



## Post Tensioned Civil Engineering

Pudding Mill Lane, London

**Client**  
Crossrail  
**Principal Contractor**  
Morgan Sindall  
**Engineer**  
Scott Wilson  
**Post-tensioning Contractor**  
Freyssinet Ltd  
**Works Completed**  
April 2013

Pudding Mill Lane NOS bridge is a 11 m wide, single span bridge on the Docklands Light Railway (DLR) in Stratford Marsh, east London, carrying Crossrail tracks over Pudding Mill Lane. Located next to the Olympic Park; works were suspended for the duration of the 2012 Olympic and Paralympic Games and reopened in September 2012.

The 29.9m span bridge consisted of precast 'Z' shaped edge beams linked by an in situ base slab. As the edge beams were precast in Ireland, Freyssinet sent engineers and operatives to the precaster's works to install and pressure test the plyduct plastic ducting in February 2012. Each beam contained 3no 15C15 tendons, draped into simple parabolic profiles.

When the works restarted in September 2012, the soffit formwork was erected on site and the two 2m high by 1.8m wide edge beams landed upon it. The reinforcement and tendons were installed into the base slab, which contained 6no 15C15 tendons with a flat profile at mid-depth of the slab. Again, pressure-tested plastic plyduct was used.

After casting the base slab, the strands were threaded into the ten ducts and the tendons were stressed. The final operation was to grout in accordance with Concrete Society technical report 47 and Freyssinet's CARES appendix PT1 post-tensioning industry quality accreditation.



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