

LIVERPOOL STREET ON TRACK



Keeping you informed about Crossrail

February 2011

Increasing London's rail capacity

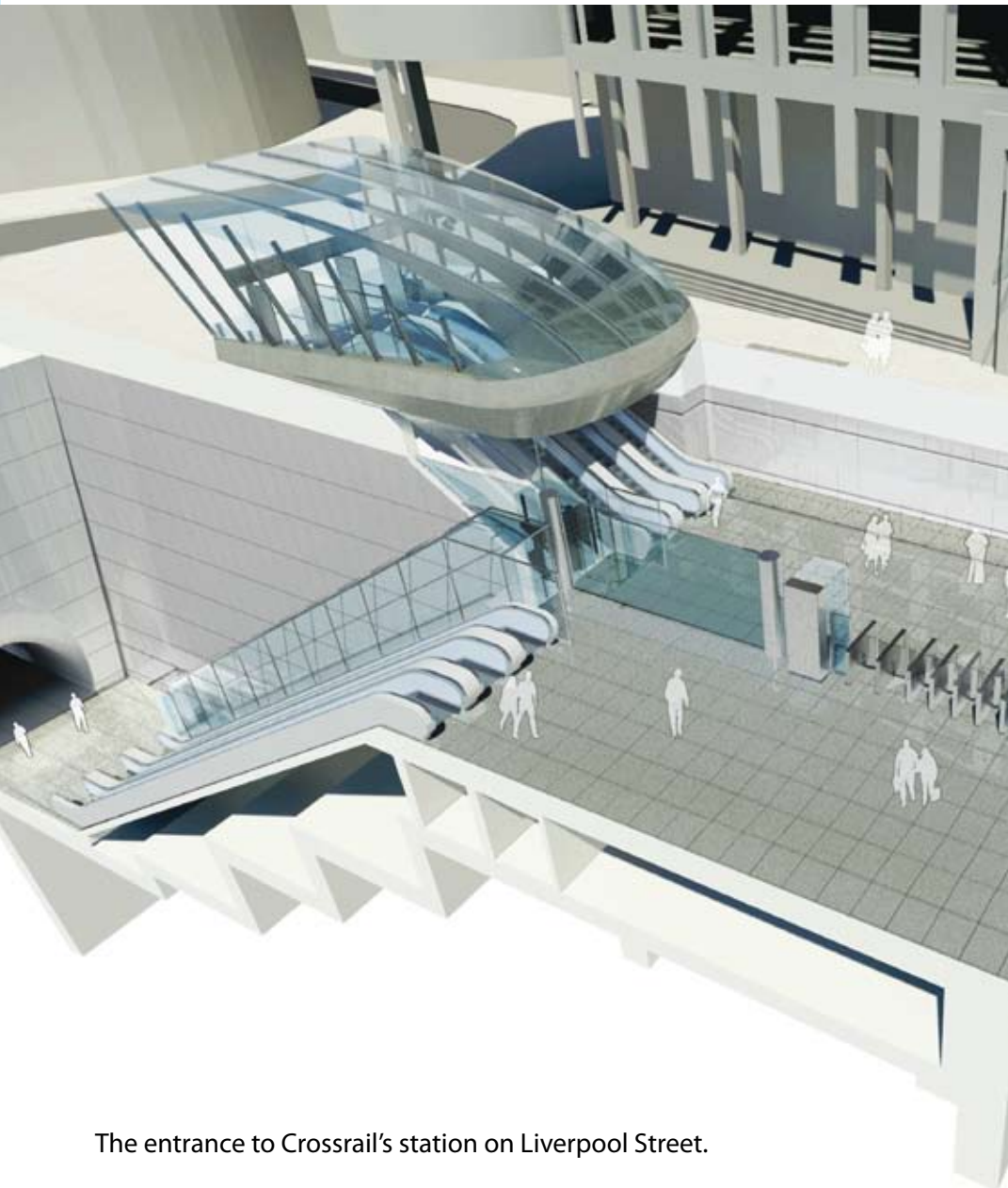
Crossrail will act as a catalyst for regeneration across London and help secure the City's position as a world leading financial centre. Rail capacity will increase by 10 per cent, new journey opportunities will be created, journey times cut and overcrowding relieved.

Crossrail's Liverpool Street station will act as the City's key Crossrail station with entrances, and new ticket halls, at both Liverpool Street and Moorgate Underground stations.

Crossrail will have 200 metre long trains. The station's platforms will

stretch from Broadgate, under Finsbury Circus, to Moorgate.

Crossrail will serve 37 stations along its 118 km route from Maidenhead and Heathrow in the west, through new twin-bore 21 km tunnels under central London to Shenfield and Abbey Wood in the east.



The entrance to Crossrail's station on Liverpool Street.



Crossrail awards tunnelling contracts

Crossrail has awarded contracts worth in the region of £1.25bn, to deliver the construction of 18 km of twin-bore tunnels underneath central London.

These are the most significant tunnelling contracts to be awarded in the UK since the Jubilee line extension and the Channel Tunnel Rail Link. They will provide a much-needed boost to UK construction as well as creating major employment opportunities.

A £250m contract which includes the construction of the Finsbury Circus shaft and the sprayed concrete lining of underground tunnels, passageways and escalator shafts at Liverpool Street was among the contracts awarded.

Tunnelling activity will commence in late 2011 with the first tunnel boring machine starting out on its journey in 2012.

Further tunnelling contracts and the station construction contracts will be awarded later this year.

Welcome

Welcome to the inaugural Liverpool Street edition of On Track.



Hani Rizkallah

I am honoured to be the project manager of Crossrail's Liverpool Street station and part of the team that will deliver the largest addition to the transport network in London and the South East for 50 years.

This new station plays an integral part of the Crossrail project as it acts as a key interchange with Network Rail and London Underground services. It is also one of the only Crossrail stations to link two existing London Underground stations, Liverpool Street at the eastern end and Moorgate at the western end.

An important part of my role is to ensure that I keep you up-to-date on Crossrail's progress and on how we are meeting our objectives. On Track is just one of our ways of doing this, more information can be found on our website, www.crossrail.co.uk and specific works information sheets that are delivered to the properties around our worksites.

If you have any concerns or queries about the construction of Crossrail, please contact our 24-hour public helpdesk. Details are enclosed on the final page of this newsletter and on all of our information sheets.

I hope you enjoy this edition, which includes a pull-out Liverpool Street station guide, and I look forward to bringing you further updates in the future.

Hani Rizkallah
Crossrail Liverpool Street Project Manager
Central Section Delivery Team (comprising Bechtel, Halcrow and Systra) - delivering the central section of Crossrail for Crossrail Ltd.

Liverpool Street's new Crossrail station

Crossrail will build two new ticket halls, Broadgate in the east and Moorgate in the west, for passengers to access Crossrail trains at Liverpool Street station.

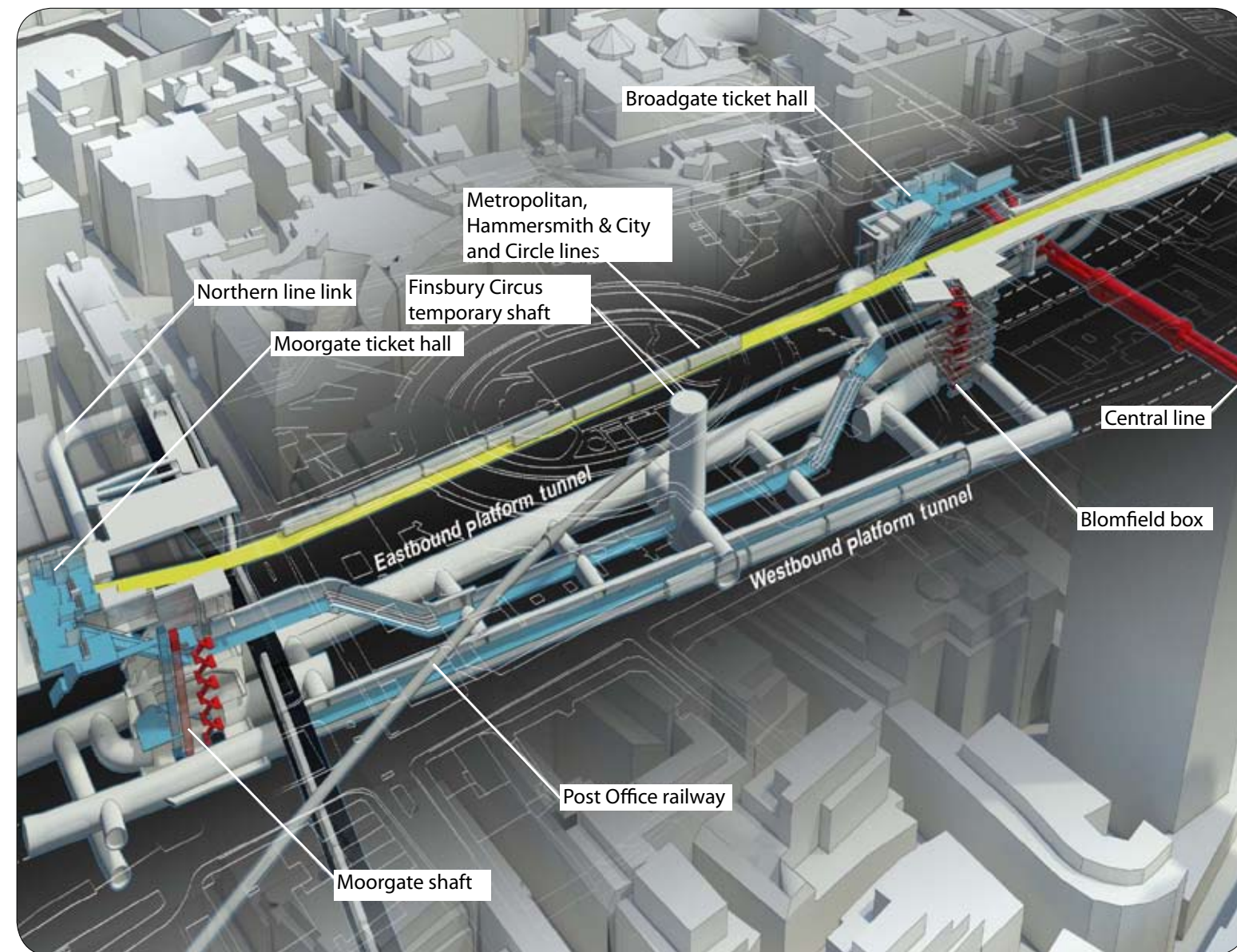
The Broadgate ticket hall will be built underground and will contain an underground pedestrian link to connect the Crossrail station to the existing Underground station. Passengers will be able to enter the station from Liverpool Street.

The Moorgate ticket hall will be integrated with the London Underground station. The new ticket hall will be built by enlarging the Moorgate Underground station ticket hall at Moorfields. Passengers will be able to enter the Moorgate ticket hall from a new enlarged entrance on the west side of Moorfields as well as through the existing Moorgate Underground station entrances.

Three shafts will be built in the Liverpool Street area to support the construction of Crossrail. The Blomfield shaft (or box), will house communication equipment for the London Underground station, a power substation, and mechanical and electrical equipment. The shaft will also provide ventilation and an emergency escape route from Crossrail platforms.

A 50 metre deep shaft will be built between Moorfields and Moorgate. This shaft will contain nine floors (seven of which are underground) to store the plant and ventilation equipment for the western end of the station, as well as emergency evacuation stairs.

A third shaft will be built in a section of Finsbury Circus. This is temporary and will be filled when construction is complete and the gardens will be fully restored to their original condition. The Finsbury Circus shaft is vital for the construction of Crossrail's platform tunnels as the gardens sit directly above the tunnel route.



The layout of Crossrail's ticket halls, running tunnels and shafts. Crossrail's running tunnels will be parallel to the Metropolitan, Hammersmith & City and Circle line tunnels but 40 metres below ground.

Digging into the past



Crossrail is working with the Museum of London to maximise the enormous learning potential that comes from tunnelling under the city. Crossrail archaeologists may find Roman remains in the Liverpool Street area as the Romans buried their dead in several cemeteries just outside the city wall. On Track will keep you up-to-date with any exciting discoveries, but in the meantime, let's explore the recent history of Liverpool Street station.

Liverpool Street station was built on the site of the original Bethlem Royal Hospital. The hospital, known as Bedlam, specialised in treating the mentally ill and is the origin of the word bedlam.

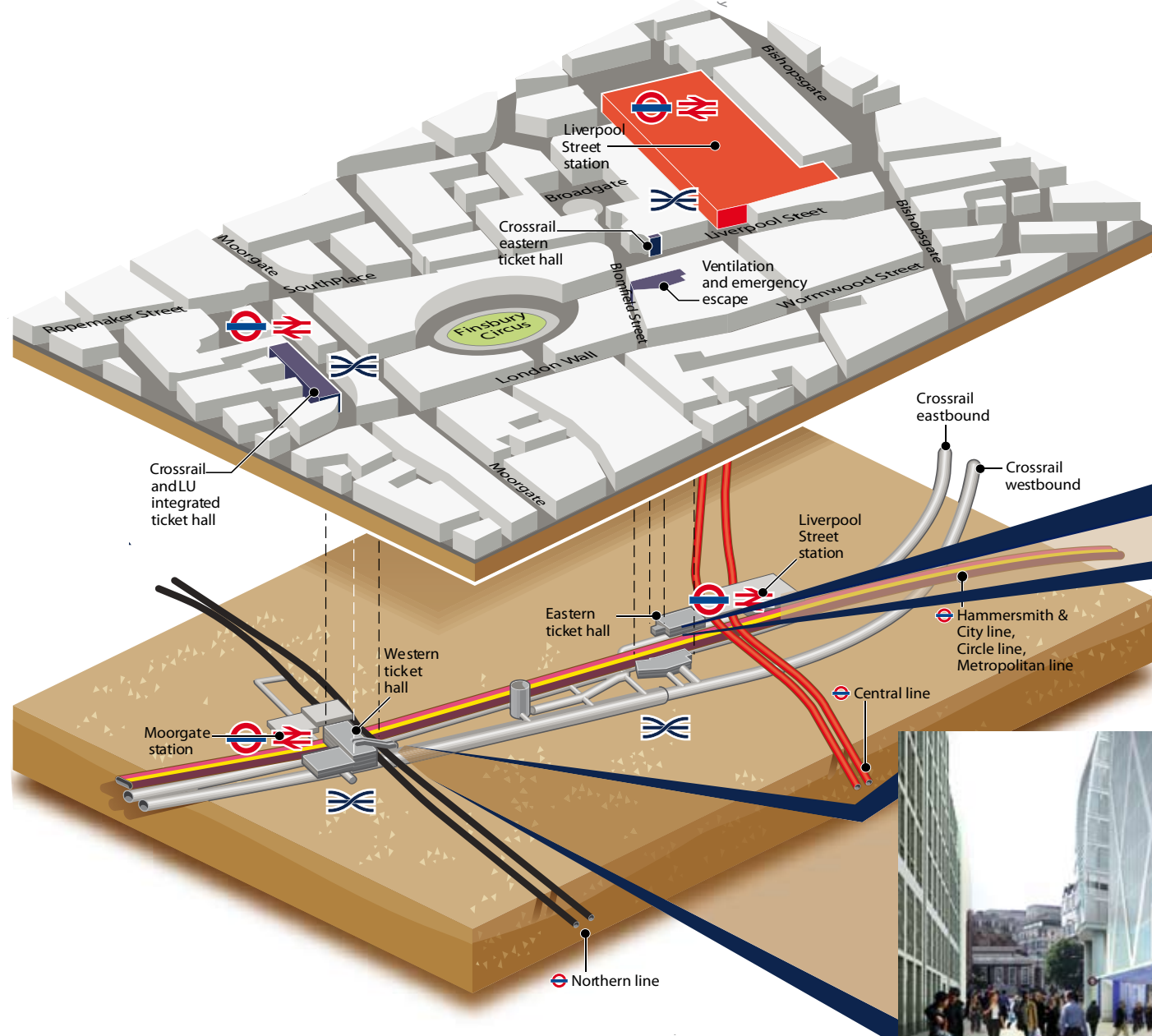
The station was built in 1874 as the new terminus for the Great Eastern Railway to serve east London, Essex and East Anglia. The station had nine platforms operational by November 1875 and had a connection to the Metropolitan Railway, the world's first underground railway.

The striking station roof was designed and built by the Fairburn Engineering Company who also supplied the roof to the Royal Albert Hall.

Liverpool Street station remained virtually unchanged until the mid-1980s when it was transformed by a major redevelopment programme. The redevelopment involved modernising station facilities and simplifying the layout of the main shed to align the end points of all of the platforms. The modernisation greatly improved the station environment, yet retained the grand 19th century architecture.

Today the station has approximately 123 million visitors each year and serves London Underground, rail and Stansted airport passengers. Crossrail will provide Liverpool Street with new direct links to Canary Wharf and Heathrow airport and provide faster journey times to London's West End.

LIVERPOOL STREET ON TRACK



The new eastern entrance to Crossrail's Liverpool Street station.



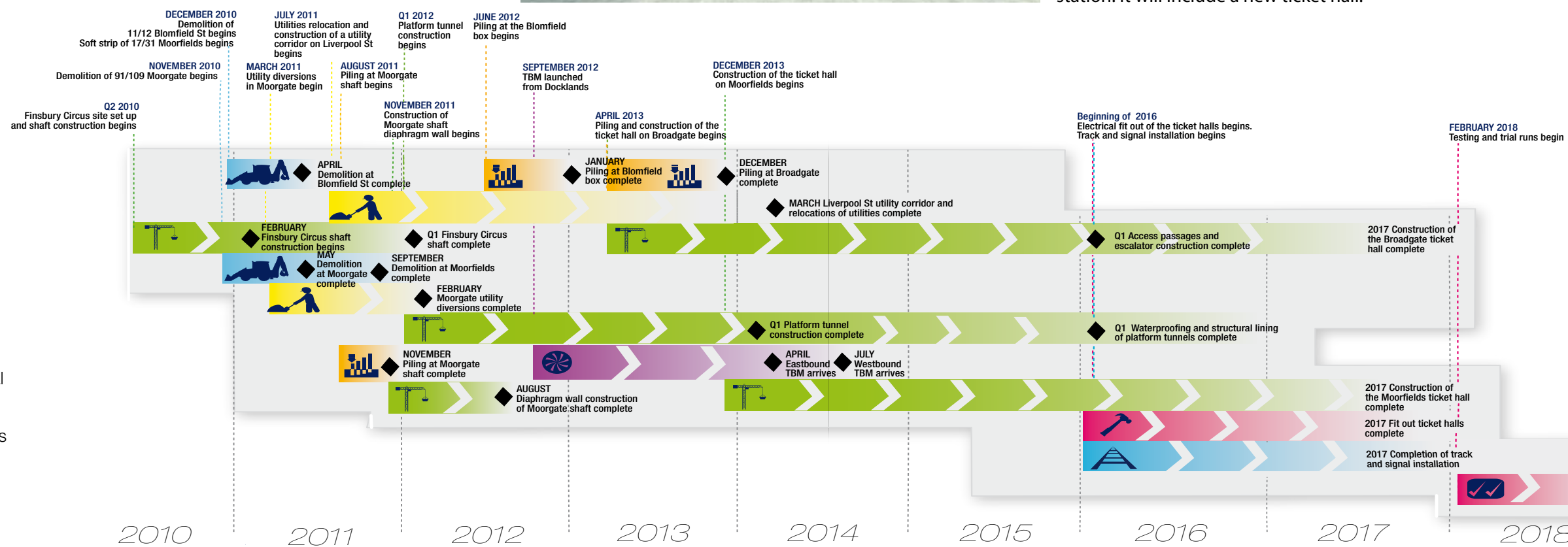
The new western entrance of Crossrail's Liverpool Street station. It will include a new ticket hall.

10 %
The increase to London's rail capacity.

200,000
Predicted daily number of passengers using Crossrail in the morning peak period between 7.00 am and 10.00 am in 2026.

118 km
Crossrail length from Maidenhead and Heathrow in the west, through 21 km of tunnels under central London to Shenfield and Abbey Wood in the east.

40 m
The depth of the Blomfield Street box. This will provide ventilation and accommodate electrical, mechanical and systems equipment.



All dates subject to potential change. See page 7 for further details on current and upcoming work.



A bug's life

Crossrail is helping to create a natural habitat at Finsbury Circus for Britain's largest ground-living beetle, the stag beetle.

The project is temporarily using a section of Finsbury Circus to enable the construction of Crossrail Liverpool Street's platform tunnels and as a worksite to support the construction activities at Blomfield Street and Moorgate. Unfortunately as part of the site set-up, it was necessary to fell five small trees.

Crossrail wants to make sure that the trees are used in a sustainable way, so we are working with the City of London to create a natural beetle habitat in the garden. Any surplus wood will be used to create beetle habitats in other London parks. Dead wood is an essential part of the stag beetle's lifecycle as stag beetle larvae live in and eat rotting wood for up to seven years until they reach adulthood.

We are working closely with the City of London to ensure the mature London plane trees, for which the gardens are famous, are protected during construction. Following completion of works, Finsbury Circus will be restored to its original condition.

Did you know?

The common name stag beetle is derived from the shape of their large jaws, or mandibles, which are often shaped like deer antlers.

Male stag beetles have very large mandibles which they use to wrestle each other. Female stag beetles have mandibles too, they are smaller but more powerful than the males.

Stag beetles can grow up to eight centimetres in length, and they can fly!

Work around Liverpool Street and Moorgate

Liverpool Street station

Enabling works to prepare Liverpool Street station for Crossrail are underway. These works include the installation of a communications equipment room, cabling system and constructing a protective screen to separate the live London Underground tracks from Crossrail works.

Liverpool Street

A series of archaeological trenches will soon be dug in Liverpool Street to investigate the local archaeology in advance of main Crossrail works.

Work to divert the utilities from within the roadway of Liverpool Street will commence soon. All of the utilities in the street will be moved and housed in a newly-constructed trench, known as a utilities corridor, on the south side of the street. The corridor will simplify the layout, making utilities easier to maintain in the future. The utilities will be strengthened when they are moved. The works will require temporary, albeit long term, traffic alterations.

Finsbury Circus

Crossrail is digging archaeology trenches within the Finsbury Circus worksite in advance of the construction of a temporary shaft. When the shaft is complete it will be used for the underground construction of the platform tunnels and cross-passages between Liverpool Street and Moorgate.

The Finsbury Circus site boundary will soon be extended to build a lorry entrance into the site. This will help reduce traffic congestion in the area. Some motorcycle parking bays will have to be removed to accommodate the change.

Two utilities trenches will soon be dug outside the Finsbury Circus hoardings. The trenches will be dug east of the site exit gate and opposite Salisbury House. These trenches will later become grout shafts to control settlement and protect buildings during tunnelling. Hoardings will then be erected around these work sites and some parking will be suspended.

Blomfield Street

Demolition of 11 - 12 Blomfield Street is now underway. This demolition will allow Crossrail to build a shaft that will provide ventilation, intervention and escape routes for the new Crossrail Liverpool Street station.

Scaffolding has been put up around 11 - 12 Blomfield Street to support the demolition and the building has been wrapped with sheeting to minimise the dust and noise. All internal fixtures, fittings and services have been removed and the building is being brought down one floor at a time.

London Wall

A lorry holding area will soon be established on a section of one eastbound traffic lane on London Wall. This holding area will prevent traffic building up at the

worksite entrance and exit and on the surrounding roads. It will also help to reduce vehicle emissions.

Moorgate and Moorfields

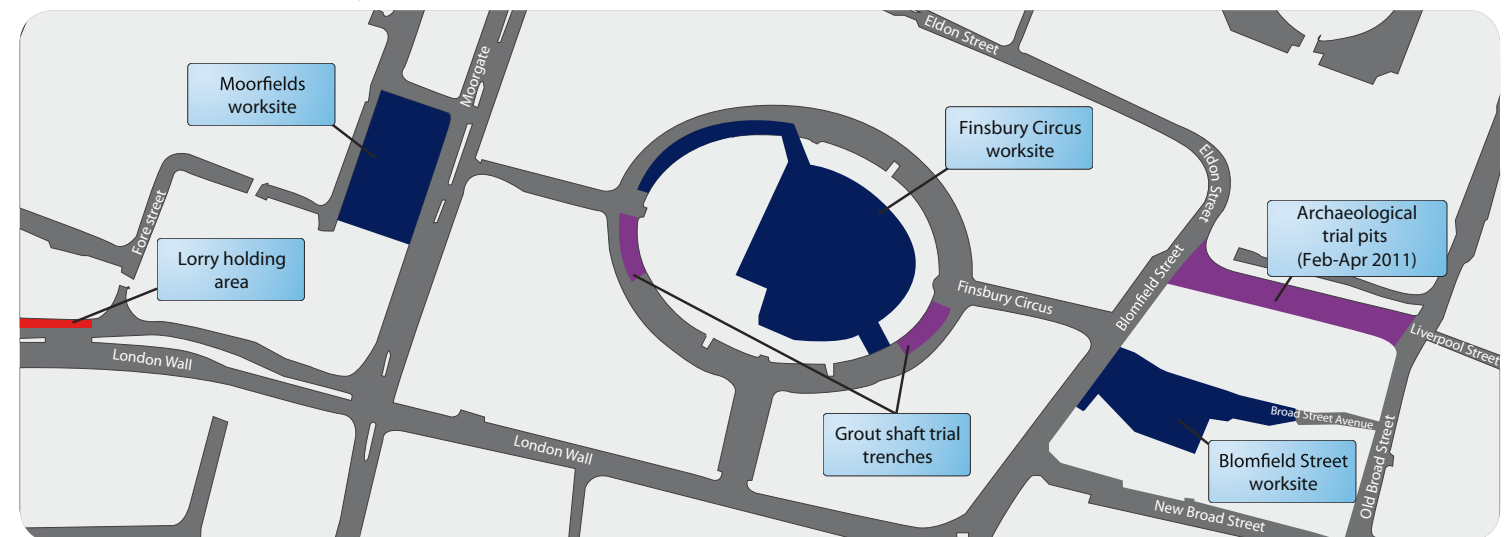
Demolition has commenced behind hoardings at Moorgate and Moorfields in order to make room for Crossrail Liverpool Street station's western ticket hall. A tower crane has been installed at the worksite to help the demolition. The crane will be dismantled and removed from the site when demolition is complete.

Utilities under Moorfields will soon be relocated to Moorgate and the surrounding area to enable Crossrail construction. Utilities such as water mains will also be strengthened when they are relocated. This will result in some short term traffic alterations.

17 - 31 Moorfields

The interior stripping of 17 - 31 Moorfields is currently taking place. Demolition of two-thirds of the building will commence in the spring.

Detailed works information sheets are regularly issued to residents and businesses that are directly impacted by Crossrail works; they can also be viewed on the Near You page of Crossrail's website www.crossrail.co.uk/near-you/



Crossrail appoints award-winning utilities contractor

Crossrail have appointed Laing O'Rourke as the contractor for Liverpool Street utilities work.

Laing O'Rourke carry out approximately 1,000 excavations on the streets of London every month and recently received National Joint Utilities Group (NJUG) accolades for safety and the avoidance of damage. The NJUG awards recognise, promote and reward instances of best practice within the utilities and street works industry.

Laing O'Rourke has previously worked in the Liverpool Street area and established Crossrail's work site in Finsbury Circus. They are also carrying out extensive utility works for Crossrail's Paddington station.

Utilities work in Liverpool Street will begin in March.

Keeping cyclists safe

Crossrail is putting lorry drivers through their paces using an accredited training programme aimed at raising awareness of how to safely share London's roads with cyclists and other vulnerable road users.

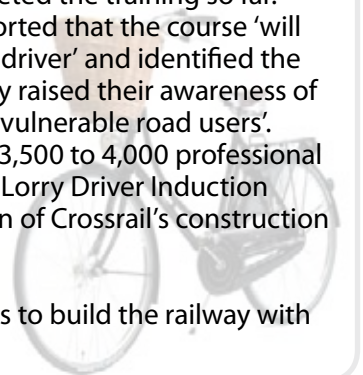
Every lorry driver, regularly working on the construction of Crossrail, has to attend and complete an induction training course designed in consultation with cycling and road safety campaign groups and the police. The training has been specially devised to focus on the lorry routes that drivers working on Crossrail will use to get to and from worksites.

The course covers hazard perception, causes of collisions, driver fitness and wellbeing, the Highway

Code, Crossrail's policies on alcohol, drugs and illegal substances and use of mobile phones.

Over 620 drivers have completed the training so far. Of these, over 90% have reported that the course 'will definitely make them a safer driver' and identified the course as having 'significantly raised their awareness of sharing London's roads with vulnerable road users'. It is estimated that between 3,500 to 4,000 professional drivers will attend Crossrail's Lorry Driver Induction Training through the duration of Crossrail's construction programme.

The top priority of Crossrail is to build the railway with zero accidents.



Creating a legacy

Crossrail has launched an exciting strategy to create lasting skills and employment for Londoners and has pledged to deliver at least 400 apprenticeships over the project's lifetime.

A large and varied workforce is vital for the delivery of Crossrail. Up to 14,000 people will be employed at the peak of construction - between 2013 and 2015. Crossrail's Skills and Employment Strategy details the opportunities and how individuals can benefit from Crossrail construction.

Crossrail's new Tunnelling and Underground Construction Academy (TUCA) is the first of its kind in the UK and will ensure that there are sufficient numbers of people with the skills to work safely in underground construction and satisfy industry demand. The establishment of TUCA is central to Crossrail's delivery plans and its legacy for the industry.

Apprenticeships will be offered from this year as contracts are awarded. Crossrail is working in partnership with the National Apprenticeship Service (NAS) to support contractors employed by

Crossrail to deliver apprenticeship targets.

Crossrail is in partnership with Jobcentre Plus (JCP) to provide local people with employment opportunities through a network of local job brokerage and outreach agencies. JCP will have advanced notice of vacancies and have the opportunity to match suitable candidates.

The job brokerage service is completely free and operates in a similar way to a recruitment company.

For further information about careers at Crossrail, please visit our website, www.crossrail.co.uk.

If you would like to be considered for future vacancies with Crossrail contractors you can register your skills with Jobcentre Plus by emailing jpcpcrossrail.jobs@jobcentreplus.gsi.gov.uk.

You can also visit one of the Crossrail Visitor Information Centres at Tottenham Court Road or Whitechapel, where Jobcentre Plus staff are on hand to answer questions and help with the registration process.

Young Crossrail

Crossrail aims to inspire young people to consider careers in the fields of construction and engineering through its 'Young Crossrail' education programme.

Hi,
I'm Digby
the mole



Young Crossrail works with schools and further education colleges along the route to support education, raise awareness of career opportunities and inform young people about the Crossrail programme. Now, thanks to a dynamic new website, the education programme's resources are accessible to everyone.

The Young Crossrail website www.youngcrossrail.co.uk contains a range of activities designed to teach young people about the pioneering new transport scheme, including fun games, updates on the build and exciting facts about Crossrail. There is even a dedicated teachers' area containing downloadable classroom resources.

Young Crossrail is also working with STEMNET – the Science, Technology, Engineering and Mathematics Network - to help promote construction and inspire future engineers.

All change at www.crossrail.co.uk

Crossrail's website has had a makeover! The revamped site offers dedicated station pages where you can find all of the latest news, photos and videos for each station as well as improved navigation and an advanced search function.

If you wish to receive regular updates about progress of the Crossrail works in Liverpool Street and Moorgate, or any other station along the route, please visit

<http://www.crossrail.co.uk/liverpoolstreet>



Contact Us

Helpdesk: (24 hours, 7 days a week)

0345 602 3813

e-mail: helpdesk@crossrail.co.uk

www.crossrail.co.uk

West End Visitor Information Centre

16 - 18 St Giles High St, WC2H 8LN

Open Tuesdays and Thursdays

11.00 to 19.00

Whitechapel Visitor Information Centre

Idea Store, 321 Whitechapel Rd, E1 1BU

Open Mondays and Wednesdays

11.00 to 19.00