

Temporary and long-term solutions are now being considered as part of a contract – awarded in 1986 to Lebanon's **Associated Consulting Engineers (ACE)** and the local **Pan Arab Consulting Engineers (PACE)** – to evaluate Ardiya's role for the next 20 years.

Ardiya, built in 1967, is unable to cope with the demands of the last 10 years' population increase, says Adel Abdel-Rahman, purification section director in the ministry's sanitary engineering department. He expects to spend KD 15 million (\$53 million) on improving Ardiya's performance. Completion is set for May 1990.

... as effluent irrigation contract signed

The local **Palms Agro-Production Company (Papco)** has won the contract for stage one of the effluent use project. The KD 2.2 million (\$7.8 million) contract was signed by Public Works Minister Abdel-Rahman Ibrahim al-Houti on 28 September. Papco's international associate is **Plantex Australia** (MEED 30:5:87; 11:4:87).

The project will use treated effluent for irrigation. It is central to the government's plans to increase the country's planted areas, and will help to form a green belt to reduce sandstorm damage.

In the next 18 months, Papco will plant 57,000 trees – 27,000 of them palms – along 14 kilometres of the Assafar expressway between Fintas and Shuaiba.

Work will include putting up fences to protect the trees and act as a windbreak; carrying out soil stabilisation over 300,000 square metres; and installing a telemetry system to operate the three sewage water pumping stations that will provide the treated effluent to irrigate the trees. Papco estimates a total water requirement of 300,000 gallons a day. There is a six-month maintenance period, similar to that at the Kuwait conference centre, where Papco was main contractor for the \$15 million landscaping order.

Papco will also revamp the irrigation system. The pumps and main pipes for distributing the treated effluent were installed in 1985 by the local **Mohamed Abdulmohsin Kharafi** in an \$18 million contract.

This latest contract is the first of a six-stage effluent irrigation programme. A tender call for the next stage – which is likely to entail planting the expressway verges north from Fintas – is expected soon. Other motorway verges will be planted subsequently.

The ministry has also been studying bids from three local consultants – **KEO (Kuwaiti Engineer's Office)**, **Al-Marzouk & Abi-Hanna (SSH)** and **Pan Arab Consulting Engineers (PACE)** – for a contract to supervise the first-stage work. The order is one of several landscaping schemes proposed by the ministry.

Designs are largely complete for 23 designated garden areas; funds have been allocated for 14. Al-Houti says. These are expected to be tendered later in 1987.

Design work is under way on four regional parks, to be landscaped in fiscal 1988/89, Al-Houti says (Kuwait, MEED Special Report, July 1987, page 39).

US construction manager appointed for Amiri Diwan

A US firm has a letter of intent for the construction management contract for the Amiri Diwan project. **Turner International Industries** received the letter on 28 September. The company, which will do the work with the local **Project Analysis & Control Systems (Projacs)**, expects to sign the contract in the next two months.

One of the country's most prestigious projects, the Amiri Diwan will provide offices for the amir, the crown prince and the council of ministers. Its estimated cost is KD 70 million (\$248 million). Client is the Ministry of Public Works (MPW – MEED 21:3:87; 31:1:87, page 15).

Initial plans envisaged that the scheme would be completed at the end of 1990 – a schedule that entailed the appointment of a construction manager. Turner expects to be involved for about four years. However, the exact construction schedule is unlikely to be finalised until Turner's contract is signed, and the MPW has completed talks with the project architect, the local **Archicentre**. Archicentre is now on the second stage of its contract, working on preliminary and final designs.

Construction will probably not start before the end of 1987, although tenders for the first contract – relocation of existing services – may be invited. Tenders for dredging and land reclamation are likely to be announced in the first quarter of 1988.

Turner's order also involves training staff from MPW and Projacs. The US firm expects to employ about 40 people in Kuwait – of whom 10 or so will be expatriates – and have back-up staff in the US.

IN BRIEF

- Seven local consultants have been asked to submit offers by 7 November for a contract to draw up a plan for Mubarak al-Kabir hospital. The study will encompass the existing hospital, other health facilities, roads and residential buildings on site. It will also incorporate a planned 180-bed extension and a new teaching hospital. The companies are: **Pan Arab Consulting Engineers (PACE)**; **Al-Marzouk & Abi-Hanna (SSH)**; **KEO (Kuwaiti Engineer's Office)**; **Kuwait Consult**; **Kuwait Engineering Bureau (KEB)**; **Kuwait Engineering Centre (KEC)**; and **Technical Studies Bureau (TEST)**.

- Subcontractors wanting to prequalify for a contract to supply control appliances for Subiya power station now have one more week to get their applications in. The new closing date is 18 November (MEED 19:9:87).

- **Burhan Kuwaiti Trading & Contracting Company** has been added to the list of local

companies prequalified to bid for the fourth phase of the sewer cleaning and closed circuit television monitoring programme (MEED 5:9:87).

- Local contractors have been invited to bid for a contract to supply, install and maintain appliances for the main security control room at the ministries complex. Offers must be in by 11 October. Client is the Finance Ministry.

- Three local companies have been invited to bid by 18 October for a contract to paint and maintain ground traffic signs for main roads. The contract is for the Public Works Ministry.

- The closing dates for two tenders have been extended. The new date for offers for the fourth phase of the sewer cleaning and closed circuit television (CCTV) monitoring programme is 4 October; 1 November is the closing date for two contracts to supply and install broadcasting equipment at Failaka island and Rawdatain (MEED 5:9:87; 29:8:87).

- A local driving school, the **Kuwait Car Driving Training Company**, has been incorporated with capital of KD 5 million (\$17.8 million).

- Ten local companies have been invited to bid by 11 October for a contract – MEW/22/39-87/88 – to maintain control equipment and instruments at distillation units 1A-4A, and boilers and turbines 1-6 at Shuaiba South power station.

- The **National Housing Authority (NHA)** has invited 12 local contractors to bid for three contracts to lay pavements at the Al-Dhaher housing project.

- The local **Kunabco** is to introduce a new soft drink – Rahaq al-Shai – on the local market, the daily Arab Times reports. The drink, a combination of tea, lemon and carbonated water, is a **Pepsi Cola** product.

LEBANON

Finance minister hopes for the best

Acting Finance Minister Joseph al-Hashem has published a draft budget for 1988 based on the hope that security conditions will improve enough to keep the deficit within reasonable limits. However, in his letter accompanying the budget, Al-Hashem acknowledges that the figures are somewhat academic, particularly as the budgets for 1986 and 1987 have not been approved by the chamber of deputies.

The spending target of £Leb 70,000 million for 1988 compares with expenditure

Lebanon: draft budget, 1988 (£Leb million)

Expenditure, including public debt service	70,000
defence	23,192
Revenue	10,573
Deficit	38,300

Exchange rate: \$1 = £Leb 270
(October 1987)

Source: Finance Ministry, Beirut