ad bridge closurein Kettering, December 20bruary 20m

Gospel Oak to Barking Electrification

Q&A

**OVERVIEW**

1. What is the Gospel Oak to Barking electrification programme?

* London Overground route between Gospel Oak and Barking is currently not electrified and operates four, two-car diesel trains an hour.
* The route is a victim of its own success. Passenger demand has doubled since 2008 and peak hour services currently suffer from overcrowding.
* Electrifying the route will allow four-carriage electric trains, doubling the current capacity on the line.

2. What benefits will it bring to passengers?

* Electrifying the line will result in new, longer trains and more reliable services for passengers and freight services.
* Doubling the amount of space on trains will reduce congestion.
* Lineside neighbours will also benefit from cleaner air quality as a result of the switch from diesel to electric trains and reduced CO2 emissions.

3. What needs to be done to electrify the route?

This is a complex project in a dense urban corridor.

* In order to electrify the route structures will need to be installed to support the overhead wires which will power the new electric trains. In preparation Network Rail has started piling to ensure foundations are in place for these structures. This work will continue at weekends until June 2016 and will impact services
* Electrification of the route requires more space than our Victorian ancestors planned for and presents the biggest challenge. In order to create space, four sections of track will be lowered and four bridges will be replaced. In addition we’ll take the opportunity to modernise another six bridges.
* One million construction hours are needed to deliver this project.
* Due to the scale and complex nature of the work, it would be very costly and inefficient to complete this during weekend closures alone.
  + From June to September 2016, there will be no service between South Tottenham and Barking on weekdays and no service between Gospel Oak and Barking on weekends.
  + From September 2016 until early February 2017 there will be no service on the line between Gospel Oak and Barking. Further works to have the line ready for the electric trains, utilising evenings and weekends, will be completed by the end of June 2017.

4. Why can you not just carry out the works at evenings and weekends, rather than completely closing the line?

* Due to the scale and technical complexities around some sections of the track, the option to deliver this scheme at weekends is not possible.
* Weekends do not allow for enough time. At a number of key sections the track needs to be lowered to give enough space for the overhead lines. This will require removing the existing track, lowering the track bed and installing concrete slabs where required; all of this work needs to be in quick succession and does not allow for trains to run in-between.
* Splitting up the works would also add significant cost and delay. Passengers would end up with a series of blockades lasting years rather than just one longer closure.

5. What are you doing to the bridges?

* We are upgrading bridges on the route to make them higher and wider, additional room is needed for the overhead line equipment.
  + Four bridge reconstructions
  + Six strengthening
* Parapet walls to be raised to 1.8m at over 20 bridges to improve safety.
* Where possible we try to avoid rebuilding bridges as this causes disruption to the network and local community. However, in some cases this is the only option to deliver the upgrades we need. We will work with local authorities - particularly Transport Officers - to relay information and keep disruption to a minimum.

6. When are we installing the overhead lines?

* Installing the overhead lines is the ‘icing on the cake’ of this project. It’s relatively quick and quiet work. It will take place towards the end of the closure.
* Building the foundations for the structures that support the lines is the key challenge given varied ground conditions and limited space. This work requires piling and will be noisy but we will do everything in our power to keep this to a minimum. This work has begun and will be completed before autumn 2016.
* Throughout the project we will be in regular communication with lineside neighbours to ensure they understand the nature of the work and answer any questions they may have.

7. Why have you not consulted with local residents?

* Network Rail and Transport for London take engagement with the local community very seriously and we have been liaising with the affected local authorities.
* Although we are not required to consult on the plans, we are keen to engage with the local community and other key representative groups over the course of the project. It is important to the project that local residents and passengers are aware of our plans and their likely impact, and have the on-going opportunity to let us know their opinions and concerns.
* We will make sure that a variety of communications channels are in place to facilitate discussion. Follow us on Twitter @NetworkRailGOBE or call Network Rail’s helpline on 0345 7 11 41 41 or visit [www.networkrail.co.uk/contactus](http://www.networkrail.co.uk/contactus)

8. How much is the scheme going to cost and who is funding it?

* The project will cost £133 million.
* The DfT are contributing £108 million, TfL £25 million.

9. You were previously allocated £115m (£90 million from the DfT and £25 million from TfL) for this project. Why has the cost of the project increased?

* The £115m funding was based on the output of desktop-only work. As we gained a greater understanding of the nature of the works needed it became apparent that the costs would be greater than this.
* The scheme cost has not risen since we revised our estimate to £133m in autumn 2013.

10. How does this project benefit freight?

* This project will provide a second electrified route between Essex Thameside freight terminals and the West Coast Main Line. It will enable some diesel-hauled freight trains to be converted to electric operation, as well as enabling existing electric-hauled trains to continue to operate when the North London Line is not available.

**PASSENGER IMPACT**

1. How will services be affected?

* Network Rail and Transport for London are working together to ensure that disruption is kept to a minimum but line closures will be needed at weekends and for from early June 2016 to early February 2017.
* Transport for London (TfL) will provide travel alternatives and detailed advice to help get customers around throughout the closure. We will publicise information about the work and how to avoid delays, with customer emails, online information including via the @LDNOverground Twitter account, posters and announcements in stations.

1. Will alternative transport (i.e. replacement buses) be provided?

* Transport for London are working up plans to provide customers with travel alternatives which will be confirmed soon.

1. When will you consult with passengers over plans for line closures and rail replacements?

* Although there will be no formal public consultation on these works, we have been engaging with stakeholders to help us understand their views and requirements, and to help plan for any disruption to services.

1. Why no consultation?

* This is a complex project in a dense urban corridor with technical and financial constraints to consider as well as the impact on passengers and lineside neighbours. Network Rail is working with Transport for London and London Overground Rail Operations Limited (LOROL) to keep disruption to a minimum.
* There is no statutory obligation to consult on temporary line closures for upgrade works

1. When will the new trains be available?

* New trains were ordered from Bombardier in June 2015 and will start operating from early 2018.

1. Why will there be a long gap between the completion of works (July 2017) and the first train being in service from early 2018?

* As soon as TfL had confirmation that both the Gospel Oak to Barking scheme and West Anglia devolution were likely to go ahead, TfL launched a procurement competition.
* This culminated in the contract for the new trains being awarded in June 2015. Ordering new trains for the Gospel Oak to Barking line and West Anglia route together, as well as including a provision to order more trains should passenger demand warrant additional capacity, ensures that TfL get the  best value for money for customers.
* It will take 30 months to take delivery of the new, state of the art trains which will be thoroughly tested for reliability before going into service from early 2018.
* In the interim the existing diesel trains will be used again when the line reopens in 2017, before the new trains arrive.
* It is essential that the work to electrify the line is completed before the new trains arrive due to limited access to the engineering equipment needed to electrify the line and the need to align with other rail projects nationally.

4. Will the stations be improved as part of the electrification scheme?

* £9.7m has been allocated to extend platforms to allow for the longer trains. TfL is also looking into other station enhancements however funding is not yet confirmed

5. Will this work be carried out at the same time as the electrification works in order to minimise the impact to passengers?

* Yes, platform extensions will take place during the closure of the line at the same time as electrification work.

6. Will this include accessibility improvements?

* Accessibility improvements are already underway at South Tottenham which will provide lifts from street level to platform and a new station entrance.
* Blackhorse Road will also benefit from accessibility improvements as part of the DfT’s Access for All programme. The intention is for these works to be coordinated with the electrification scheme as the location of the overhead wires will influence the design of the access improvements.

7. How much will the station improvements cost and are they part of the overall electrification budget?

* £9.7m has been allocated to the platform extensions. This is additional to TfL’s £25m contribution to the electrification scheme. Funding for any further station enhancements is not yet confirmed.

**CAPACITY**

1. What are you doing to increase capacity on Gospel Oak to Barking line services?

* As part of the electrification programme, new four car electric trains will be introduced to replace the current two car diesel trains, doubling capacity on the line. These trains will be introduced from early 2018.

1. But trains are busy now, what are you doing in the short term?

* We are aware of the high demand for London Overground services on the Gospel Oak line to Barking line and in response added four extra services in December 2014.
* We would like to add more but there is not enough room on the timetable to run more than four trains per hour due to sharing the route with freight trains.
* We have looked at making the trains longer but this would mean buying new diesel trains and building longer platforms and putting both in place for an interim period. This would be expensive and not good use of taxpayers’ money given that we are bringing in new longer trains as part of the project to electrify the line.

1. Are the trains safe with current levels of overcrowding?

* Whilst services on this line are busy at peak times, they are not unsafe. London Overground Rail Operations Ltd (LOROL) drivers and platform staff are trained in crowd management to ensure that passengers remain safe at all times when on the network.

1. Can you lease additional trains to run more frequent services or longer trains?

* TfL have investigated running further additional services with Network Rail, but unfortunately due to the limited line speeds available with the current infrastructure, and the number of freight trains using the route, there aren’t enough available train paths to run more than four trains per hour.
* An alternative option of increasing capacity by running longer trains sooner would mean that platforms need to be extended in order to accommodate them which will be carried out at the same time as electrification work.

1. Why can’t platform extensions be done now?

* The line closure (early June 2016 – early February 2017) is the perfect opportunity to extend and bring back into use platforms. Doing it sooner would require more line closures, passenger disruption and a substantial increase in the cost of the project.

1. When will the new trains be ordered and when will they arrive?

* The contract was awarded in June 2015. Bombardier will deliver eight new four carriage trains ready for use from early 2018.

1. What will happen when the current lease on these trains expires in November 2016?

* Four bidders have been shortlisted to run London Overground from November 2016, when the current contract with the operator LOROL expires. They are - Arriva Rail London Limited, LoKeGo Limited (a joint venture between Keolis (UK) Limited and Go-Ahead Holding Limited, Metroline Rail Limited and MTR Corporation.
* The new concession will include all London Overground routes, including those TfL took over earlier this year from Liverpool Street station to Enfield Town, Cheshunt (via Seven Sisters) and Chingford, as well as services between Romford and Upminster. The new operator will also be expected to deliver sustained improvements in performance levels, which have been seen since TfL took responsibility for London Overground routes in 2007.

1. Will there be a service from February 2017 – January 2018? Where will the trains come from?

* TfL will use the existing diesel trains that are currently operating until the new trains that have been ordered from Bombardier start serving the route from 2018.

1. Are you aiming to increase services to 6 trains per hour (tph)?

* The draft Anglia Route study, which has been produced by Network Rail, suggests that 6 trains per hour will be required by 2043 and Transport for London agrees.
* Increasing the line to 6tph is, however, is a long term solution, and the study also states that the plans to extend passenger services on this route from two to four cars as part of the electrification programme will provide sufficient capacity to meet demand up until the end of Control Period 6 (2024).

1. Can this be implemented sooner to improve capacity now?

* No, in order to run more trains a number of infrastructure improvements need to be made, such as re-signalling along the entire line, additional platforms at terminating stations and a freight regulation point at Gospel Oak.
* Network Rail is considering these options as part of their long term planning.

**POLITICAL / COMMUNITY**

1. Can you confirm that electrification will not cause any further issues in terms of noise and vibrations?

We will cause noise and vibration during construction.

**First phase of works, October 2015 – June 2016**

Pilling to create the foundations for the new overhead line structures will cause noise and vibration, however each pile only takes from 30 – 60 minutes to install so the worst of the disruption will be short lived. There are approximately 550 pilled foundations required along the route. Foundations are typically set at around 2.5m distance from the track, depending on surrounding structures and ground conditions.

Vibration

Measures to limit the impact of vibration will be employed at all times. The impact of each pile will be individually risk assessed.

* Properties within a 10 - 20m radius may receive an external visual inspection dependent on ground conditions, the condition and age of the building and heritage grading.
* Properties located within a 10m radius of new piles may undergo an external inspection dependent on ground conditions and the condition of neighbouring buildings.
* Properties within a 5m radius may require a more in-depth internal and external survey.
* Vibration monitoring is carried out throughout the works to establish background readings on a general scale and more specific with regard to individual properties where a higher risk is considered

Noise

Measures to limit the impact of noise will be employed at all times.

* We aim to carry out noisy work such as piling between 7am and 9pm on Saturday’s and between 8am and 8pm on Sundays. However in some instances we may have to work outside of these hours due to limited access.
* We agree our works with local council enforcement officers who ensure that we implement all practicable noise and vibration reduction efforts.
* Where effective and practicable we will use acoustic shields to try and reduce noise levels in residential areas.
* All equipment will be modern, well maintained and silenced where possible.
* All staff will be briefed to be considerate to residents. No shouting, music or unnecessary noisy works will take place.
* Vehicles will not be left idling.
* Noise monitoring will be undertaken to assess compliance with local authority agreements.

**During the blockade June 2016 – February 2017**

* Lowering the track to make space for the new electrical infrastructure will cause noise and vibration during construction. The existing track foundations need to be broken, removed and set deeper.

2. Will this lead to an increase in the amount of freight on the line?

A signalling upgrade would be required to run extra freight services on the line. From June 2016 electric freight trains will be able to use the route.

1. Why are we no longer including freight connections to the Midland Main Line and North Thameside ports?

Work to electrify the Midland Mainline has been paused; therefore the requirement to link to this newly electrified route is no longer a top priority. We are linking to the East Coast Mainline.

**VEGETATION REMOVAL**

1. Why did you need to take vegetation out so early?

* We will only be removing vegetation where it is necessary and only after ecological and arboriculture surveys have been undertaken.

Removal is timed to make sure we do not disturb bird nesting season.

First phase 11/2014 to 03/2015

Second phase 11/2015 to 03/2016

* We removed some of the vegetation to make space to accommodate the overhead lines to power the trains.
* We require 5-8m of space from the track with no substantial vegetation to allow space for train movements and structures. This helps to avoid clashes that could cause serious damage to the infrastructure, and consequently delays to passenger journeys.