Constructing connections. Consciously,

#### Case Study

# Building safe access to public infrastructure

ViaCon Sweden helped the city of Tibro construct safe accessibility when building a new school with a road underpass

#### THE CHALLENGE

In designing the plan for a new school in the city of Tibro, one of the main considerations was safe access to the facility. This would require the construction of an underpass underneath road 201 in Tibro.

Design requirements included:

- Live load according to EN 1991-2
- A cover depth of 1.15 metres

- Backfilling parameters according to SDM with base coarse material
- 80 years durability
- Corrosion protection layers: zinc coating with thickness according to EN ISO 1461, surface of the structure painted 1.5m outside both ends with paint thickness of 300 µm





## THE SOLUTION

ViaCon Sweden provided the underpass solution the city needed.

The resulting steel structure had the following measurements:

- Span: 4.22 m
- Rise: 3.72 m
- Bottom length: 25 m
- Top length: 15.34 m
- Plate thickness: 5 mm
- Steel grade: S355MC

#### THE ADVANTAGE

With ViaCon, the underpass provided safe access to the new school and also delivered other benefits, including:

- Quick and easy assembly
- Lower maintenance requirements
- Competitive costs overall and low cost of project implementation
- Steel is 100% recyclable, contributing to the circular economy at end of life
- · Fewer accidents and casualties

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