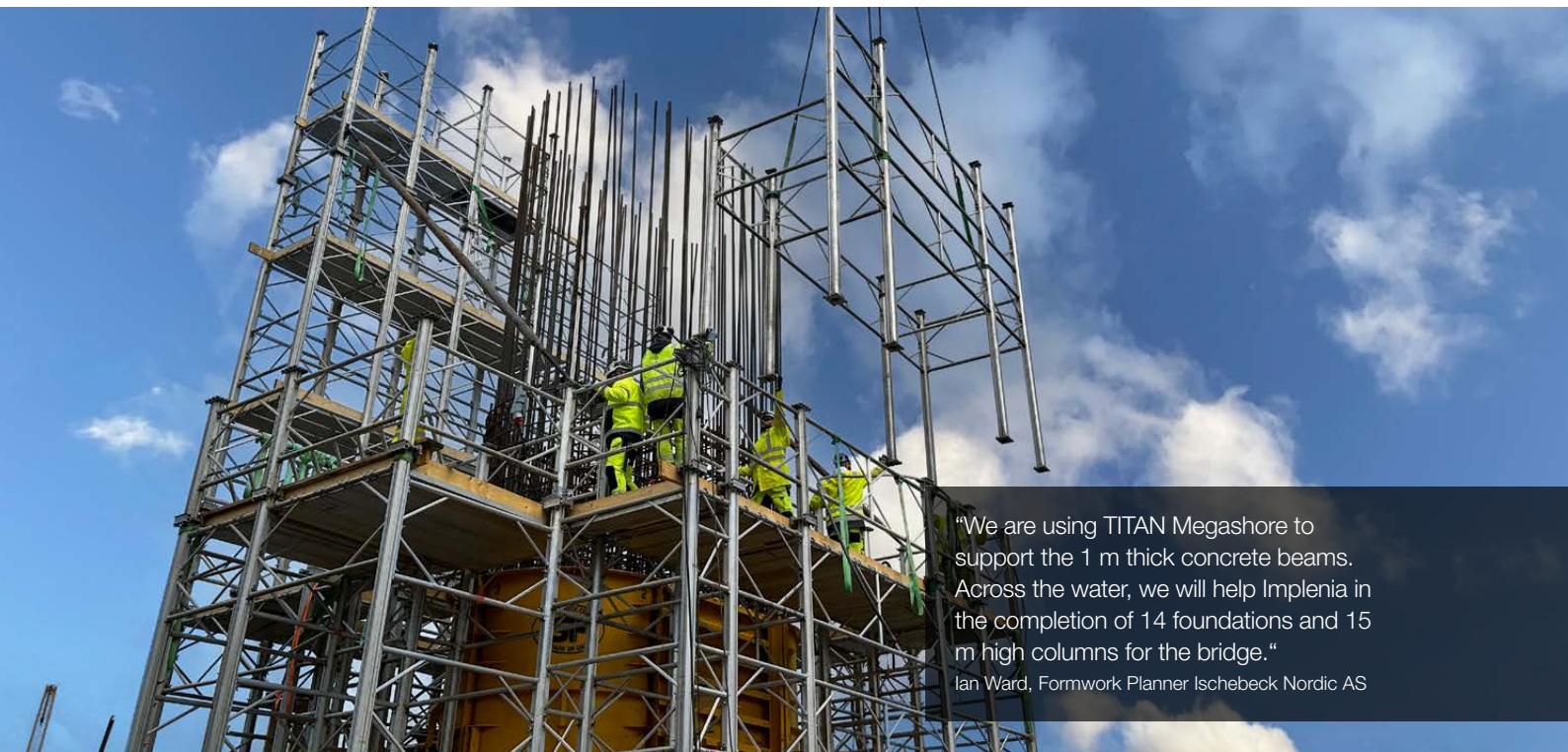


Tangenvika Bridge: Norway's Longest Railway Bridge to be

Constructed with TITAN aluminium Megashore and column formwork



"We are using TITAN Megashore to support the 1 m thick concrete beams. Across the water, we will help Implenia in the completion of 14 foundations and 15 m high columns for the bridge."

Ian Ward, Formwork Planner Ischebeck Nordic AS

Ischebeck Nordic AS was contracted by Implenia Norge AS to supply the TITAN Megashore support system as a working platform, access staircase, and support structure for the concrete columns of the newly designed railway bridge "Tangenvika" in the lake of Mjøsa. They also provided customized steel formwork for the concrete columns, as well as steel BKS Push and Pull Props. The 1070-m-long bridge will consist of 16 axis, with 14 of them installed in the water.

The railway bridge will have 2 tracks and will connect Stange in Innlandet county across Lake Mjøsa. This contract represents the second section of the Kleverud-Sørli-Åkersvika InterCity Project. The Tangenvika railway bridge will be the longest railway bridge ever constructed in Norway.

The challenge

The Megashore tower structure is installed 6 m below the waterline. The column formwork is set up and supported with Ischebeck Steel BKS. In June 2024, the first bridge abutment was cast, and the first one and a half bridge columns were erected. The pictures in this report show the installa-

tion of the first column. The lake of Mjøsa is one of the largest drinking water reservoirs in Norway. To protect all living creatures in the water and on land and ensure water quality, any contamination of the water and surrounding beaches must be avoided. To achieve this goal, we designed a column formwork that prevents any leakages of concrete or formwork oil.

The solution

The main reason for choosing TITAN Megashore was that the support structure can be preassembled in a safe working area. After assembly, it can be flown into position. This approach significantly helps when the Megashore towers are installed 6 m under the water level of the lake.

The steel formwork of the column was chosen over conventional formwork to ensure enhanced concrete surface. The overall contract volume for Implenia Norge AS is 165 mio €, and it does not include the rail tracks or any other railway systems. After completion, the project will be CEEQUA certified.

Project:

KS-2 Tangenvika jernbanebru, Section Stange, Innlandet, Norway

Construction period:

May 2022 – May 2027

Client:

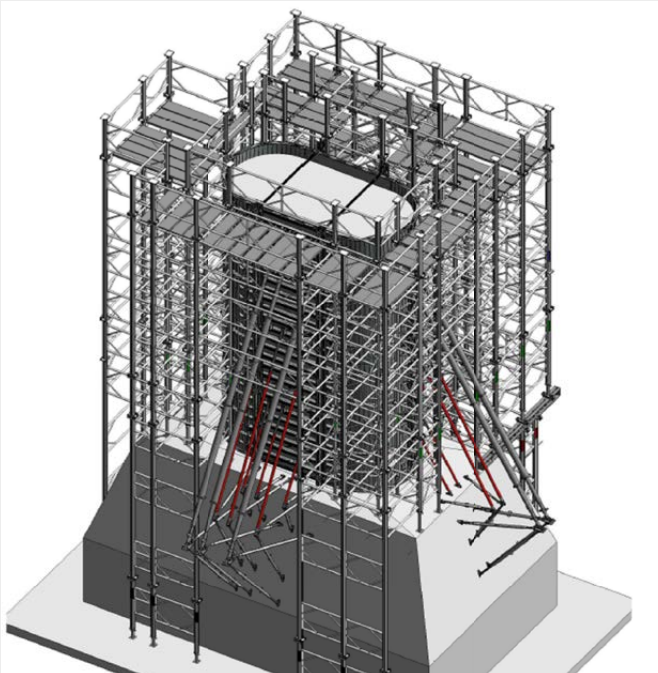
Bane NOR, Oslo

Principal Contractor:

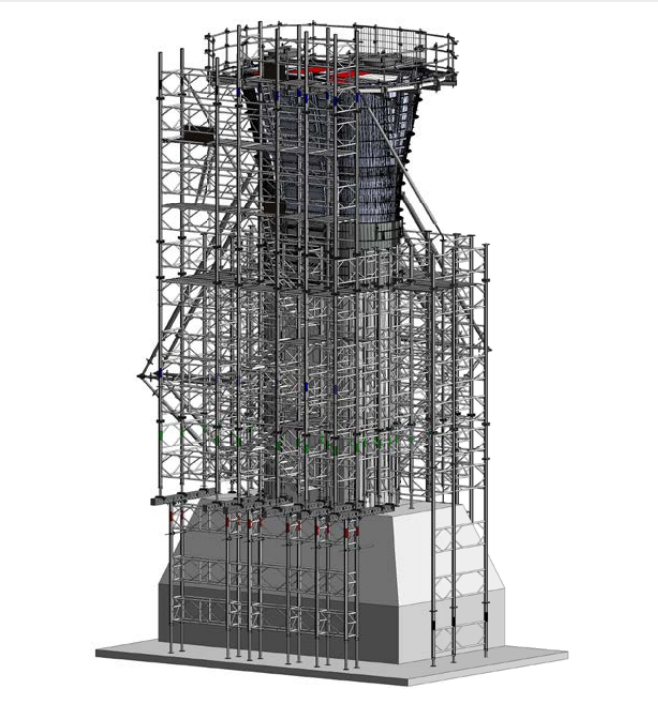
Implenia Norge AS, Lysaker

Products used:

- TITAN aluminium Megashore towers with staircases as working platforms and temp. load bearing elements/support structures
- TITAN push and pull props steel BKS
- Custom made column steel formwork



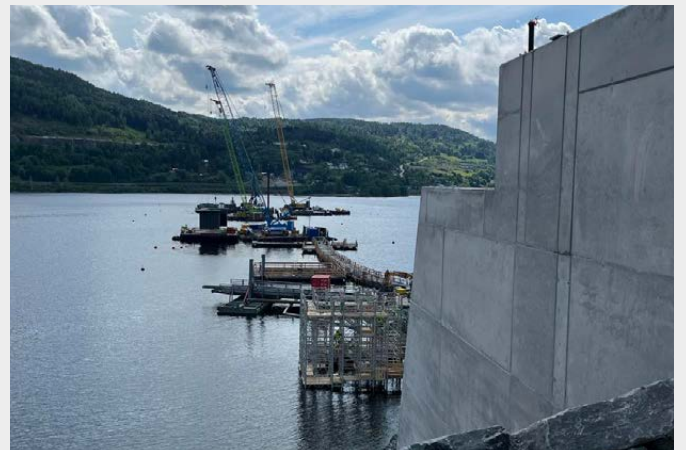
3D drawing of the front perspective



3D drawing of the rear side



Megashore stair case, column formwork and steel BKS push and pull props



Site overview over the future railway bridge

Would you like to find out more about TITAN formwork systems?

We would be happy to advise you about your project. Simply get in touch with us. We look forward to hearing from you.