



RESIDENTIAL LEISURE & COMMERCIAL COMPOUND



Concept & Location

Abu Dhabi is the dynamic, vibrant and bustling capital of the United Arab Emirates. As the UAE's largest exporter of oil and traditional home to UAE's president, Abu Dhabi is a city that is assuming greater importance in not only the GCC, but also the MENA region.

With a large budget earmarked for development in the next two decades, Abu Dhabi is expected to be the hub of large scale construction activity in the UAE for the near future, which has also included several huge manufacturing and industrial project announcements.

These have helped Abu Dhabi's population rise steadily and the need for quality accommodation has seen hectic construction activity in and around the capital to address the growing need for residential developments.

The Khalifa City development is one of the most prestigious projects in Abu Dhabi and is poised to become the future residential and commercial suburb of choice in Abu Dhabi.

Khalifa City is a residential suburb divided into 3 areas: Khalifa City A, Khalifa City B, and New Khalifa City. Khalifa City A is on the main highway to Dubai and lies about 30 kilometres from Abu Dhabi. It is close to Abu Dhabi International Airport. Khalifa City B is further inland and is near Bani Yas and Al Shawamikh. The new Khalifa City is planned to be between A and B. All of Khalifa City is currently being developed in what will become the new city center of Abu Dhabi. Khalifa City A, which already has around 600-700 houses, will be adjacent to the prestigious Al Raha Beach project.

This project includes residential and commercial units, as well as many international hotels. The project is being built by Aldar

properties and many large corporations, like Etihad Airways have already setup head offices in Khalifa City A.

The project also houses world class sporting facilities nearby, including the International Shooting Club and International Cricket Stadium. The overall project comprises of 385 town houses semi detached and detached villas, 412 apartments, and associated community centre, landscaping and infrastructure works.

With such a massive undertaking, the Khalifa City A development needed lots of infrastructure and more importantly, an efficient Central District Cooling Plant, to deliver energy efficient cooling to the entire area. Thanks to their stellar experience in such projects, Drake & Scull Water and Power were awarded the contract to realise the entire utilities development in the Residential and Leisure Commercial Compound for District Cooling. DSWP was chosen to construct a Central cooling plant of 20,000TR capacity and also install 25,000TR capacity Thermal storage tanks, an RO plant and associated Chilled Water piping.

DSE's strong performance with the installation of the DCP led to an increase in its scope of work, which was expanded to also include the construction and commissioning of the infrastructure work for RLCC compound. This include important work like sewage treatment , irrigation , telecommunications services, fire fighting , sub stations, roads and all related civil works .

DSE's professional work ensured that the RLCC compound was launched on track, becoming an important part of Abu Dhabi's urban planning efforts.



Scope of Work & Innovation

DSWP's scope of activities on site included the construction of

- a. 20,000 TR Central Cooling Plant
- b. Two Thermal storage tanks of 2,500TR capacity each
- c. Polishing Plant for treating the TSE water
- d. Connection between the Sewage Treatment Plant and Central Cooling Plant
- e. Chilled Water Pipe Reticulation piping to various Energy Transfer stations located at strategic points like:
 - i. Al Forsan City (containing 385 Villas, 10 Towers, and two community Centres)
 - ii. Al Forsan Hotel
 - iii. Staff Accommodation City
- f. Drake & Scull also undertook the MEP installations for the CCP building which covered elements like
 - i. Fire Fighting systems
 - ii. Fire Alarm systems
 - iii. Domestic Water supply

- iv. Drainage and Sewage network
- v. HVAC
- vi. Lighting and Small power systems
- vii. Building Management system

At peak activity, nearly 350 DSWP personnel worked nonstop on site to realize the project progress plan. One of the main challenges on site was taking into account the fact that the main building structured was made completely of steel, while the external / internal walls were made of precast panels which eliminated a lot of construction time.

The CCP building itself measured a sizeable area of 4.8 km and DSWP installed major equipment such as chillers, cooling towers, pumps, a Reverse Osmosis plant, 2 Thermal storage tanks, 2 make up water tanks and LV & MV Switchgears along with major MEP installations.

The Khalifa City A project is one of DSE's flagship projects and proof of the company's versatile skills that are capable of scaling to the requirements of each projects and realizing the overall goal of energy and cost efficient cooling services.