

ADMINISTRATIVE CORE AREA FACILITIES (ACA) HAWIYAH NGL RECOVERY PLANT



PROJECT NAME	ADMINISTRATIVE CORE AREA FACILITIES (HAWIYAH NGL RECOVERY PLANT) CONTRACT NO 6600012802
LOCATION	HAWIYAH, SAUDI ARABIA
CLIENT	SAUDI ARAMCO
CONSTRUCTION PERIOD	36 MONTHS

MAC was entrusted by Saudi Aramco, the LSTK Contract to design, procure and build all buildings and facilities for their new Hawiyah NGL Recovery Plant Administrative Core Area (ACA). Work consisted of executing all Civil, Structural and Architectural Works; Site Grading, Roads, Paving, Landscaping and Fencing Works; all Infrastructure Works; such as, Water Supply, Sanitary Sewer, Oily Water Sewer, Storm Water Drainage, Ponds and Sewage Lift Station; Electrical; Fire Detection/Protection; Communication System; Plumbing; and Furnishing, as well as, all other Systems necessary to hand over the facilities, complete and fully operational.

Since the ACA Facilities Project was part of the Main Hawiyah NGL Recovery Plant Project, MAC had to coordinate with several other contractors to ensure smooth execution and timely completion of the Project.

The Project Consisted Of The Following:

- ADMINISTRATION BUILDING:
1,950m² of offices and conference room made of steel frame and pre-cast concrete panels.
- MATERIAL STORAGE SHIPPING/RECEIVING FACILITY:
3,500m² Pre-engineered structural steel building including metal storage racks
- MAINTENANCE SHOP:
1,980m² Pre-engineered steel building including a conference room, audio & video projection systems and equipment.





- FABRICATION SHOP:
1,100m² pre-engineered steel building including shop equipment and a fenced lay down yard.
- MUSALLA: 300m² with an ablution area and hammam.
Constructed out of steel frame and pre-cast concrete panels for wall cladding.
- SEVERAL OTHER BUILDINGS & STRUCTURES:
 - PLANT ENTRANCE GATE HOUSE: with space frame canopy, assembled on the ground and lifted into position using a two crane tandem lift, rumble strips in the pavement, drop arm barriers and double drive gates.
 - MUSALLA AT THE MAINTENANCE COMPLEX AREA:
 - SEVEN COVERED PARKING STRUCTURES: of 5,000m² that can shelter approximately 340 cars.
 - SECURITY X-RAY BUILDING: Includes X-ray, Intrusion Detection Assessment System (IDAS) and Security Access Control System (SACS).
 - COMPUTER GATE HOUSE: with bullet proof windows, space frame canopy, double drive gates with drop arm barriers and pop up crash barrier.
 - FOUR MATERIAL STORAGE SUNSHADES: Located next to the material Storage Shipping/Receiving Building shall provide storage of materials that need to be kept dry, ventilated and sheltered from the weather.
 - BUS SHELTER AND TURNSTILES: Adjacent to the X-Ray Bldg and Computer Gatehouse.
 - GAS CYLINDER SHELTER
 - SANDBLASTING AND PAINT STORAGE BUILDING
 - STORAGE SUN SHELTER
 - TWO SMOKING SHELTERS
 - PZV SHOP
 - BUS SHELTER IN THE PARKING LOT



The Scope Of Work Consisted Of:

- CIVIL WORKS:
Foundations for all buildings totaling 10,000 m³ of reinforced concrete including swales, paving, bollards, fire proofing to exposed steel structures, cable tranches, cable ducts, landscaping HVAC, plumbing and building fire proofing.



- PONDS : Constructed with High Density Polyethylene (HDPE) pond liners, consisted of Evaporation Ponds and the Overflow Pond and for related piping systems and swales connected to the ponds, up to interface points
- OILY WATER SEWER AND STORM WATER DRAINS Around the Administration and Maintenance Area to a sanitary lift station.
- WATER SUPPLY SYSTEM: includes Fire Water System, Utility and Drinking Water with all piping, fittings and valves extending from the supply source to the isolation valves for fixed fire equipment and entry points to buildings.
- STRUCTURAL STEEL: Totaling 1,000 tons for building support structures and for parking shelters.
- ROADS, AREA PAVING AND FENCING: Asphalt of the whole project totaling areas: 25,000m² at the Administration and Maintenance area, including Pond, and Flare, security fence around the entire plant perimeter totaling of 14km, work includes: Earthwork, Asphalt Roads and Area Paving.
- SECURITY FENCING with a total length of 14,000m and 20,000m of related patrol roads.
- LANDSCAPING Including Automatic irrigation, surface finish, planting appropriate plants, shrubs and trees, paving and a free-form, polished stainless steel sculpture on the plaza of the Administration Area and all side walks.
- ELECTRICAL including Power distribution, for lighting SSD I perimeter fence and the Intrusion Detection Assessment System (IDAS)
- COMMUNICATIONS: Including Building Structured Cabling System (BSCS) requiring voice and data communications.
- INSTRUMENTATION & CONTROLS including Fire Detection Systems, Large Screen Television (LSTV), Process Control System (PCS), CCTV, Weather Monitoring System, Computer Aided Design and Drafting, Conditioning Monitoring System, Gas Chromatograph etc.
- SECURITY SYSTEM Including X-ray Scanner, Security Turnstiles, Drop Arm Barriers, Vehicle Detection Loops and Card Reader Pedestals.



