



CASE STUDY: TOTTENHAM COURT ROAD UNDERGROUND (UPGRADE)



BACKGROUND

Tottenham Court Road Underground Station in built in Central London. Over 150,000 people use this station every day and this is set to increase. A joint venture between Taylor Woodrow (part of VINCI Construction UK) and BAM Nuttall Ltd was awarded a contract in the region of £480m by Transport for London (TfL) to upgrade Tottenham Court Road Tube station on the 17th of December 2009. This construction project is known as one of the most “complex schemes ever tacked in the capital” (NCE.co.uk, 2012). The existing station will be enlarged to provide twice the capacity than at present, including a ticket hall almost six times the size of the existing one. New station entrances, modernisation of the existing station passageways and platforms and a new concourse with links to Tottenham Court Road station will be provided to reduce congestion. The upgrades are scheduled to be completed in 2016.

THE CHALLENGE

The VINCI BAM Nuttall Joint Venture sourced the supply and installation of radio communications system equipment from Wall to Wall Communications Ltd with a specification that included the capacity to communicate from underground to above ground, multiple channels and robust, reliable radios.

SOLUTION PROVIDED

Wall to Wall communications Ltd provided a Digital Motorola MOTOTRBO system (Motorola DP3400, Motorola DP3600 and Motorola DP3000 repeaters) with multiple channels and our Integrated telephone connectivity solution, as well as our integrated underground solution using a leaky feeder antenna system that allows seamless communication between workers at ground level and their team within the tunnel.

SOLUTION BENEFITS

- Seamless communication between the teams working underground and overground, therefore operations efficiency is enhanced
- Using digital two-way radios have allowed great coverage, enhanced features such as text messaging and lone worker and improved voice clarity
- Telephone interconnect has enhanced the value of their two-way radio system by expanding their communication network and coverage to those who don't have a two-way radio



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