2024 Year in Infrastructure and Going Digital Awards





User name: China ENFI Engineering Co., Ltd.

Project name: Digital construction project of comprehensive garbage treatment facilities in Xiong'an

New Area

Location: Beijing, China

Background:

 The Garbage Comprehensive Treatment Facility Project of China's Xiong'an aims to make the area a "waste-free city."

- The 220,000-square-meter facility processes 3,060 tons of garbage, kitchen waste, solid sewage, and medical waste per day.
- China ENFI Engineering Corporation was contracted for project design and construction.

Challenges:

- Design had to incorporate advanced technologies to treat six different kinds of waste.
- Plant would be hidden from view, built underground into a mountain and topped with a park.
- Needed complex support columns, ventilation, tight space for equipment, shortened schedule.

Solution:

- ProjectWise was needed to improve project management and unify the work of more than
 60 people across 13 design specialties.
- 3D models were created using Bentley Open applications.
- Simulating the construction process with SYNCHRO helped teams understand the complex installation process and keep the project on schedule.

Outcomes:

- Bentley technologies helped collaborate and bring together engineering, enterprise, and operational data to improve infrastructure delivery and performance across the lifecycle.
- Improved efficiency by 130%, greatly reduced errors, and saved CNY 13.7 million.

Quote: "Bentley technology was used to realize the innovative application of 'deindustrialization and seamless design' with a variety of industrial facilities hidden underground and country parks on the ground."— Zheng Peng, Director of BIM Digital Engineering Office of Energy, Environment and Urban Construction Division, China ENFI Engineering

Image caption/courtesy 1: Bentley Open applications helped designers model the complex underground facility. *Image courtesy of China ENFI Engineering*.

Image caption/courtesy 2: ProjectWise unified the work of more than 60 people with 13 design specialties and improved project management. *Image courtesy of China ENFI Engineering*.

Image caption/courtesy 3: Simulating the construction process with SYNCHRO helped teams understand the complex installation process and keep the project on schedule. *Image courtesy of China ENFI Engineering.*

For more information, please contact Bentley PR at PR@news.bentley.com.