

Cable Stays

Poplar High Level Walkway



FREYSSINET
SUSTAINABLE TECHNOLOGY

Client

Docklands Light Railway

Consulting Engineer

Maunsell

Contractor

Mowlem / Taylor Woodrow

Bridge contractor

Watson Steel

Cable stay subcontractor

Freyssinet

Completed

1992

Subcontract value

£65,000

The £3.5 million cable stayed footbridge at Poplar in London Docklands gives pedestrian access from Poplar Station towards the Canary Wharf office development. The 45m main span crosses the Docklands Light Railway while the back span traverses a dual carriageway road. The two main features of the 85m long structure are the curved glass canopy and the stay cable construction.

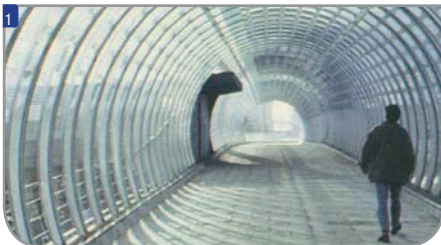
Stays comprising of either 12 or 17 individually protected strands support the deck from the top of the 37m high pylon. There are twelve stays in total, each with HD anchorages.

The stainless steel caps at the deck anchorages contain sufficient strand length to allow de-tensioning for removal, inspection and replacement of either one individual strand or, if necessary, the whole stay.

Freyssinet's contract for the supply and installation of the stay cables included the design of the connection between the stay and the bridge.

This was particularly awkward at the pylon where the stay casing had to be free to move to avoid imposing any lateral loads onto the pylon from stay vibration or wind loading.

At the deck end the anchorage was fixed to cantilevered spigot arms which were tapered to merge fluidly into the underside of the deck.



- 1 Interior view
- 2 View of the completed walkway
- 3 Lower cable anchorage detail

Freyssinet Ltd. Innovation House, Euston Way, Town Centre, Telford, Shropshire, TF3 4LT
Phone +44 (0) 1952 201901 Fax +44 (0) 1952 201753 Email info@freyssinet.co.uk