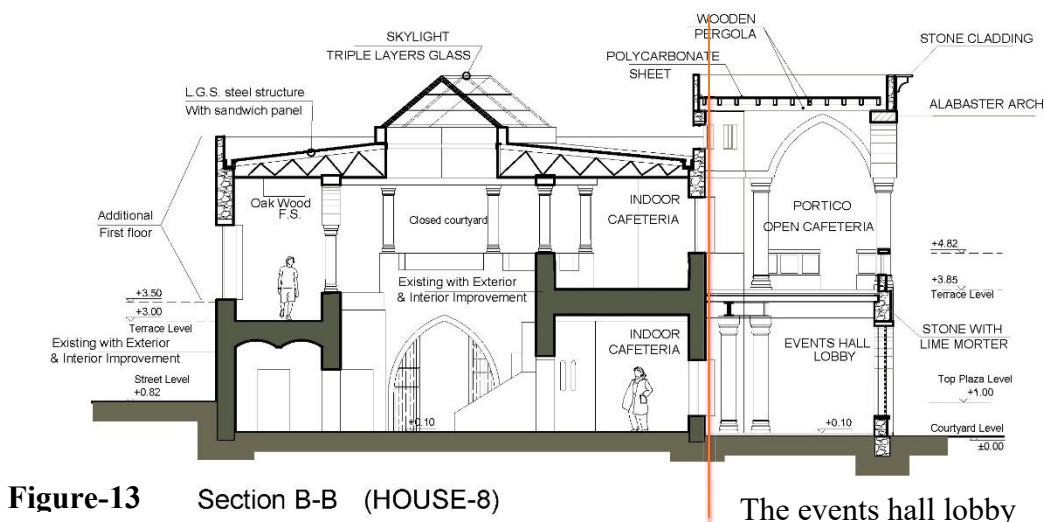
From its east side, the plaza is bordered by the existing east road with the proposed car entrance, while bordered from its western side by the proposed events hall and the wide overlooking balcony cafeteria at its first floor. the plaza is crossed by two main visual and physical accesses through AL-HADBA, one is the site horizontal northern access connecting AL FAROOQ road with the continuity of the alleys at the east side of the site, while the second main access is the proposed middle pedestrian street perpendicular to the first access at AL-HADBA location, which connecting the alleys behind the minarets with the GRAND mosque road.

In addition to the events hall cafeteria, the plaza is served by six shops facing the internal street from the mosque west extension and fronted by the mosque west portico. The plaza shares the events hall toilets in its north corner, in addition to the mosque toilets in the east extension block.

Houses no -8,9, and 10 rehabilitation

The three houses reconverted functionally. House no9 and house no10 converted to be used as the school and the institute libraries, while house no8 converted to be the events hall cafeteria. The three houses to be consolidate and improved as per the measures mentioned in the attached structural report to form an attractive and integrated part of their adjacent buildings. A first floors LGS light steel structure cover with sandwich panel and central skylight proposed to protect the existing structure and to provide an extra open area, making use of the open terrace level in harmony with the adjacent elevations and functions.

Light weight exterior walls, or traditional stone and lime mortar wall, can be used in the extensions depending on thorough structural analysis. Same existing architectural features proposed to be used for the interior and exterior improvements.



The principles of sustainability in the concept

The traditional environmental solutions utilized extensively in the proposed concept:

- The main buildings (except the events hall) designed with open to sky courtyard. The school and the institute courtyard open toward the north-west direction to allow the summer cold breeze to cross ventilate the spaces, which supplied with opposite openings and roof skylights. (Figure-15)
- Traditional narrow alleys utilized to provide shaded pedestrian accesses.
- Wooden louvers “MASHRABIA” used to protect the buildings windows from direct sun light.
- Porticos proposed around the mosque to provide shaded passage for the public as well as the internal portico, surrounding the mosque proposed courtyard, for the worshippers.
- Local building materials and structural techniques utilized in the proposal for their environmental advantages, while the concrete usage limited as much as possible.
- Grass floor tiles system proposed for the outdoor areas to reduce heating and sun glare (Figure-14)
- Motorized retractable cover used for the proposed prayer hall skylight to avoid direct sun light heat at summer.



Figure-14

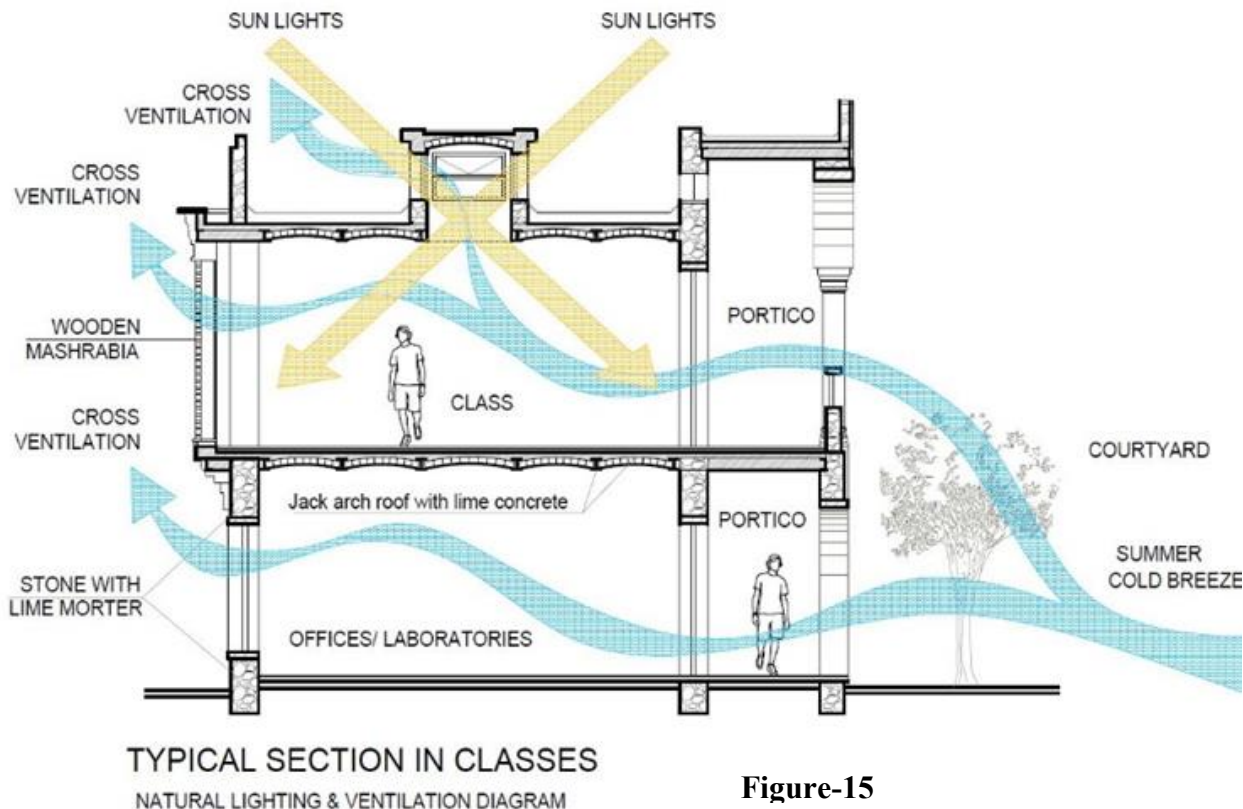


Figure-15

Proposed consolidation strategy report

The mosque was badly damaged due to the explosion. Only the dome and some parts of its partition is standing with several features had become unsafe due to damage

The prayer hall restoration can be divided in to two parts:

Part one: the withstanding parts (the dome and some existing partitions) plus the remaining internal partitions. This part to be recovered as it was appeared before 2017 with high level of authenticity, by accurately replicating the historic materials and techniques as much as possible.

Part two: the prayer hall boundary wall and its roof, need to be designed and reconstructed to hold the entire hall roof weight without imposing load on the internal parts.



Challenges presented in part one:

- The dome is apparently become unsafe due to damage, specially in its south parts.
- Cracking throughout the masonry walls, arches and vaults, most critically in the dome corners.
- Foundation movement is expected due to explosion and instability, creating voids and cracks Throughout its masonry
- The alabaster parts contained void and open joints, compromising continuity and load transfer
- No extra load can be imposed on the existing structure.

Proposed solution steps for part one:

- The existing dome weight need to be transferred (from the right points) to a temporary specially designed steel structure using specially designed uplifting hydraulic jack, after proper tightens of its parts.
- The inclined walls and the turned column need to be refixed to their original positions with proper techniques after conducting proper structural consolidation
- The missed parts need to be constructed by the same materials and techniques and connected with the existing structure
- The uplifting hydraulic jack to be released gradually and the temporary structure to be removed with analytical monitoring and evaluation measures with proper nondestructive tests.
- The attached detailed improvement steps, with selective water proofing materials.

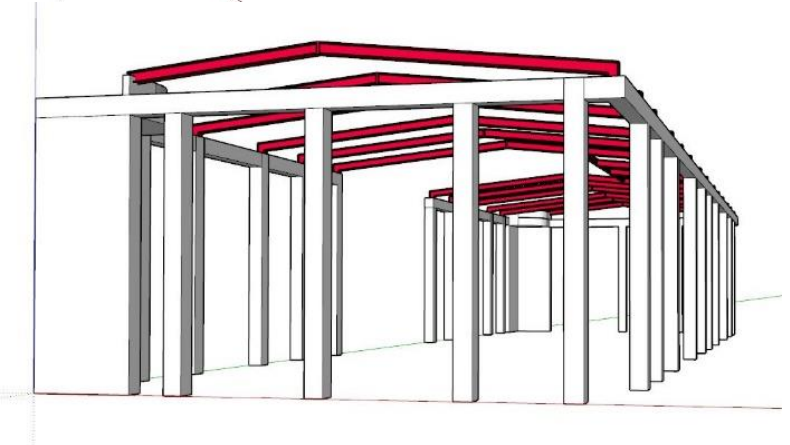
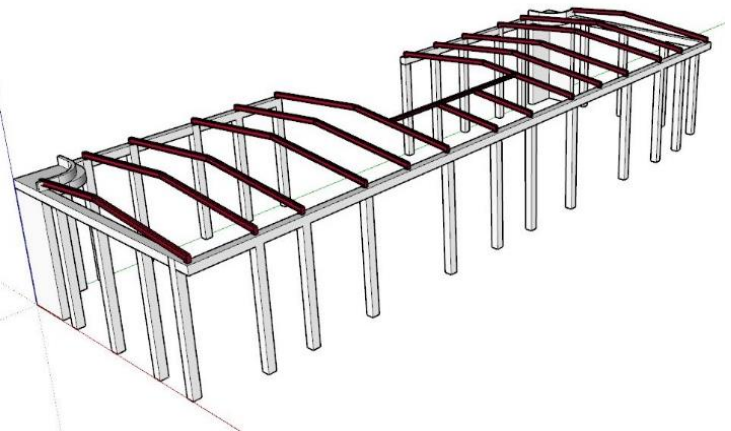
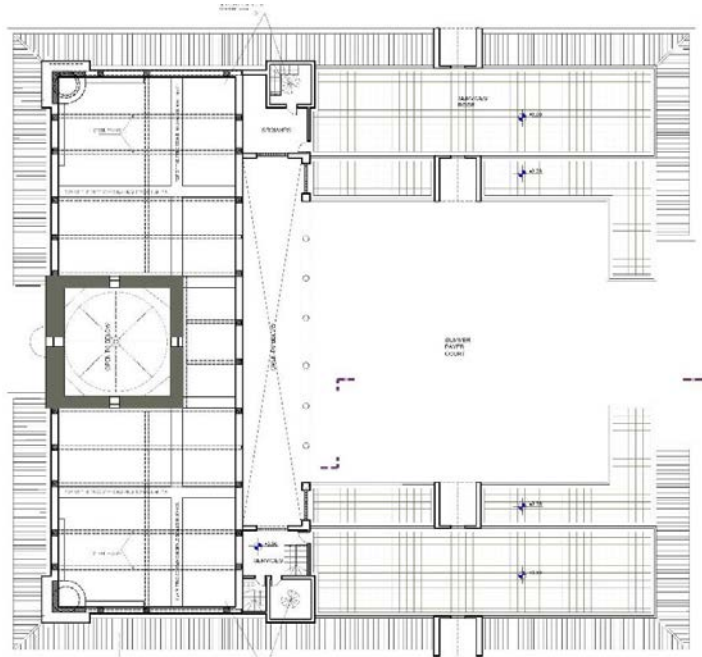


Challenges presented in part two:

- Shall hold the entire roof without imposing any load on the unstable existing parts and foundations.
- The existing footing may not be able to hold the border wall weight in addition to the entire roof weight.
- The free-standing wall 7.5m height slenderness.
- Same material, stone with lime mortar, shall be used for the external wall.

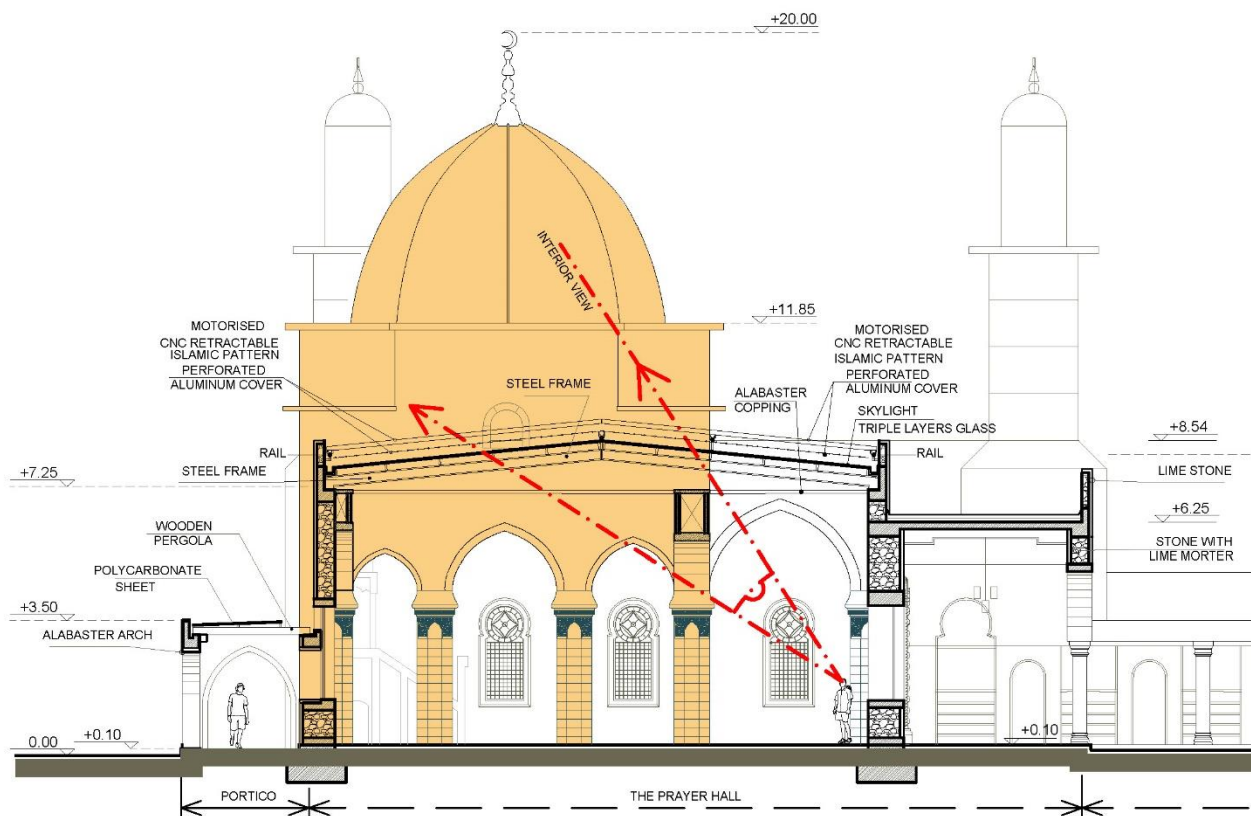
Proposed solution steps for part two:

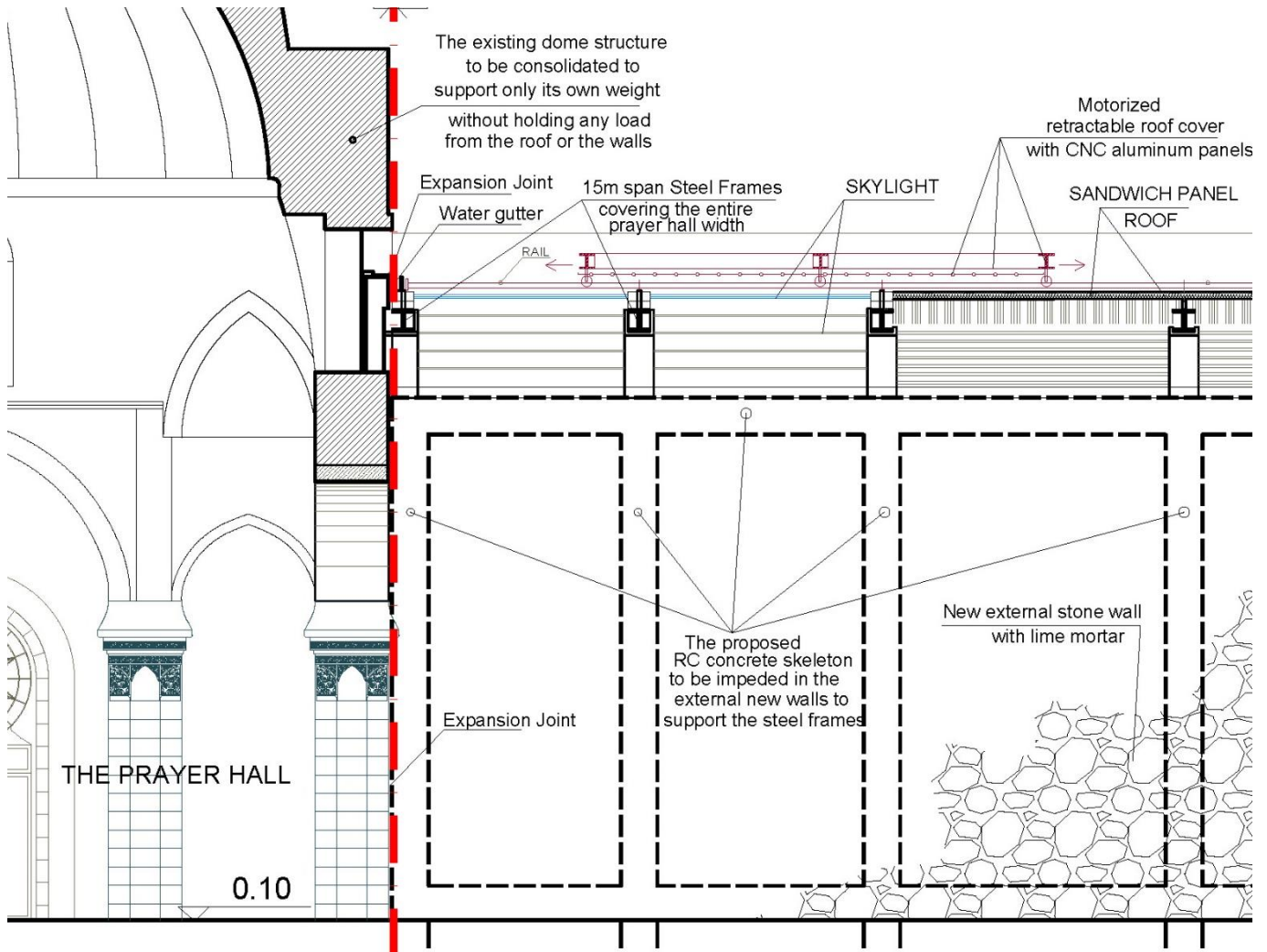
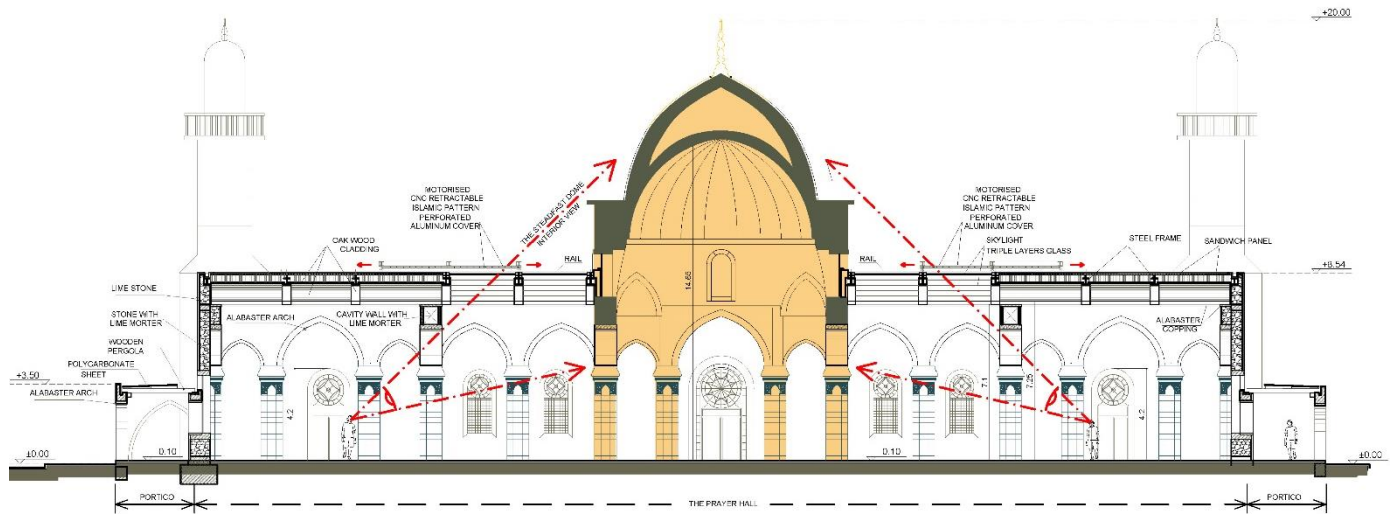
- Extra footing under the concrete column is proposed, depending on the existing footing conditions.
- Concrete structure skeleton is proposed to be constructed before the boundary wall, to transfer the roof steel frames load to the foundation, with horizontal supports through the proposed porticos to control the skeleton slenderness
- Pre-engineered steel frames with sandwich panel structure proposed to cover the entire span of the prayer hall without internal supports, with partial sky light panel at the central spans.
- The local stone with lime mortar boundary wall, as well as the internal parts, can be constructed after completing the skeleton and the steel frame's structure



Consolidation detailed Procedures:

- working with design professionals to supply a non-linear dynamic analysis of the structure
- Using evaluative techniques such as flatjack testing, anchor shear and tension testing, petrographic analysis, to developed a comprehensive report on the structure condition
- develop protocols to achieve the objectives set forth by the design team
- drill with care and precision utilizing advanced precision dry coring, to allow for the stainless-steel fabric anchors, which shall be securely fastened the sections and alabaster to resist further cracking and not damage the already fragile structure
- install a series of hollow injectable masonry fabric anchor system multi-wythe stainless steel reinforcements, which would be used as applicators for injection
- using a custom formulated material designed to match the mosque's historic properties, inject the walls of the dome to solidify them and mobilize their stainless-steel reinforcements
- strategic anchoring, pinning and compatible injection of the foundations' masonry units so that movement within the structure could be arrested
- carefully drill through the fragile masonry and installed specialized reinforcements into the foundation footings
- install Stainless steel helical wall ties prior to uplifting and injection in order to provide lateral reinforcement
- The alabaster and walls' wythes should effectively bonded together through the low-pressure injection of compatible injected fill
- provide confirmation that the objectives were achieved by quality assurance through non-destructive evaluation.



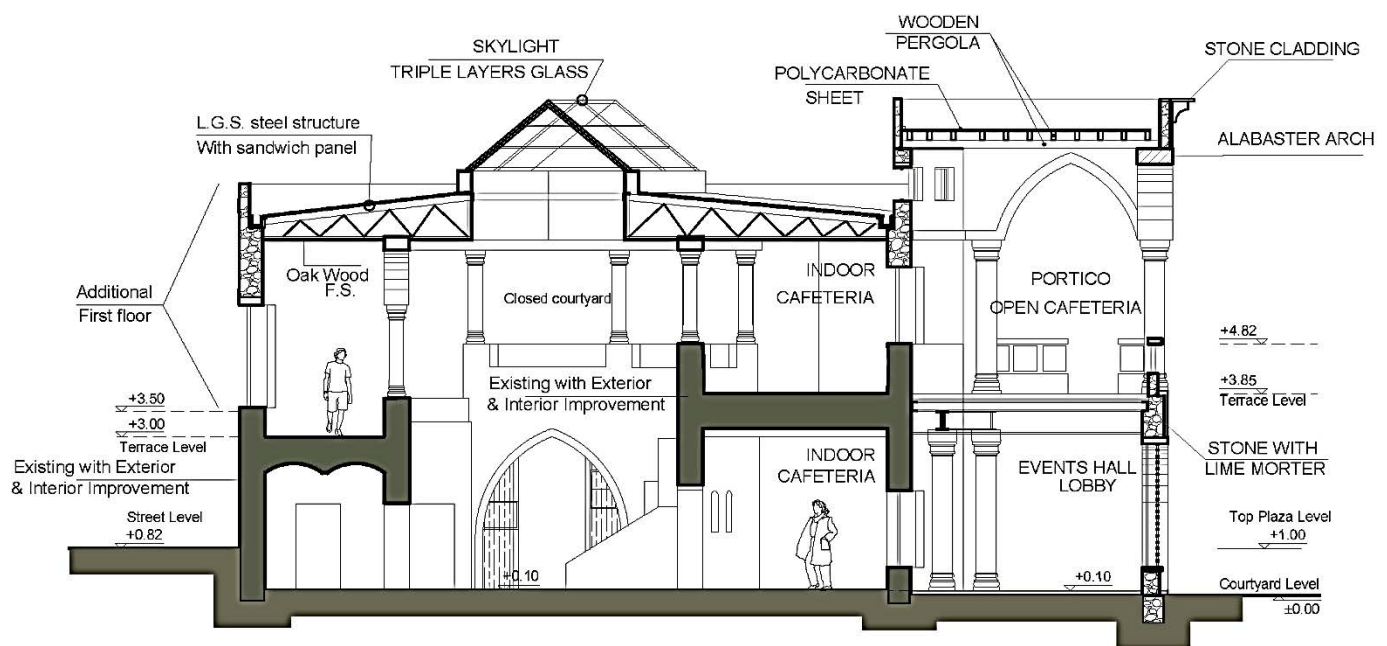


The additional concrete skeleton with steel frames shall support the entire roof independently without imposing any load on the existing structure, the stone external walls or the internal column and partitions

Other building's structure:

the local traditional materials and structural techniques proposed to be utilized; stone bearing walls with lime mortar for the external walls with jack arches roof system with lime concrete roofing. Local stone and alabaster marble to be used in some places for external cladding.

An additional first floor proposed for the conserved (Houses 8,9 and 10). The first-floor additional walls and column to be built by stone and lime mortar with light gage steel roof (LGS) and sandwich panel. The previously mentioned improvement steps to be applied in the houses interior and exterior conservation work.



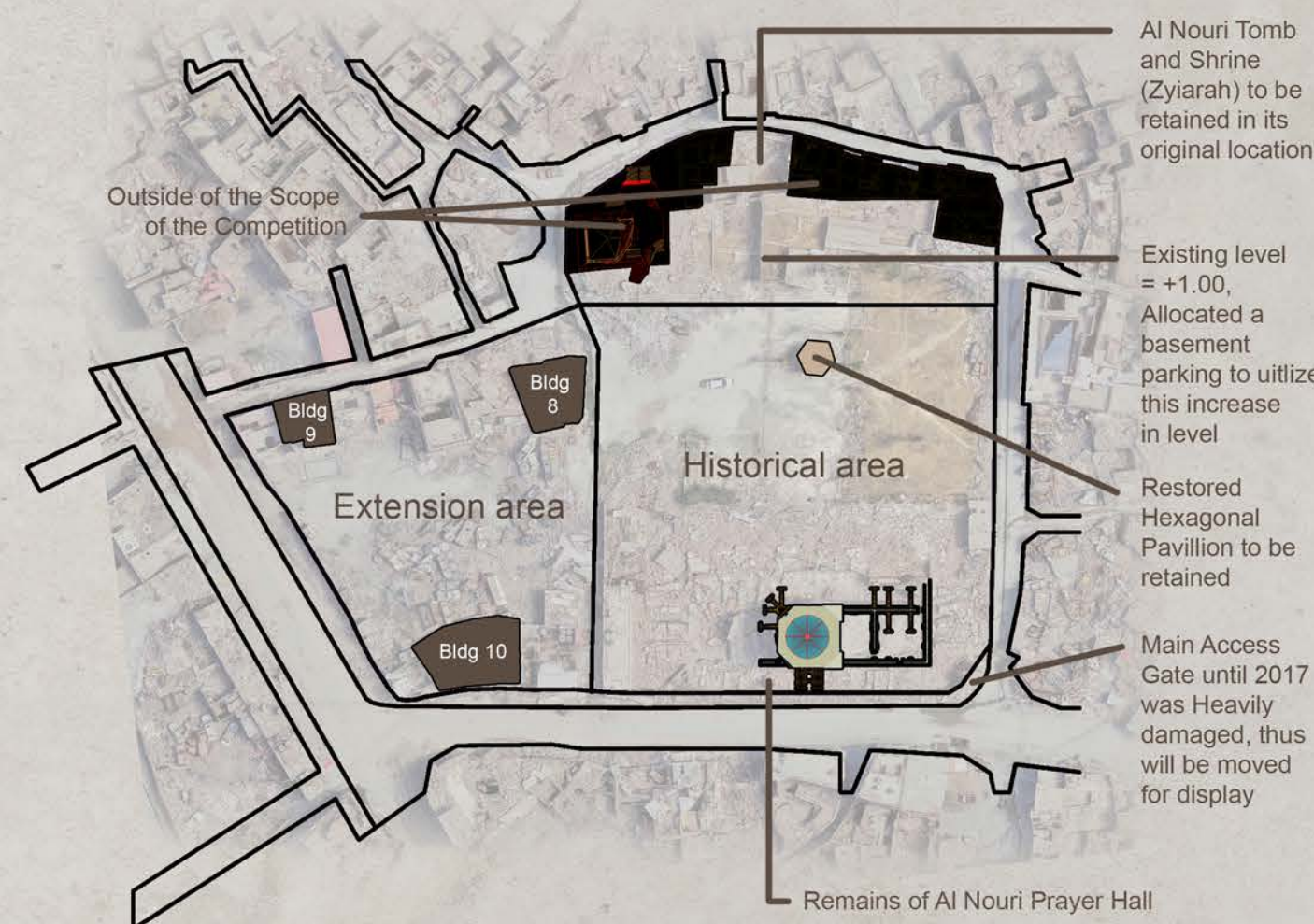
Section B-B (HOUSE-8)

Architectural Brief

The reconstruction of this important landmark is of utmost importance to send a strong signal of resilience and hope, as a first step towards social cohesion and reconciliation in post-conflict Iraq. Indeed, historical sites and monuments are not only a scientific tool of knowledge, but they also represent a **powerful symbol of belonging, community, and identity**, whose rehabilitation will facilitate recovering the memory of the Moslawis that once felt part of a vibrant and emerging city.

Severely damaged in 2017, the complex will be the subject of an integrated rehabilitation program meant to reconstruct the Al Nouri Prayer Hall and, at the same time, integrate new functions to be hosted in the newly designed or rehabilitated secondary buildings, which will enhance further the role that this important complex has played for Moslawis over the centuries. The program will also encompass the redesign of the open space and the relation of the Complex with the surrounding historical urban fabrics, through its new gates and fences, in order to recover its central function in the urban life of the Old City.

Site Description

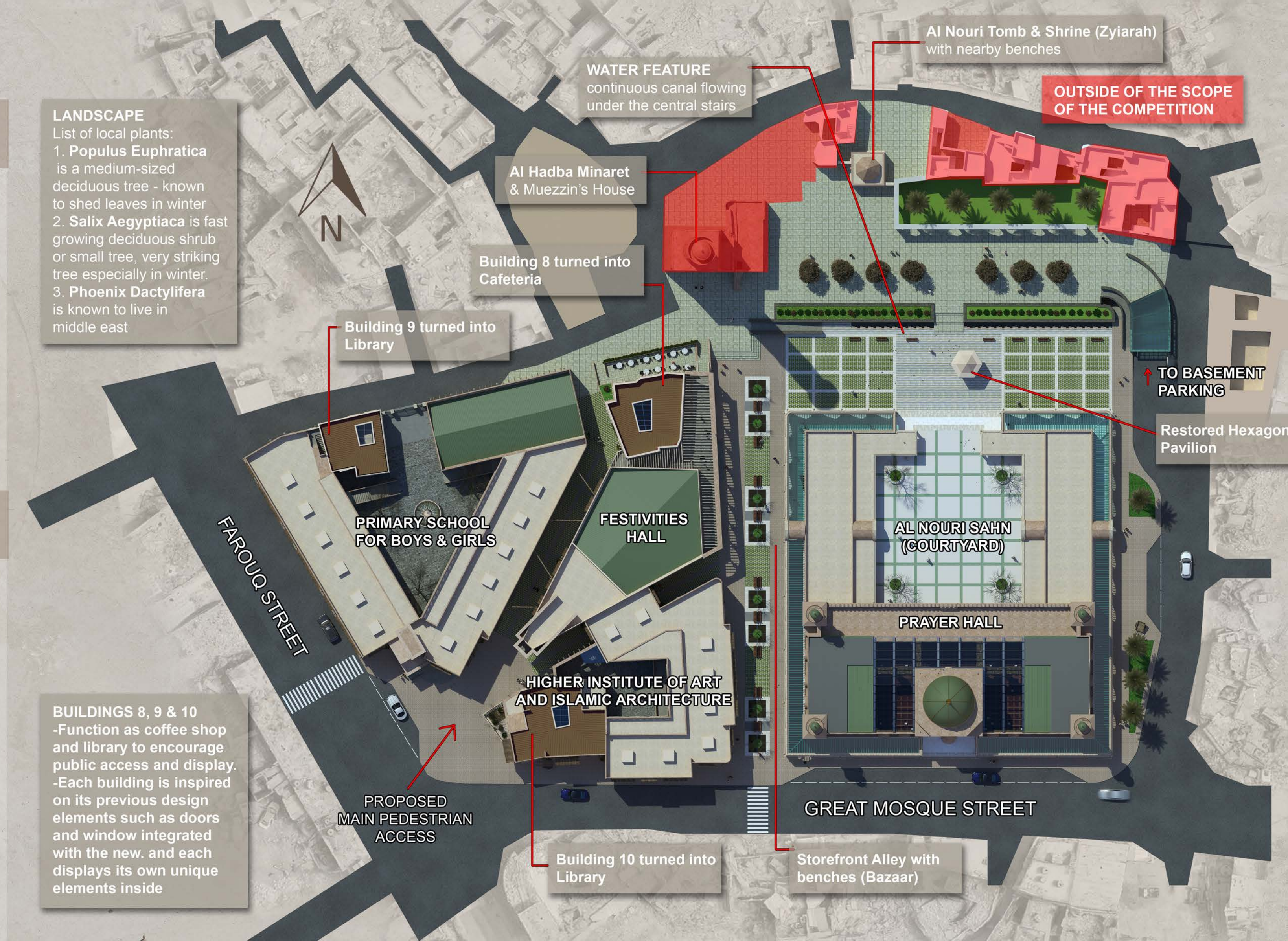


Remains of buildings 8,9, and 10 are proposed to be rehabilitated and integrated in the new design

LANDSCAPE
List of local plants:
1. **Populus Euphratica** is a medium-sized deciduous tree - known to shed leaves in winter
2. **Salix Aegyptiaca** is fast growing deciduous shrub or small tree, very striking tree especially in winter.
3. **Phoenix Dactylifera** is known to live in middle east

BUILDINGS 8, 9 & 10
-Function as coffee shop and library to encourage public access and display.
-Each building is inspired on its previous design elements such as doors and window integrated with the new, and each displays its own unique elements inside

SUSTAINABLE CONCEPT
Grass floor tiles system proposed for the outdoor areas to reduce heating and sun glare



AL NOURI MOSQUE COMPLEX SITE PLAN

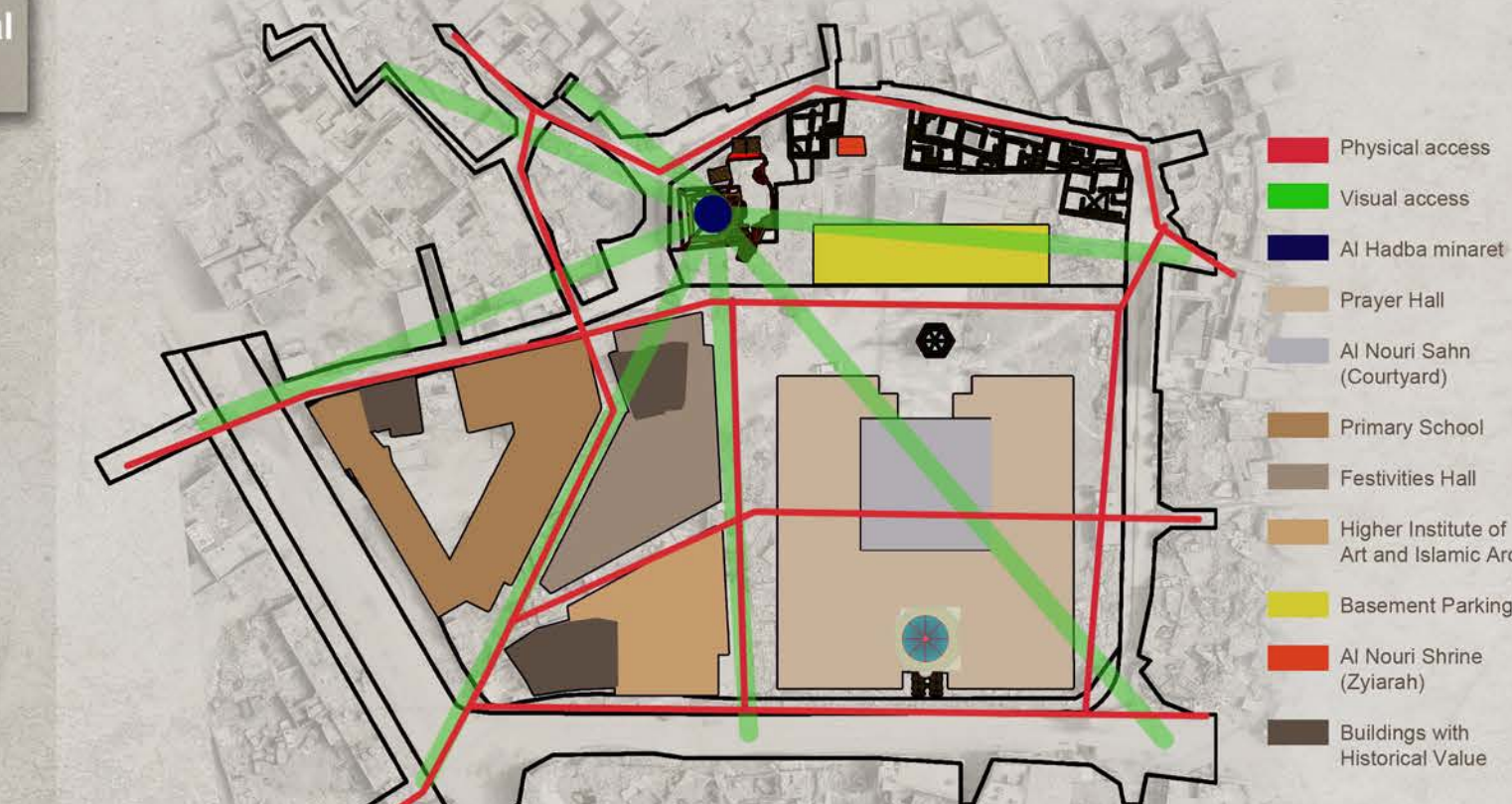
SCALE 1:500

Concept



IDENTITY

Proposed design revolves in this word. Believing who we are and what we have is very important to people. Thus, the complex form, functions and details shall be inspired from the traditional Mosulian architecture, as well as the traditional material and environmental solutions, in order to design a sustainable project.



1. Emphasize the importance of Al HADBA Minaret as the main visual landmark in Al Nouri site or rather the whole city
2. Treat the defragment of the site compactness and the urban fabric damages, by re-connecting the original pedestrian alleys and bridge the urban fabric gaps.
3. Reveal the atypical relation between the mosque and Al-HADBA Minaret, compared to the typical mosque planning at the same era.
4. Change the main entrance location and design, from the south corner to a proper location and form.
5. Bridge the boundary roads elevations and identifications.
6. Bring back selected commercial facilities around the mosque.
7. Maintain and emphasize the withstanding parts of the prayer hall.

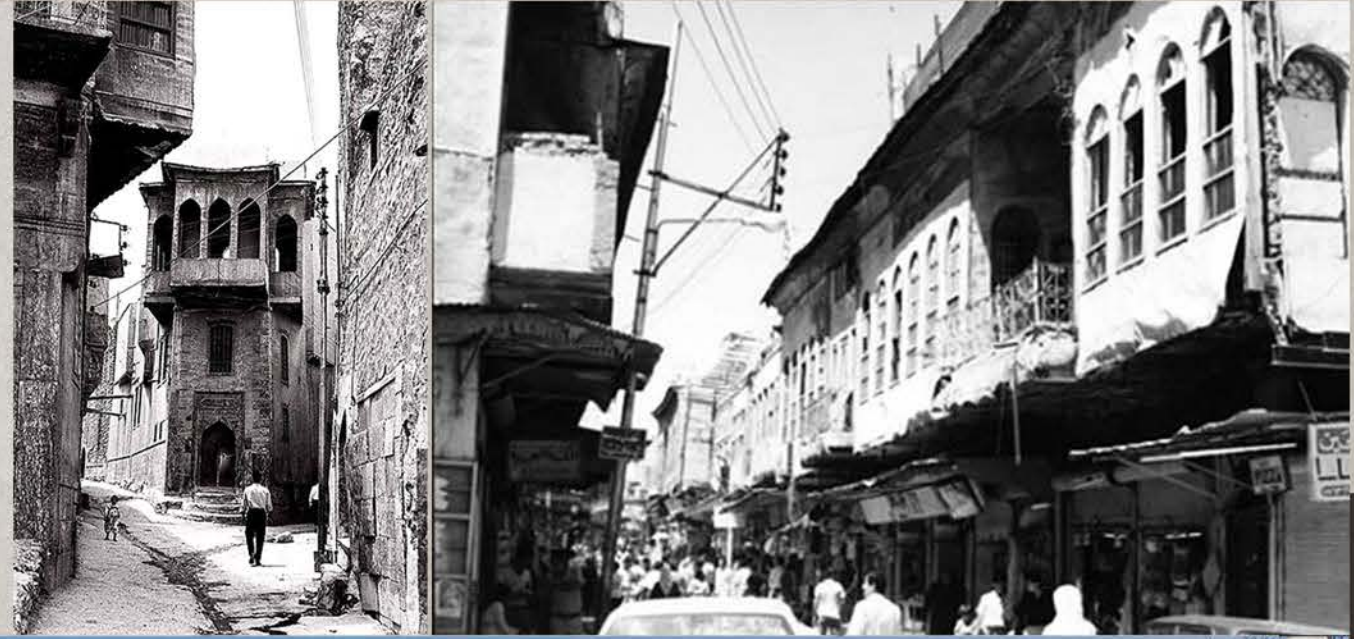


Character Inspiration

Inspire the complex main entrance from a well-known historical alley's entrance in Mosul, in addition to the side alley's vault traditional entrance (QANTARA).

The portico elevation proposed on the west elevation to enhance the continuity of the original design of AL-FAROUQ road, as it was inspired from AL-RASHEED road at Baghdad when first planned at 1940.

The covered portico in front of AL FAROOQ road provides visual and physical continuity of the road as it was intended at the mid of the previous century.

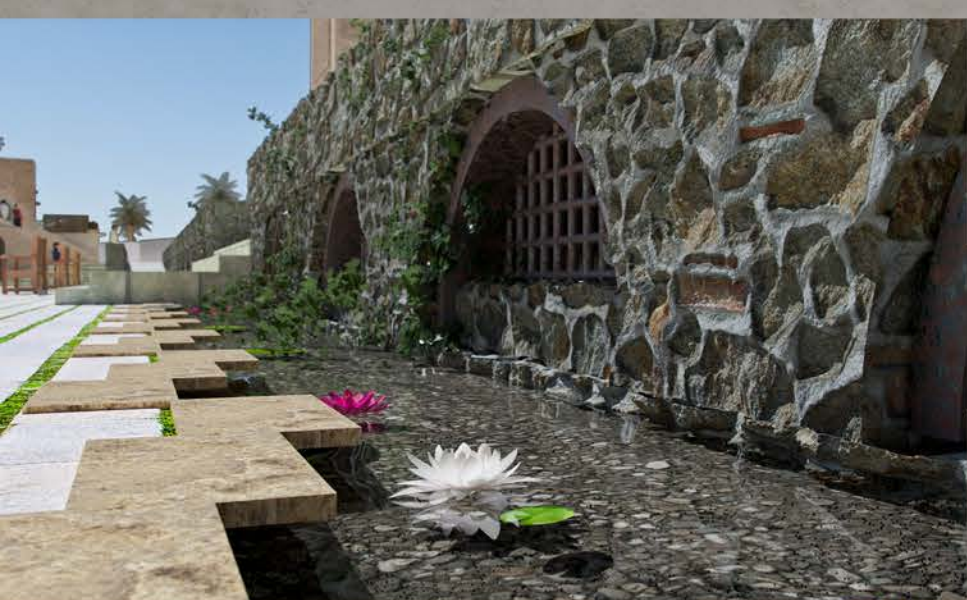


STREET ELEVATION OF THE AL NOURI MOSQUE COMPLEX FROM WEST - FAROUQ STREET
SCALE 1:200



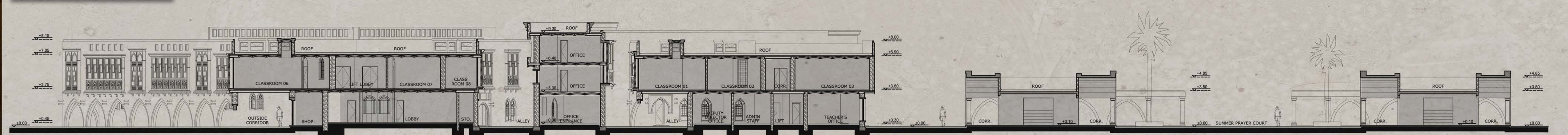
SUSTAINABLE CONCEPT
Wooden louvers "MASHRABIA" used to protect the buildings windows from direct sun light.

SUSTAINABLE CONCEPT
Water Feature for cooling the basement parking and its surrounding



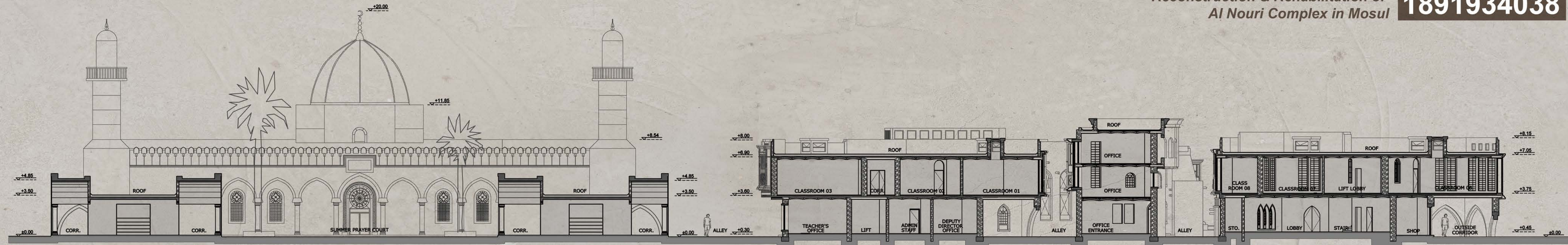
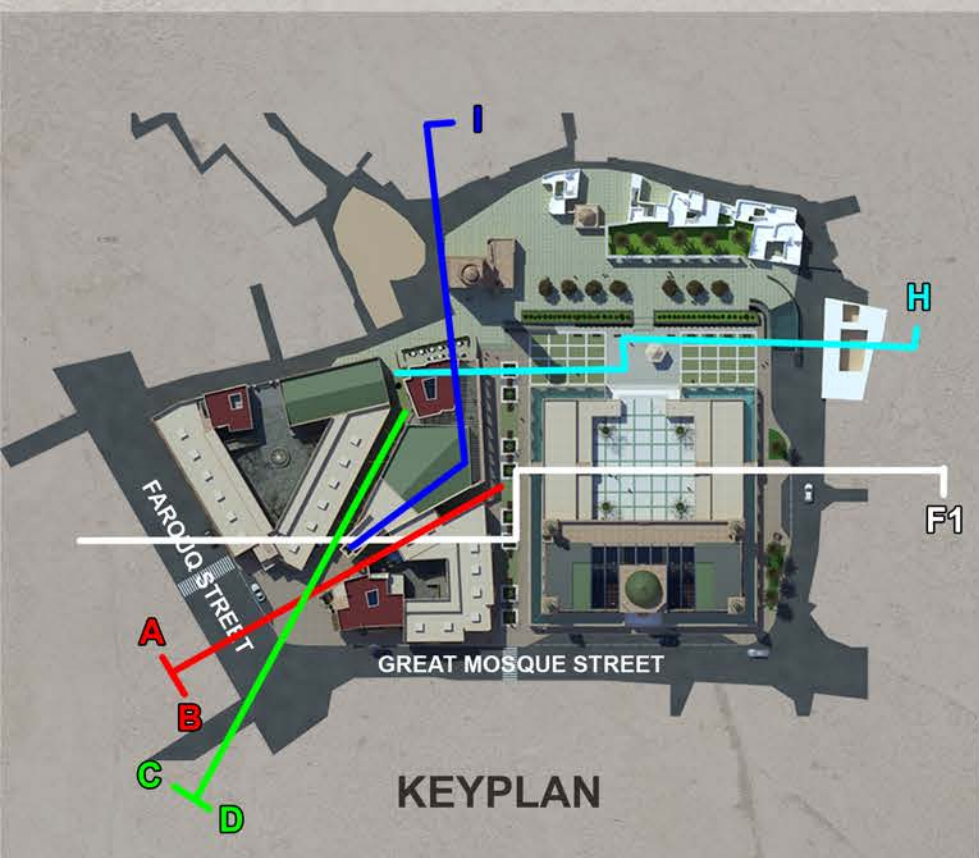
STREET ELEVATION OF THE AL NOURI MOSQUE COMPLE FROM SOUTH - GREAT MOSQUE STREET
SCALE 1:200

SUSTAINABLE CONCEPT
Traditional narrow alleys utilized to provide shaded pedestrian accesses.



SECTION THROUGH THE SITE F-F
SCALE 1:200





SECTION THROUGH F1-F1
SCALE 1:200



SECTION A - IN THE ALLEY FACING THE FESTIVITIES HALL



SECTION B - IN THE ALLEY FACING THE INSTITUTE OF ARCHITECTURE



SECTION C - IN THE ALLEY FACING THE PRIMARY SCHOOL



SECTION D - IN THE ALLEY FACING FESTIVITIES HALL



BUILDING 8: REHABILITATED ELEMENTS



BUILDING 9: REHABILITATED ELEMENTS



BUILDING 10: REHABILITATED ELEMENTS



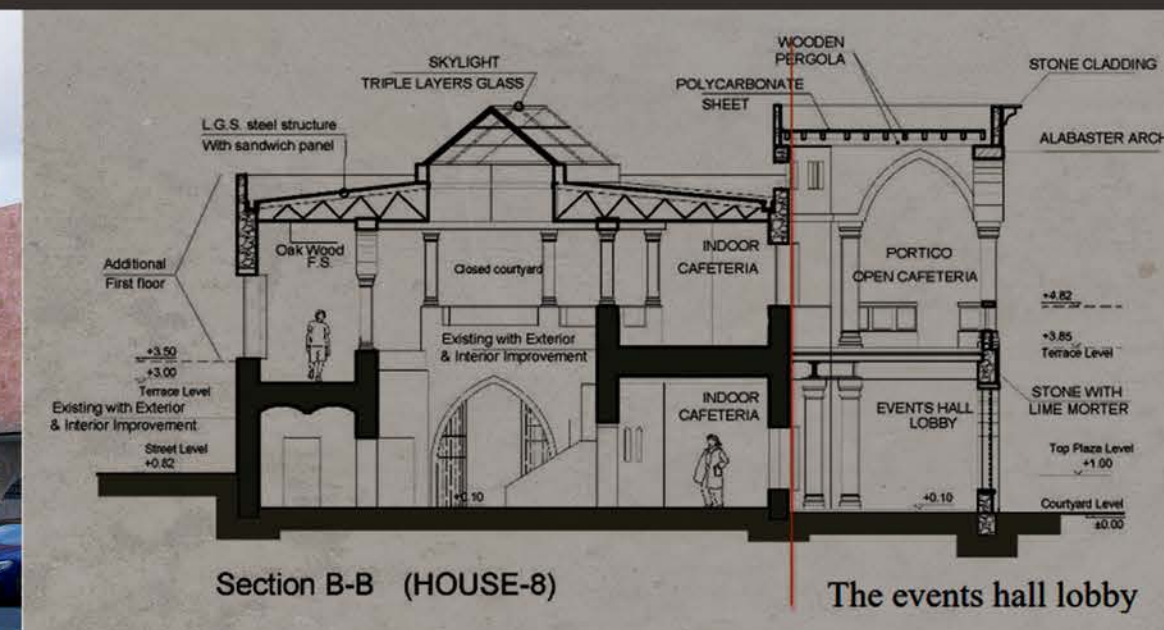
The most distinguishing element in building 8 was its doors and windows as shown in the figure above, surviving interior elements will be rehabilitated.



The door architrave, and its window design was used in the rehabilitated building



The door architrave, columns, arches and the alignment of recessed openings, doors and window inside were matched in the proposed design (see courtyard)



The events hall lobby

The three houses to be consolidate and improved as per the measures mentioned in the attached structural report to form an attractive and integrated part of their adjacent uildings.A first floors LGS light steel structure cover with sandwich panel and central skylight proposed to protect the existing structure and to provide an extra open area, making use of the open terrace level in harmony with the adjacent elevations and functions.Light weight exterior walls, or traditional stone and lime mortar wall, can be used in the extensions depending on thorough structural analysis. Same existing architectural features proposed to be used for the interior and exterior improvements.

PROPOSED DESIGN FOR BUILDINGS WITH HISTORICAL VALUE (REHABILITATED)



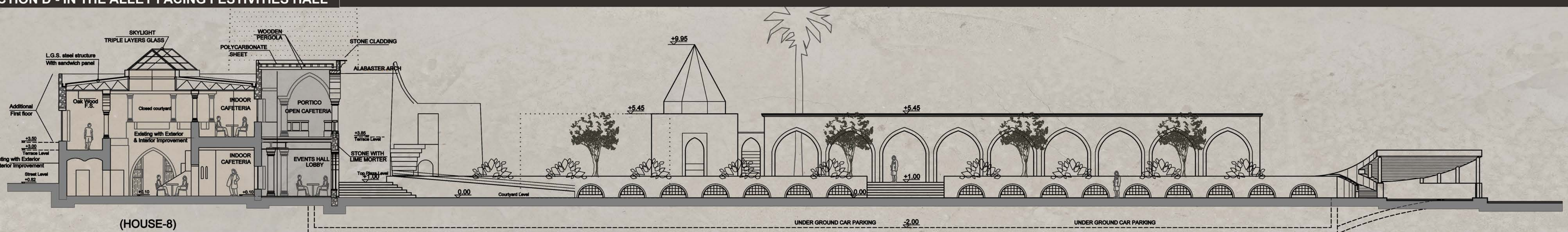
PRIMARY SCHOOL COURTYARD



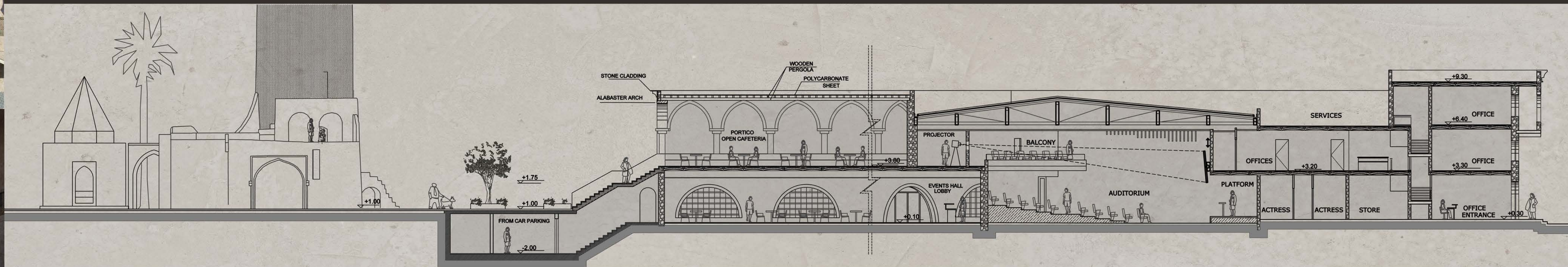
PRIMARY SCHOOL COURTYARD



BUILDING 10 COURTYARD



SECTION THROUGH SITE H-H
SCALE 1:200



SECTION THROUGH SITE I-I
SCALE 1:200

4 West Complex (Extension Area) Floorplans



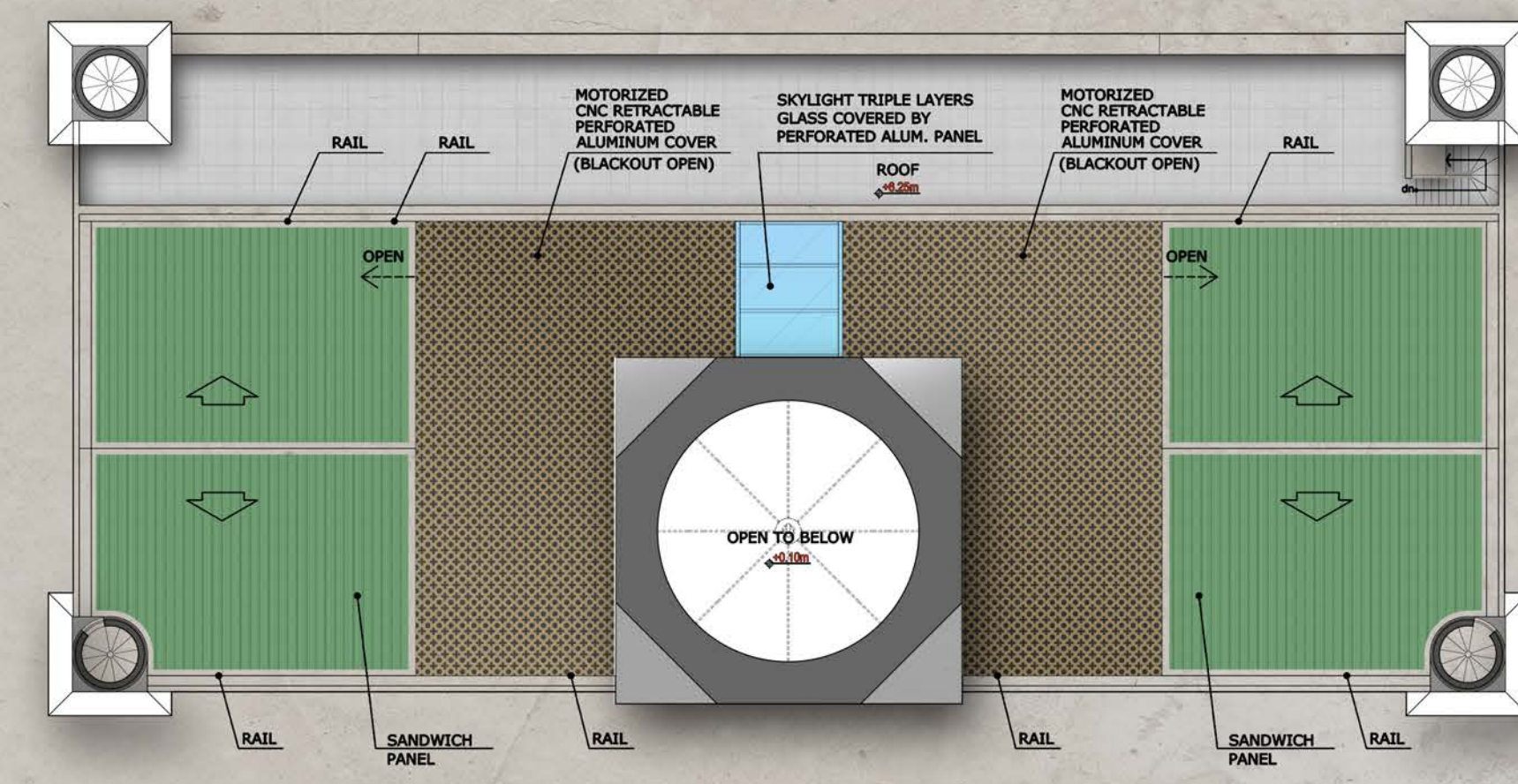
SUSTAINABLE CONCEPT
 The main buildings (except the events hall) designed with open to sky courtyard.

Inspired from the historical relation between Bazars and mosques, small shops with portico frontage have been proposed

The extension layout proposed in three triangles meeting together at the adjacent roads' junction (Farouq and the Grand Mosque street) these shapes the main entrance of the whole complex forming two alleys among them - the first alley, between the school and the events hall makes a physical and visual access connecting the complex entrance bay and Al HADBA minaret at the same time reconnects the existing pedestrian route across Farouq street with the alleys beside Al HADBA minaret, while the other alley, between the events hall and the institute of architecture, open through traditional vault (QANTARA) towards the mosque courtyard side entrance cross the central pedestrian street.

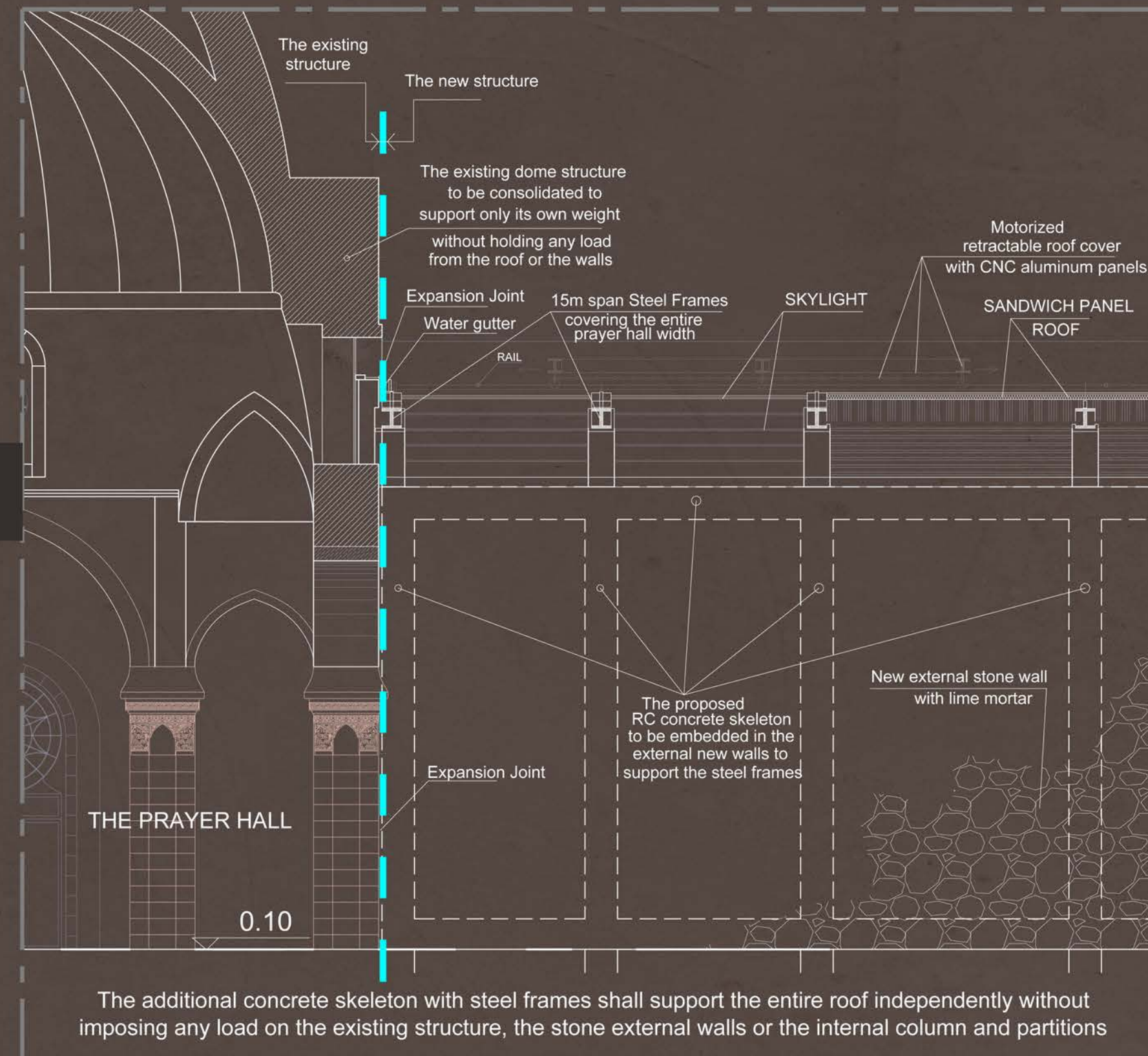


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NORTH ELEVATION
SCALE 1:200



BLOW-UP DETAIL CONNECTION OF THE OLD AND NEW STRUCTURE
SCALE 1:100



EAST ELEVATION
SCALE 1:200

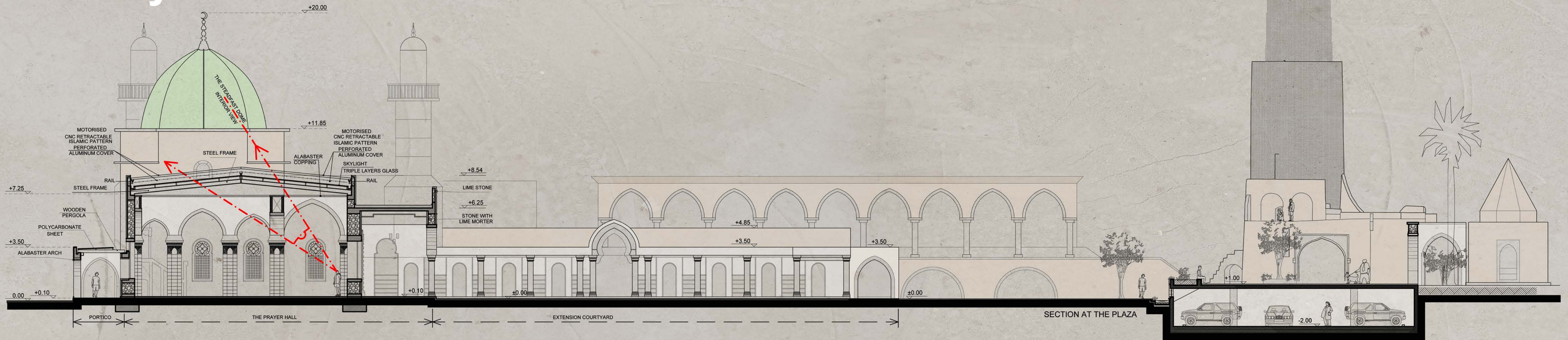


SOUTH ELEVATION
SCALE 1:200

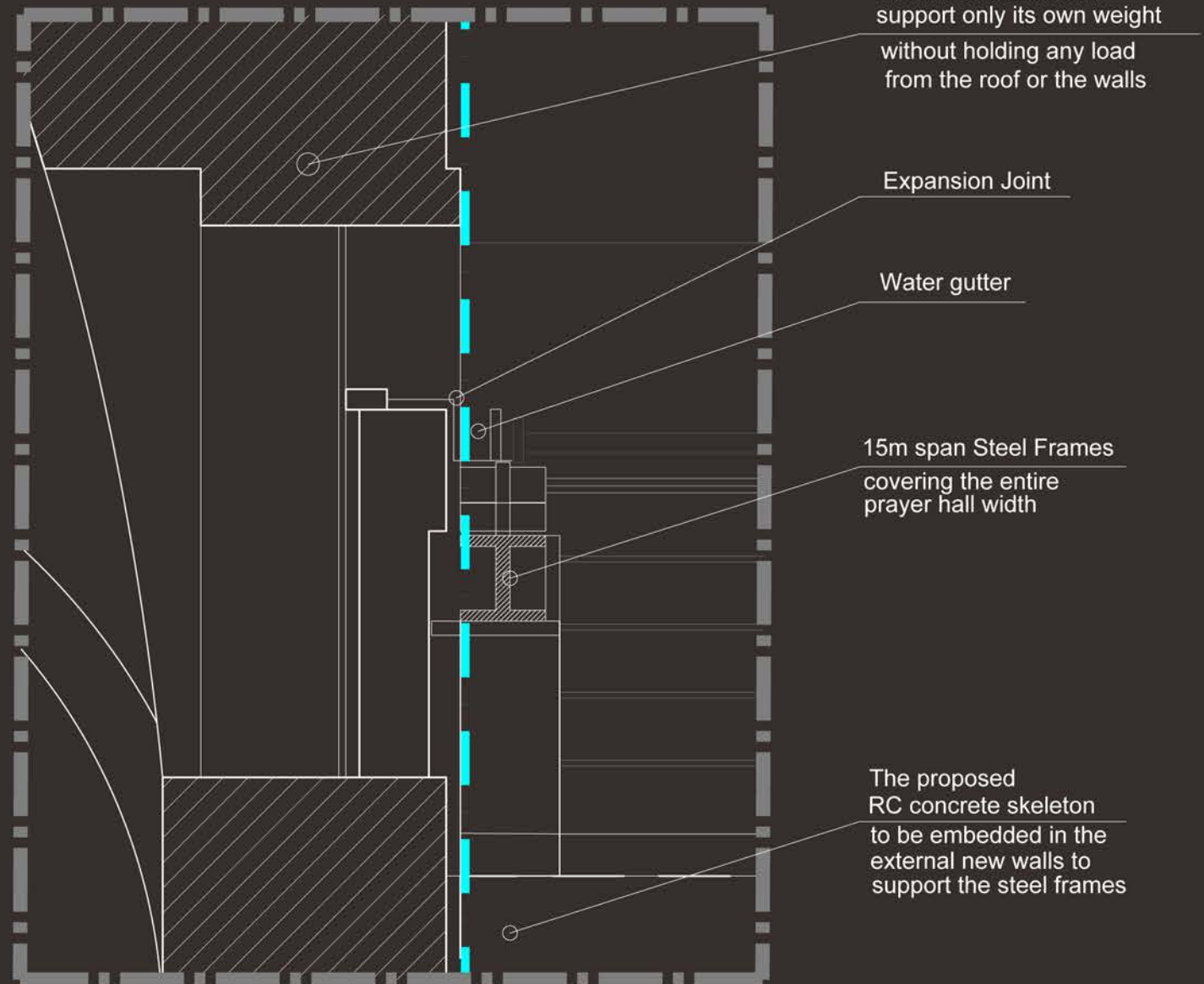


WEST ELEVATION
SCALE 1:200

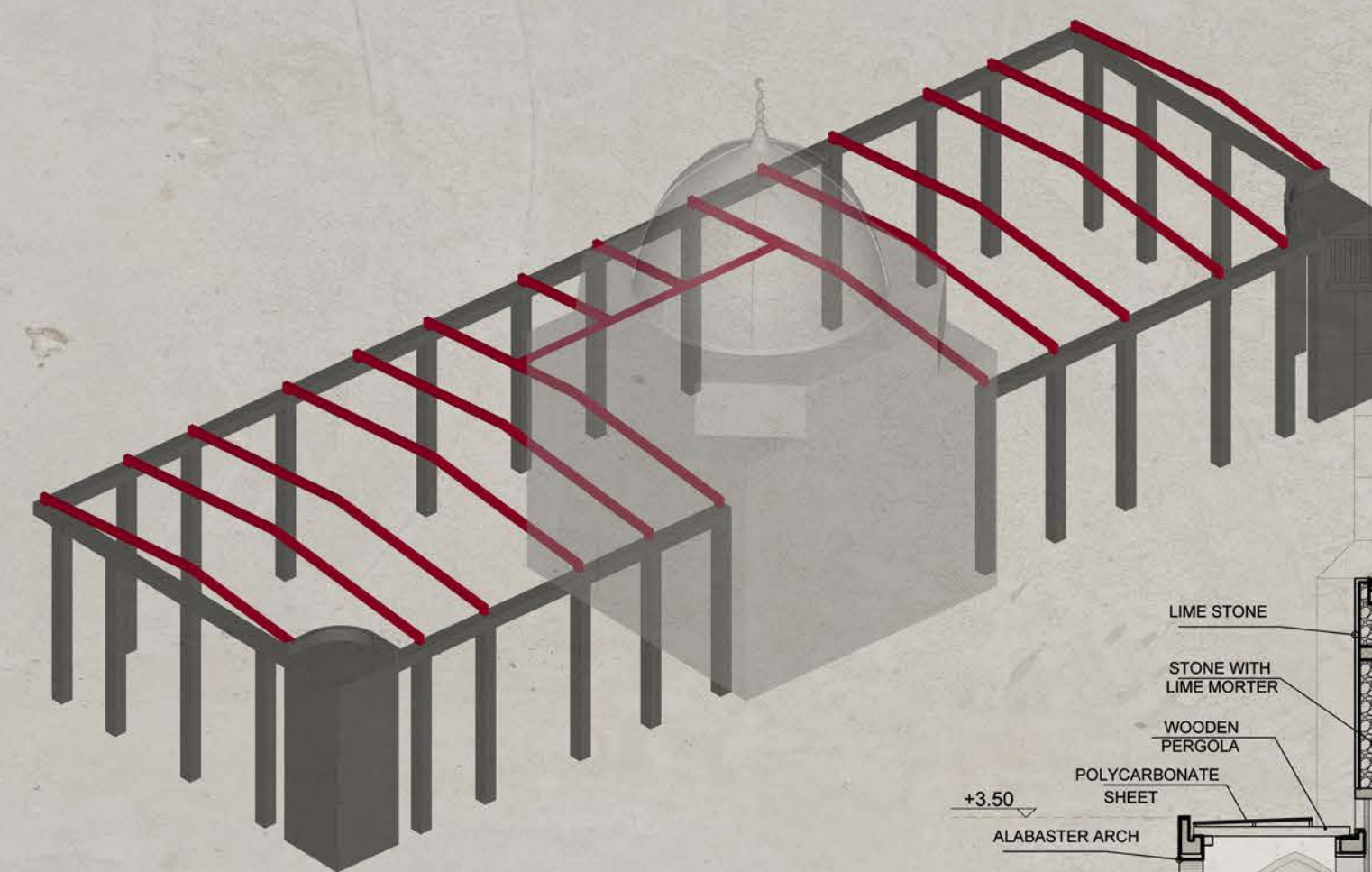




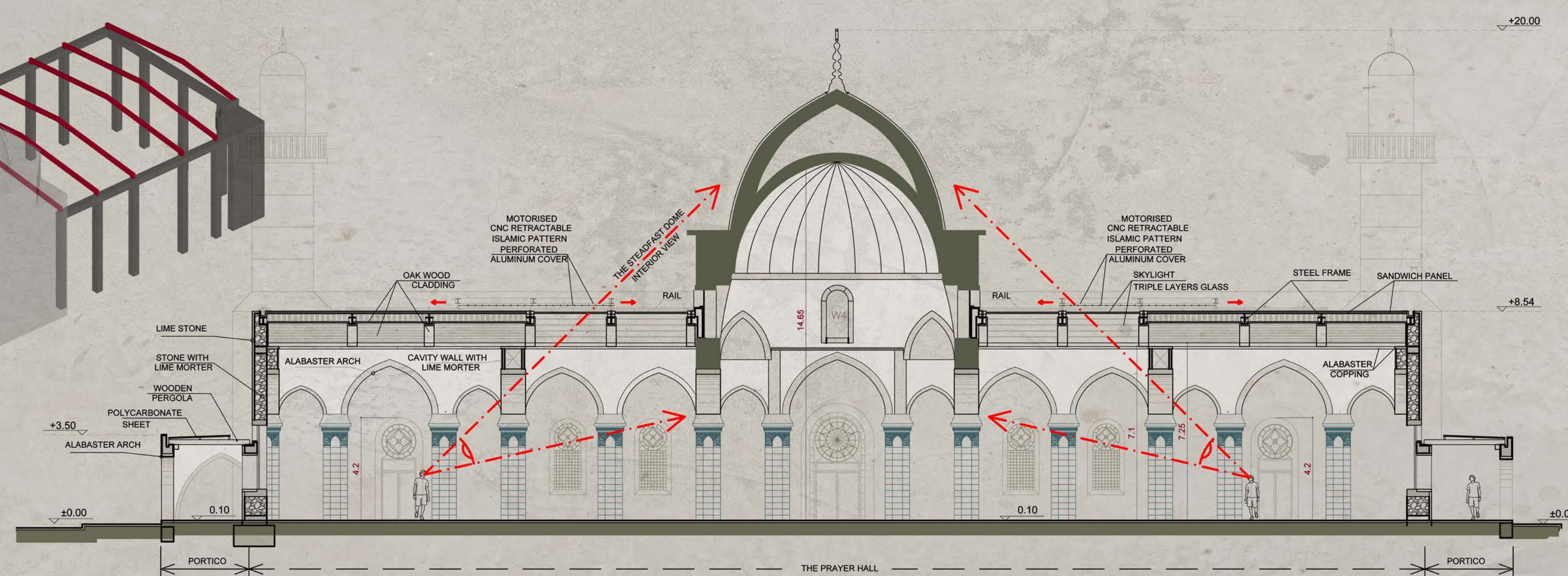
LONGITUDINAL SECTION
SCALE 1:200



BLOW-UP DETAIL CONNECTION OF THE OLD AND NEW STRUCTURE
SCALE 1:30



The additional concrete skeleton with steel frames shall support the entire roof independently without imposing any load on the existing structure, the stone external walls or the internal column and partitions



TRANSVERSE SECTION
SCALE 1:200

