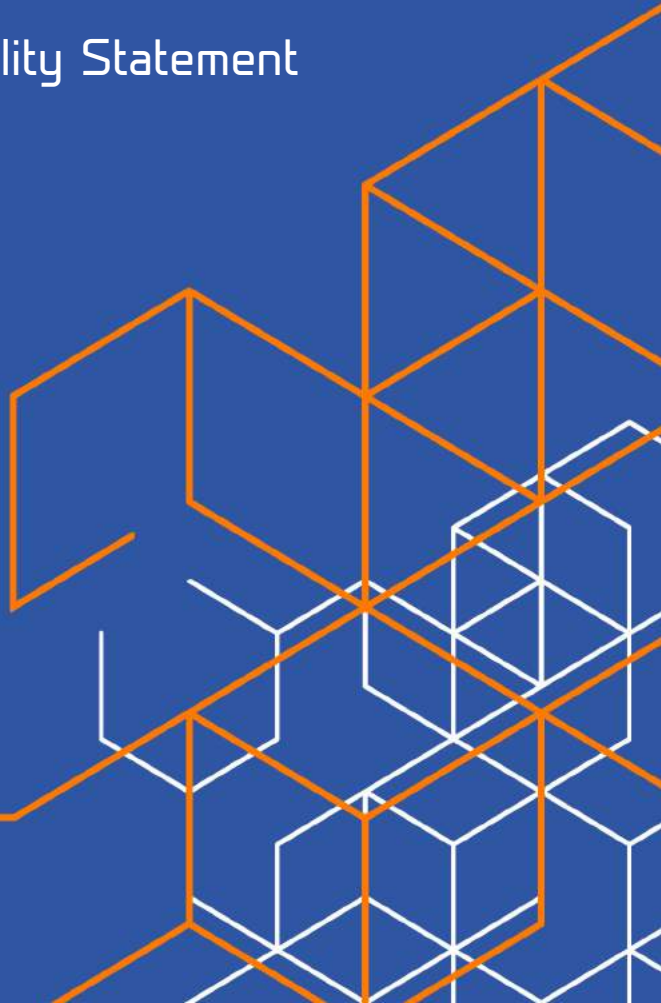


Highways Capability Statement



**At AQLEH Engineering Consultant (AEC),
our vision is to provide our clients with safe, sustainable, and
innovative solutions, and services that comply with
local and international standards.**

AEC has been established since 2006 in Dubai, UAE. We offer a wide range of services for many esteemed clients' that include Transportation Planning, Highways, and Bridges Design, Utilities and Networks Design, Contracts and Cost Consultancy, Construction and Program Management, and Landscaping and Public Realm, aiming to cater for all our client's needs to be provided in one integrated offer.

Our Vision

is to provide our clients with safe, sustainable, and innovative solutions and services that comply with local and international standards.

Our Mission

is to strive to accomplish a professional and creative environment for our staff to be able to apply their knowledge and expertise in a nurturing atmosphere.

Our Services



Highways & Bridges

- Highways & Roadway Design
- Intersection Design
- Road Signage Design
- Bridge Structure Design
- Tunnel Engineering & Design



Infrastructure

- Dry Utilities
- Gravity Network
- Pressurized Network
- Pump Station Design
- Detention / Retention Pond / Tank



Transportation

- Traffic Impact Studies
- Parking Studies
- Traffic Modeling
- Master Plan Support



Cost & Consultancy

- Conditions of Contract
- Pre-qualification Tender
- Invitation to Tender
- Tender Analysis
- Contract Award



Landscaping & Public Realm

- Site Feasibility Studies
- Landscape Design
- Streetscape Design
- Landscape Assessment
- Irrigation Design



Construction Supervision

- Supervision of Construction
- Quality
- Time & Control
- Claims & Commission

“ An efficient and reliable roads/bridge design team”

“Highways & Bridges Team”

Our Highways and Bridges team have successfully completed projects ranging from the design of roadways to large interchanges within the UAE. We tailor our services to each project, helping our clients in delivering design drawings, budgeted costs and material estimates, meet critical milestones, and achieve their expectation for the completed project. AECs bridge team excels in analyzing and designing all types of structures ranging from pedestrian bridges to multi-level interchange structures. AEC has designed long span pre stressed concrete cast-in-place box girder, Pre stressed concrete segmental box girders, AASHTO girder bridges, Underpasses and box culverts, retaining walls and water crossing bridges.

“Approved RTA Consultant”

The Highways team is on the approved list with the Roads & Transport Authority (RTA) in Dubai. AEC is approved by the Roads Department to undertake Roads Consultancy for Roads and Bridges to a construction value of **AED 300,000,000**. Our team is fully aware of the RTA Roads Department process and requirements to obtain the necessary NOC approvals for our Clients.

“Comprehensive Knowledge”

The Highways team has developed a very comprehensive knowledge of the road networks and are able to identify issues and provide appropriate highway mitigation measures to minimize traffic congestion. Our Bridges team's depth of knowledge runs from conceptual to detailed design and have the necessary tools in place to provide workable and cost effective solutions for our clients.

“Proven Track in Delivering”

Delivery of major projects requires a team of professionals to work in a fully integrated manner with the client, and who are fully capable of meeting project targets on time, on budget and to the quality expected. AEC has a proven track record in working closely with our clients and Authorities such as the RTA, DM, etc. in order to achieve an optimized and accelerated delivery schedule to fulfil all our clients' goals. This we believe gives AEC an understanding of what is involved in delivering projects successfully to all our valuable clients and places AEC as the partner of choice to deliver projects that will shape the future of our emirates.

Capability and Services

Our team currently offers its clients a wide range of services via the skills set out of the Highways and Bridges team. Set out below is a description of our current products and service offerings.

Highways Engineering

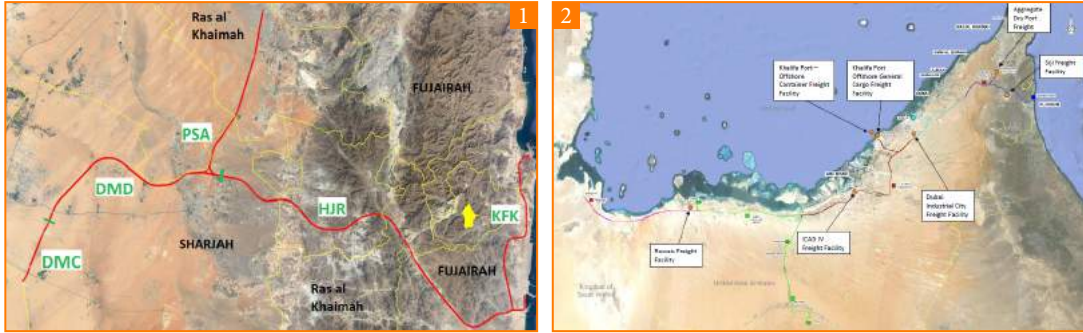
- Highways and Interchanges Design.
- Conceptual Alignment Studies.
- Earthwork Quantities and Site Grading.
- Geometric Design / Review including Horizontal & Vertical Alignments Profile, Spot Levels, and Cross Sections.
- Structural Pavement Design.
- Road Signage and Pavements Marking Design.
- Traffic Diversion Plans.

Bridge Engineering

- Bridge Analysis and Design.
- Independent Analysis.
- Load Rating and Permit Vehicle Analysis.
- Rehabilitation, Retrofit, and Strengthening.
- Seismic Analysis and Retrofit.
- Tunnel Engineering and Design.
- Retaining Wall Design.

Projects

A selection of the project experiences are set out below:



Project 1: Etihad Rail - Stage 2, Package 2D

Client: Systra

Etihad Rail comprises a proposed railway network, linking freight facilities and passenger stations, and form a part of the planned Gulf Corporation Council (GCC) railway Network. It will run from Saudi Arabia border at Ghweifat in the west to the Northern Emirates and the East Coast. There will be a line running from Abu Dhabi to Al Ain, with intended connection into the Sultanate of Oman.

AEC was awarded the project for roads & highway design services for a number of crossing locations between the existing / proposed utilities network and the proposed Etihad Rail Alignment.

Key Services:

- Roads & Highway Design for Fourteen (14) Locations.
- Utilities Protection, Relocation and Diversion.
- Stakeholder and NOCs Approvals (Sharjah, Fujairah and Ras Al Khaimeh).

Project 2 : Etihad Rail - Stage 2, Package 2F2

Client: Systra

AEC was awarded Stage 2 Package 2F2 of the development that will connect the Etihad Rail network through to the port of Fujairah on the eastern seaboard. This project will link future freight facilities and passenger stations to form a part of the GCC strategic railway network.

Key Services:

- Devlope Road Design for E611 (Excl the bridge and MSE wall structure).
- Design NOCs from all relevant authorities (RTA, DEWA, DM, etc.)
- Temporary Traffic Diversion.
- Develop BIM for E611Road in relation to the roads and utilities network.
- Prepare BoQ for roads & utilities networks & value engineering.



Project 3: R1015/3 Various Improvements & Implementing Quick Wins

Client: Roads & Transport Authority

AEC was awarded by Roads and Transport Authority (RTA) Roads Department the R1015/3A & 3B Various Improvements & Implementing Quick Wins in Deira & Bur Dubai.

The consultancy services required for this project was to undertake the design and construction supervision for improvements to existing roads and intersections, widening of existing roads, parking, kerb lines and/ or new construction of the same and any other minor road works deemed necessary through numerous Work Orders from the RTA Roads Department.

Key Services:

- Obtain Design NOCs and permits from all relevant Authorities.
- Cost Consultancy & Tendering Services.
- Construction Documentation & Supervision.

Project 4 : Deira Islands A and B

Client: Nakheel

AEC was commissioned for a development that comprises the construction of four islands (A, B, C & D) off the coast of Dubai. The total land mass is approximately 1,500 hectares that would enable a population of approximately 400,000 to inhabit the islands.

Key Services:

- Prepare Concept & Detailed Design for Roads and Utilities.
- Design approvals, NOCs and permits from all relevant authorities.
- Cost Consultancy, Tendering Services, and Construction Supervision.



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Project 5: Route 2020 Dubai Metro Red Line

Client: Roads & Transport Authority

AEC was commissioned to develop a Metro Link between the existing Dubai Metro Red Line at Nakheel and Harbour Station and the Expo 2020 site near Al Maktoum International Airport. The connection is 14km of track of which 11km is elevated and 3km is underground. Once developed the Metro Link will provide seven stations.

Key Services:

- Redesign the roads network along the tram alignment.
- Develop the integration of the proposed metro stations with the surrounding road networks and public transit systems.



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Project 6: Ten Bridges at Abu Al Abyadh Island

Client: Ministry of Presidential Affairs

AEC was commissioned by the Ministry of Presidential Affairs to design 10 Bridges Crossing over man-made water canals within Al Abyadh Island Abu Dhabi to provide the connectivity between both sides of the canal. Each has an average span of 50-150m and widths of 10-12m.

Key Services:

- Detailed Design for Bridges.
- Detailed Design of Associated Road works and Street Lighting Network.
- Coordination with Authority and Stakeholders.



Project 7: Mohammed Bin Rashid Al Maktoum City - District 1

Client: Meydan Sobha

AEC was commissioned to develop District 1 Infrastructure Networks. The project is part of Mohammad Bin Rashid City located to the East of Al Khail Road / Meydan Road Interchange. It will be a mixed-use development on a site area of 400 hectares and comprise of four phases.

Key Services:

- Prepare Concept and Detailed Design for Roads and Utilities.
- Detailed Design for Bicycle and Jogging Tracks.
- Detailed Design for jogging and cyclists Tunnels.
- Cost Consultancy, Tendering Services, and Construction Supervision.



Project 8: Clock Roundabout Improvement in Ras Al Khaimah

Client: RAK Public Works and Services Department

AEC was commissioned by the client for the design of a bridge at the Ras Al Khaimah Clock Roundabout, which is located at the intersection between Sheikh Muhammad Bin Salem Road and Khuzam Road.

Key Services:

- Detailed Design of Bridge, Roads and Utilities Network.
- Design Approvals and NOCs from all relevant authorities.
- Cost Consultancy Services and Tendering Services.

Project Experience

Below are further projects undertaken by our Highways and Bridges Team.

Project	Client	Construction Value (AED)
RTA R1015/ 3A & 3B	RTA	300 Million
Ethihad Rail Stage 2, Package 2D	Systra	600 Million
Ethihad Rail Stage 2, Package 2F2	Systra	150 Million
(P51) Infrastructure Improvement	DAFZA	2 Million
RTA R910	RTA	100 Million
Route 2020 Dubai Metro Red Line	RTA	220 Million
Al Sufouh Tram	RTA	180 Million
Palm Jumeirah	RTA	78 Million
RTA R881/3B	RTA	500 Million
Meydan Racecourse Villa	Meydan	32 Million
Meydan Diamond Business Park	Meydan	102 Million
Modification of Jumeirah Beach Walk	Meraas	7.5 Million
MBR City - District 1 Bicycle & Jogging Tracks	Meydan Sobha	660 Million
MBR City - District 11 External Roads	Meydan	480 Million
Meydan Development Access Strategy	Meydan	Study
Palm Deira	Nakheel	Study
Baynoonah Street Reconstruction	Al Naboodah Contracting	650 Million
Abu Dhabi Airport - New Terminal Access	ADAC	Study
Meydan Horizon City - Phase 1	Meydan	222 Million
Deira Island A & B Roads & Utilities	Nakheel	870 Million
Grand Views	G&CO	100 Million
Four RAK Bridges	RAK Government	120 Million
Meydan Gated Community	Meydan	78 Million
Jumeirah Garden City	Meraas	Study
Meydan Grandstand Parking	Meydan	Study
The Fields	G&CO	125 Million
Falcon City of Wonders	Falcon City LLC	110 Million
Palm Deira Traffic Master Plan	Nakheel	Study
Palm Jumeirah - Entrance Modifications	Nakheel	78 Million
Al Hamra Bridge in RAK	RAK Public Works & Services Dept.	55 Million
Palace Roundabout Improvement in RAK	RAK Public Works & Services Dept.	90 Million
Road Works for Phase 1 Area 1 & 2	Dubai Sports City	7 Million

Conceive. Believe. Achieve.



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