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SYRIA

DAMASCUS EXPANDS, IMPROVES WATER NETWORK

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[Article by Jamal 'Amir: "The Public Water Company Continues To Expand and Improve the Damascus City Water Network"]

[Text] Walking through the city of Damascus, one sees work sites of the Public Water Company scattered throughout the city, from end to end. There is excavation machinery at work, laborers carrying earth on their shoulders, and somewhere else, large diameter water pipes being laid can be seen. During this field inspection, in the company of the Damascus water network project director, Engineer Ahmad Fattal, we toured the work sites in the city. The following discussion took place.

What Does the Project Cover?

The Damascus city water network project includes primarily a renovation of the old networks in the districts having deteriorated water systems, such as the city's northern district, from al-Muhajirin to Rukn al-Din, and some of the areas of al-Mazzah, and in addition, Kafr Susa, some of the tent camps in the southern part of the city, and Jawbar.

The second part of the project covers the modern residential districts where the water company is undertaking to build their water networks, such as the Dumar residential complex and the housing complex at the Yarmuk camp (prefabricated structures).

The third portion of the project deals with the main lines of the city's system. We are undertaking reinforcing operations on these lines.

The History of the Project

The history of the project as stated by Engineer Ahmad goes back more than 10 years, when the French company SOCEA undertook to implement the urgent phase, which dealt with an easy portion of the system (places where the network was very bad and postponing repairs was not possible). Then, that company undertook to replace the system in Maydan, Bawabat al-Salihiyah and Arnus. We have begun the comprehensive phase (replacing the entire system). What is worth mentioning is that the entire project is being carried out by



means of our local expertise, from engineers to technical workers to laborers. According to the testimony of the 'Ayn al-Fijah water establishment and that of a foreign company, the quality of our construction is no less than that done by SOCEA.

Why Has Construction Been Delayed?

The project includes the construction of some 620 km of (alfunt) flexible pipes, whose sections range between 100mm and 120mm, which are intended to distribute water in the city of Damascus. It had been decided that work on this project would be completed at the end of March 1984. Since work began in July 1982, why has the construction been delayed? There are a number of factors that have led to this, among which are:

- 1. The unavailability of the necessary equipment for the project (ditch excavators, cranes) in spite of the arrival of all the primary material necessary to carry out the work.
- 2. The 620 km of pipe cannot be laid in 3 years, because to accomplish that would mean that we excavate 200 km per year. This is impossible because of the lack of machinery and the shortage of manpower, in addition to the inability of the city to handle this amount of excavation, especially as we are not the only agency excavating, and the citizens are fed up with these digging operations.

The director continued on the subject of the project:

Currently we are excavating 140 km a year and although we are not digging the desired amount, the work sites on Mt Qasiyun, where we are paving as we excavate, are almost ruining us. Right now we have 10 work teams at work in the city, in addition to which we are undertaking to respond to the appeals of the 'Ayn al-Fijah water establishment.

The Old System and Waste

The director general of the project added:

The old water system suffered no less than 25 percent water loss. This is due to the leakage of water from the crumbling pipes. If by the same token we take into account that the capacity of al-Fijah spring is small in the summer, we comprehend the extent of the importance of changing this system. The matter does not end there, but goes beyond this. By stopping leakage, we stop pollution and the dangers that afflict the buildings whose foundations might be threatened by the flow of water.

Excavations and Immediate Refilling

During our tour it was observed that the water company is refilling right after excavation and laying the pipe. That is, on the same day. This is something that gives the citizens comfort. The work on the main streets,

which have heavy traffic, is done at night. Likewise, we noticed that the company is using new materials that differ from the materials used previously. There are polyethylene pipes for the residential connections. These, according to the director, are distinguished by their durability and resistance to rust.

Also, the new pipes have much wider sections than the old ones. For example, the al-Mazzah district was being supplied by a 400 mm line. Now it will be fed by two lines, with each section 600 mm in size. This means that the amount of water will be more plentiful than before and the need for home pumps will be eliminated.

Difficulties and Problems

Regarding the difficulties that the job has faced, there is the existence of other utilities, like electricity, phone, etc. So when one of these utilities is cut off due to the excavation, we set about repairing it immediately, says the project director. Work in narrow places and alleys, as is the case of Kafr Susa, forces us to remove the earth by hand. Other difficulties are the existence of irrigation canals which are turning up inside residential districts, the shortage of manpower and the shifts.

A Meeting With the Workers

Mr 'Ali Tannish, a driver, told us: I am a day driver. What I complain about is the difficulty of digging in rocky soil, and the lack of places to dump the earth. On the personal level, I suffer from the problem of getting to and from the project.

The project director said: We are obtaining transportation for the city dwellers, but for those who live outside the city, it is difficult to provide transportation, except for those working at night.

'Ali Mahmud Muhammad, a (traks) driver, told us: Working in narrow areas is hard, especially with the existence of other services. With respect to the wages, as we heard from several workers, they are good. The usual job earns 43 Syrian pounds per day. Nevertheless, as the project director told us, there is a lack of manpower. The average number of workers is around 250 and 200 technicians at any one time, and we are in need of 300 workers to carry out the project.

Finally, the project director said:

The cost of the project is around 310 million pounds; 150 million goes for the cost of imported items. The cost of the local operations and construction is around 195 million pounds, of which around 35 million pounds have been spent.

The most important works of the project that have been completed are the construction of two 1,200-mm lines that supply most of the city of Damascus. Both branch off from the western reservoir in al-Muhajirin. One connects with the line already laid in al-Malki; the other connects with a line in Tal'at al-Jamarak.

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