

Food Client

# Frosting Line Addition – 13 Month Schedule Completed in 10 Months



## value promise

In addition to moving production forward by 3 months, SSOE utilized an innovative approach to the design of the process waste discharge system. This established a realistic peak flow number which the existing infrastructure could support. The realistic flow saved \$700,000 in system cost, labor, and installation time.

When a major food manufacturer sought to add production capacity through the addition of a second Ready to Spread (RTS) frosting line, it looked to SSOE to provide the same high quality engineering services it had provided on the original RTS line installation more than 20 years prior. SSOE provided complete EPCM project delivery for the line, raw ingredients to finished product warehouse, and repurposed existing warehouse areas. The project was slated for completion in just 13 months.

As an industry leader in design technology, SSOE employed Virtual Design and Construction (VDC) to deliver a construction strategy that pulled critical path activities forward, allowing maximum time for process design.

To allow activities to occur concurrently SSOE utilized a phased construction approach. The prequalification process mandated contractors that have the ability to accept a 3D model, add detail, and trade the model back and forth. This allowed the use of the 3D model as a project delivery tool to drive a higher degree of coordination and project delivery integration.

Liquid process elements were modularized and built in fabrication shops on skids which allowed construction to take place in tandem with facility construction. Construction in this type of controlled environment leads to higher quality and is 30% faster, 30% more cost effective, and 80% safer than traditional construction methods. As the 3D model served as the basis for all reviews, no 2D skid drawings were required. Fabrication-level documents were produced for piping, skids, and structural steel in lieu of design intent documents. As a result, contractor rework and SSOE review of submittals were essentially eliminated, accelerating the schedule.

The ultimate result of this approach was a successfully executed project delivered in just 10 months within the budget allocated for a 13 month schedule. This resulted in an additional 3 months of production—which translates to millions of dollars in revenue and profit.

**location** Midwest USA

## highlights

Phased construction approach

Project completed 3 months earlier than original plan within defined budget

Utilized VDC, resulting in maximum time for process design

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