



HS2 Old Oak Common Tunnels (UK) Sheet Waterproofing

Country	United Kingdom
Type	Railway
Client	High Speed Two (HS2) Limited
Main Contractor	SCS JV (Skanska, Costain, Strabag)
Execution of the work	Renesco UK Ltd.
Designer	Design House JV (Arup, Typsa, Strabag)
Construction Period	2025-2026

Project Description

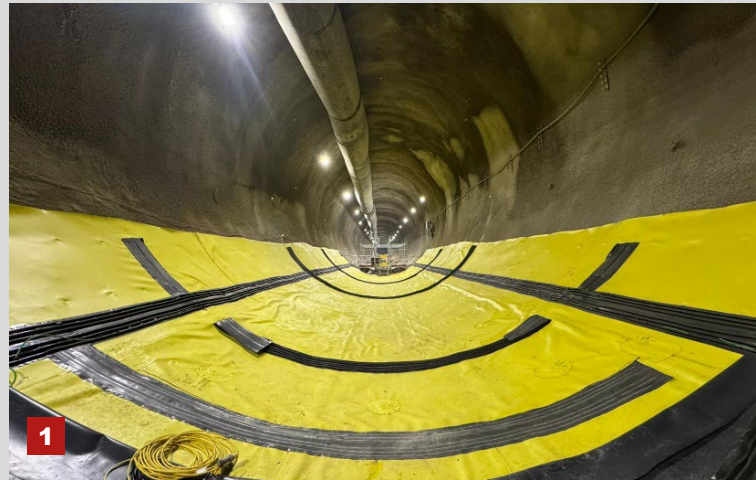
High Speed 2 (HS2) is a planned high-speed railway running between London in the South and Manchester and Leeds to the North. Phase1 involves the route between London and Birmingham with approximately 200km of new high-speed rail being laid. The two Main Works Civils lots start from Euston Station in London. S1 includes two 9 km twin bored tunnels between the new HS2 stations, Euston and Old Oak Common. S2 continues from Old Oak Common with 15 km of twin bored tunnels to West Ruislip where there is approximately 5 km of open route before transitioning into C1 lot.

Old Oak Common (OOC) Station will be a new transport superhub in West London. The construction of the 20-metre-deep underground station is progressing rapidly. This includes also tunnelling work to connect Old Oak Common to the HS2 network. Hereby the 360-metre-long tunnels will be built using a sprayed concrete lining (SCL) method.

Scope of Service

Supply and Install of the waterproof membrane system, including all ancillary items, in accordance with the specifications. Membrane to be installed against steel fibre sprayed concrete lining without a regulating layer. The regulating layer shall be applied locally where necessary. The membrane shall be compartmentalized on the inside face of the membrane. Each compartment shall be the length of a secondary lining pour, and each length shall be longitudinally divided into two compartments at the location of the interface between the invert and crown concrete

- Sheet membrane, PVC-P, 2 mm
- 1'200g/sqm PP protection geotextile
- Protection sheet membrane, 1.5 mm
- Water barriers, 400/30/6, PVC-P
- Termination at pre-cast-concrete-elements with adhesive strips/tapes
- Injection system, active control sockets, injection hoses, hydrophilic swelling profiles
- BA-Anchors
- Temporary under slab drainage



1. Invert – Installation of the waterproofing system
2. OOC West Downline D-Wall
3. OOC East Downline Crown Shutter