

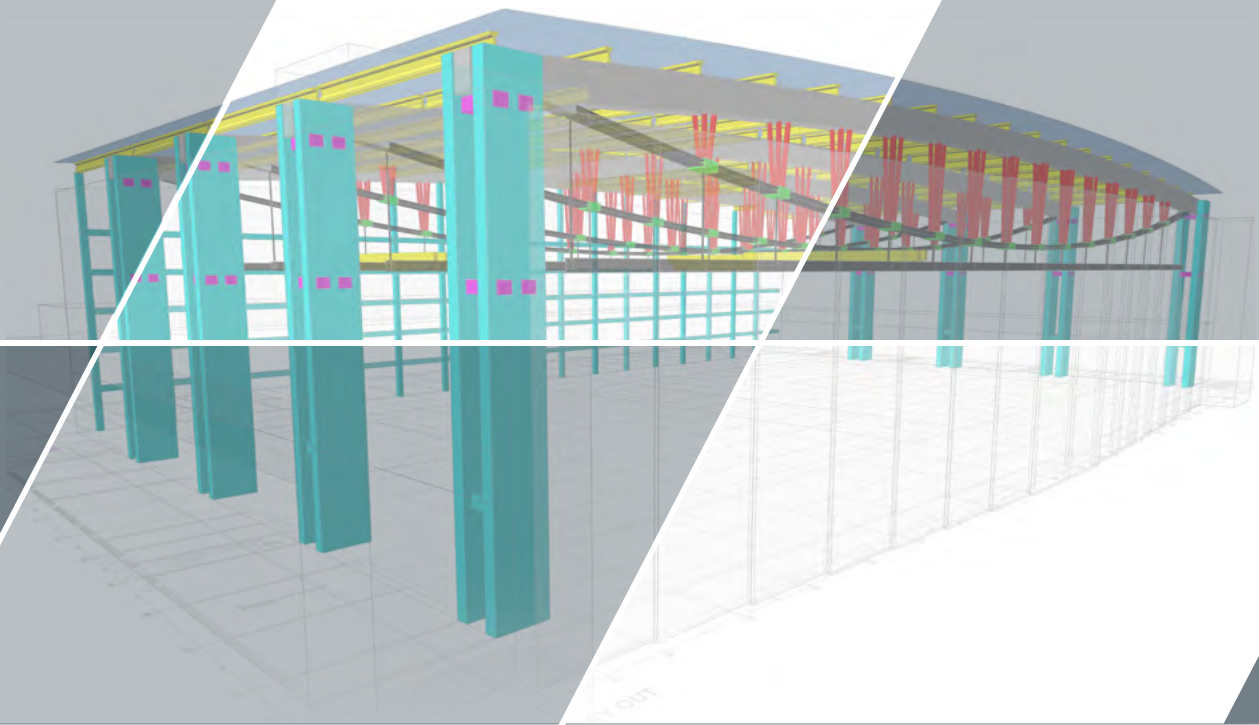
PRECAST CONCRETE

DESIGN AND ENGINEERING KNOW HOW
ALL UNDER ONE ROOF

Through inherited experience of its personnel and through its own projects, DNEC have accumulated over 30 years of precast concrete expertise.

DNEC offers complete in-house knowledge required for design, detailing, on-site and off-site fabrication setup, fabrication and installation for large-scale precast works.

The following pages show a short selection of completed projects demonstrating various highly specialized precast solutions in buildings, bridges and infrastructure.



BUILDINGS

Project Name: Yas Island Retail East and West Car Park

Client: ALDAR
Location: YAS Island
Precaster: Al Meraikhi Precast

Design and build project (to BS8110 and UBC 97). Full-precast superstructure constructed using 3-storey precast columns (15 m long), 18 m long reduced weight pre-stressed beams, hollow core slabs, staircase flights and parapets. Total number of parking places 3500. Car park total area 160,000 m².



Project Name: 7-story Car Parks in Dubai Al Nahda First

Client: Private developer
Location: Dubai
Precaster: Al Meraikhi Precast

Design and build project (to BS8110 and UBC 97), comprising of precast columns (21 m high), beams, hollow core slabs, staircase flights, parapets and precast load bearing shear walls.


Project Name: Marina Mall & Marina Mall Extension

Client: NIC Abu Dhabi
Location: Abu Dhabi
Precaster: Al Meraikhi Precast

Design and build project (to ACI-318), comprises cast-in-place walls and columns, precast floor structure and precast façade. Precast pre-stressed beams and HCS (up to 16 m long) used for floor structure. Precast pre-stressed I-girders used for pedestrian bridges and cinema roof. Precast polished concrete façade cladding.



Project Name: Mall of the Emirates, Carrefour Box

Client: Client Majid Al Futtaim Investments LLC
Location: Dubai
Precaster: Al Meraikhi Precast

Design and build project (to BS8110). Two-storey structure comprising in-situ columns, 16 m long reduced weight precast pre-stressed beams and hollow core slabs (HCS) with structural topping.



Project Name: 400kV Substation for Barakha Nuclear Plant

Client: ENEC/KEPCO
Consultant: PB Power
Location: Barakha, Abu Dhabi
Precaster: Al Meraikhi Precast

Design of precast roof and top roof I-girders 21 m long, HCS, columns and precast edge beams to ACI318.



Project Name: Delta City Shopping Mall Belgrade, Serbia

Client: DELTA M & DELTA CITY
Location: Belgrade
Precasters: Sirbegovic Inzenjering & Vibrobeton

Structural design for approximately 80,000 m² of mall space comprising in-situ concrete columns, precast beams and pre-stressed hollow-core slabs.

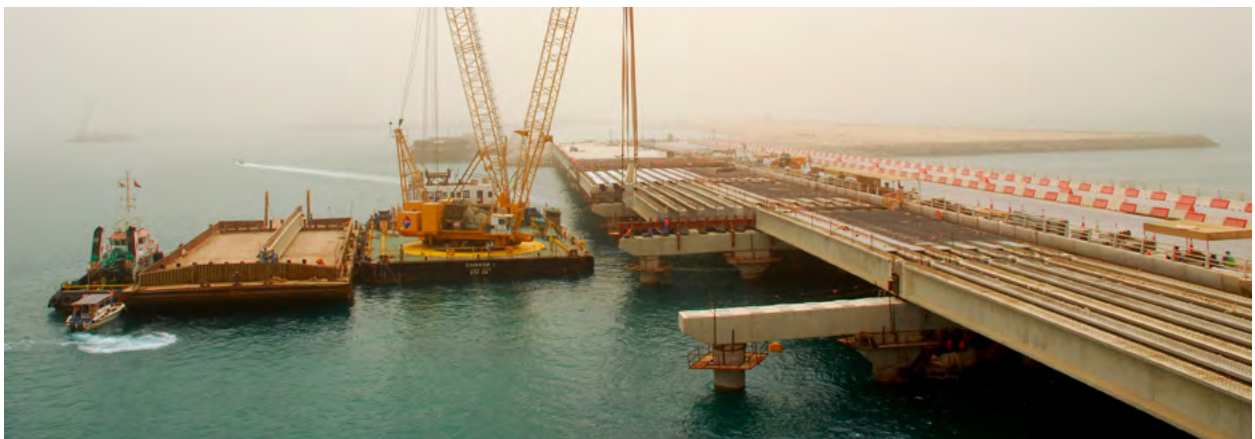


BRIDGES

Project Name: Khalifa Port Bridges (Highway, Utility and Trestle)

Client: Abu Dhabi Port Authority
Location: Khalifa Port
Precaster: Al Meraikhi Precast

Design of bridge decks comprising of 900Nos I-girders 2200 mm deep 40 m long, diaphragms and deck slab.



Project Name: Mariyah Island Bridges and Elevated Roads

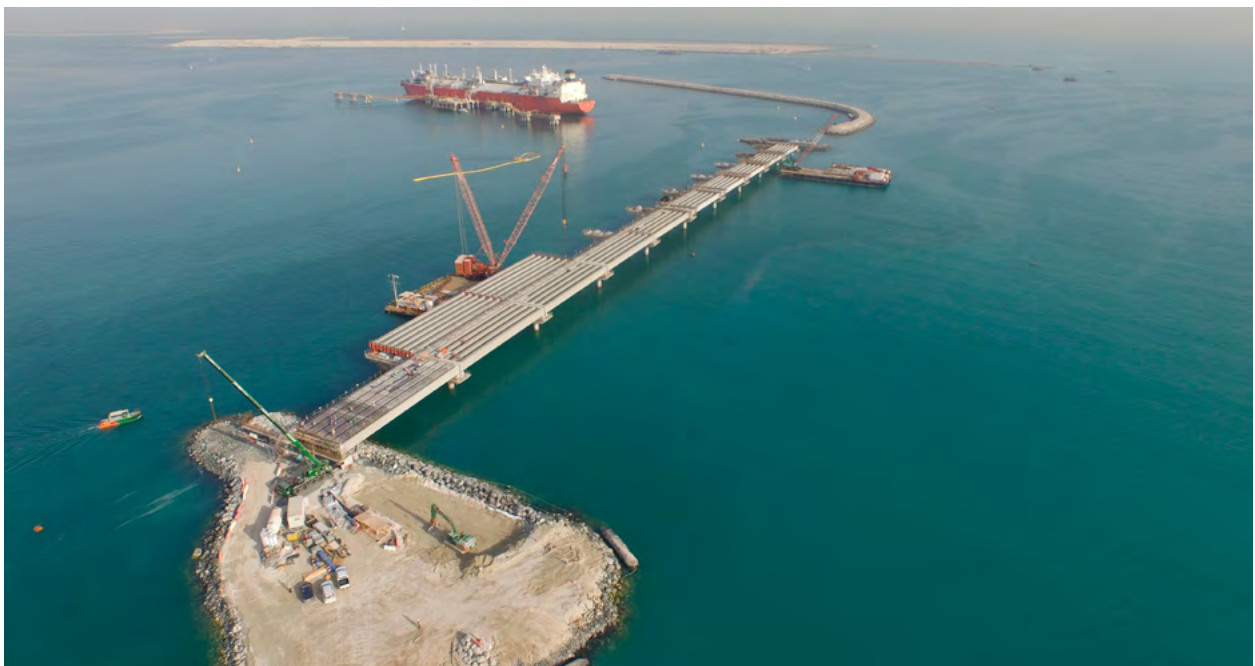
Client: Mubadala
Location: Abu Dhabi
Precaster: Al Meraikhi Precast

Design of Bridge and elevated roads superstructures comprising of more than 3000Nos I-girders 1200 mm, 1500 mm 1900 mm and 2200 mm deep of varying lengths (18 m to 45 m), diaphragms and deck slab.

**Project Name: Jebel Ali Terminal 4 Bridge**

Client: DP World
Location: Jebel Ali Terminal 4
Precaster: Al Meraikhi Precast

Design of Internal and Edge Bridge pre-stressed girders 2200 mm deep, 40 m long.



MARINE WORKS

Project Name: Raha Beach Sea Wall

Client: ALDAR

Location: Al Raha Beach, Abu Dhabi

Precaster: Al Meraikhi Precast

Design check for demoulding and erection stages for approximately 6000Nos precast wall units, weight of single unit 50 t. Design and planning for on-site production yard.



Project Name: Presidential Palace Sea Wall, Abu Dhabi

Client: The Executive Committee
for The Presidential Palace Project

Location: Abu Dhabi

Precaster: Al Meraikhi Precast

Design check for demoulding and erection stages.

**Project Name: Louvre Museum Quay Wall**

Client: TDIC

Location: Saadiyat Island, Abu Dhabi

Precaster: Al Meraikhi Precast

Design check for de-moulding and erection stages of marine piles and quay wall bloks.

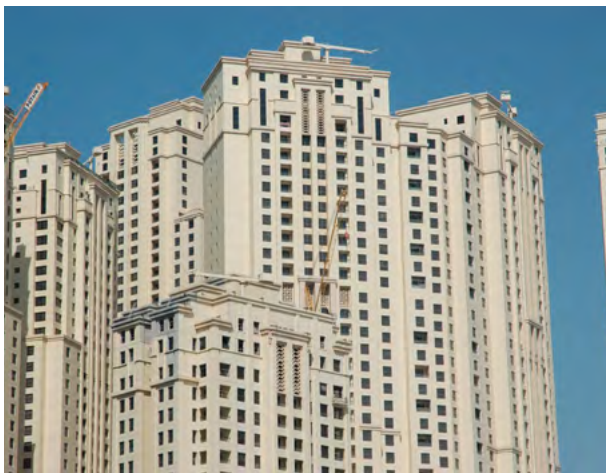


PRECAST FACADES

Project Name: Jumeirah Beach Residence Sector 4

Client: JBR
Location: Dubai
Precaster: Al Meraikhi Precast

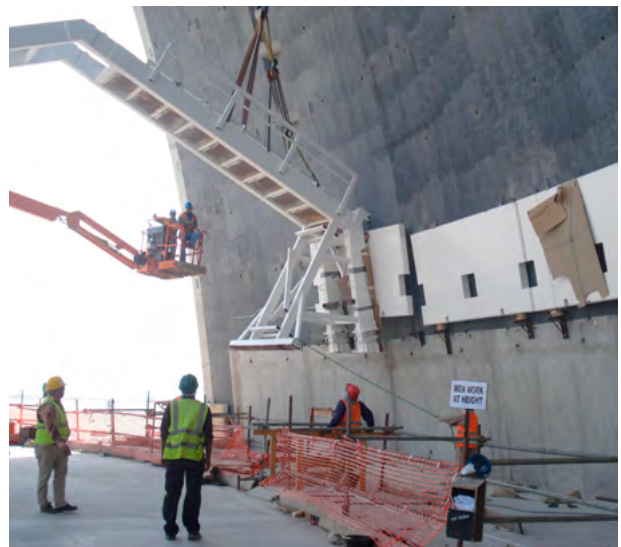
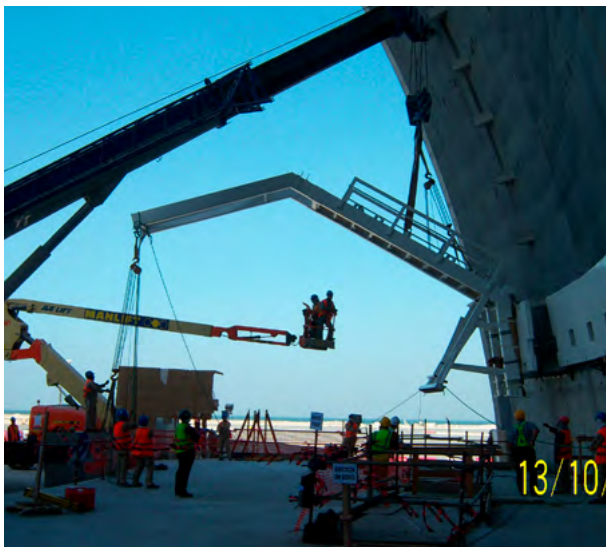
Design and build façade project, insulated concrete sandwich panels, approx. 30,000Nos units in total



Project Name: Doha VVIP terminal

Client: Doha Airport
Location: Dubai
Precaster: Al Meraikhi Precast

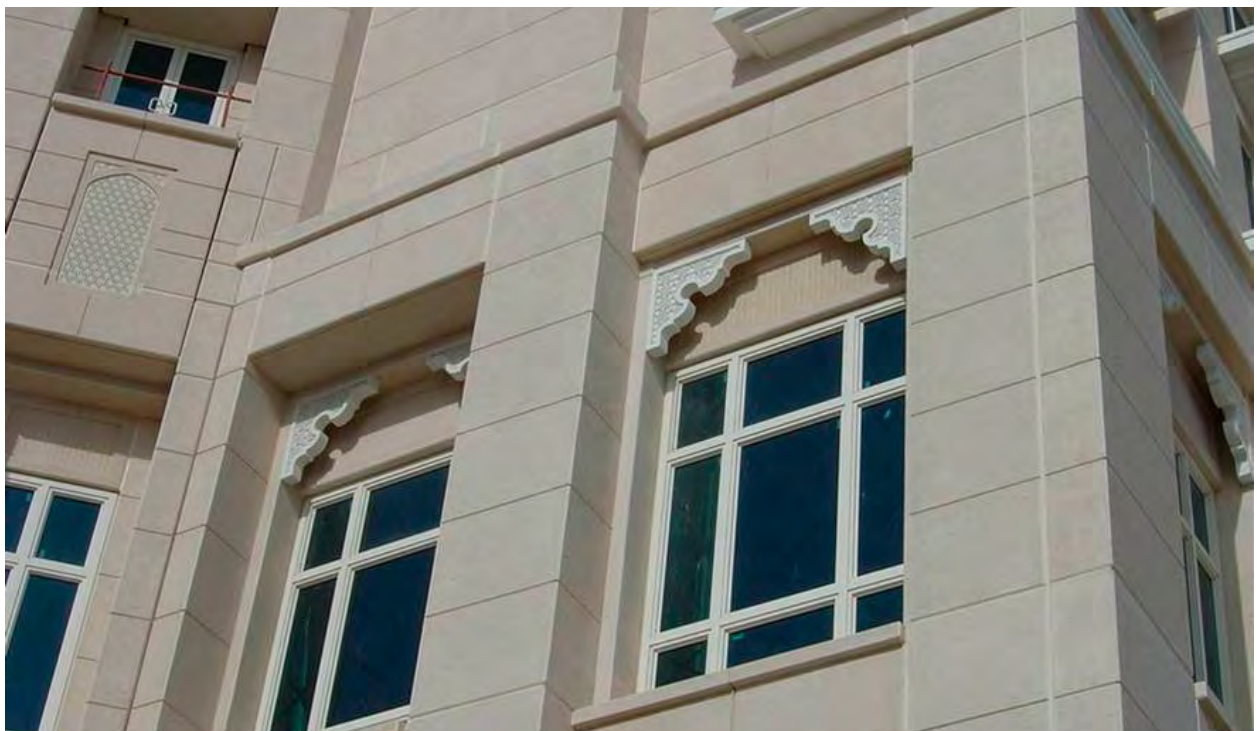
Design of cladding panels and engineered installation over bowed concrete structure.



Project Name: West Bay Complex, Doha

Client: Private development
Location: Doha
Precaster: Al Meraikhi Precast

Design of cladding façade panels and GRC domes.



GRANDSTANDS

Project Name: F1 Race Track

Client: ALDAR
Location: YAS Island, Abu Dhabi
Precaster: Al Meraikhi Precast & TCP

Design of precast seating units and staircase flights.



Project Name: Abu Dhabi Equestrian Club

Client: Works Department
Location: Abu Dhabi
Precaster: Al Meraikhi Precast

Design and build project (to BS8110). The structure comprises of precast seating units and hollowcore slabs supported on cast-in-place frames.



LARGE SPAN ROOFS

Project Name: Belgrade Airport Maintenance Hangar

Client: Belgrade Airport
Location: Belgrade
Contractor: Rad

Maintenance hangar having capacity to accommodate two Boings 747 at a time. The roof comprises three 135 m long externally post-tensioned reinforced concrete box girders. Precast roof deck is suspended from the box girders.



Project Name: Belgrade Arena

Client: City of Belgrade & Energoprojekt & Napred
Location: Belgrade
Contractor: Energoprojekt & Napred

Multifunctional arena with capacity of up to 20,000 spectators. The 132 m x 102 m roof is constructed using externally post-tensioned reinforced concrete girders supporting precast secondary girders and rafters.



SPECIAL PROJECTS

Project Name: The Emirates Palace Hotel Complex, Abu Dhabi

Client: Conference Palace Hotel Executive Committee (CPHEC)
Location: Abu Dhabi
Precaster: Al Meraikhi Precast

Design and engineering solutions for installation of precast architectural units for the Hotel and Palace. Architect's requirement to install large precast units inside the completed buildings required engineering and production of purpose-built mobile rigs for handling and final positioning of different precast columns, arches and walls.



Project Name: Al Raha Beach Resort in Abu Dhabi, Shell Restaurant

Client: Public Works Department
Location: Raha Beach, Abu Dhabi
Precaster: Al Meraikhi Precast

Design and build project (to BS8110), comprises cast-in-place concrete columns, in-situ ring beam and precast concrete shell units tied laterally using PT cables. Precast shell 42 m long and 16 m wide.

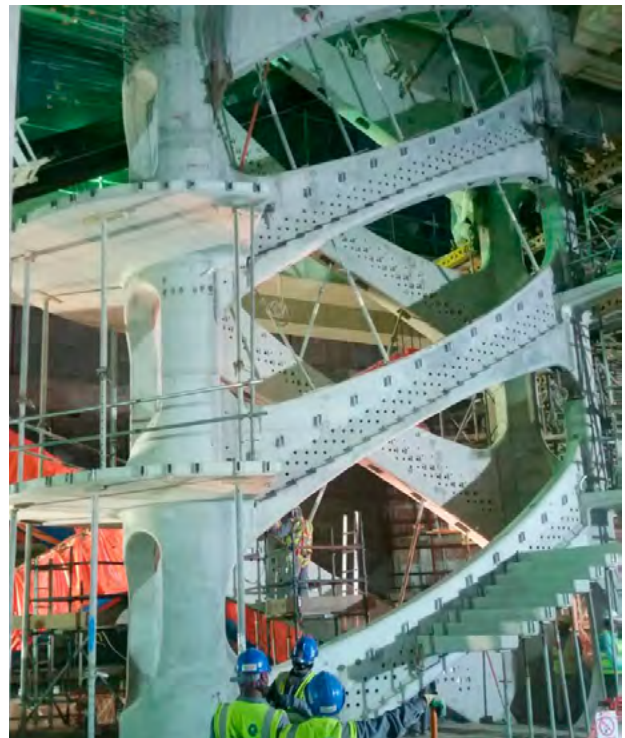


Project Name: Feature Precast Staircase
at Midfield Terminal Abu Dhabi Airport

Client: ADAC
Location: Abu Dhabi Airport
Precaster: Al Meraikhi Precast

Design and build project to ACI318. Precast half-circle corewall panels, curved beams and polished cantilevered steps. Engineered installation in confined space under previously completed building roof.

3D image courtesy of ADAC

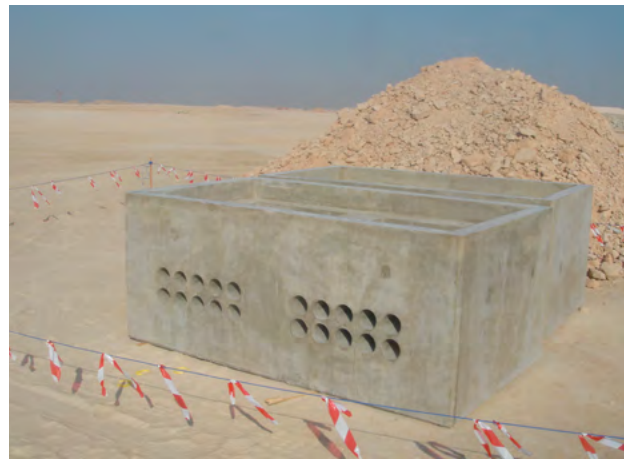


INFRASTRUCTURE

Project Name: 2 km New Runway, Abu Dhabi Airport

Client: ADAC
Location: Abu Dhabi
Precaster: Al Meraikhi Precast

Design of precast culverts, inspection chambers, AGL and communication pits.



Project Name: Supply, Installation, Testing and Commissioning of 400 KV Cable works, DEWA Contract CNE0069-09

Client: DEWA
Location: Dubai
Precaster: Al Meraikhi Precast

Design of precast culverts.



Project Name: Construction of ADNOC HQ DEVELOPMENT WORKS PHASE 3

Client: ADNOC
Location: ADNOC HQ Building, Abu Dhabi
Contractor: Al Jaber
Precaster: Al Meraikhi Precast

Design of precast buried arch and twin-arch structure, retaining wall and prestressed beams for 10m wide pedestrian tunnel.



The logo for DNEC, consisting of the letters 'DNEC' in a bold, white, sans-serif font. The 'D' and 'N' are connected, and the 'E' and 'C' are also connected. The logo is set against a dark purple background.

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