WWW.IAENGGROUP.COM


I·A
Architects

We Speak Creativity

Foreword

“Our philosophy merges human-centered design with environmental intelligence. Every project is approached through a holistic strategy—balancing innovation, cost control, constructibility, and energy performance to deliver architecture that is both iconic and responsible.

At I.A. Architects, we do not simply design buildings—we create long-term value through intelligent, technology-driven architecture.”

Iyhab Imad
Founder & Design Director

Table Of Contents

Overview

I.A architects projects

01| Architecture

Industrial Building

About Us

Brief of History

I.A. Architects - Inspiring Allure Architectural Prospective Drawings Services LLC.

Established in 2011 and expanded internationally in 2017, IA Architects operates within IA Engineering Group as a multidisciplinary architecture and urban design studio delivering high-value developments across the UAE and wider GCC.

Structured within an integrated architectural and engineering framework, the studio combines design intelligence with structural coordination and digital precision — ensuring projects are both architecturally refined and technically buildable.

Our work spans mixed-use developments, educational campuses, cultural destinations, commercial headquarters, and large-scale industrial facilities.

2M	1,5Ha	1,5M	100M
Designs	Masterplaning	Educational planning	Clear-Span Structural Systems

Mission

To deliver refined, high-performance architecture that enhances asset value and strengthens market positioning across the UAE and GCC.

Through integrated design and disciplined technical coordination, we produce developments that are buildable, efficient, and commercially resilient.

Vision

To become a trusted architectural partner for forward-thinking UAE developers seeking design clarity supported by technical certainty.

We aim to shape future-ready developments across the GCC through architecture that merges innovation, precision, and environmental intelligence.

Core Values

- Design with Purpose: Every decision balances aesthetics, functionality, and longevity.
- Integrated Precision: Architecture and engineering operate within one coordinated framework.
- Intelligent Innovation: Digital tools are applied strategically to optimize performance and efficiency.
- Sustainable Responsibility: Environmental intelligence is embedded into early-stage decision-making.
- Value-Driven Delivery: Creativity aligns with commercial objectives and construction realities.

Our Approach

Every commission is treated as a development opportunity requiring alignment between design ambition and execution discipline.

- Context-Driven Design: Massing, orientation, and spatial organization respond directly to climate, site constraints, and urban logic.

- Integrated Architecture & Structure: Architecture and structural systems evolve in parallel, ensuring construct-ability from early concept stages.

- Digital Precision: Parametric workflows (Rhino, Grasshopper, Python) and integrated BIM coordination through Revit support data-informed design decisions and reduce inefficiencies.

- Long-Term Performance: Environmental strategies, energy efficiency, and operational durability are embedded at project inception.

Computational Design & Parametric Integration

Advanced computational workflows are embedded within our methodology.

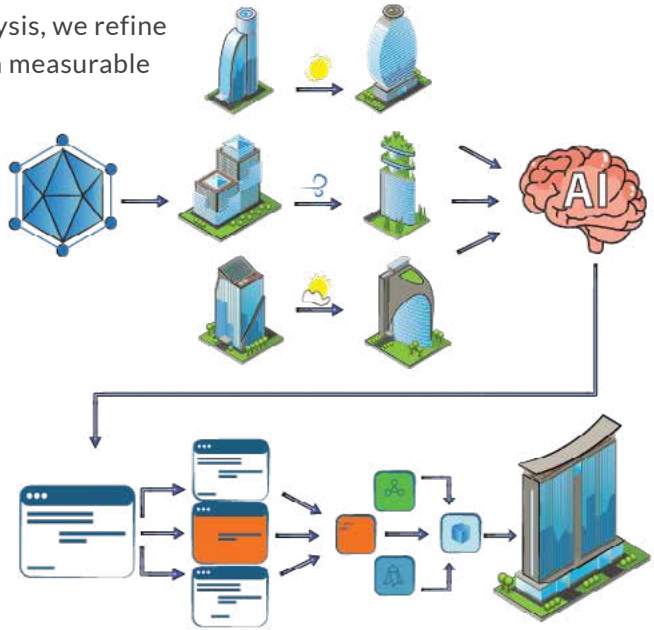
Through parametric modeling and performance - driven analysis, we refine architectural form,structural logic,and spatial efficiency with measurable precision.

Capabilities

- Generative Form Development
- Facade Rationalization
- Structural Grid Optimization
- Solar & Environmental Analysis
- Area & Data Optimization

Digital Environment

- Rhino
- Grasshopper
- Python
- Autodesk Revit (BIM)
- Autodesk Navisworks
- Autodesk AutoCAD



This integrated digital ecosystem ensures architectural ambition is supported by technical accuracy and constructible outcomes.

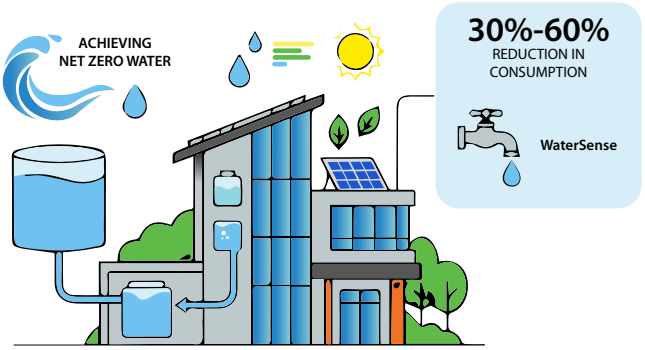
Sustainability & Environmental Performance

Sustainability is embedded from concept through delivery.

Our projects integrate:

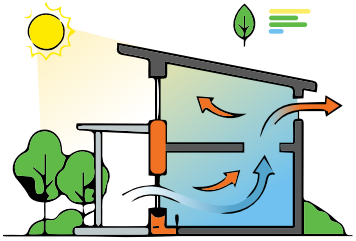
- Passive Climate Response
- Natural Ventilation & Daylight Optimization
- Renewable Energy Strategies
- Water Efficiency Systems
- Landscape-Integrated Cooling Solutions

Our objective is measurable environmental performance aligned with long-term asset resilience and operational efficiency.



PASSIVE COOLING IN HOT CLIMATES

Using thermal mass, shading, and natural orientation to maintain comfort without energy-intensive air conditioning



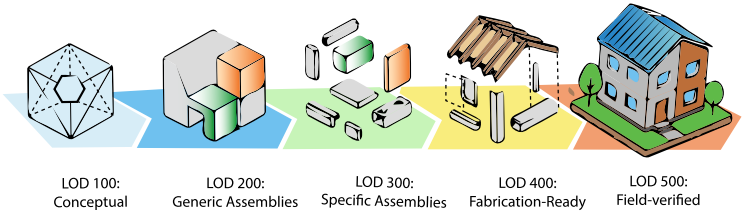
Integrated BIM & Technical Delivery

A unified BIM environment governs project development.

Architecture and structure are coordinated within a federated model to ensure alignment,efficiency, and reduced execution risk.

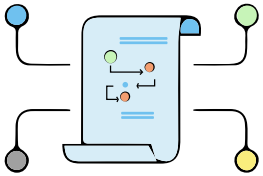
BIM Strategy

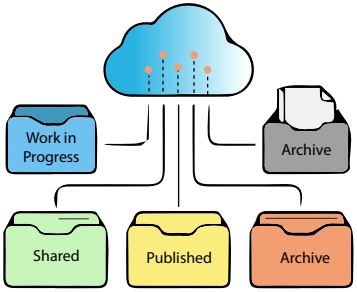
- Federated Model Integration
- LOD - Based Development
- Clash Detection & Resolution
- Model-Based Documentation



Project Advantages

- Reduced Coordination Conflicts
- Improved Construction Efficiency
- Enhanced Cost Predictability
- Clear Interdisciplinary Communication



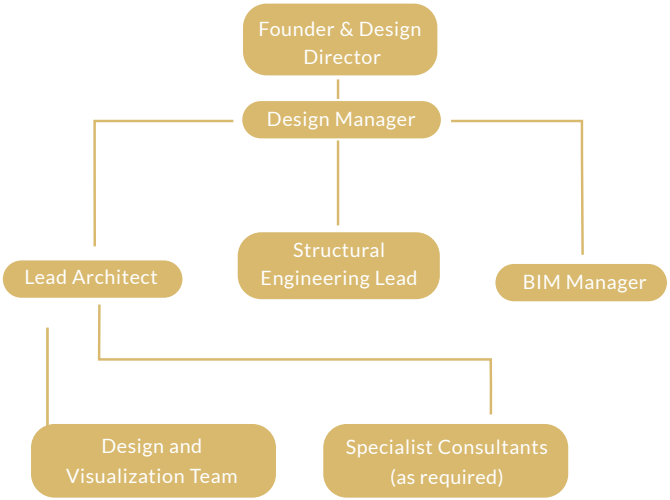


Design intent transitions seamlessly into execution.

Project Governance

Structured leadership ensures continuity from concept to construction.

Project Structure:



Delivery Phases:

What We Do

Architecture

We view architecture as the disciplined synthesis of form, function, structure, and context. Every project is shaped through an integrated design process where architects and engineers collaborate from the outset - aligning spatial quality, environmental performance, structural logic, and urban presence into one cohesive vision. The result is architecture that is expressive yet rational, sustainable yet efficient — designed to serve both its users and its long-term value.

Structural Engineering

We deliver advanced structural solutions for complex buildings and steel systems, integrating engineering precision from concept through construction.

Our team specializes in high-performance structural design, including seismic and non-linear analysis, ensuring safety, efficiency, and code compliance at every stage. Working in parallel with our architectural teams, we develop rational, build able structures that support design ambition while meeting local regulations and international standards.

Urban Design

We shape integrated urban environments that extend beyond individual buildings. Our multidisciplinary team combines spatial strategy, landscape intelligence, economic awareness, and environmental analysis to create context-responsive master plans tailored to specific social, climatic, and development conditions. The result is cohesive urban frameworks that support long-term growth, live-ability, and commercial viability.

Design Support

Our design support team leverages advanced digital decision-making throughout the project life cycle.

From high - quality visualizations and 3D modeling to graphics, animation, and physical models, we provide precise representational tools that clarify design intent and strengthen client and stakeholder engagement.

Design Management

We provide structured oversight throughout design and construction to ensure clarity, control, and continuity. From programming and change management to procurement coordination, document control, payments, and risk mitigation, our management framework safeguards project progress and protects delivery outcomes at every stage.

Leadership

Iyhab Imad
Founder, Managing & Design Director

With over 15 years of professional practice, Iyhab Imad leads the firm's strategic direction, design vision, and overall management. He oversees business operations, project governance, and multidisciplinary coordination, ensuring consistency in quality, performance, and delivery standards. His leadership aligns architectural innovation with technical discipline, reinforcing the firm's commitment to refined, build able, and value-driven developments.

Hamza Harb
Managing Partner

over 18 years of experience in contracting, finishing, and interior decoration. He brings a results-driven approach that merges strategic leadership with hands-on industry expertise, ensuring projects are executed with precision and uncompromising quality. Focused on long-term value and sustainable growth, he is committed to delivering refined outcomes that reflect discipline, reliability, and excellence at every stage.

Our Partners

I.A ARCHITECTS PROJECTS

Eko Green Tower

Ikeja, Lagos State, Nigeria 2020

Client
Lagos State Government
Ministry of Works and Infrastructure

Site Area
11,740m².

Total floor area
Offices & Meeting Rooms: 6,800 m²
Auditorium & Theater:400 m²
Technical Floor: 1,100 m²
Offices Common Services: 200 m²
Car-park: 3,240 m²
Green Area: 2,630m²

Building Height
58m

Services
Architectural Study

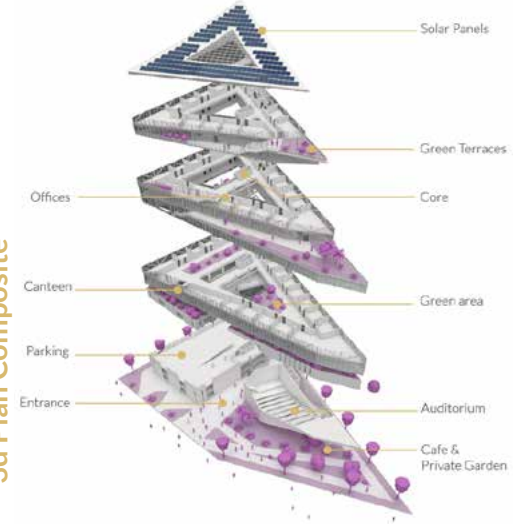
Eko green tower is a mixed-use building with a total area of 11,725 m² designed to be built in Lagos, Nigeria, on a 3,340 m² land, in front of the Ministry of Environment and next to Multi-Agency Complex Buildings. Optimizing & minimizing, our innovative design approach developed its unique method to transform the random lines of the site into an equilateral triangle which is one of the dominant prime shapes, to be the pulp of the building form, and to be derived the rest of the building, later, by rotating one of the triangle sides around its corner twice composing the final form

of the building. The function program of the building was developed to contain three major divisions; Three models of offices host 320 Persons with an area of 6,800m², an auditorium fits 285 Persons with an area of 400m², and Car-Park for 80 Cars with an area of 3,240m².

In addition to meeting rooms and a small theater, Canteen was provided to serve the whole building. With a semi-private garden with 2,600m² of Landscape and Green terraces.

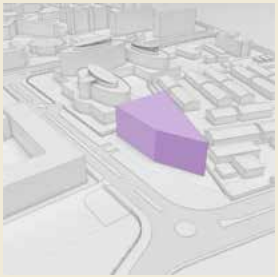
Following our deep belief in sustainability as one of the best responses to present and future global environmental problems. Our design solution was concentrating on creating a calm and comfortable environment for the building's occupants and eliminating

3d Plan Composite



Concept Development

1 Site

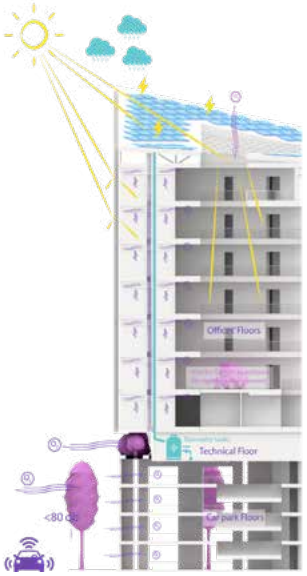


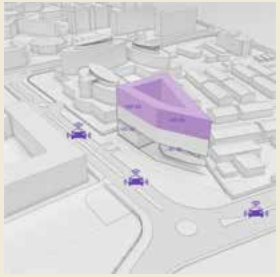
2 Building Area

3 Building Use

4 Courtyard

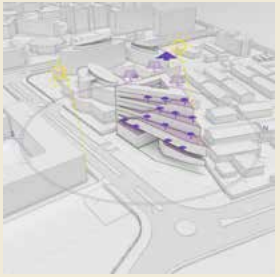
the negative factors that may impact them, the climate, and nature. By reducing the building's energy consumption, enhancing the five essential points; natural lighting and ventilation, rainwater recycling, solar energy, and reducing traffic noise. "The building is provided with 20-30% of renewable energy by approx. 300m² of solar panels".



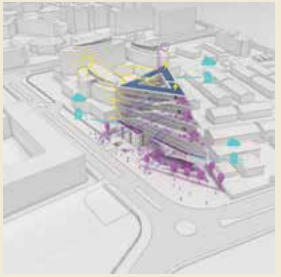


5 Redistribution

6 Site Study & Design Solution



7 Green Terraces & Roof



8 Natural Light, Ventilation and Rainwater Solutions

Swaida Mixed-Use

CBD, Swaida City, Syria 2017

Client
To Participate in the 7th Architecture Exhibition 2018

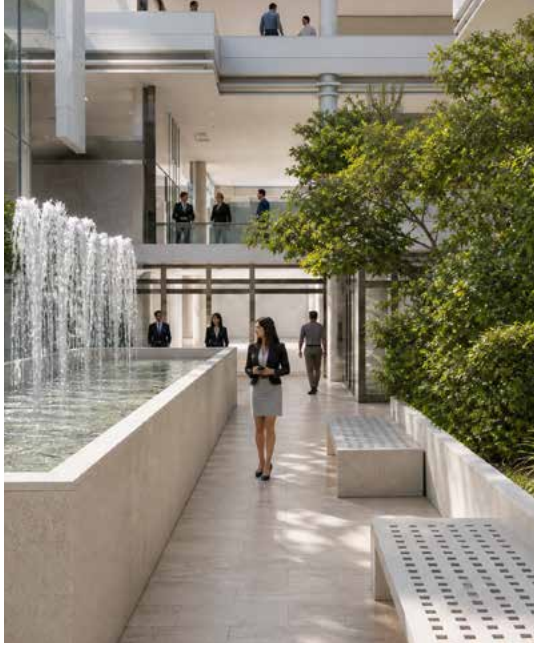
Site Area
6,700m^2

Total floor area
Residential: 5,000m^2
Office: 10,000m^2
Commercial: 16,000m^2
Parking: 10,000m^2

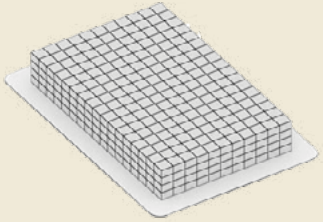
Building Height
45m

Services
Architecture
Structural Engineering
(Conceptual Design)
Environmental Engineering

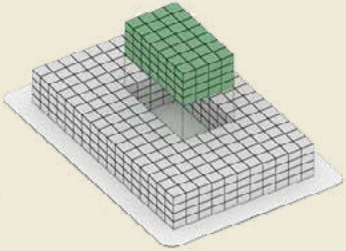
As a part of our participation in the 7th Architecture Exhibition 2018. Representing our vision for the future of architecture in the city, we introduced the Swaida mixed-use project as a part of our solution for the major issues and problems confronting the city nowadays. Re-creating the concept of a mixed-use building to adapt to the culture of the society and the local environment, was the heart of our design approach.



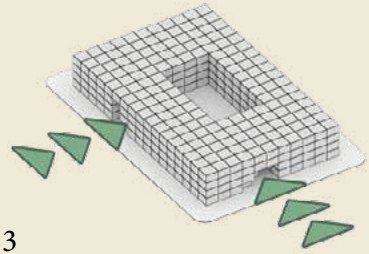
Concept Development



1

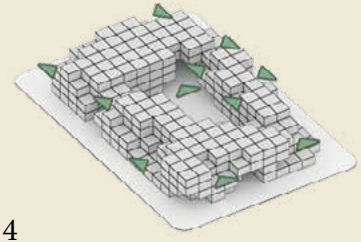


2

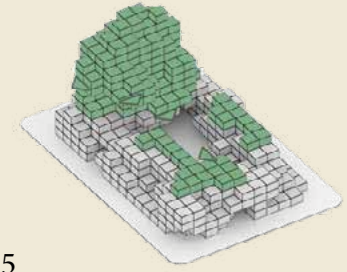


3

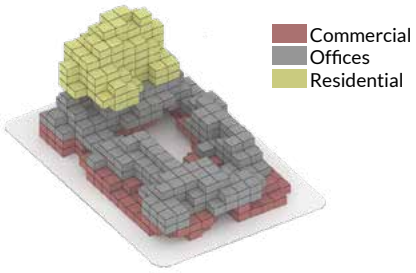
Swaida Mixed-use is suggested to occupy 6,700 m2 site in an important location at the heart of Swaida CBD, following the building regulation standards, our design process began by representing the mass of the total gross area, then creating the essential circulation pedestrians axis after subtracting the volume of the main courtyard, once again, the re-forming process began this time by dividing the mass into 5x5m grid, then performing a regular subtracting and adding processes to follow the rhythm of the context. The commercial zone extends over three stories, stretching away from the tower. Its roof is laid out as a park, pix-elated building



4



5



Swaida Rose

CBD, Swaida City, Syria 2011

Situated in the CBD of Swaida city, close to Market St and the financial district, Swaida rose is a mixed-use building. Providing 6,500m2 of Office space, 6,500m2 of retails, and 2,000m2 of restaurants and entertainment spaces. Our design approach depended on abstracting the form of the royal rose, deriving the basic lines from the irregular site, to create a dynamic form that would stand out of the context.

Sustainability & Design

Responsive to the sustainable vision of the design, a central Skylight was added to float the core and common zones with natural light, creating a special ambiance within. While office and retails spaces were equipped with a smart facade system to control natural light. While drawing greenery deep into the building, the terraces were prepared with green roof systems.

Client
Shriti Contractor

Site Area
1,500m^2

Total floor area
Office: 6,500m^2
Commercial: 6,500m^2
Entertainment: 2,000m^2
Parking: 3,000m^2

Building Height
40m

Services
Architecture
Structural Engineering
Environmental Engineering
(Conceptual Design)

Spaces & Circulation

Access to the store is through full height, glazed pivoting doors on two levels, from market square or directly from the valley street. The interior courtyards are specially designed to enhance the visual connection between all levels, creating informal spaces to meet and interact, evoking a rich built environment.

Logistics Office & Canteen Buildings

Ogun State, Nigeria 2019

Client
Lafarge Africa Plc.

Site Area
5,600m^2

Total floor area
1,800m^2

Building Height
10m

Services
Architecture
Structural Engineering

The new logistics office building for the Wapco II plant is located in 5,600m2 site at the south entrance of the plant, close to Ewekoro city. The scheme brings together a highly efficient, flexible logistics office building and a separated canteen building. Concentrating on creating an enclosed

green landscape, the design successfully provided a calm and healthy environment for occupants, where both buildings were set in a rectangular shape defining a parking zone and connected with a pergola. The apparent simplicity of the building was our design approach. From the very beginning, The buildings were formed as modern gable-roof

employees, the innovative design provided a flexible solution that can adapt to these changes through devoting the roof of the Open-space offices section to accept extra levels without causing any demolition or destruction for the building or the landscaping.

buildings, responding to the rainy weather. Access to the logistics office building is through the exterior courtyard, which also leads to the opened-space office section and the interior garden. As a response to the expected future growth of the plants'

Multichem Industries Ltd Headquarters

Ikeja, Lagos State, Nigeria 2018

The building is the new headquarters for the Multichem Industries Ltd Company, a trading company based in Nigeria. The new building consolidates the company's operations in one place.
The ground floor occupies 1.500m2, in front of the existed warehouses and surrounds by the landscape. In the middle of the building, the reception hall is a 7.2m double-height, opened to outdoor, enhancing the sense of welcoming and creating a visual connection to the rich landscape.
The slab on the second floor extends out facades, creating a floated greenery cantilever. While the glazed facades at the upper floors shift back, creating green terraces.
The innovative design enhances transparency, improving the natural light and creating a relaxed environment of the interior spaces. Using a modern palette of materials including wood and painted concrete for facades, and terrazzo for floor tiling the character of the building is simple, calm and warm.

Client
Multichem Industries Ltd.

Site Area
10,300m^2

Total floor area
3,700m^2

Building Height
19m

Services
Architecture
Structural Engineering


Multichem

Level 1

Level 3

Level 2

Level 4

Lara Commercial Building

CBD, Swaida City, Syria 2012

Client
Al-Amer construction co.

Site Area
610m^2

Total floor area
5,600m^2

Building Height
30m

Services
Architecture
Structural Engineering

Lara building occupies a 600m2 site at the heart of the Swaida city CBD, close to the old city. The building features a popular market at the lower four levels, the upper-level houses restaurants, the flexible offices are on the top five levels, while the basements contain parking and technical rooms.

Our design approach was targeting to evoke a sense of merging to context, Using a dark palette of materials including basalt stone for cladding and roof tiling for the platform of the building while the tower was covered with reflected glazed facades. The front entrance was designed as an arcade, providing a shaded zone. Other design elements like pergolas and green roofs are used intentionally, emphasizing the traditional appearance of the building. The offices' tower is placed at the central portion of the building, providing private spaces for restaurants that would use them as outdoor terraces, at both sides of the building.

Claro Specialty Coffee

UAE 2024

Client
Claro coffee

Site Area
1346m²

Services
Architecture, landscaping

The outdoor seating area was meticulously designed to provide a comfortable ambiance, evoking a sense of homeliness for patrons. The inclusion of trees served to enhance the overall freshness of the space. The landscape design was characterized by smooth, flowing lines, with a particular emphasis on accentuating the C-shaped configuration of the amphitheater seating zone, a symbolic representation of the initial letter of CLARO CAFE.

Tinubu University

Lagos State, Nigeria 2019

Client
Alkaisar construction company

Site Area
154 hectares

Total floor area
1,500,000 m^2

Building Height
40 m

Services
Architecture
Structural Engineering (Conceptual Design)

General Info

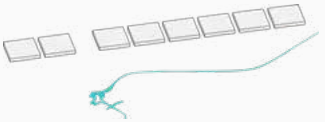
Zone Name	Area "m²"
Faculties zone	348,695
Students Housing Zone	262,959
Teachers Housing Zone	127,539
Hospital Zone	73,059
Port	13,010
Retail & Recreational Zone	52,792
Stadium	104,231
Sport Center	79,131
Administration Zone	78,634
Total Zones Area "m²"	**1,140,050**
Extension, Green and circulation network	398,010
Total Site Area "m²"	**1,538,060**

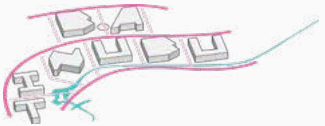
Urban Design

The mega site of the university is set to consider all factors required to support all areas of life and is ready for any extensions that might emerge in the future.

With a total site area of 154 Ha, this urban design holds enough spaces for faculties, administration, sport and recreation, retail and investment, housing (a capacity for 12,000 students and 1,120 Teaching Staff families) and traffic and transport.
The urban design of the site is presented via layers that give a comprehensible view of the stages through which the design went.
In addition, the university is, remarkably, environment friendly in the full sense of the word, and constitutes a base for sustainability and biodiversity in many different ways. The water bodies, the man-made river, the vast green areas that penetrate each zone, and the spacious margins left for any further extension designed for this purpose.

Concept Development





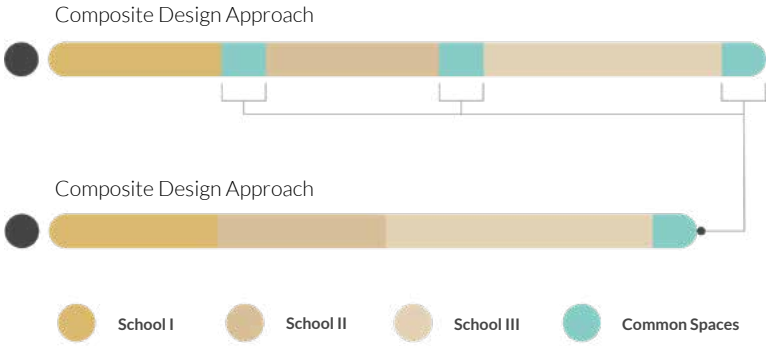
Architectural Design

Faculties Design Following the up-to-date standards of the educational buildings in the world, our design creates a suitable environment forstudents to learn, interact and enjoy their university lives. In eight mega buildings, more than 45 academic disciplines and fields of study were grouped together carefully to give the best interactive environment.
Therefore, each student can take the advantage of all academic disciplines contained in a single building and that enables him or her to get a wider knowledge during his study period.
On the other hand, a comprehensive range seminar rooms, classrooms, lecture halls, studios, labs, theaters and amphitheaters were provided and equipped with all fixtures to fit each academic discipline requirements.

Composite Design Concept

The composite design approach is the study which was developed to reduce the gross building area by combining the schools and institutes that belong to the same faculty.

This is to create a comprehensive environment for students of the same discipline, and, economically speaking, reduce the substantial costs of having them separate.
Like all faculties, the practical departments and the theoretical departments are separate but have close links with each other to facilitate movement between departments. The same applies to the annex and laboratories departments, which are separate but have close connections with the other related colleges, schools and institutes.
Despite the fact that all building are classified mega structures, all safety standards are taken into consideration, that is, safety is guaranteed by means of escape stairs and the presence of all types of fire rated separators.



Block “B1”

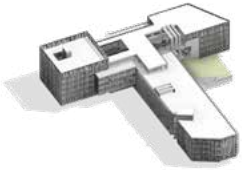
- Faculty of Business Economic
- Faculty of Law

Area: 42,895 m2

Block “A”

- Faculty of Art & Humanities

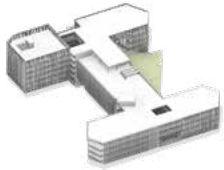
Area: 45,540 m2



Block “T”

- Faculty of Life sciences

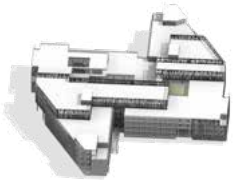
Area: 25,407 m2



Block “I”

- Faculty of Social sciences
- Faculty of Psychology

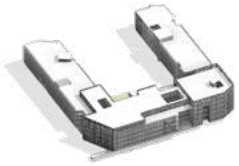
Area: 30,560 m2



Block “N”

- Faculty of Physical Sciences

Area: 49,000 m2



Block “U1”

- Faculty of Educational Sciences
- Faculty of Tourism

Area: 37,092 m2

Block “B2”

- Faculty of Engineering

Area: 43,853 m2

Block “U2”

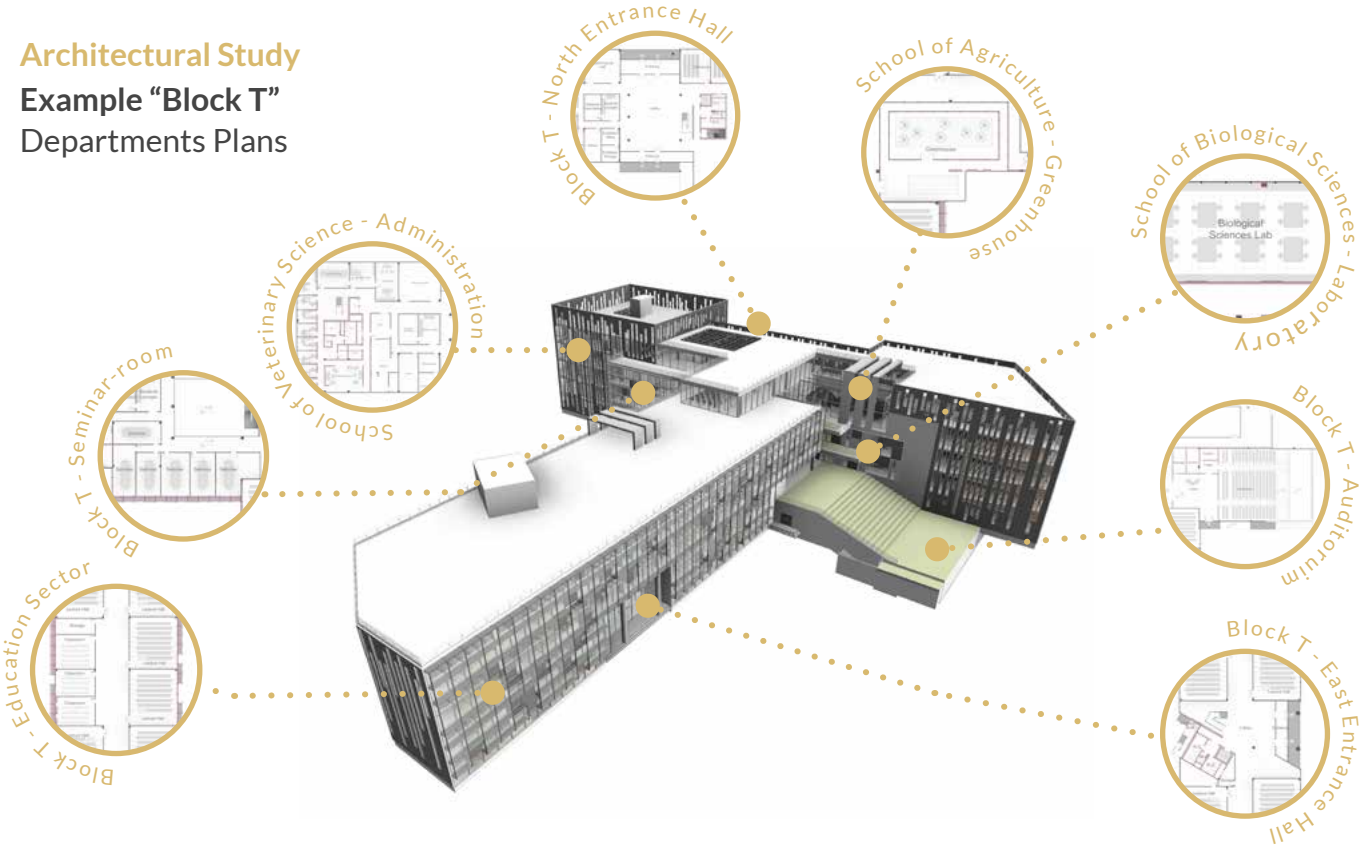
- Faculty of Health Sciences

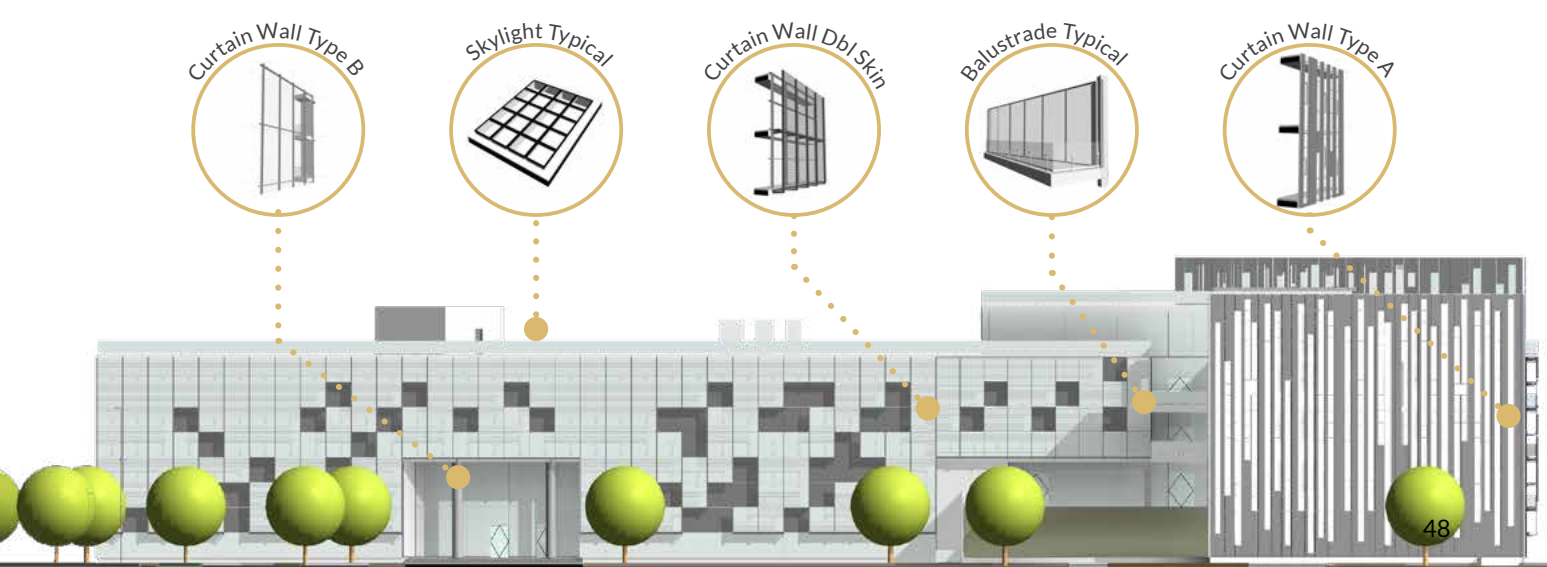
Area: 39,718 m2

Architectural Study

Example “Block T”

Departments Plans

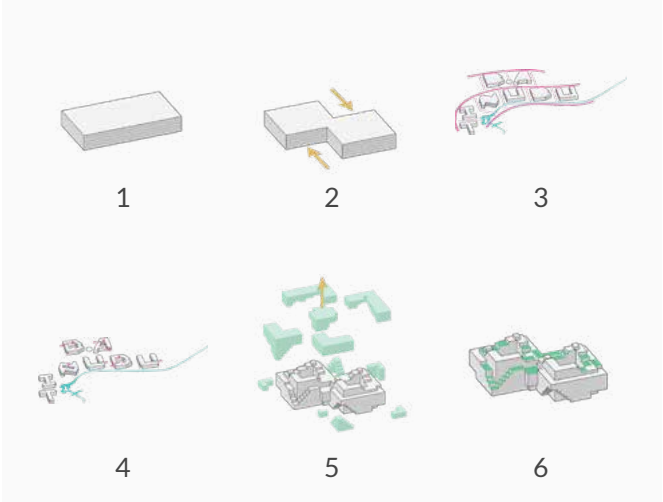



Curtain Wall Type B
Skylight Typical
Curtain Wall Dbl Skin
Balustrade Typical
Curtain Wall Type A

Student Housing Design

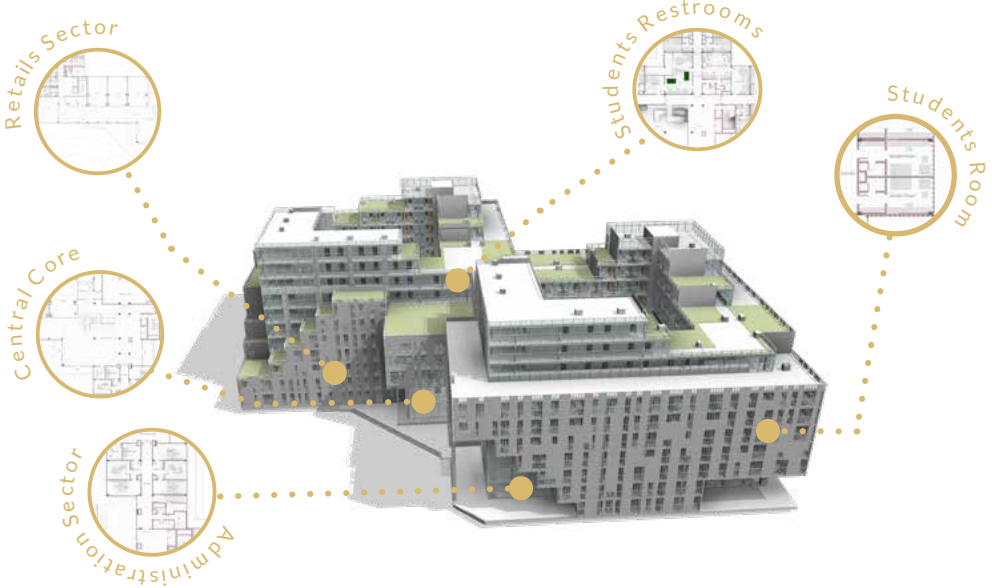
Assuring students' privacy, safety, comfort and luxury, students' housings were designed on a simple strategy with modern hi-tech to fulfill these goals. About 11000 students can enjoy their residence in 12 separate units that spread in a rectangular array of squares at the residential zone of the students.

Concept Development



Architectural Study

Each students' housing unit (mega structure) contains four main divisions; the common area, the administrative part, the residential wings and technical rooms.
The common area has rooms for study purposes such as the library and the studios. In addition, the gym, the retails, the multi-purpose hall and the green roofs are all parts of the common area and are considered semi-public to some extent.



Teacher Housing Design

Along the lagoon beach at the teacher housing zone, eight identical residential compounds were linearly distributed. Each one contains 140 apartments of 12 different types for 3 categories of families; 1-2 members, 3-4 members and 5-8 members.

1

2

3

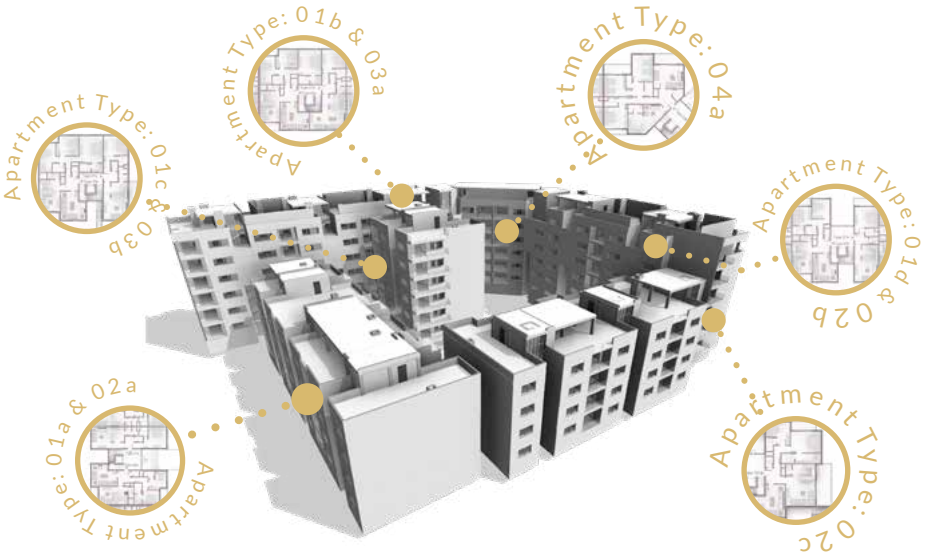
4

5

6

Architectural Study

The Teacher Housing is designed as compounds that provide the staff and professors' families with all factors that insure health measures, privacy, social interaction and, above all, a convenient environment where the professors are certain that their children grow up healthily, in addition to a kindergarten that is, also, there in each compound.
With a rotation of 450° of each compound and the difference in levels in each row of buildings in the same compound, a wider view of Lagos Lagoon is available for most apartments. And this adds another factor for privacy at the same time.



The Engineering Campus

Damascus City, Syria 2009

Client
The Engineering Campus Competition

Site Area
13,500m^2

Total floor area
10,000m^2

Building Height
21m

Services
Architecture
Structural Engineering (Conceptual Design)

The master-plan for the expansion is planned to contain an additional administration building, a laboratory building, an institute of seismological research and an expansion building for the faculty of Civil engineering, locating close to the old faculty of civil engineering. The new buildings are designed to reflect the new construction technology that architecture reached in the country, evoking the traditional style of architecture and meeting sustainability goals.

As a response to this, both the institute building and the expansion building were designed as one multi-disciplinary building and connected the old building by a bridge. Within this, key elements of each school are arranged around an internal central courtyard, maintaining their own identities, but with a layered series of spaces that can be shared to varying degrees. With this approach, the different faculties share teaching spaces, admin

areas, lecture halls, recreational areas and even some technical teaching facilities. Each school is now able to share the costs and benefits of better building services, storage and amenities such as cafeterias and personnel support. Using a combination of warm and cold materials including stone, metal and wide glazed facade, we inculcate a unique sense of continuity and connection, the landscaping around the buildings is designed to evoke the environment of Damascus city.

Beirut Public Library

Beirut City, Lebanon 2016

The new Public library occupies a 3,000m2 site, in one of the busiest neighborhood in Beirut city. Our concept translates site out-lines into smooth dynamic lines to set as the primary form generator for the building.

Client
Beirut Public library Competition

Site Area
3,100 m^2

Total floor area
9,000 m^2

Building Height
23 m

Services
Architecture
Structural Engineering
(Conceptual Design)

Distinction from context, the unique form of the Library raises from two separated ground and first floor blocks, gradually expanding to meet at the second floor.
The structure's two lower levels contain Multi-purpose hall, retail and auditorium facilities, those above provide works-spaces, reading halls, stocks and computer halls, while top-level is dedicated to administrations.

The landscaping passes through the center of the building and raises behind, forming the amphitheater.
The curved exterior lines continue affecting on interior spaces. With a central planted space surrounded by a panoramic stair, the entrance space is opened to the skylight.

Sculpture Exhibition

Swaida City, Syria 2010

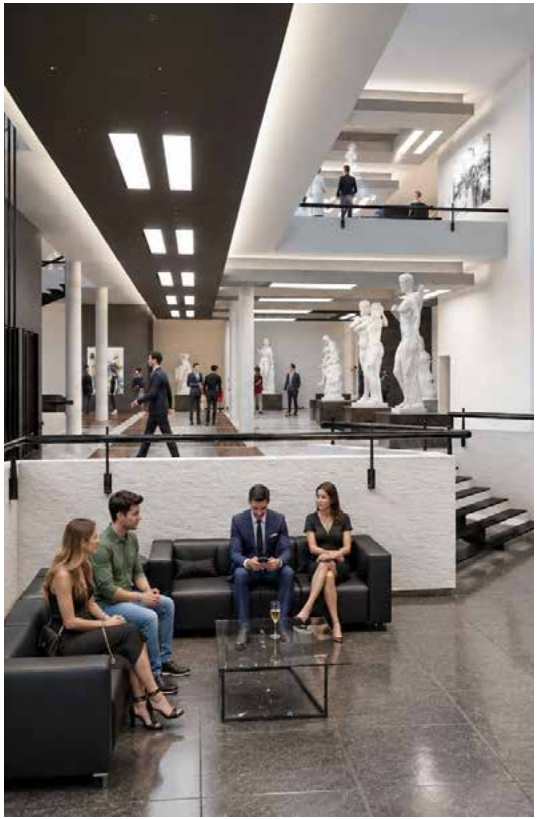
Client
Donation to the Governorate of Swaida

Site Area
13,200 m^2

Total floor area
4,000 m^2

Building Height
13 m

Services
Architecture
Structural Engineering
(Conceptual Design)

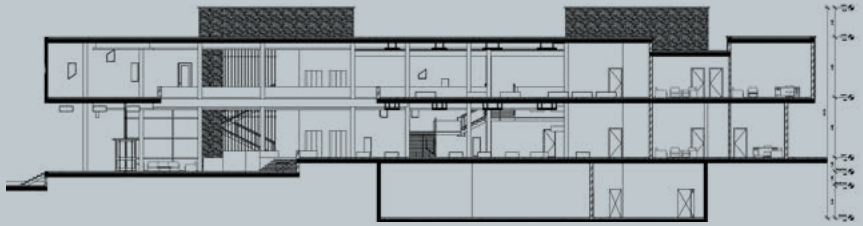


Running since 2008, Swaida city sculpture exhibition creates opportunities for emerging and professional artists to be involved in a large scale community event promoting arts and culture.

Bringing the exhibition's outdoor experience inside, the building contains galleries for permanent and temporary exhibitions, restoration and storage facilities. Enhancing the cultural aspect of the city, the project intended to re-invest an important zone of the city's CBD, where context contents ancient buildings, that could be re-used as galleries for other kinds of arts.

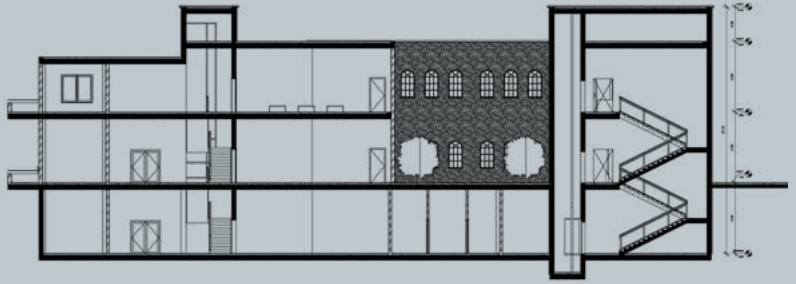
The design concept of the building was a practical translation for the connotation of merging past and present. The basalt cores of the building interlaced with the minimalistic blocks of white-painted concrete, forming a solid mass of old and new.

Level 1

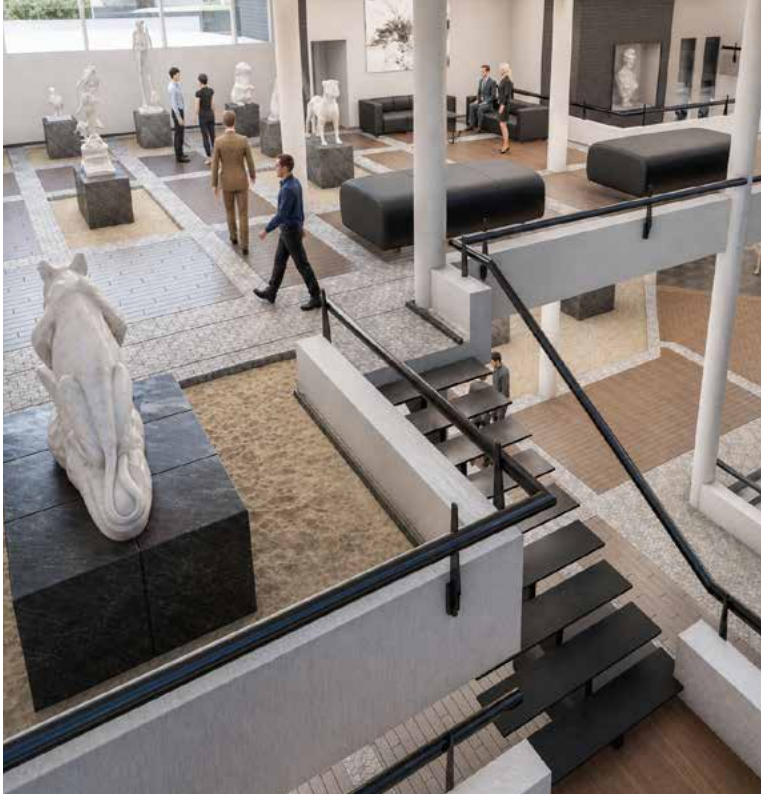


Section A

Level 2



Section B



Natural Light & The Building

The interior space is a 7.2m double-height exhibition hall that is flexible and welcoming. With a front glazing facade, the design enhances transparency, providing the gallery with natural light. With different-sized windows, scattering in an irregular pattern across the walls, the dramatic design for these sections evoke a unique sense of place and complementing a building's outward expression.

The lighting system was implemented to be easily re-setup once any artwork is replaced, Innovatively the design creates the cable-mounted lights system to provide this flexibility.

Spaces & Circulation

Access to the store is through full height, glazed pivoting doors on two levels, from market square or directly from the valley street. The interior courtyards are specially designed to enhance the visual connection between all levels, creating informal spaces to meet and interact, evoking a rich built environment.

Museum Of Modern Architecture

Damascus City, Syria 2009

Following the intention to improve Architectural knowledge, and once the laboratory buildings located in front of the faculty of architecture. The project was meant to re-invest the blank spaces between these buildings by constructing the museum of the modern Architecture.

The design successfully combines an understanding of the traditional Damascus style of buildings with the philosophy of simplicity and beauty. A sharp composition of solid blocks that interlaced together defining the form of the building and creating an inner yard, with a dynamic cover of timber and glazing, a central portion penetrates the building to provide natural light and ventilation.

The building incorporates galleries for permanent and temporary exhibitions, a multimedia education center and library, as well as restoration and storage facilities. These spaces are arranged over a multi-stories block with administrative offices in the individual attached one.

Client
Donation to the University of Damascus

Site Area
2,500m^2

Total floor area
5,500m^2

Building Height
17m

Services
Architecture
Structural Engineering (Conceptual Design)

Spaces & Circulation

The heart-space of the museum is the Exhibition Hall, which extends over four levels of cantilevered slabs that are connected together by stairs, stretching above the existed central building's roof. Each story represents an architectural era, the galleries arranged together as a single movement path, always driving the visitors to the next eras.

Natural Light & The Building

Its design is a highly innovative response to the culture and climate of the city, with a unique composition of glazing and prefabricated twisted lightweight carbon fiber. The skin of the building allows the sunlight streaming through the surface casts dappled shadows deep into the interior.

Villa Samir Ghannam

Swaida City, Syria 2019

Situated in the countryside of Swaida city, on a 950 m2 land, surrounded by a rich landscape with a grandstand view of the stunning mountains and the plains.
The villa incorporates two living spaces, a guest room, kitchen & dining areas, a home office, three bedrooms, and utilities. in addition, an entertainment space contains a swimming pool, gym, home theater, and lounges that are directly connected to the outer garden.
Our design approach consolidated the connection between inner and outer spaces to provide residents with a scene of calm, energy, and relaxation.
Studying and developing the design principles of local & traditional houses - where environment and sustainability were one of the essential aspects of design - to elicit the design concept of the villa in elegant, luxury, minimal, and modern fashion.

Client
Samir Ghannam

Site Area
950 m^2

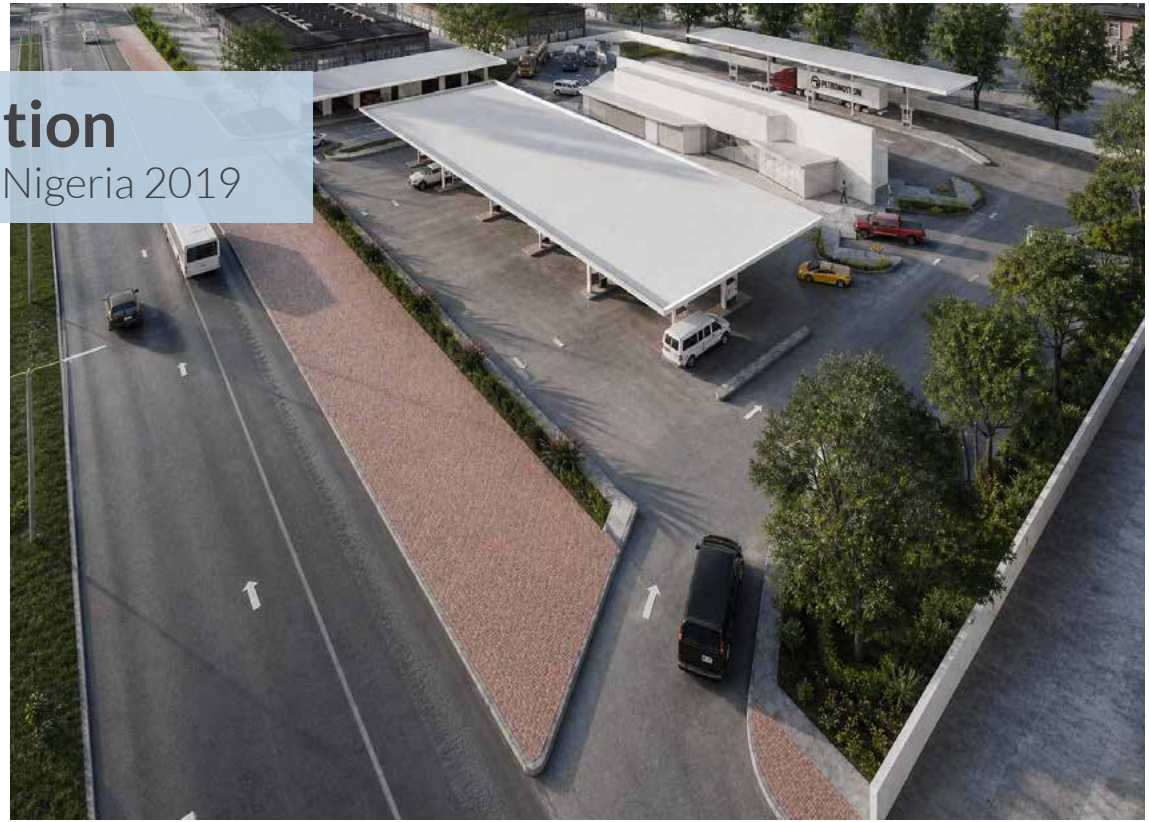
Total floor area
515 m^2

Building Height
9 m

Services
Architecture
Structural Engineering
(Conceptual Design)

Fuel Station

Lagos State, Nigeria 2019



Client
Palmyra Construction Ltd.

Site Area
7,800m^2

Services
Architecture

A design mock-up for a new series of fuel stations, that is determined to be constructed in Lagos state. The mock-up was proposed on a 7,800m2 site, and divided into two phases.

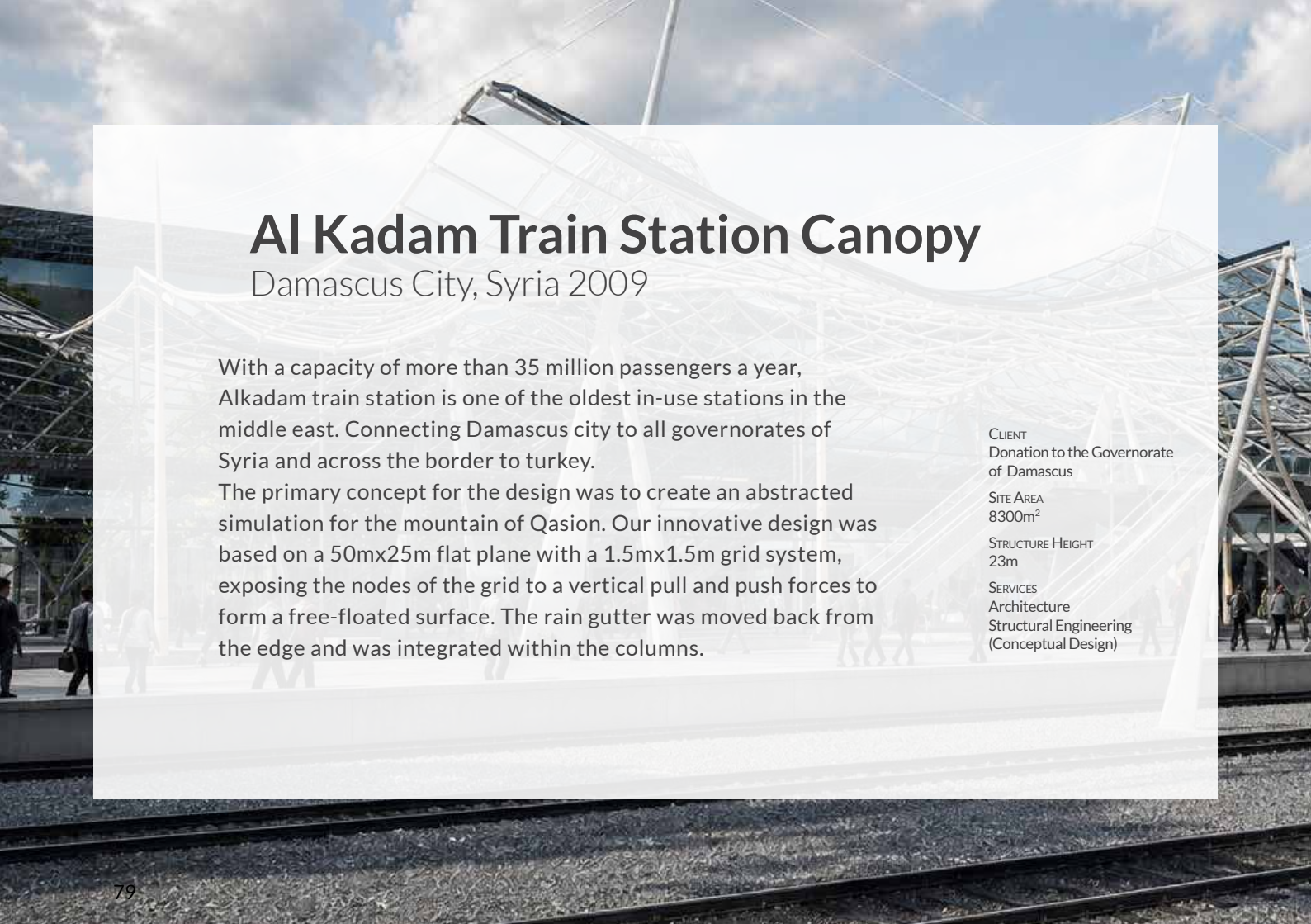
Our planning approach sets new standards for designing fuel stations, dividing the site into four major zones for Petrol pumps, car services, Kerosene and Diesel Pumps with truck and heavy vehicles services, and retails and admin building. With zero conflict nodes, costumers enjoy safety, flexibility, and reduction of traffic jams.

The innovative design brings simple but decisive solutions for various situations of traffic, for example, the design provides easy-exit & return paths for emergencies, and Certain tracks for trucks and heavy vehicles.

The greenery surrounds the outer side of parking, providing shadows. Emphasizing our sustainable approach and creating a distinctive environment for restaurant customers.


Diesel Pump
Kerosene Pump
Commercial, Restaurant & Admin Block
Trucks Parkings
Fill Pipe Location
Water Tank
Cars Service & Washing Block
Fuel Pump
Return Path
Easy-exit Path

Site Plan



Al Kadam Train Station Canopy

Damascus City, Syria 2009

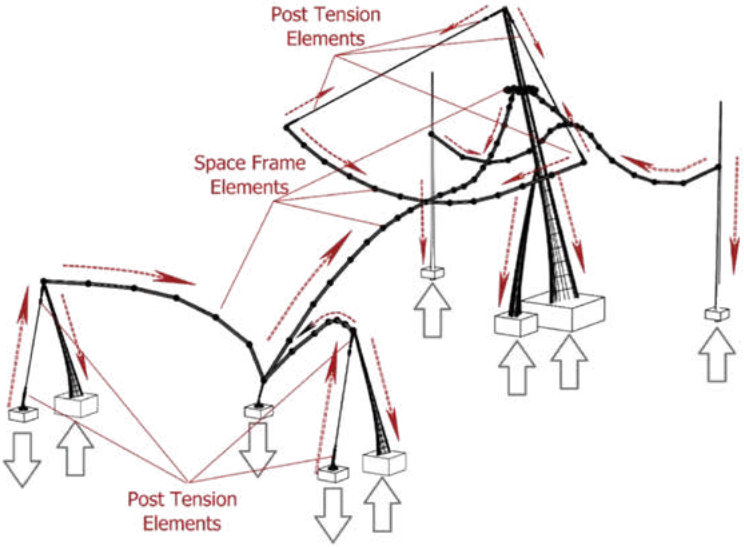
With a capacity of more than 35 million passengers a year, Alkadam train station is one of the oldest in-use stations in the middle east. Connecting Damascus city to all governorates of Syria and across the border to turkey.
The primary concept for the design was to create an abstracted simulation for the mountain of Qasion. Our innovative design was based on a 50mx25m flat plane with a 1.5mx1.5m grid system, exposing the nodes of the grid to a vertical pull and push forces to form a free-floated surface. The rain gutter was moved back from the edge and was integrated within the columns.

Client
Donation to the Governorate of Damascus

Site Area
8300m^2

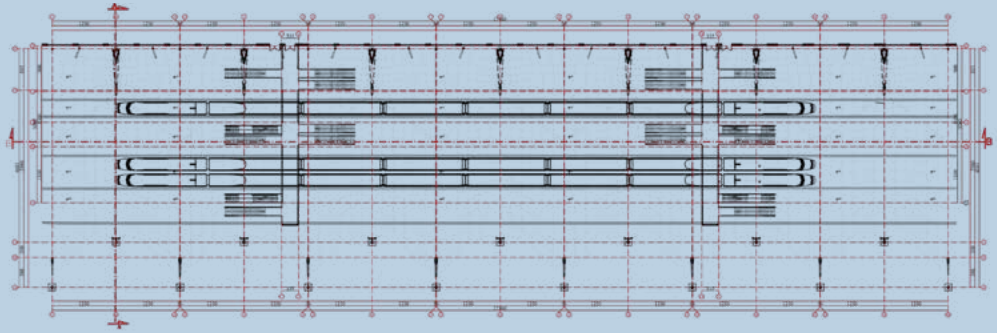
Structure Height
23m

Services
Architecture
Structural Engineering
(Conceptual Design)

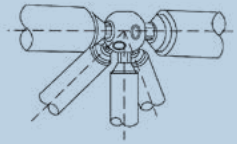


Structure System Analysis

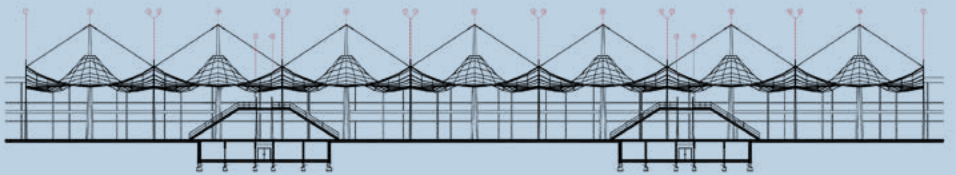
Working as the primary structural elements, the structure system of the canopy combines steel columns, posted-tension cables, and space-frame, providing stable and flexible carriers for the secondary structural elements which in their turn caries the roof of the canopy.



Plan

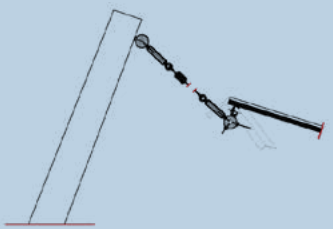


Space-frame Element

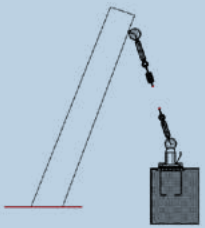


Section

Connections

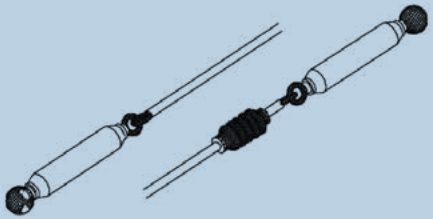


Connection Type 01



Connection Type 02

Connection Type 03



Post-tension Elements

Ashaka Limestone Shed

Gombe State, Nigeria 2019

Client
Lafarge Africa Plc.

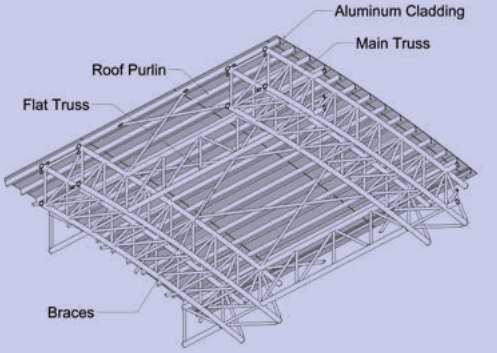
Site Area
20,000m^2

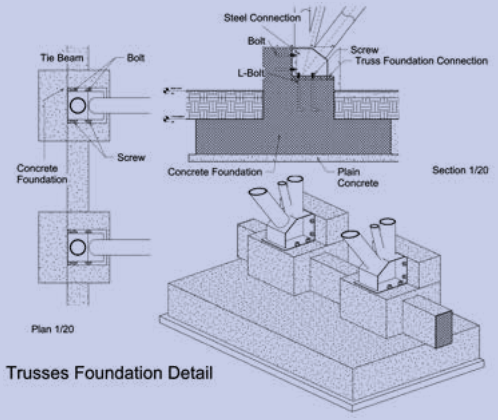
Total floor area
20,000m^2

Structure Height
28m

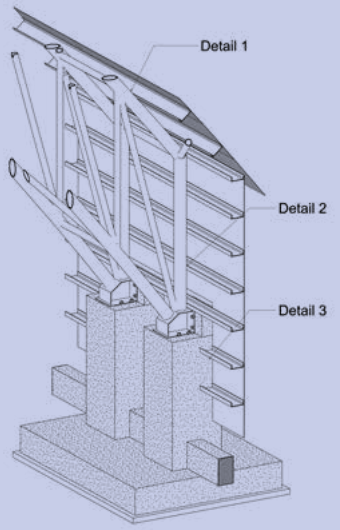
Services
Architecture
Structural Engineering

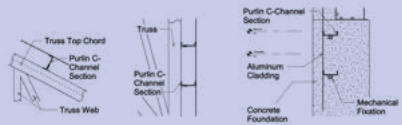
Ashaka Cement plant is a subsidiary of Lafarge Africa Plc. Since it was built in 1974, the Plant has evolved to meet changing operational requirements, but no longer had the capacity to adapt to meet future needs. Following a 2019 study, a new limestone shed has proposed to be constructed over a 200mx100m site.





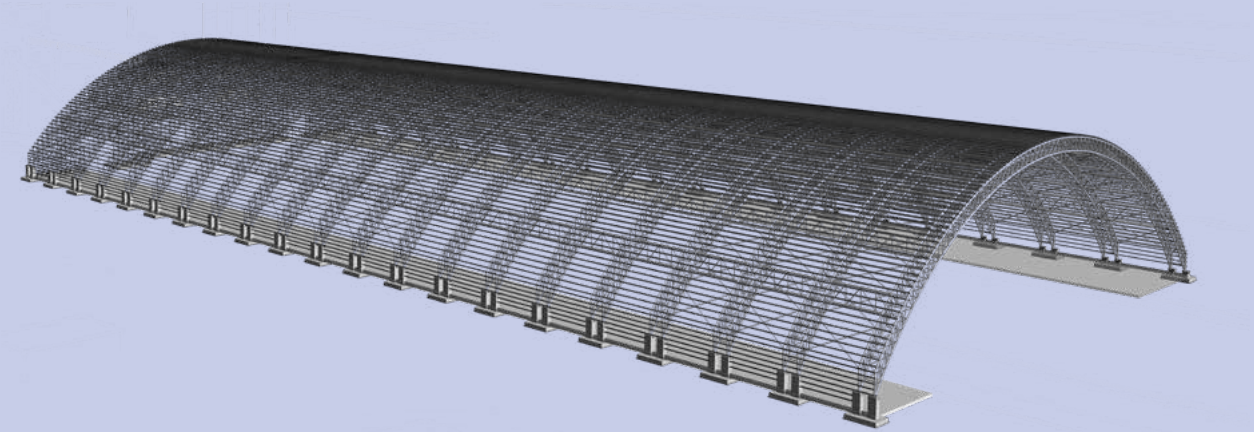
Trusses Foundation Detail





Wall And Roof Cladding

The main challenge for the new structure was the width span of the construction which is 100m with a total height of 28m. With a wind speed that may reach 140km/s, the structure was formed as a half-cylinder, reducing wind forces. While the 200m depth was divided into 10m grid, each contained double arched trusses, with a total of 20 composited elements, supporting each other with flat trusses and braces, the whole structure system working as one unit, carrying the weight of the roof and other forces to the foundation below.
The roof consists of purlin metal as the structural elements and aluminum sheets as main cladding with semi-transparent PVC sheets for openings.



Greenfield Manufacturing Plant

Enugu, Nigeria 2021

Client
JOTNA NIGERIA LIMITED

Site Area
82,800 m^2

Total floor area
20,400 m^2

Building Height
12 m

Services
Architecture
Structural Engineering
(Conceptual Design)

As a response to phase one of the 2021 development plan for Jotna Nigeria limited company, the new Greenfield manufacturing plant was planned to be located in Enugu on 82,800 m2 of land. containing three main blocks: Manufacturing block, Offices & Amenity Block, and Utility Block.

The large variance in levels in the construction site was the main challenge, so at the early stage of the design, our architect team has concentrated on reducing the cost of excavation and backfilling and improving the vehicular circulation & street network. effectively, our design solution has succeeded in the best balance between cut and fill volume.

Cheetah BHN

Nigeria 2022 .

Project Cheetah redefines logistics architecture for BHN Nigeria through the design of high-capacity, technology-driven warehousing. The project prioritizes optimized spatial zoning, integrated automated supply chain workflows, and advanced structural engineering. By streamlining distribution networks, the architecture serves as a scalable, efficient framework, positioning BHN as Nigeria's premier logistics hub.

Client
BHN Logistics Ltd

Site Area
95000 m^2

Services
Architecture
Structural Engineering

Bags Manufacturing Plant

Ewekoro, Nigeria 2022

Client
Lafarge Holcim

Site area
17,700 m^2

Total floor area
Factory area: 11,700 m^2
Exterior area: 6,000 m^2

Building Height
12 m

Services
Architecture
Structural Engineering

As an extension to Wapco-Lafarge Ewekoro I & II plants and on 17.600 m2 land, the manufacturing plant was situated, occupying 160X80m.
Using the pre - engineered steel building technology “PEB” as a structural system to solve the issue of the long span of the building width, our design solution successfully reduced the cost of the construction up to 60%, in addition to satisfying a wide range of structural and functional requirements. as well, this structural system solution has assisted to provide more flexibility in the architecture aspect, improve the natural light, and create a healthy environment for the interior spaces.

Indomie Factory

Nigeria 2022

The project effectively tackles the complexities of large-scale manufacturing infrastructure by optimizing spatial efficiency and enhancing structural performance, focusing on the strategic zoning of high-volume, pitched-roof production facilities along with heavy-duty logistical warehousing through the integration of advanced industrial workflows.

Client
Tolaram Group

Site area
534 m^2

Total floor area
752 m^2

Building Height
5.6 m

Services
Renovation, Structural engineering


Asaba Plastic Factory
Asaba City - Nigeria 2022

a high-capacity plastic manufacturing factory in Asaba City, Nigeria. The architecture optimizes large-span steel structures, efficient industrial zoning, and comprehensive logistics yards to facilitate streamlined production and heavy-vehicle distribution workflows.

Client
Kaydee Industries

Site area
9825 m²

Total floor area
4921,4 m²

Building Height
19 m

Services
Architecture
Structural Engineering

Noodle Project- Abia

Nigeria 2025

Client
Dufil Prima Foods Ltd

Site Area
6,500m^2

Total floor area
5,972m^2

Structure Height
17m

Services
Architecture
Structural Engineering

This industrial architecture project encompasses the master planning and structural design of a high-capacity, state-of-the-art noodle production plant in Abia, Nigeria. The facility is engineered to optimize high-volume food processing workflows, seamlessly integrating raw material intake, automated mixing and sheeting lines, high-temperature frying/ drying zones, and high-speed packaging bays.

Crates Shed

Nigeria 2025

This industrial crate shed utilizes a robust, large-span steel portal frame. The open design maximizes structural durability while providing unrestricted forklift access for optimized logistics workflows.

Client
Guinness Nigeria Plc

Services
Architecture
Structural Engineering

Re-planning the CBD Of Swaida City

Swaida City, Syria 2010

Client
Donation to the Governorate of Swaida

Site Area
15.5 Hectares

Services
Urban Design

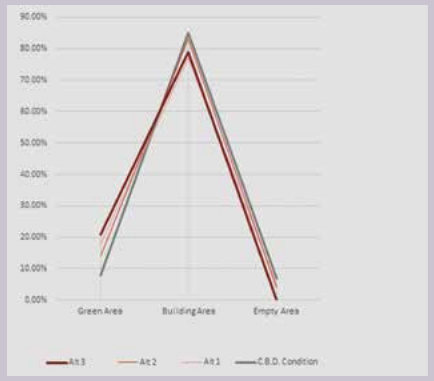
Swaida city Central Business District is the major Central Business District of the Governorate, over the time the site had to be developed in order to absorb the increase of population, economic growth and the environmental vision of the city. The master-plan is planned to increase civic spaces, create new venues for business and entertainment and remove traffic to create a safe, semi-pedestrianized public realm.

Building Uses
- Cultural Buildings
- Governmental Buildings
- Commercial Buildings
- Residential Buildings

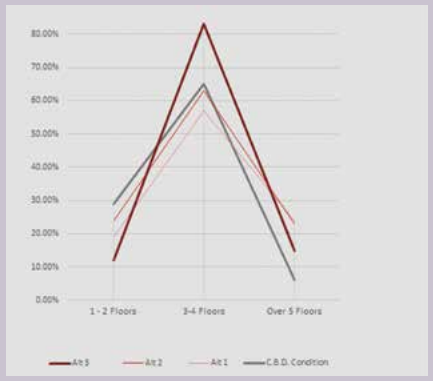
Streets & Sidewalks
- Main Streets
- Sub Streets
- Underground Parkings
- Sidewalks

Green Areas
- Public
- Semi Public
- Private

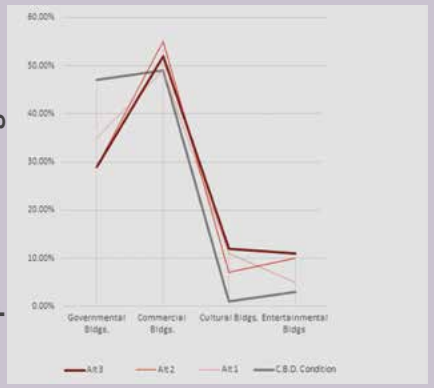
Comparison of design alternatives



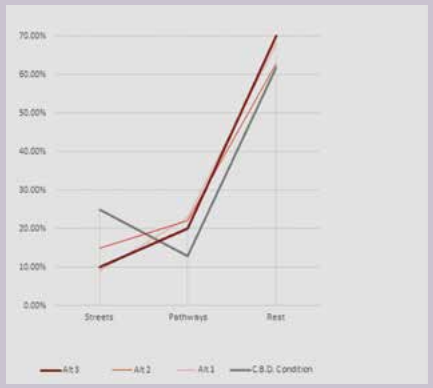
Green Area



Buildings Height



Building Uses

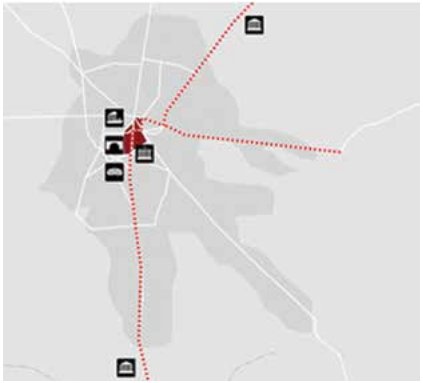


Streets & Pedestrians Pathways

Following a 2010 study, we provided an integrated suggestion to re-introducing the character of the city, enhance the built environment of the CBD and provide a flexible solution that can easily adapt to future change. The re-planning approach was relying on multi-layer of simple enhancements, improving urban, cultural, tourist and environmental terms of the ancient city, the development brings together places to live and work, further evolving a sustainable model of high density, mixed-use development.

Design layers

Development & effected zones



Tourism map

S	W	O	T
Provides a united urban space with more greens and reachable zone for the investors & visitors.	*Unable to provide solutions for all traffics problems.*	*Provides sustainable & flexible base to any solution or development at future.*	*Unable to provide a increasable connections between CBD and new complex*

Contact Us

Office No. 314, Arenco Offices Building No. 3, DIP
Dubai - United Arab Emirates.

+971 50 998 5184

info@iaenggroup.com

www.iaenggroup.com

IA Engineering Group

IA Architects

IA Architects

IA Architects