

COMMENDATION

Vyshhorod Bridge, Kyiv, Ukraine

PROJECT TEAM

Structural Engineer:
Ukrainian State Road Research Institute

Steelwork Contractor: Cairnhill Structures Limited

Main Contractor: Dogus Insaat UK Limited

Client: Ministry of Regional Development and
Construction of Ukraine



Vyshhorod Bridge restores a vital transport connection near Kyiv after the original concrete crossing was demolished by the Ukrainian Armed Forces in February 2022 to obstruct the advance of Russian troops. Its loss forced local residents to rely on a temporary crossing that could not carry heavy traffic, creating longer travel for communities and businesses.

A steel replacement was selected to accelerate reconstruction and return this critical infrastructure to service sooner. The bridge incorporates a 46.8m central span formed from 1.5m-deep plate girders, fabricated in 15.6m sections and joined using bolted splices. The new steelwork had to replicate the structural depth of the original concrete deck while providing an efficient, rapidly erected replacement.

Approximately 400t of steel for the core structure was fabricated in Coatbridge, Scotland. The scope included manufacturing drawings, steel supply, fabrication of the plate girders and cross-bracing, bolts and protective treatment. Complete erectable loads were prepared in kit form, simplifying transportation and supporting efficient assembly after delivery to Ukraine.

Fabrication demanded tight control of girder camber, sweep and flange rotation. Ukrainian design codes and specifications also had to be interpreted correctly across language and regulatory differences. Quality proposals were checked with the Ukrainian engineering authority, while the completed steelwork complied with Ukrainian Standard DSTU EN 1090-2.

The severe Ukrainian winter introduced further technical requirements. S355 steel was tested for performance at temperatures of -40°C, with suitable welding procedures used during fabrication. A multi-coat protective system was closely monitored and inspected to ensure the required quality.

TCB bolts were proposed as an alternative to the specified conventional HSFG bolts. Before accepting the change, the Ukrainian client undertook mechanical testing using supplied bolts and installation equipment. This technical collaboration allowed a familiar bridge connection system to be adopted while satisfying the project's requirements.

Following approval delays, manufacture was accelerated to meet the time limit associated with the UK Export Finance Guarantee and complete delivery during 2025. Maintaining quality and dimensional accuracy under this compressed programme was particularly important because the steelwork was destined for installation in an active conflict area.

Vyshhorod Bridge demonstrates how structural steelwork can combine speed, quality and precision in exceptionally difficult circumstances. UK fabrication, coordinated delivery and carefully controlled bolted construction enabled a nationally important crossing to be restored while war continued. The project reconnects communities, accommodates heavy traffic and provides a powerful example of international engineering cooperation delivering essential infrastructure quickly and safely.

JUDGES' COMMENT

“An object lesson in ‘bridge building’ in most senses of those words, this project has enormous physical, social and emotional significance to the communities that it reconnects. UK Government funding, British fabrication, Turkish engineering and Ukrainian technical delivery operated seamlessly and the teamwork was exemplary. A remarkable achievement.”