

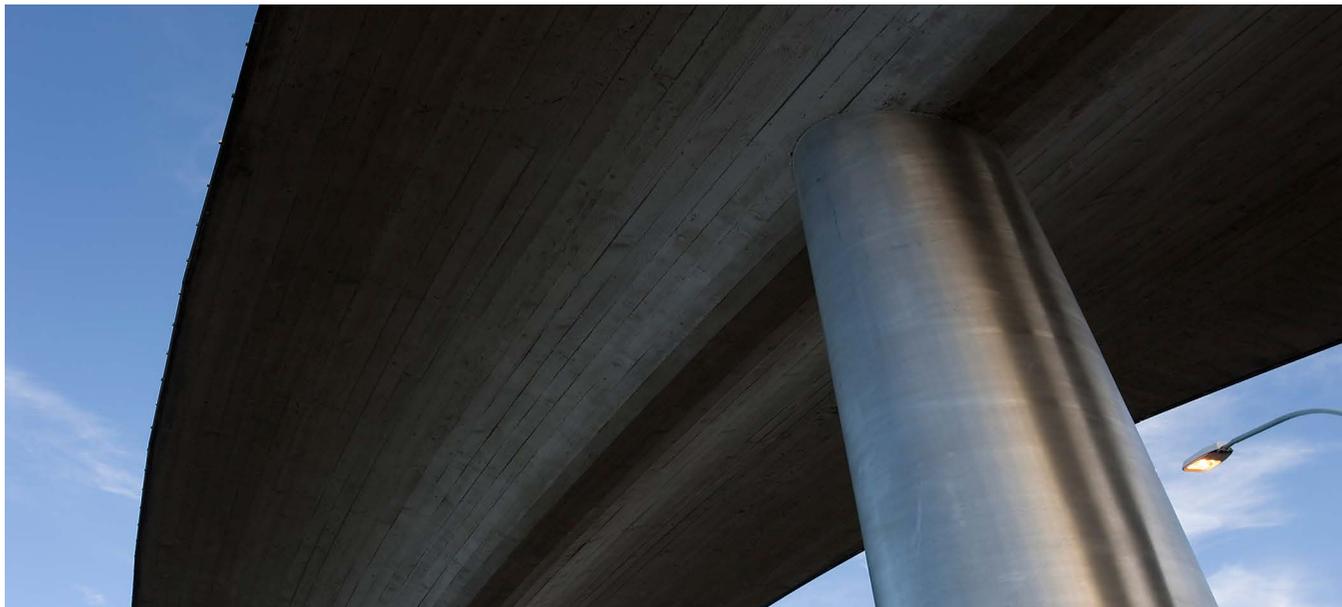
Footbridge pillars

Reykjavik, Iceland

The pillars of a series of three pedestrian bridges in Reykjavik consist of concrete-filled stainless steel circular hollow sections (CHS). The structures have spans of 169, 90 and 56 m respectively. In pillars, the mechanical properties of steel, on the one hand, and concrete, on the other, are ideally complementary. They make it possible to minimise the dimension of the columns and increase their resistance to impact

stress. Stainless steel was preferred because it improved visual appearance, was long-term independent of applied coatings and made it easy to remove graffiti. The casting of the concrete core of the columns, which varied in length between 4.4 m and 57.1 m, was facilitated because the stainless steel CHS served as lost formwork. The handrails were also made from stainless steel to match both the maintenance friendliness and the surface effect of the columns.

In 2009, the footbridges won an award by the Icelandic Road Administration for outstanding infrastructure project and were nominated for the Icelandic Architecture award in 2007.



Photos by Sigurgeir Sigurjónsson

Details

Environment:	Coastal
Architects:	Studio Granda, Reykjavik, Iceland
Structural engineers:	Línhönnun, Reykjavik, Iceland
Owner/developer:	City of Reykjavik / Public Roads Administration
Stainless steel grade:	EN 1.4435 (a "high-end" alloy within the 316L composition range)
Product type and dimensions:	Circular hollow sections with a wall thickness of 10 mm and various diameters between 244 mm and 508 mm
Surface finish:	Brushed
Total quantity:	9.5 t of circular hollow sections
More information:	studiogranda.is



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