

Neby bru: one footway, three ways of sustainability

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Abstract

Degree of Freedom, in collaboration with the municipality of Tynset, has developed the detail design of a pedestrian bridge that will join the neighbourhood of Neby with the rest of the city, crossing the river Glåma. This project had a limited budget, so the design stage has been influenced by the materials optimization, the use of local resources and suppliers and the consideration of conventional constructive methodologies. The footbridge was built during 2019 and opened to traffic in May 2020. This text describes the main characteristics of the structure and the methodology considered in the design.

Keywords: footway, cable, suspension, timber, steel, truss, sustainability, social, commitment

1 Introduction

Degree of Freedom has collaborated with the Municipality of Tynset (a Norwegian town located about 250 km north of Oslo) in the design of a pedestrian bridge crossing the river Glåma.

The original idea of the design was to create a light pedestrian timber bridge integrated in the natural environment and landscape where it is placed.

The new suspension footbridge will reconnect the neighbourhood of Neby with the rest of the city of Tynset, laying on the foundations of an old bridge destroyed during the World War II.

Given the social approach of the project, it has been decided to use local resources and suppliers, seeking their collaboration when providing their services: from the cables, which are provided by a Norwegian company, to the steel plates, which are delivered by a local workshop.

The bridge will also be constructed by local people and using technology available in the area, which has largely conditioned the conception of the construction process.

Since the design process, the economy of the project has been considered by optimizing the materials as much as possible.



Figure 1. View of the Neby pedestrian bridge