

# CASE STUDY





Qatar Integrated Railway Project (QIRP) comprises around 35 stations in phase I and around 60 stations in phase 2 for the new Doha Metro Network (planned to comprise 4 lines) and will serve as the backbone of the public transport system in the Greater Doha area.

#### THE PROJECT:

The Red Line South Elevated & At-Grade (with a construction cost of US \$700 million) was to construct a section of The Doha Metro, The Red Line, which includes building three elevated stations and a tunnel. The project was awarded to an FCC-led joint venture made up of Yüksel (Turkey), Archirodon (Greece) and Petroserv (Qatar) and known as FYAP JV.

# The Red Line South Under Ground

**Stations** (with a construction cost of US \$1.65 billion) was to design and construct the underground works below central Doha, including 5 underground stations, between the Msheireb Underground Station and the New Doha International Airport and incorporates the main depot and maintenance facilities, in addition to two switchboxes. This was awarded to a Joint Venture of QDVC - GS Engineering & Construction Corp. – Al-Darwish Engineering W.L.L. and the Designer as Arcadis (Hyder Consulting)

**Major Stations (Msheireb and Education City stations)** (with a construction cost of US \$1.4 billion) are a key part of the Doha Metro project.

"CADS' work and support has been greatly appreciated throughout the entire project. Our technical office is really happy with the quality of the drawings and the speed of delivery."

Teodoro del Barco, Prieto Engineering Manager, FYAP JV

### CADS DETAILING CUSTOMERS:

FCC-Yuksel-Archirodon-Petroserv Joint Venture (FYAP JV)

Arcadis (Hyder Consulting)

APG/ CCC

CLIENT/OWNER:

Qatar Railways Company

#### LOCATION:

Doha, Qatar

DURATION OF PROJECT:

30 months

PROJECT COMPLETION DATE: 2019

NUMBER OF DRAWINGS:

5000 AI





Msheireb is the central station, linking all three of the lines under construction during the project's first phase (red, green and gold). This was awarded to Architecture and Planning Group (APG) / Consolidated Contractors Group – CCC.

## CADS' ROLE IN THE DOHA METRO:

CADS provided RC detailing services (preparation of reinforcement shop drawings and bar bending schedule) for all the above projects, i.e. seven deep underground metro stations; piers, pier heads and the viaduct for the elevated lines and three elevated stations. In addition to this, CADS prepared shop drawings for the complete underground stations of Msheireb and Education City. The detailing scope included in-situ, precast and post tensioning elements. CADS produced around 5,000 AI shop drawings in total across all 3 projects.

CADS also provided experienced detailers onsite for FYAP JV. These clients are impressed with our turnaround time, efficiency

and accuracy of our drawings as well as the performance of our onsite staff.

#### ABOUT CADS RC DETAILING SERVICES:

CADS has established an enviable reputation for providing expert RC detailing services to Consulting Engineers, RC Frame Contractors and Rebar Fabricators in the UK, UAE and North America. CADS uses its own market leading CADS RC and RebarCAD software to detail more than 2000 drawings per month. With a large team of experienced detailers CADS has a unique capability to meet urgent project deadlines without compromising drawing presentation or technical accuracy!

CADS RC bar bending schedules can be shared electronically to facilitate integration with rebar production software and machinery. Established in 1974, CADS is a leading software developer with 6000+ Civil and Structural Engineering customers in 90+ countries.

"It was a great pleasure to work with the CADS detailers. We have enjoyed the outstanding professionalism of all the team. On behalf of the FYAP team we thank them all and hope to work together again."

Stamatis Nikolaidis, Technical Office Manager, FYAP JV



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