

ABBEY WOOD STATION, LONDON - T-MAT 80 EXPANSION JOINT INSTALLATION



Project Brief

Design, manufacture, supply and installation of 42.5 mtrs of T-Mat 80 expansion joints.

Project Team

Client: Network Rail
Main Contractor: Balfour Beatty Rail Limited
Sub Contractor: USL Ekspan

Background Information

After a major 4-year re-build, Abbey Wood Station, in London's south-east suburb of Abbey Wood, opened October 2017 as a new state-of-the-art rail station. The old station's existing rail link had been upgraded and re-routed to facilitate the installation and integration for parallel running of Crossrail's new rail route, the Elizabeth line.

The construction of new Abbey Wood Station, by principal contractor Balfour Beatty, formed part of Crossrail's 'South East Section Project' rail upgrade plan, for south east London's new transport links. The transformation of Abbey Wood Station as one of the new Elizabeth line stations included; construction of an interim station; demolition of the old station; re-construction of the new station; installation of 2 new Crossrail tracks, 2 new footbridges and 2 new island platforms for step-free access to both the existing and new lines via 6 new purpose-built lifts. The new rail route will run directly through central London to new destinations, from Reading and Heathrow in the west to Shenfield and Abbey Wood in the east.

USL Ekspan's Workscope

During the final construction phases, USL Ekspan were contracted by Balfour Beatty Rail to install 42.5 metres of USL Ekspan's T-Mat 80 expansion joint on Abbey Wood Station's newly constructed pedestrian concourse. The wide concourse design purposely integrates the new station with the elevated A2041 Harrow Manorway flyover.

USL Ekspan's programme of works on this project was carried out in two phases, concurrently with other associated contractors working on site.

Phase 1 entailed the installation of steel sub-frame rails for the T-Mat 80 joint to be positioned into. Phase 2 involved the installation of the actual expansion joint complete with secondary seal, fixing studs, clamp plates, nosing mortars and final application of antiskid.

Abbey Wood Station, with its striking 'manta ray' shaped roof and now part of Crossrail's new Elizabeth line, will reduce journey times and provide commuters faster and greater transport links with central London.



Sub structure steel installed and fixed to concrete prior to T-Mat installation



Preparation works for T-Mat expansion joint installation



New installed T-Mat 80 expansion joint

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