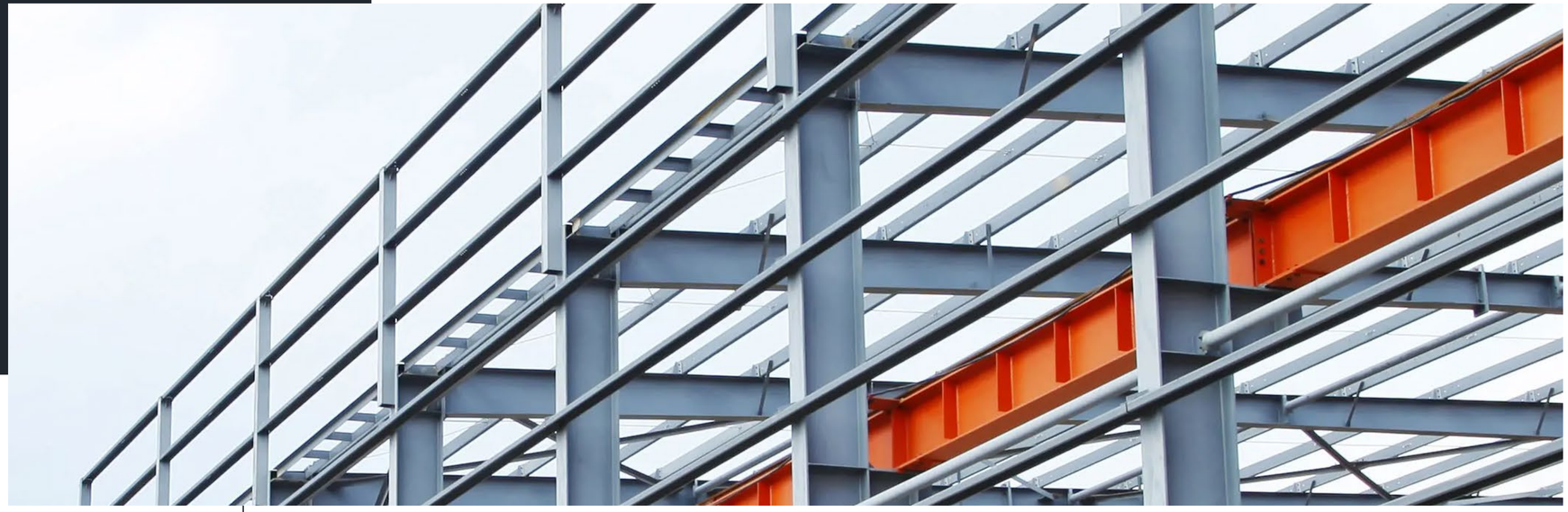
ALBADDAD 1971

STEEL
SOLUTIONS



STEEL STRUCTURES

Our steel structures offer top-tier products and turnkey solutions that incorporate design, construction, and all essential elements for diverse facilities, capable of fulfilling any contracting needs. Experience excellence with our comprehensive solutions, covering everything from mechanical and electrical systems to plumbing and climate control. Our structures ensure quick construction and installation, strength and durability, and customization and flexibility in designs. They are also sustainable, environmentally friendly, and energy efficient, making them the ideal choice for modern construction projects.

PHASES OF BUILDING STEEL STRUCTURES

Design

Our design department, led by expert structural engineers, specializes in innovative steelwork solutions. From complex structures to standard framing, we provide cost-effective, value-engineered designs that optimize materials, fabrication, and construction techniques, resulting in time and budget savings.

Manufacturing

At the core of ALBADDAD's success are our cutting-edge manufacturing facilities, the largest in the GCC. Continuous investment in advanced technology enables us to meet client demands efficiently, ensuring fast-track production that adheres to the highest standards.

Construction

Our highly trained construction teams are industry leaders in steel erection, utilizing advanced techniques to ensure rapid, precise builds. Rigorous training and process optimization ensure consistent performance and excellence on every project.

WHY CHOOSE STEEL

Quick construction & installation

Strength & durability

Energy efficient

Customization & flexibility in designs

Sustainable & Environmentally friendly

40,000 tons

Steel structures per year

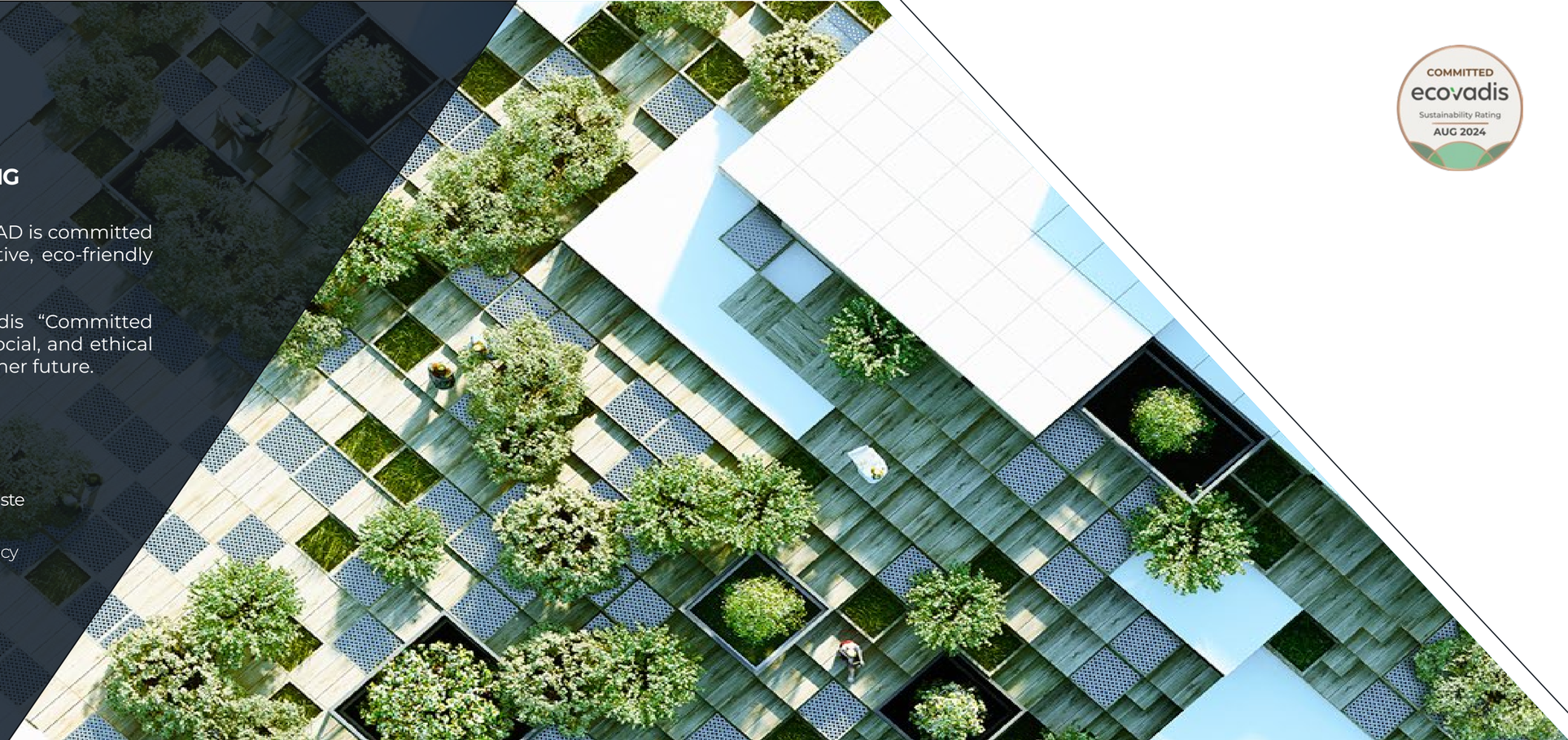
SUSTAINABILITY MEETS INNOVATION

THE FUTURE OF SUSTAINABLE BUILDING

As a leader in modular construction, ALBADDAD is committed to sustainable building practices and innovative, eco-friendly solutions.

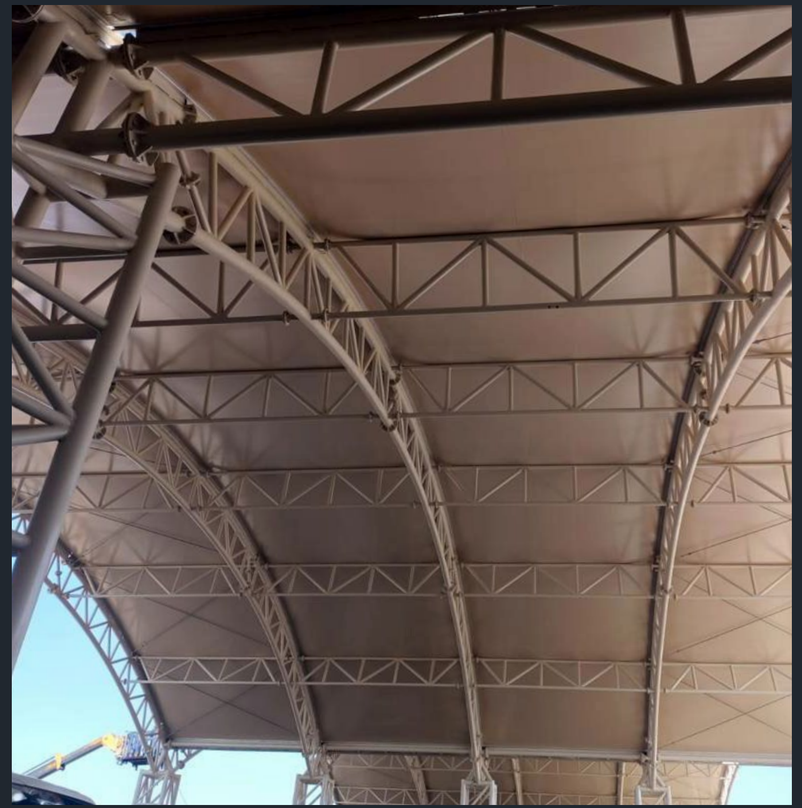
We are proud to be awarded the EcoVadis “Committed Certificate”, recognizing our environmental, social, and ethical responsibility.Together, we are building a greener future.

- **Recycling Programs:** Steel, aluminum, PVC
- **Reduce Single-Use Plastics:** Minimize plastic waste
- **Energy Star Equipment:** Promote energy efficiency
- **Waste Diversion,30% Landfill Diversion**



COMMITTED
ecovadis
Sustainability Rating
AUG 2024

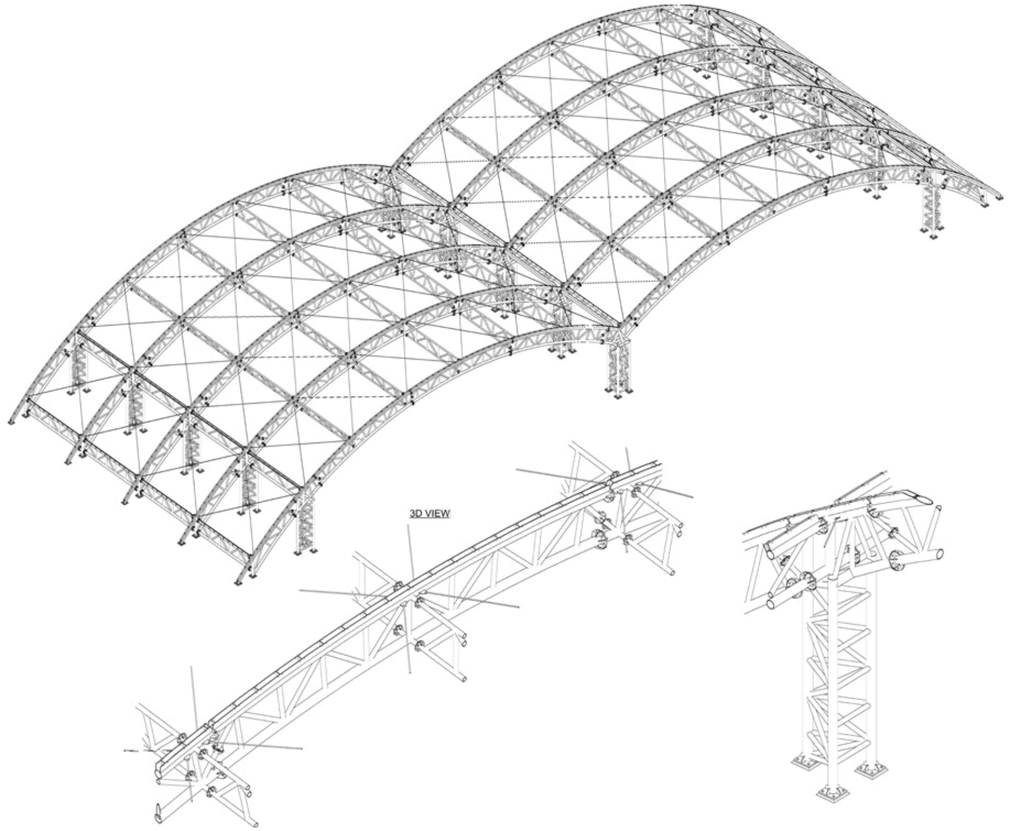
COPRI STEEL STRUCTURE
UAE-2025



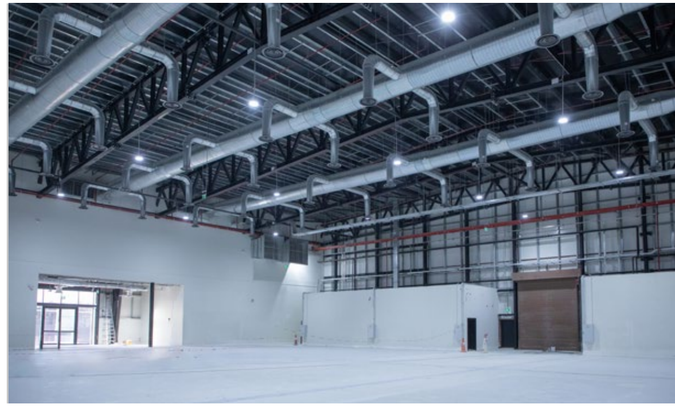
TECHNICAL SPECIFICATIONS

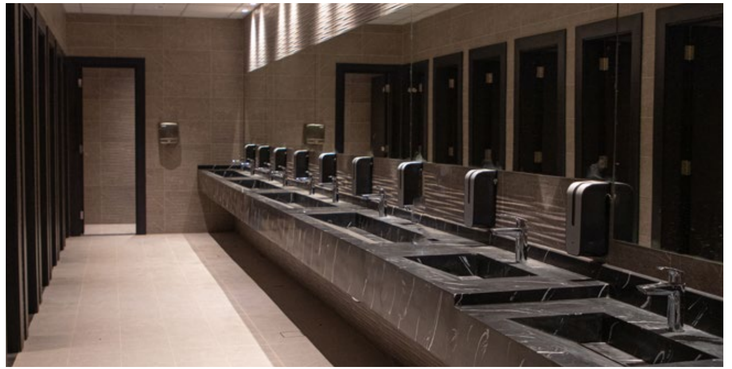
PROJECT OVERVIEW		
ALBADDAD was entrusted with the structural design, fabrication, supply, and installation of steel hangers for **COPRI, UAE.**	**Hanger Dimensions:** 57.5m x 24m with a curved roof covered in tensioned fabric.	**Structural Analysis:** Conducted using STAAD Pro to verify design adequacy under various loads.

LOAD ASSIGNMENTS					
DEAD LOAD	**Self-weight** of structure calculated using **STAAD Pro** (+5% for connections).	**Material Properties:** - Concrete Strength (28 Days): 40 MPa - Steel Reinforcement Strength: 460 MPa - Angles, Plates, Bars, Rods: ASTM A36 (FY = 250 MPa) - Unit Weights: Reinforced Concrete: 24 kN/m³, Steel: 77.5 kN/m³		**Superimposed Loads:** - PVC Fabric Roof: 0.05 kN/m² - MEP Services: 0.25 kN/m²	
LIVE LOAD	**Roof Live Load**: 0.6 kN/m²				
SEISMIC LOAD	**Seismic Code:** ASCE 7-16 (analyzed in STAAD Pro)	**Seismic Zone:** 2A	**Importance Factor (I):** 1.00	**Code Reference:** ADIBC 2018	
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 25°C				
WIND LOAD	**Wind Code:** ASCE 7-05	**Basic Wind Speed:** 57 m/sec (205 km/hr, 3-sec gust)	**Exposure Category:** C	**Risk Category:** II	**Gust Factor:** 0.85



MISK EXHIBITION HALL
KSA-2024

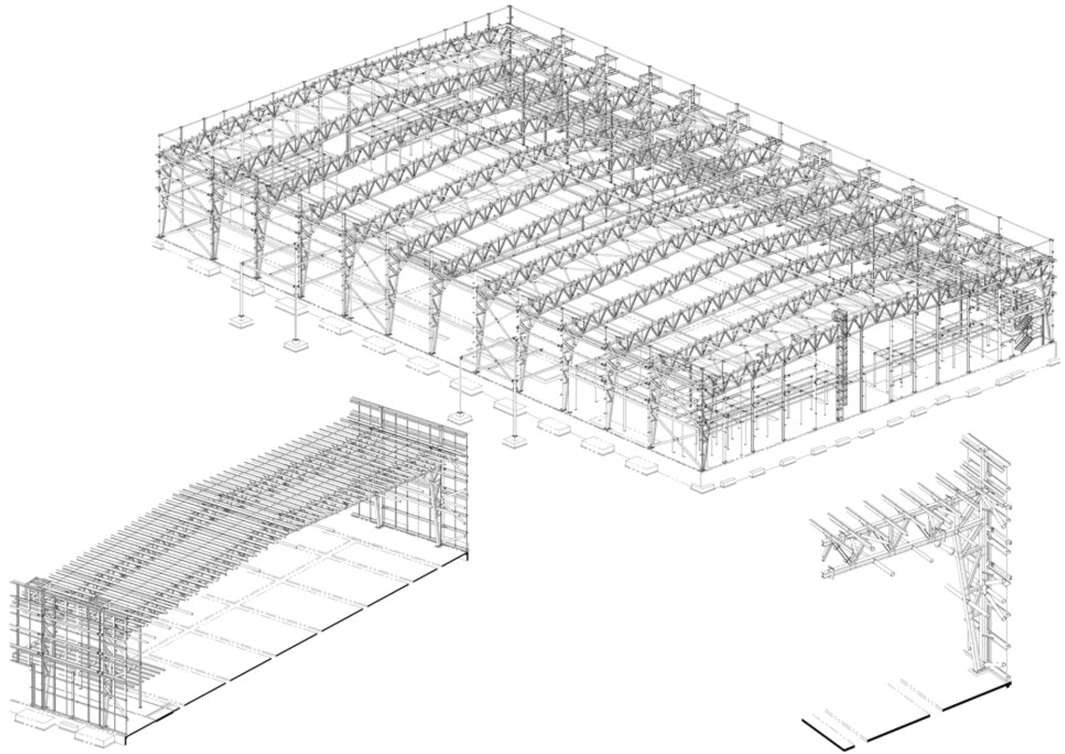




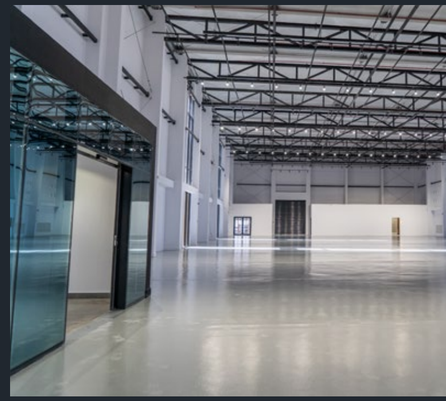
TECHNICAL SPECIFICATIONS

PROJECT OVERVIEW		
ALBADDAD was entrusted with the structural design, drawings, fabrication, supply, and installation for the **Misk Steel Building**.	**Size: 60m x 100m** without expansion joints, **covered with sandwich panels.**	**Structural Analysis:** Performed using **STAAD Pro**, complying with the Saudi Building Code (SBC).

LOAD ASSIGNMENTS						
DEAD LOAD	**Self-weight** of structure calculated using **STAAD Pro** (+5% for connections).	**Material Properties:** - Concrete Strength (28 Days): 40 MPa -Steel Reinforcement Strength: 420 MPa -Angles, Plates, Bars, Rods: ASTM A36 (FY = 250 MPa) -Unit Weights: Reinforced Concrete: 24 kN/m³, Steel: 77.5 kN/m³		**Superimposed Loads:** - Roof & Wall Sandwich Panels: 0.25 kN/m² - MEP Services: 0.50 kN/m²		
LIVE LOAD	**Roof Live Load**:1.00 kN/m²					
SEISMIC LOAD	**Seismic Code:** SBC 301 (analyzed in STAAD Pro)	**Site Class:** B	**Importance Factor (I):** 1.00	**0.2 Sec Short Period Acceleration (Ss):** 0.28g	**One-Second Period Acceleration (S1):** 0.10g	**TK (s):** 4
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 30°C					
WIND LOAD	**Wind Code:** SBC 301	**Basic Wind Speed:** 47 m/sec (169.2 km/hr, 3-sec gust)	**Exposure Category:** C	**Risk Category:** II	**Gust Factor:** 0.85	



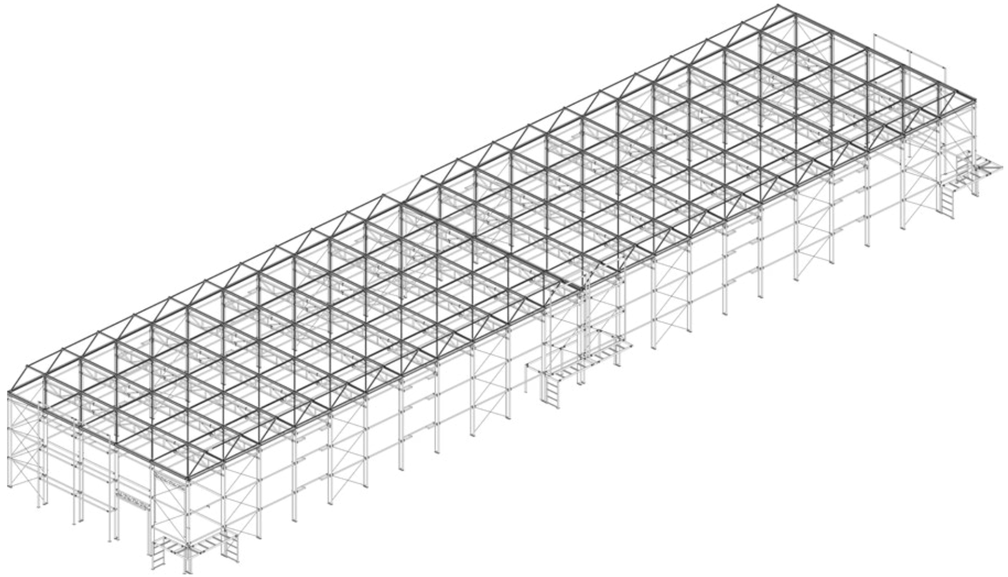
ROSHN EXHIBITION HALL
KSA-2023



TECHNICAL SPECIFICATIONS

PROJECT OVERVIEW		
ALBADDAD was entrusted with the structural design, fabrication, supply, and installation of the **Steel Building for Roshn**	**Size: 25m x 110m**	**Structural Analysis:** Performed using **STAAD Pro** to verify design adequacy under various loads.

LOAD ASSIGNMENTS						
DEAD LOAD	**Self-weight** of structure calculated using **STAAD Pro** (+5% for connections).	**Material Properties:** - Concrete Strength (28 Days): 40 MPa - Steel Reinforcement Strength: 420 MPa - Angles, Plates, Bars, Rods: ASTM A36 (FY = 250 MPa) - Unit Weights: Reinforced Concrete: 24 kN/m³, Steel: 77.5 kN/m³		**Superimposed Loads:** -PVC Soft Roof: 0.05 kN/m² -Suspension ceiling: 0.10 kN/m² -MEP Services: 75 kg per load		
LIVE LOAD	**Roof Live Load**:0.25 kN/m²					
SEISMIC LOAD	**Seismic Code:** SBC 301 (analyzed in STAAD Pro)	**Soil Profile Type =** D	**Importance Factor (I):** 1.00	**0.2 Sec Short Period Acceleration (Ss):** 0.8g	**One-Second Period Acceleration (S1):** 0.2g	
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 30°C					
WIND LOAD	**Wind Code:** SBC 301	**Basic Wind Speed:** 47.23 m/sec (170 km/hr, 3-sec gust)	**Exposure Category:** C	**Risk Category:** II	**Gust Factor:** 0.85	

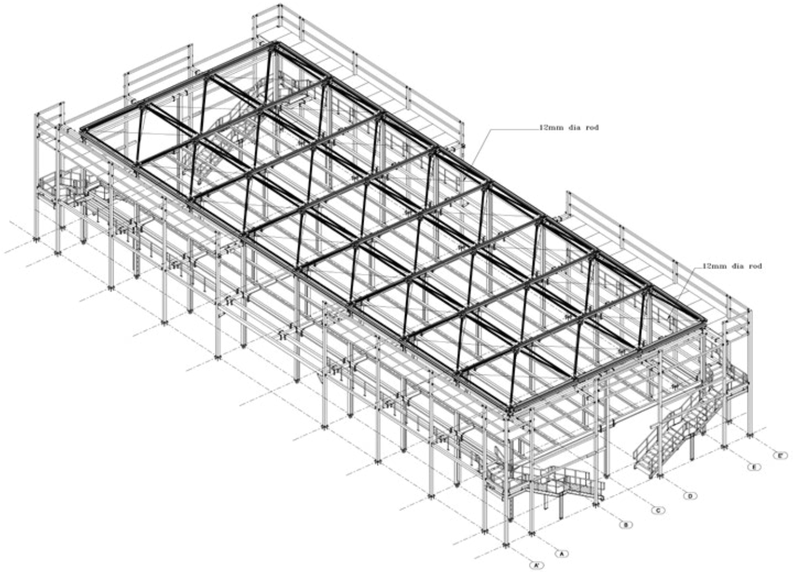


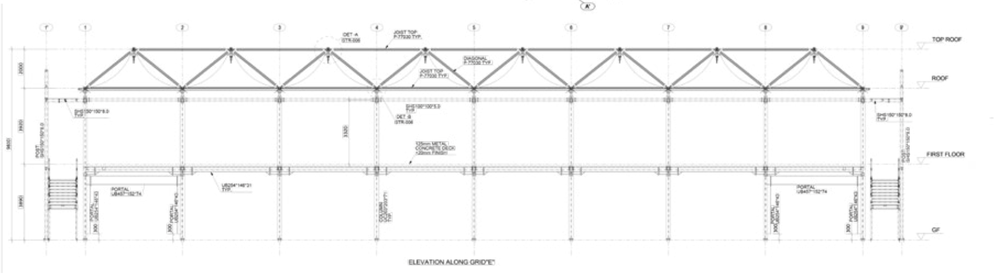
HAJJ-ACCOMMODATION
KSA-2024

TECHNICAL SPECIFICATIONS

PROJECT OVERVIEW	
ALBADDAD was entrusted with the structural design, fabrication, supply, and installation of steel hangers for **Ethraa G+1 Steel Building with Smart Hall Roof MECCA - Hajj – KSA**	**Structural Analysis:** A three-dimensional analysis using the STAAD Pro program is conducted to verify the design adequacy of the main structural members, including vertical deflection under gravity loads, wind loads, and lateral drifts resulting from seismic and wind forces.

LOAD ASSIGNMENTS					
DEAD LOAD	**Self-weight** of structure by program **(STAAD Pro.) 5%** added for connections.	**Material Properties:** - Concrete Cylinder compressive strength at 28th days Fc' = 40 MPa - Steel Reinforcement FY = 420 MPa -Angles, plates, bars, and rods; ASTM A36 (FY = 36 KSI = 250 MPa) - Unit weight of materials Reinforced concrete = 24 kN/m³Steel= 77.50 kN/m³		**Superimposed Loads:** - Roof soft PVC : 0.05KN/m2 - Suspension ceiling : 0.10kN/m2 - Mezzanine Floor: 125mm - MEP Services: 0.40kN/m2	
LIVE LOAD	**Live Load at roof** 0.25kN/m2		**Live Load at Mezzanine** 5.0kN/m2		
SEISMIC LOAD	**Seismic Code:** SBC 301 (2018) using STAAD Pro	**0.2 Sec Short Period Acceleration, Ss** = 0.8g	**Importance Factor (I):** 1.00	**One-Second Period acceleration, S1** = 0.2g	**Soil Profile Type:** D
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 30 °C				
WIND LOAD	**Wind Code:** SBC 301 (2018)	**Basic Wind Speed:** 54m/sec (3 Sec Gust – 170km/hr)	**Exposure Category:** C	**Risk Category:** II	**Gust Factor:** 0.85





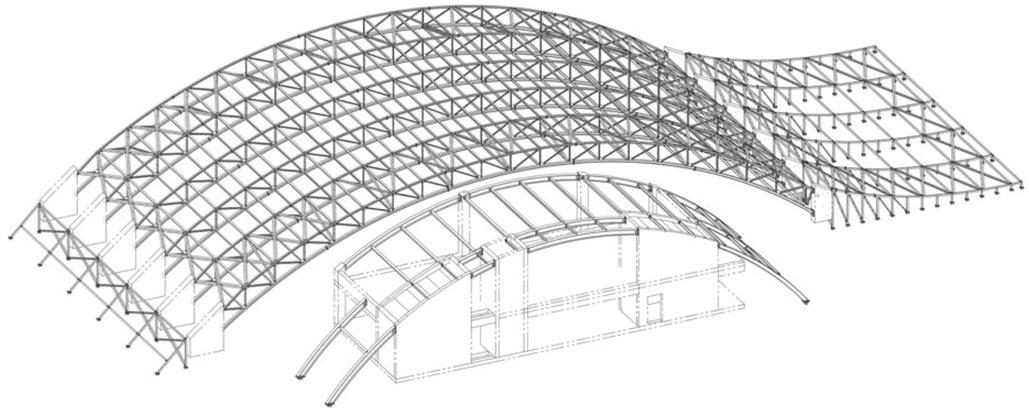
STC-FACADE SOLUTIONS
KSA-2025

TECHNICAL SPECIFICATIONS

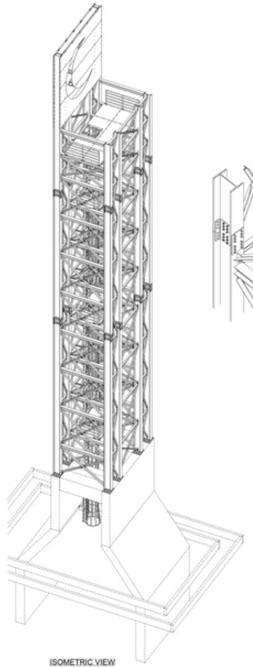
PROJECT OVERVIEW	
ALBADDAD was entrusted with the structural design, fabrication, and installation of a free-form grid structure covering the left and **right wings of STC HQ, plus curved Mosque and Minaret buildings.**	**Structural Analysis:** Conducted using **SAP2000**, ensuring adequacy under seismic and wind loads.

LOAD ASSIGNMENTS						
DEAD LOAD	**Self-weight** of structure calculated using **SAP** (+15% for connections).	**Material Properties:** - Concrete Strength (28 Days): 35 MPa - Steel Reinforcement Strength: 420 MPa - Angles, Plates, Bars, Rods: S355 IV - Unit Weights: Reinforced Concrete: 24 kN/m³, Steel: 77.5 kN/m³		**Superimposed Loads:** - ACP Cladding 6mm : 0.115KN/m2 - Glass Panel (6+1.52+6) : 0.3KN/m2		
LIVE LOAD	**Roof Live Load**:1 kN/m² uniform distributed load (UDL) and 1.5 kN concentrated load					
SEISMIC LOAD	**Seismic Code:** IBC 2012 - ASCE 7-10 (analyzed in SAP)	**Site Class:** C	**Importance Factor (I):** 1.25	**Short Period Acceleration, Ss:** 5.0 %g	**One-Second Period Acceleration, S1:** 1.0 %g	**Seismic Design Category:** A
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 50°C					
WIND LOAD	**Wind Code:** ASCE 7-10	**Basic Wind Speed:** 54 m/sec (195 km/hr, 3-sec gust)	**Exposure Category:** C	**Risk Category:** II	**Enclosed building with internal pressure coefficient CGpi**: +/- 0.18	**Gust Factor:** 0.85

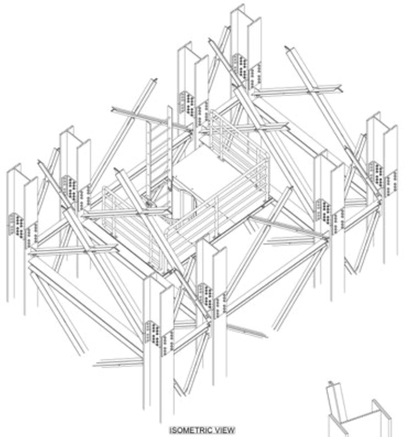
STC MOSQUE-3D VIEW



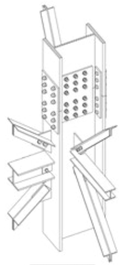
STC MINARET-3D VIEW



ISOMETRIC VIEW

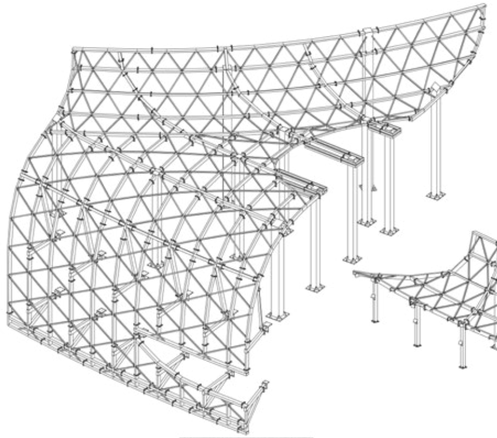


ISOMETRIC VIEW

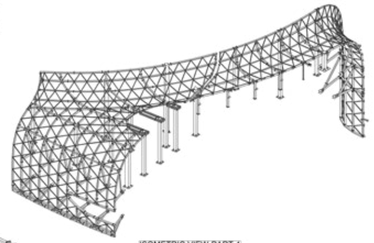


ISOMETRIC VIEW

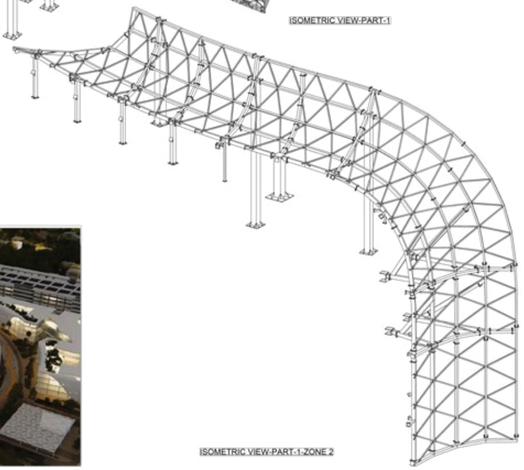
STC WINGS -3D VIEW



ISOMETRIC VIEW-PART-1-ZONE 1



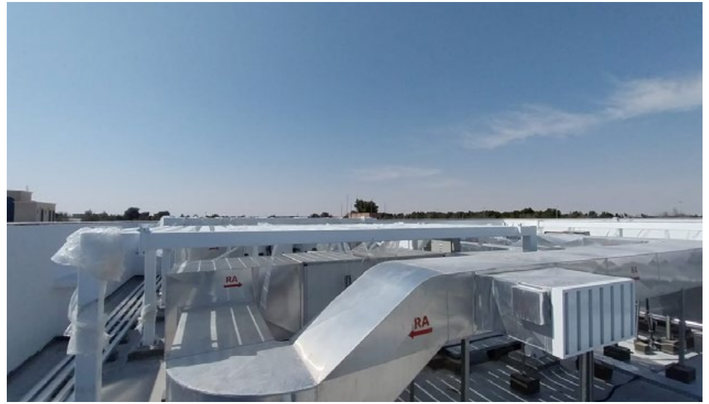
ISOMETRIC VIEW-PART-1



ISOMETRIC VIEW-PART-1-ZONE 2

SEED CONSERVATION SUPPORT STRUCTURE

UAE-2025

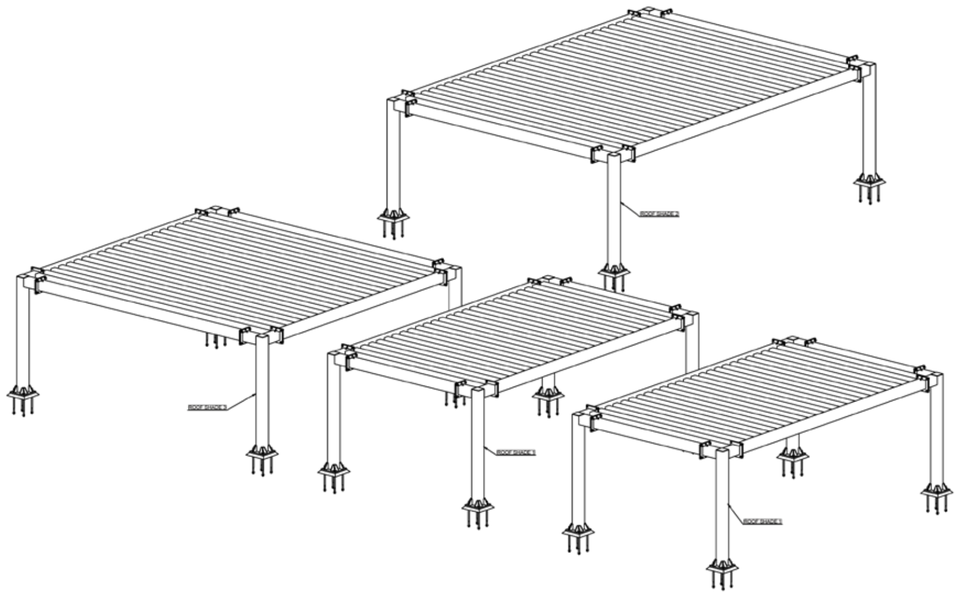


TECHNICAL SPECIFICATIONS

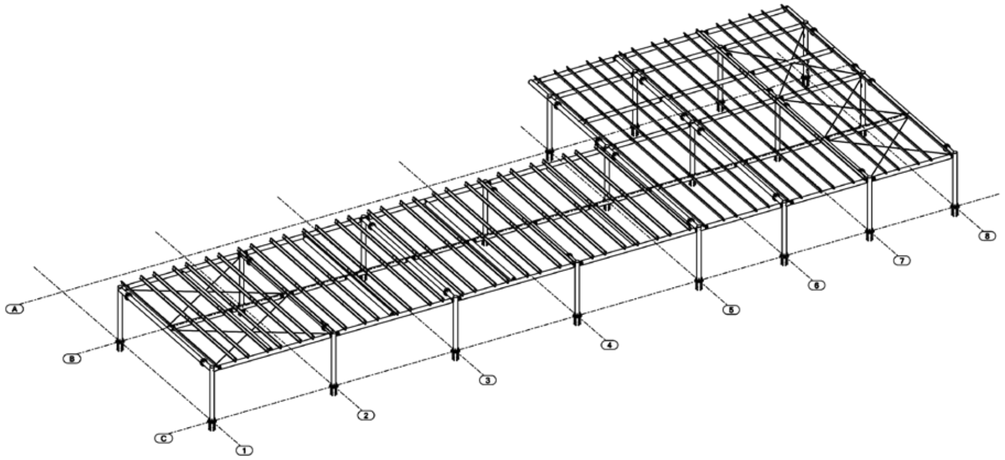
PROJECT OVERVIEW	
ALBADDAD was entrusted with the structural design, fabrication of the Seed Conservation Centre project which consists of three primary steel structures, each designed for durability, sustainability, and compliance with AISC and international standards.	**Structural Analysis:** The Seed Conservation Centre project includes: · Solar Parking Shade · Roof Shades · Cladding Support Structure

LOAD ASSIGNMENTS						
DEAD LOAD	**Self-weight o**f structure by program **(STAAD Pro.)** 5% added for connections.	**Material Properties:** - Concrete Cylinder compressive strength at 28th days, Fc' = 40 MPa (for foundations, pedestal) - Steel Reinforcement, FY = 420 MPa - Angles, plates, bars, and rods; ASTM A36 (FY = 36 KSI = 250 MPa) - Unit weight of materials, Reinforced concrete= 24 kN/m³Steel = 77.50 kN/m³			**Superimposed Loads:** - Roof soft PVC: 0.05KN/m2 - Suspension ceiling: 0.10kN/m2 - Mezzanine Floor: 125mm Thk. Deck concrete. - MEP Services: 0.40kN/m2	
LIVE LOAD	**Live Load at roof (LL):** 0.6kN/m2			**Live Load at Mezzanine (LL):** 5.0kN/m2		
SEISMIC LOAD	**Seismic Code:** SBC 301 (2018) using STAAD Pro	**Soil Profile Type:** D	**Importance Factor (I):** 1.00	**0.2 Sec Short Period Acceleration, Ss =** 0.8g	**One-Second Period Acceleration, S1 =** 0.2g	
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 30°C					
WIND LOAD	**Wind Code:** SBC 301 (2018)	**Basic Wind Speed:** 47m/sec (3 Sec Gust – 1160km/hr)	**Exposure Category:** C	**Risk Category:** II	**Gust Factor:** 0.85	

ROOF SHADES

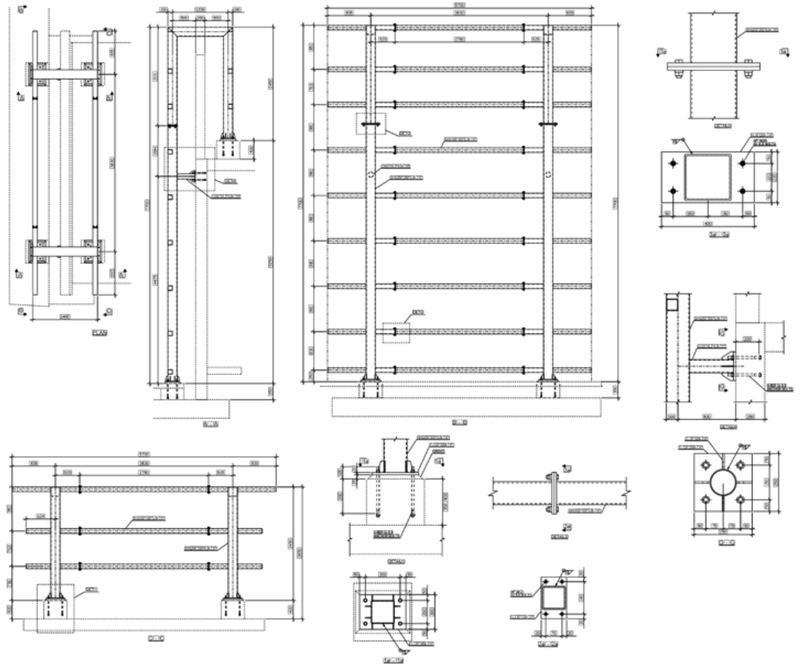


SOLAR PARKING SHADE

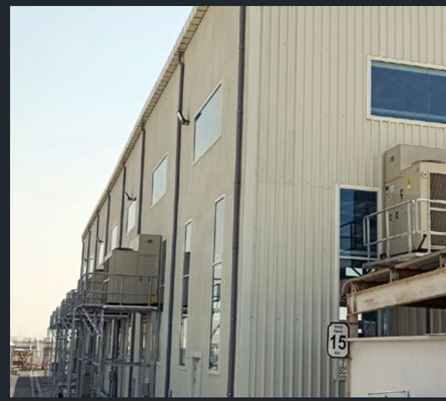


ISOMETRIC VIEW

CLADDING SUPPORT STRUCTURE



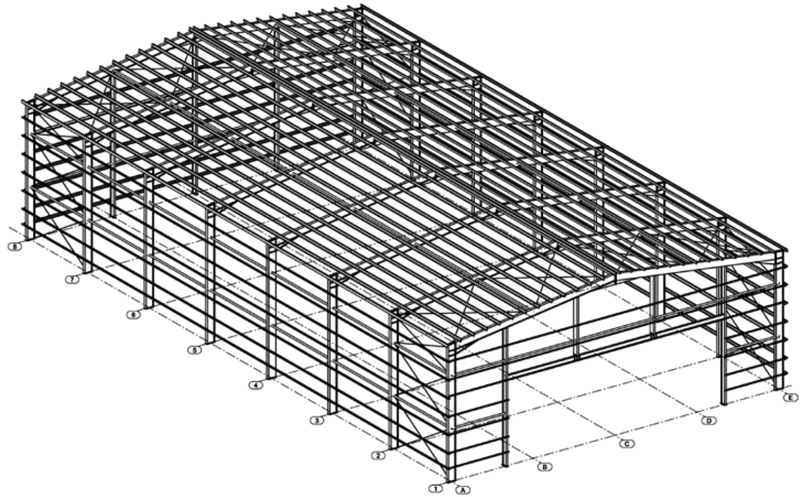
ADA-WAREHOUSE
UAE-2025



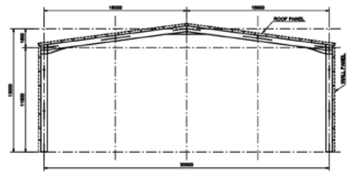
TECHNICAL SPECIFICATIONS

PROJECT OVERVIEW	
ALBADDAD was entrusted with the structural design, fabrication of the Mezzanine Floor Steel Structure (Abu Dhabi Airport Facility)	**Structural Analysis:** The mezzanine floor steel structure is a high-load-bearing platform constructed within a space-constrained area inside the Abu Dhabi Airport Facility. Designed to handle a load capacity of 1 ton/ m^2, the structure meets all quality and HSE standards set by the airport authorities.

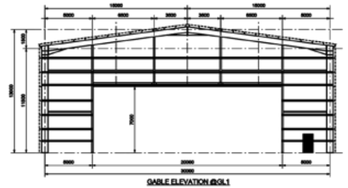
LOAD ASSIGNMENTS					
DEAD LOAD	Checkered plates +Self-weight of structure by program **(STAAD Pro.) 5% added for connections.**	**Material Properties:** - Concrete Cylinder compressive strength at 28th days, Fc' = 40 MPa (for foundations, pedestal) - Steel Reinforcement, FY = 420 MPa - Angles, plates, bars, and rods; ASTM A36 (FY = 36 KSI = 250 MPa) - Unit weight of materials, reinforced concrete= 24 kN/ m^3Steel = 77.50 kN/m^3		**Superimposed Loads:** - Roof soft PVC: 0.05KN/m2 - Suspension ceiling : 0.10kN/m2 - Mezzanine Floor: 125mm Thk. Deck concrete. - MEP Services: 0.40kN/m2	
LIVE LOAD	**Live Load at Mezzanine (LL):** 10.0kN/m2				
SEISMIC LOAD	**Seismic Code:** SBC 301 (2018) using STAAD Pro	**Soil Profile Type:** D	**Importance Factor (I):** 1.00	**0.2 Sec Short Period Acceleration, Ss =** 0.8g	**One-Second Period Acceleration, S1 =** 0.2g
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 30°C				
WIND LOAD	**Wind Code:** SBC 301 (2018)		**Internal wind pressure considered**		



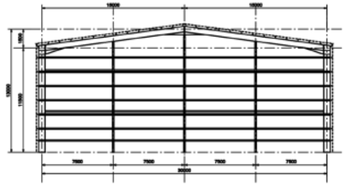
3D VIEW



MAIN FRAME



GABLE ELEVATION @GL1



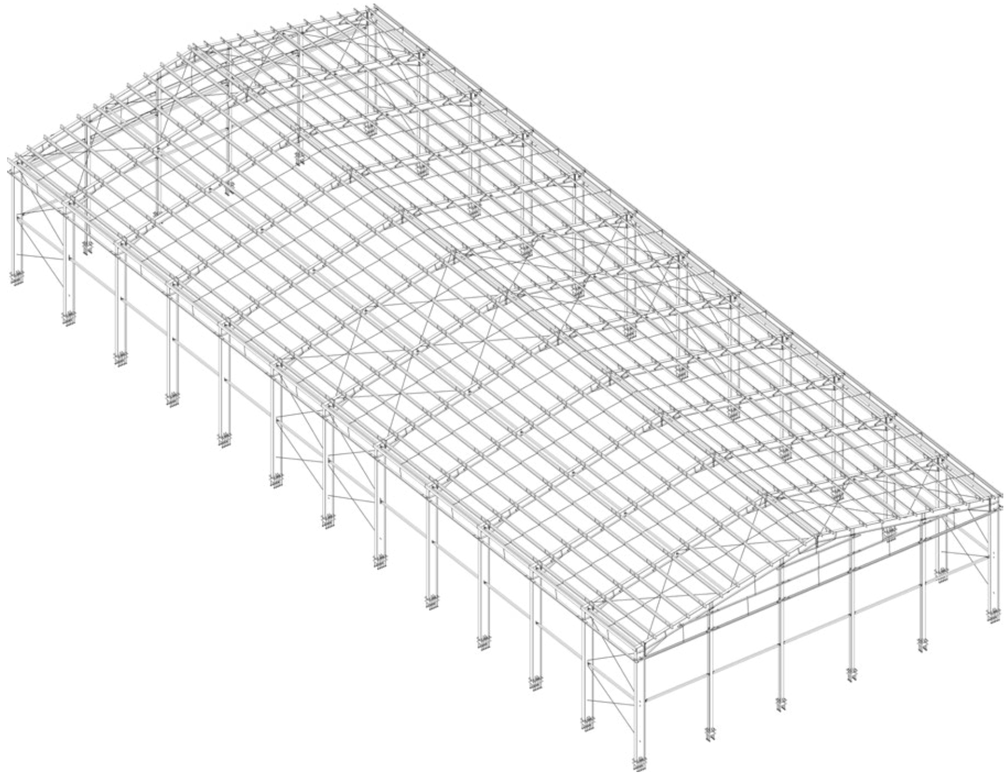
GABLE ELEVATION @GL6

AL MUGHARRAQ-WAREHOUSE
UAE-2024

TECHNICAL SPECIFICATIONS

PROJECT OVERVIEW		
ALBADDAD was entrusted with the structural design, drawings, fabrication, supply, and installation of the **Mugharraq Port Warehouse.**	**Size: 25m x 60m warehouse**	**Structural Analysis:** Verified through **STAAD Pro** for gravity loads, wind, and seismic forces.

LOAD ASSIGNMENTS						
DEAD LOAD	**Self-weight** of structure calculated using **STAAD Pro** (+5% for connections).	**Material Properties:** - Concrete Strength (28 Days): 35 MPa (for foundations, pedestals). - Steel Reinforcement Strength: 420 MPa - Angles, Plates, Bars, Rods: ASTM A36 (FY = 250 MPa) - Unit Weights: Reinforced Concrete: 24 kN/m³, Steel: 77.5 kN/m³		**Superimposed Loads:** - Roof Corrugated Single-Skin Panel: 0.1 kN/m² - Roof Purlins spaced at 1.2m c/c - MEP Services: 0.2 kN/m²		
LIVE LOAD	**Roof Live Load**:1.0 kN/m²					
SEISMIC LOAD	**Seismic Code:** IBC 2006/2009 - ASCE 7-05 (analyzed in STAAD Pro)	**Seismic Zone:** 2B	**Site Class:** D	**Importance Factor (I):** 1.25	**Short Period Acceleration (Ss):** 0.43g	**One-Second Period Acceleration (S1):** 0.13g
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 35°C					
WIND LOAD	**Wind Code:** ASCE 7-05	**Basic Wind Speed:** 45 m/sec (162 km/hr, 3-sec gust)	**Exposure Category:** C	**Importance Factor:** 1.0	**Gust Factor:** 0.85	

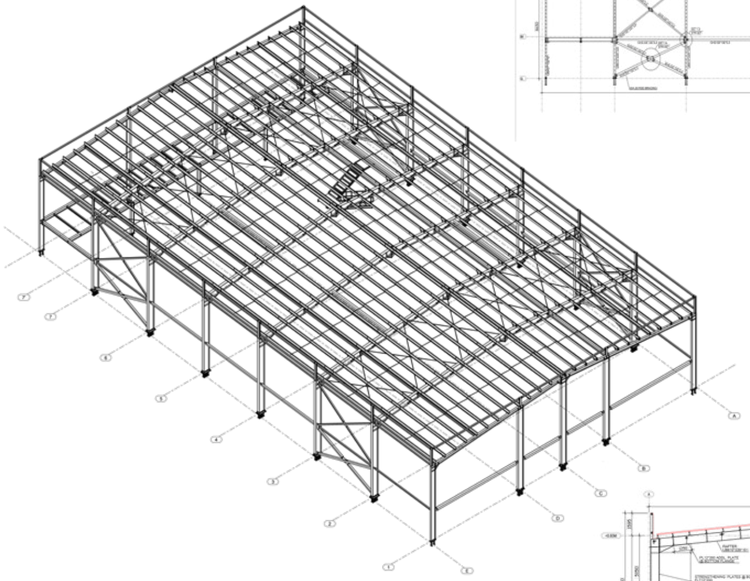


AL-ULA CLUB-WAREHOUSE
UAE-2024

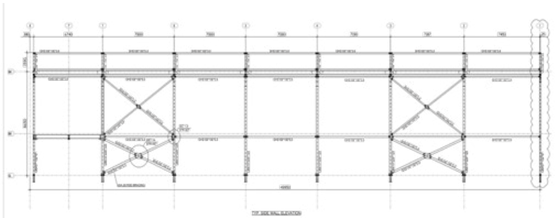
TECHNICAL SPECIFICATIONS

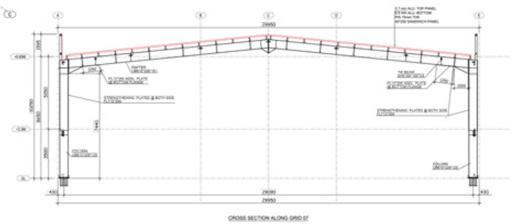
PROJECT OVERVIEW	
ALBADDAD was entrusted with the structural design, drawings, fabrication, supply, and installation of the **Al Ulla Sports - Steel Structure - G+M WAREHOUSE.**	**DESIGN METHODOLOGY:** The Steel building, with dimensions of 29.95m x 49.95m. The Steel warehouse structure. The project is located in Riyadh – KSA and design using Saudi Building Code. A three-dimensional analysis using the STAAD Pro program is conducted to verify the design adequacy of the main structural members, including vertical deflection under gravity loads, wind loads, and lateral drifts resulting from seismic and wind forces.

LOAD ASSIGNMENTS						
DEAD LOAD	**Self-weight** of structure calculated by program (STAAD Pro.) 5% added for connections.	**Material Properties:** - Concrete Cylinder compressive strength at 28th days, Fc' = 40 MPa (for foundations, pedestal) - Steel Reinforcement, FY = 420 MPa (for all reinforcing steel) - Angles, plates, bars, and rods; ASTM A36 (FY = 36 KSI = 250 MPa) - Unit weight of materials: Reinforced concrete = 24 kN/m³Steel = 77.50 kN/m³			**Superimposed Loads:** - Roof sandwich panels : 0.35KN/m2 - Mezzanine Decking : 2.50kN/m2 - MEP Services: 0.25kN/m2	
LIVE LOAD	**Live Load at roof** : 0.65kN/m2			**Live Load at Mezzanine** : 2.00kN/m2		
SEISMIC LOAD	**Seismic Code:** SBC 301 (2018) using STAAD Pro.	**Soil Profile Type:** D	**Importance Factor (I):** 1.00	**0.2 Sec Short Period Acceleration, Ss:** 0.8g	**One-Second Period Acceleration (S1): 0.2g**	
TEMPERATURE LOAD	**Design Temperature for Frame Elements:** 40°C					
WIND LOAD	**Wind Code:** SBC 301 (2018)	**Basic Wind Speed:** 50m/sec	**Exposure Category:** C	**Risk Category:** II	**Importance Factor:** 1.0	**Gust Factor:** 0.85



ISOMETRIC VIEW





CROSS SECTION ALONG GRID D7

PROJECTS FOOTPRINT

MIDDLE EAST
SAUDI ARABIA
BAHRAIN
OMAN
YEMEN
LEBANON
JORDAN
KUWAIT
UNITED ARAB EMIRATES
QATAR
PALESTINE

AFRICA
MOROCCO
MAURITANIA
ALGERIA
TUNISIA
LIBYA
EGYPT
TANZANIA
CONGO
CHAD
NIGER
ANGOLA
CAMEROON
NIGERIA
TOGO
GHANA
COTE D'IVOIRE
GUINEA
MALI
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