

Design and Drafting Services for Wastewater Treatment Plant

Enventure provided engineering, design and drafting services for a Wastewater Treatment Plant to a Client in the Middle East.



About the Client

The Client specializes in designing and installing membrane treatment and other systems for Water Treatment. They run a major engineering and manufacturing facility in the Middle East and provide Sewage Treatment, Reverse Osmosis, Wastewater Treatment, Demineralization and Chemical Injection Systems.



Business Need

The Client required accurate designs for a complete wastewater treatment plant and its equipment rooms. This also included foundation design for various equipment used in the process. While the Client had in-house capability for mechanical engineering, they required support on civil, structural and electrical engineering to effectively design solutions and meet the project schedule. An in-depth understanding of plant features was essential to expand on internally-built mechanical designs and to create optimized solutions. A strong and efficient communication system coupled with a well-designed project management system was necessary to effectively implement this project.



Why Enventure?

The Client needed a partner who would help enhance its civil and electrical engineering capabilities, as well as create a concrete design framework, keeping in mind the larger scope of the project. Enventure's team comprised expert engineers who were equipped with detailed industry knowledge, functional expertise and experience. The team presented a well-drafted proposal that took into account the inter-disciplinary dependencies and complex coordination requirements the project demanded. An effective and focused pre-sales approach, supported by the subject matter expertise of the core team helped Enventure win the project.

The Solution

Enventure put in place a set of engineers that worked as a virtual extension of the Client's team. The team provided geo-specific design calculations and detailed drawings that would enable fabrication and erection of the complete wastewater treatment plant. This included creating designs for the aeration sump and tank, equalization tank, neutralization tank, lamella clarifier, oxidation tank, MBR feed tank, MBR tank and NaOCl storage tank. In addition, Enventure provided foundation design for all equipment such as belt press, pumps, transformers, storage tanks and filters. Shelter drawings comprising column layouts, plan views, elevations, details, sections & support for material take-off were also included.

Enventure adopted a very proactive approach in the implementation of this project. Constant communication with the Client, quick turnaround timelines and effective project management allowed Enventure to meet the Client's needs within a pre-defined budget and time constraint.

Benefits

Enventure delivered the Client's project in a systematic and well-planned manner. An efficient delivery system was put in place to achieve the project objectives, thereby building an advanced plant design - with a distinct competitive advantage. The Client capitalized on the following benefits from its partnership with Enventure:

- Value addition in terms of superior quality, accurate calculations and enhanced capabilities
- Effective utilization of in-house and Enventure competencies to meet end-user project on time
- Superior design at competitive pricing



Conclusion

Enventure leveraged on its multidisciplinary team skills and experience to deliver a complex project within a specified budget and time schedule. The Client was happy with the success of the project, and impressed with Enventure's delivery framework. The team's domain knowledge in water treatment and competence in project execution enabled Enventure to establish a long-lasting relationship with the Client.



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