



# Queensferry Crossing bridge

## Edinburgh, Scotland



*The Queensferry Crossing incorporates 23,000 miles (37,000 km) of cabling; nearly enough to stretch around the equator”*

VSL Project Manager  
Christophe Lepretre

The Queensferry Crossing is a road bridge in Scotland that carries the M90 motorway across the Firth of Forth between Fife, at North Queensferry, and Edinburgh, at South Queensferry. Built between 2011 and 2017, the Queensferry Crossing opened to traffic on 30 August 2017. It forms the centerpiece of a major upgrade to the cross-Forth transport corridor in the east of Scotland, and represents a total investment of over £1.3 billion by the Scottish Government. The Queensferry Crossing was built by Forth Crossing Bridge Constructors, a consortium comprising Hochtief, Dragados, American Bridge International and Morrison Construction.

### **Slender, elegant and record-breaking**

With a length of 1.7 miles (2.7 km), the Queensferry Crossing is the longest three-tower, cable-stayed bridge in the world. It's also by far the largest bridge with stays that cross mid-span. This innovative design provides extra strength and stiffness, allowing the towers and the deck to be more slender and elegant. The three-tower cable stay structure has close to 7,000 tons of galvanized, sheathed and waxed 15.7 mm diameter 7-wire strand. The company responsible for sourcing and supplying this strand was Vorspann System Losinger (VSL International).

### **High-spec steel cable**

The specification of the strands had to conform with EN10138 as well as specific project requirements. VSL approached a number of steel cable manufacturers. One of these companies was Bekaert, who ultimately supplied two-thirds of the 15.7 mm strand quantity. Bekaert was also specifically requested to deliver exact length measurements for the master strand. This was perfectly accomplished, much to VSL's satisfaction. Bekaert's steel strands were specifically installed on the North and Central towers of the bridge.



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better together

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*Bekaert's ability to deliver exact length measurements for the master strand was a major contributor to the success of the project.”*

VSL Project Manager Christophe Lepretre

#### **Strong relationship**

Key reasons behind Bekaert winning this portion of the supply was their successful working relationship with VSL in the past. Moreover, Bekaert's capacity to supply the necessary quantity during peak construction periods, the quality of the final product, and competitive pricing also played influential roles. According to VSL Project Manager Christophe Lepretre: “Bekaert performed as expected with a good quality product delivered on-time. Helpful after-sales assistance and technical support were provided when needed. In addition, their quality control documentation and certification for the strand supply was stringent, and Bekaert supplied the necessary documentation in a timely manner.”

#### **PROJECT DETAILS**

- 1.7 miles (2.7 km) long
- 689 feet (2.10 m) high
- 7,000 tons of steel strands

#### **PRODUCT DETAILS**

- Strand type: 1x7 wire strand
- Nominal strand diameter: 15.7 mm
- Coating: galvanized, HDPE sheathed and waxed
- Steel strength: conforming EN10138

More  
Information?

For more information on **PC strand**:  
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