Major engineering milestone reached as 1.1km cable for Emirates Air Line stretches across the Thames

- Cable will stretch over 3 UK-built steel towers

Construction of the Emirates Air Line has reached a major milestone with the completion of all three towers and the installation of a 1.1km long stretch of steel cable across the River Thames.

Main construction works on the UK’s first urban cable car, led by international consultancy and construction company Mace, got underway in July 2011 and have been taking place either side of the river. The three main towers will allow 34 cabins to cross the river at heights of up to 90 metres between the two terminals, Emirates Greenwich Peninsula and Emirates Royal Docks.

The three towers were manufactured in Bolton and have been erected in sections via crane. At around 90m tall, the South Tower is the only tower to have been built in the River Thames next to one of London’s key landmarks, the O2. Each tower has been topped with a Doppelmayr ‘head’ (named after specialist cable car contractor Doppelmayr) which allows the cabling to run across the tops of the structures. The cabling, made of twisted steel comprised of nearly 300 separate strands of steel and 50mm thick, stretches 1.1km across the river. It was pulled into place and tensioned using a 12-tonne winch located on the platform of the South Terminal (Emirates Greenwich Peninsula). The cable has now been clamped and secured at each station and tensioned to gain a minimum clearance of 55m above the Thames.

The 34 cabins which will be used to transport passengers across the river will soon begin a rigorous testing process. This will involve hours of running the cables and
Danny Price, TfL Emirates Air Line Operations Manager, said: “Work on the Emirates Air Line is really gaining momentum now. This is a major milestone for the project and helps everyone to visualise the unique and exciting travel experience soon to link the Royal Victoria Docks and Greenwich Peninsula. It won’t be long before we see the rigorous testing and commissioning process starting with a cabin taking its first flight across the river.”

Matt Randall, Project Director for Mace, said: “The stringing of the cable across the Thames has been a highly complex and intricate part of the construction of this landmark project. We used boats to make the initial rope connection during the short night-time window when the tide was at its lowest, working with the Port of London Authority to keep the river way clear, and this was eventually replaced with the cable itself. Now the cable has been tensioned to the correct height, the next step will be to commence the testing of the whole system.”

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Notes to Editors

• The cable is made up of eight separate cores each comprising 36 strands of steel with an additional central polymer core
• Providing a direct connection between the Greenwich Peninsula and Royal Victoria Docks, Emirates Air Line will cut journey times and link the O2 Arena with the ExCeL – Europe’s two biggest entertainment venues.
• Both areas surrounding the Emirates Air Line have been earmarked for a number of regeneration projects with the Royal Victoria Docks selected as one of the new Local Enterprise Zones. The Emirates Air Line will play a key role in supporting these regeneration projects by providing a quicker and more direct link. It will also give local communities on both sides of the Emirates Air Line access to a range of entertainment, job and leisure opportunities that are set to become available as regeneration picks up its pace.
• The South Tower, the only tower to be built in the Thames, is made up of approximately 6,500 steel pieces measuring between 30-50mm thick and weighing around 570 tonnes.

• Emirates currently operates eight flights a day from London to Dubai with five daily services from Heathrow and three daily from London Gatwick. The airline also operates flights from Birmingham (twice daily), Manchester (three times daily), Newcastle and Glasgow (both daily). It is estimated that annually the airline contributes over $400m to UK tourism.