

CASE STUDY

Combined Sewer Overflow

Salt Lake City, Utah

“ We have great confidence in Skyline Steel and their ability to meet our requirements regardless of location, the size or type of steel specified, or how demanding the schedule may be. ”

– Erik Hendriksen, Vice President of Operations, DDF, Inc

History

The most recent population increase in Salt Lake City, UT necessitated a new combined sewer overflow project that included a new pump station, grinder vaults, sewer pipeline installation, onsite excavation, dewatering, shoring, and sitework improvements. This new pump station project will divert the wastewater from the Orange Street and 500 South sewer lines to the 1200 West sewer line.

Problem

The new pump station will include two wet wells with a dry pit between them. The work needs to be completed within 365 calendar days. In order to facilitate this very tight schedule, a sheet pile cellular structure was designed, which required a 45 foot depth of excavation. The site would then need to be dewatered so construction on the pump station could begin.

Solution

DDF, Inc. (formerly Desert Deep Foundations LLC) proposed a circular cofferdam that



would allow unobstructed construction of the structure, and reached out to Skyline Steel for full length sheet piles. Because of previous project relationships, they knew that Skyline would be able to accomplish the monumental task of getting the sheet piles to the jobsite in a short three month period from design to delivery.

Skyline Steel worked with their parent company, Nucor Corporation, in order to produce and deliver the steel sheet piles needed for this cellular design. They manufactured 93 pairs of NZ 26 x 75' sheet pile to form the 130 foot diameter cell. The NZ sheet pile has the Larssen interlock, which is known to be the most watertight interlock of all sheet piles and is unmatched. The interlock is a crucial part of the sheet pile design. This four point connection offers superior performance and shear load transfer.

Project Partners

Owner

Salt Lake City Public Works Department – Salt Lake City, UT

General Contractor

Cop Construction – North Salt Lake City, UT

Subcontractor

DDF, Inc. – Salt Lake City, UT

Engineers

Gerhart Cole Inc. – Draper, UT

Products

Sheet Pile: NZ 26 X 75' ASTM A572 Gr.60 (495 tons/93 pairs)

Project Time Frame

January – December 2018