

## **MAKE A DIFFERENCE!**

### **Sewer – Industrial Wastewater Engineer / Civil**

#### **Yanbu, Saudi Arabia**

Since 1976, Parsons has served the Royal Commission for Jubail and Yanbu as their program management, master planning, design, engineering and construction management consultant for the Yanbu Industrial City on the Red Sea north of Jeddah, Saudi Arabia. This is the longest running contract in Parsons' history and reflects the strong client/consultant partnership that has evolved through the years. Our responsibilities are similar to that of a Public Works Department of a US municipality. We assist in long-range strategic and master planning, project initiation, the hiring and management of design consultants, tendering for construction and oversight of all construction projects. These projects range through the full spectrum of infrastructure and facilities that would be expected in a city of 80,000+ population - roads and utilities, residences, schools, health care facilities, police and fire stations, colleges, public buildings, sport facilities and retail centers.

With over 200 current employees in Yanbu, we are always looking for dynamic new key staff members that are up for the challenge of a foreign assignment in a remote location. The initial contract term for new members of the team is 24 months with one year extensions dependent upon performance and on-going needs.

#### **Principal Objective**

Responsible for the preparation of a Sanitary Sewer and Industrial sewer system master plan of a developing City over 100,000 population to 400,000 population over the next 30 years. Required to perform calculations, analysis, design and review of Sewer systems and sewer facilities.

#### **Organizational Relationship**

Member of the Parsons Core Team staff, Reports to the Project Director / Team Leader. Interfaces with other master plan Core team staff, other department staff and various other Royal Commission departments.

#### **Major Activities Performed**

1. Perform field inspections and evaluate existing water facilities, review improvement plans of water improvements prepared by consultants.
2. Collect data, meet with local utility agency, prepare written memorandums, meeting notes, technical reports and correspondence on various sewer system issues. Present the resolve of various issues in various meetings.
3. Determine existing and future sewer demands in the various developing areas, estimating existing and future capacity the sewer system at each level of growth, future sewer demand, waste treatment plant capacity, size major trunk lines, location of major facilities and pipe lines based on continued growth.
4. Prepare and review the layout of sewer systems, including location of all lift and/or pump stations and forced mains, waste treatment plants, and other major facilities.
5. Develop computer sewer model of Sanitary Sewer and Industrial sewer systems of City including the location of lift stations, sewer treatment plants, and all existing and proposed sewer facilities needed within each area of development.

6. Prepare engineering hydraulic calculations and analysis of the existing and proposed sewer flows, pump stations at the various stages of development.
7. Prepare preliminary cost estimates and schedules.
8. Prepare the sewer section of the master plan report that identifies the various sewer system improvements needed within each area of development. Identify any current deficiencies and capacity of the existing system and the planning of new sewer lines and facilities.
9. Provide technical guidance to management on all aspects of the sewer master plan, sewer design and present findings to management.
10. Perform other duties as directed by Project Manager or management.

## **Experience and Qualifications**

1. A recognized university degree in Civil Engineering with minimum ten (10) years post-graduate professional experience.
2. US/UK registration as a Professional Engineer is desirable.
3. The ability to communicate effectively in spoken and written English is essential.
4. Specific technical requirements are:
  - a. Experience in preparing hydraulic calculations, computer modeling of sewer systems, sewer demand analysis and sewer system planning for existing and proposed developed areas.
  - b. Experience with sewer system requirements and guidelines.
  - c. Must have 7 years experience in the design of major sewer system improvements, preparing hydraulic calculations and analysis, design of pump stations, and forced mains, evaluation of sewer systems, waste treatment facilities, and conducting various sewer studies for Cities or municipalities.
  - d. Proficient with sewer modeling, performing sewer flow calculations, topography, and sewer design criteria of design of sewer facilities.
  - e. Experience in working with local municipality or water district in the design of major sewer facilities and systems.
  - f. Proficient in sewer system development, sewer modeling standard practices and procedures and the management of sewer system. Knowledgeable in the preparation of the Capital Improvement Program based on continued development of a growing City. Experienced in civil engineering design sewer lines and forced mains and sewer facilities.
  - g. Proficient with the following software MS Word, Excel, AutoCAD, AutoCAD Civil 3D, Sewer CAD, or equivalent sewer modeling software.

## **BENEFITS**

- Furnished housing and utilities are provided by the client for free.
- You will receive an area incentive premium on top of base salary.
- Completion bonus.
- Project will sponsor dependents (Spouse plus up to two children).
- Private education is provided for your children.
- Comprehensive benefits package (Medical, Dental, Vacation, etc).
- Great way to save lots of money and spend time with your family (Employee only needs to pay for miscellaneous expenses: Food, clothing, entertainment, etc).