

London Power Tunnels

Bengeworth Road Community Liaison Group, Q&A document

This document answers the main questions asked at the first meeting of the Bengeworth Road Community Liaison Group (CLG) held on 16 February 2021. If you feel you have a question which is not answered here please let us know.

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Vehicles

1. What type of vehicles will be used for this work?

During the shaft and tunnel construction phases of work, the majority of HGVs used by the project will be 32 tonne vehicles taking excavated spoil away from site. A range of vehicles will also be used regularly to deliver equipment and materials. The vast majority, if not all, would be anticipated to use low-sulphur diesel.

2. Is there any option to look at electric vehicles?

Unfortunately, the haulage industry does not yet appear to be in a position to support this.

3. When are you going to publish findings from the highway condition survey that is to be undertaken prior to the commencement of works? Will these take into account permitted weight limits on the construction traffic roads as well as compliance with the London Lorry Control Scheme (LLCS)?

We have carried out a visual condition survey of the road. We will work to the weight limits of a public highway and comply with designated traffic routes.

4. At point 10.3 of the LDCEP Environmental Assessment Report you produced, under Construction Control Measures your state that:

“The greatest effects of noise from construction vehicles are anticipated to occur along the predominantly residential roads that are located within a mile of the site.”

To mitigate these effects on the less trafficked residential roads construction traffic travelling along the haul route section between Bengeworth Road and Coldharbour Lane will be split between the intervening residential roads. These roads include

Padfield Road, Southwell Road, Cambria Road and Bengeworth Road for access and Bengeworth Road, Cambria Road, Southwell Road and Harbour Road for egress. And yet these residential roads all fall within a mile of the site, which indicates that there will be no mitigation to the effects of noise from construction vehicles. Considering you have also recognised that:

"Southwell Road, Harbour Road and Cambria Road are also considered 'Sensitive' due to their nature of being quiet residential streets with no through traffic",

Why was this route even proposed when it clearly contradicts your objective to:

"Ensure the effects to local residents, properties, businesses and schools caused by construction traffic, are kept to an absolute minimum"?

The EAR recognises that the greatest effects from noise are on the local roads such as Southwell Road, Padfield Road, Cambria Road, etc. To mitigate this, the proposed approach is to split the traffic between two local roads to reduce traffic movements on a given road (also suggested by residents not to concentrate movements on one road). We are also looking at alternative access options and are in discussions with Kings College Hospital on this point to see if we can divert some vehicle movements through the hospital.

- 5. Comment from resident: You have identified 12 problem areas in your Designer's Response to Stage 1 Road Safety Audit, with recommendations that include removal of speed bumps and employment of traffic marshals on two junctions. And yet, in your Demolition and Construction Logistics Plan (DCLP), at point 6 – Strategies to Reduce Impacts in the Bengeworth Site – the checklist under Traffic Marshals is only ticked as 'Proposed' and not as 'Committed'.*

Given this seems to contradict the DCLP objectives to maximise safety, could you clarify whether you are proposing or committing to Traffic Marshals?

The recommendations of the road safety audit are under review. During the current site establishment phase, we will have traffic marshals operating between the site and the junction of Cambria Road and Southwell Road. National Grid is also discussing providing greater signage around the area for vehicles. traffic marshals are escorting articulated delivery vehicles when required. Feedback from drivers and traffic marshals will be used to further inform the recommendations.

Also, how would you ensure that removing speed bumps on our residential roads wouldn't encourage all vehicles to exceed speed limits?

We have reviewed this item and do not propose to remove speed bumps. It is anticipated that the wheels of an HGV would typically straddle the speed bump referred to in the report, without causing further damage. We will continue to monitor this.

6. Bengeworth Road and the surrounding area will be well within TFL's Ultra-Low Emissions Zone from October 2021. How do the transport proposals of this development square with that? Will you ensure that all vehicles comply with this?

We will comply with any regulations that are put in place.

7. How is construction traffic compliant with another one of your objectives i.e., to support the Mayor of London's Vision Zero and Healthy Streets agenda?

All haulage providers will be Fleet Operator Recognition Scheme (FORS) Silver level compliant as a minimum and Construction Logistics and Community Safety (CLOCS) best practice. This ensures that all the vehicles are fully equipped with safety measures including working cameras, sensor systems, side under run protection and flashing beacons. All drivers must be able to demonstrate that they have undertaken the approved vulnerable road user training.

Random spot checks on vehicles will be carried out to ensure they adhere to the proposed routes to and from the worksite.

Only vehicles notified in advance will be allowed onto site. Our Logistics Manager will use a Vehicle Management System (VMS) to control the bookings of deliveries to site. All deliveries will be staggered to ensure the flow of traffic directly into site and prevent parking on adjacent roads leading into site. Suppliers/ Hauliers will be given timeslots to adhere to, those that are not booked or do not keep to their allocated timeslot will be refused entry to site. This will be monitored daily via the VMS reporting system.

Access

8. Is it possible to vary HGV routes to reduce the overall burden on any one road?

HGV movements will start increasing from mid-April 2020, ahead of the shaft sinking in May. We did look at whether Cambria Road could be an option for HGVs, however received feedback that it was too narrow. Analysis to date suggests that the current routes available are the best options, however we continue to try and push for alternative routes and will keep residents updated with any developments.

9. In the Q&A document you produced in response to the meeting of 20th January 2021 at the question,

"Will there be further development of this site once it is completed?" Your response is, "Yes".

Considering we are looking at a 5 year plus development scheme, shouldn't NG have looked at a long term, lower impact and greener solution for access to the site? Also, doesn't that contradict Section 3.2.12 of the report claiming that –

"The impact of construction vehicles on local air quality associated with the Scheme is unlikely to be significant given the temporary nature of the works..."

Stage 2 of the Bengeworth RD project will take place around 2030 to ensure a continued safe and secure supply of electricity to the local area. The works that National Grid will be carrying out during this stage will be minimal. There will be no tunnelling work or additional buildings, just equipment being installed inside the buildings that are going to be built at stage 1.

10. Why is National Grid not looking at 100% of the traffic going around the back of Kings College Hospital? When will this be found out?

We are in discussions with Kings College Hospital on this point to see if we can divert some vehicle movements through the hospital. We will update you on this as soon as we can.

11. Has National Grid looked at alternative access via Herne Hill Road?

During the initial stages of the project the option of routing construction traffic via Herne Hill Road through Padfield Road was considered, however it was found to be an unsuitable route due to the railway bridge over Padfield Road. This bridge has a height warning of 13ft 6" or approximately 4.1m, and the full height of a typical lorry is 4.2m. Unfortunately, this route was therefore deemed unsuitable for the HGV traffic associated with our constructions works.

In addition to the above, the southbound lane on Herne Hill Road is very narrow due to the presence of on-street parking and the bus stop near Padfield Road. This requires seven small cars to travel on the opposite side of the carriageway when these facilities are in use. In order to allow HGVs to travel safely along Herne Hill Road to access the site a significant amount of on-street parking and waiting facilities would require suspension for the duration of construction – which would have an adverse impact on local businesses.

12. Can you please confirm who your stakeholders were that advised that Cambria Road was too narrow?

Lambeth Council Transport Officers at the Scoping Meeting held with our consultants for the Transport Assessment.

13. How is vehicular movement controlled?

We will have traffic marshals operating between the site and the junction of Cambria Road and Southwell Road. National Grid is also discussing providing greater signage around the area for vehicles.

14. What steps are being taken to protect the public regarding parking spaces and trees?

We are looking at the benefit of reducing the length of some of the parking bays to allow greater turning space for our HGVs. We are mindful that we do not want to remove any parking from residents, so we are reviewing this with Lambeth Council.

We are also in discussions with Lambeth Council about how we can achieve a net biodiversity gain from our works. These discussions are ongoing and we will update residents when we have initial plans in place for this.

Air Quality

15. What will be the impact of construction vehicles on air quality due to the prolonged time-frame of the work?

The envisaged peak vehicle movements (120) would be on the road network for a very short period during the entire timeframe. We will give you advanced notice of exactly when this will take place. During this time the construction activities will involve excavation of the shaft and tunnelling. It should be noted that the peak number was derived for the purposes of the assessment when in reality there will not be 120 movements daily for a year (most frequently there will be fewer) - these would vary depending on the construction activity of the day.

The impact on air quality is assessed on the basis of conservative scenario in accordance with best practice guidance which assessed the impact of 120 HGV movements per day as an annual average. The impact at Cambria Road and Southwell Road Junction was deemed negligible (meaning residents should notice no discernible change in air quality) in accordance with the criteria set out in best practice guidance (IAQM Development Control 2016).

16. How will National Grid be mitigating the impact of air pollution from vehicles?

We have undertaken an assessment which adopts a number of conservative assumptions (detailed in full in paragraphs 4.2.12 to 4.2.14 of the EAR) to ensure that actual impacts will be no greater than predicted. One of the measures will ensure that all vehicles will meet Euro VI emission standard or equivalent.

We have also proposed to split the traffic between two local roads to reduce traffic movements on a given road as suggested by residents, as well as looking at other alternative access routes, such as Kings College Hospital.

Other measures include engineering solutions (i.e. reducing the volume of excavated spoil and thus reducing the number of HGV movements) as well as encouraging our workers to use public transport and car sharing schemes.

17. Is National Grid going to be monitoring the air quality in real time?

We will be monitoring air quality in real time for nuisance dust during construction.

18. Where were the air quality samples taken and how often?

According to the 2019 Lambeth Air Quality Annual Status Report¹, London Borough of Lambeth currently undertakes diffusion tube monitoring at 51 sites and automatic

¹ Lambeth Air Quality Annual Status Report for 2019:
https://www.lambeth.gov.uk/sites/default/files/projects_attachments/lambeth-air-quality-annual-status-report-2019.pdf

monitoring at three sites. The nearest diffusion tube monitoring sites are Loughborough Junction 1-DT48 and Loughborough Junction 2-DT49. Both DT48 and DT49 are located at a roadside, approximately 500m and 350m south west of the site alongside the A2217 (the exact coordinates are presented in Table 4.1 of the EAR). LBL monitor on a monthly basis and the concentrations provided in Table 4.1 of the EAR are annual average concentrations. The results at these sites were used to calibrate the modelled air quality predictions carried out as part of the air quality assessment.

19. Did this assessment take into account weather patterns and seasons?

Yes, Department for Environment, Food and Rural Affairs (DEFRA) guidance Local Air Quality Guidance Technical Management (LAQM.TG) (16) recommends meteorological stations within 30km of an assessment area as being suitable for detailed modelling. As such, meteorological data was obtained from London City Airport 2018, for use in the air quality model, Atmospheric Dispersion Modelling System (ADMS), which is the most widely used advanced dispersion model for urban areas (Roads); London City Airport is approximately 12km northeast of the proposed development site and is the nearest representative met site with adequate data capture. Section 5 of Appendix K of the EAR shows the wind rose of the utilised meteorological data.

20. How are you going to stop the re-suspension of PM10 and PM2.5 given the constant movement of HGVs along our roads.

The Construction Environmental Management Plans (CEMP) includes several measures to avoid, minimise or abate particulate resuspension in accordance with the Greater London Authority (GLA) Supplementary Planning guidance on Construction Dust during the construction phase.

The measures relating to Trackout (the movement of dust and dirt from a construction/demolition site) are directly applicable to avoid resuspension of dust and prevent the dust from leaving the site on wheels. Measures include:

- Use of water assisted dust sweepers on the access and local roads,*
- ensuring vehicles entering and leaving the site are covered,*
- regular inspections of road integrity,*
- implementing a wheel washing system with rumble grids,*
- avoiding dry sweeping of large areas, and*
- use of fixed or mobile sprinkler systems, or mobile bowsers to clean internal haul roads.*

21. How does the Air Quality assessment take into account particulates, which pose a large risk to health?

The assessment includes predictions of particulates (PM10 and PM2.5) which demonstrate that the scheme is not expected to result in adverse impacts even with the adoption of a number of worst case modelling assumptions (Paragraphs 4.2.12-4.2.14 of the EAR). For PM10, the maximum concentration was found to be 18.7µg/m³ which is well below the AQS Objective of 40µg/m³ (this is the concentration of an air pollutant per micrograms – one-millionth of a gram).

The largest change in PM10 concentration is located at Cambria Road – Southwell Road Junction which shows a small increase of 0.3µg/m³ at R42 and R44.

For PM2.5, the maximum concentration was found to be 11.7µg/m³ which is well below the AQS Objective of 25µg/m³. Once again, the largest change is located at Cambria Road – Bengeworth Road Junction which shows a small increase of 0.3 µg/m³ at R43.

22. How can we keep air quality within acceptable limits when Lambeth already exceed WHO limits for NO_x and PM2.5?

The legally binding standards that any developer and the local authority must adhere to are the national Air Quality Objectives set by the UK government.

It is important to remember that the air quality assessment presented in the EAR deliberately adopts a worst case scenario and reassuringly the assessment demonstrated that impacts all modelled receptors are negligible in line with criteria set in best practice guidance.

In reality, the actual number of average daily construction vehicle movements is likely to be much lower than what has been assessed, and therefore the impacts would be less than those presented in the EAR. Additionally, our results do not incorporate the measures that we will implement to adhere to the Ultra-Low Emission Zone (ULEZ). The proposed development will adopt a number of measures that would reduce emissions such as using HGVs that are of the most up to date emissions class and by adopting dust control measures (as per Appendix C of the CEMP).

The site is located in an area that will be covered by the ULEZ, which is to be extended to the north and south circular roads in inner London. The extended ULEZ will be implemented on 25th October 2021. Any vehicles wishing to travel within the ULEZ will have to be compliant with the required emissions standards as follows:

- *Euro 3 for motorcycles, mopeds, motorised tricycles and quadricycles (L category)*
- *Euro 4 (Nitrogen Oxide (NO_x)) for petrol cars, vans, minibuses and other specialist vehicles*
- *Euro 6 (NO_x and PM) for diesel cars, vans and minibuses and other specialist vehicles*
- *Euro VI (NO_x and PM) for lorries, buses and coaches and other specialist heavy vehicles (NO_x and PM)*

Vehicles which do not meet these standards will be charged a daily rate depending on the weight of the vehicles. The rollout of ULEZ will serve to reduce pollutant concentrations with the area covered.

The scheme will also be required to comply with London's Low Emission Zone for Non-Road Mobile Machinery (NRMM) which dictates emissions standards for site plant and site-only vehicles.

Spoil

23. How can National Grid reduce amount of soil coming out of the tunnel?

In addition to looking into alternative access routes to the site, we are also exploring engineering solutions to reduce the number of HGVs required on site. These include whether we can reduce the size or length of the shaft or tunnels, or whether more soil can be extracted at other sites.

24. Has National Grid considered some of the soil to stay in the site? Perhaps a landscaping design solution?

The site size, layout and use does not accommodate landscaping with additional soil on the surface.

25. Has NG looked at the possibility of building a siding in order to remove spoil by rail and did it discuss this option with Network Rail?

Also, shouldn't NG have commissioned a full feasibility report into the rail option?

Our ongoing conversations with Network Rail have stated that a siding would mean expanding the rail network on site. To achieve this, Network Rail would need to be content with us adding freight trains to the line which is a busy commuter route. Furthermore, we would need to engage with the companies that run the trains, and this would require considerable consultation ahead of the vital infrastructure works commencing at Bengeworth Road, delaying the programme for the site.

Damage

26. Will National Grid accept full liability for any damage to highway infrastructure, including burst water pipes along the proposed Construction Traffic route?

Should any buildings or infrastructure be directly damaged as a result of the works, we will make good any impacts.

Noise

27. How will National Grid manage any noise coming from the site? What decibels will be allowed?

We will install noise and vibration monitoring stations on the Southwell Road side of the site. We also have limits imposed as part of our agreement with the Council. Should we have particularly noisy works, we will try to ensure that this takes place at times of least disruption to residents. We appreciate that noise is not desirable at any time during the day, but we are happy to work with residents to understand if there are any better times during the day for particularly noisy works. We will also implement measures to increase the hoarding around the site to help create noise barriers.

28. The Arcadis noise report states that there will be a water diesel pump. How noisy will this be? A compressor for mini-piling will also be on for 80% of the week, how noisy will this be?

The water diesel pump is 68dB and the compressor for mini-piling is 75dB.

We have sourced these figures from the code of practice for noise and vibration control on construction and open sites which makes predictions based on the worst-case scenario. The noise levels of each equipment or activity are measured at 10m from the plant.

Buildings

29. It is possible to put the substation below ground to reduce the height of the buildings and therefore impact on the views and townscape?

The substation closest to Southwell Road is the responsibility of UK Power Networks and we are liaising closely with them on design to minimise any impacts on views. For our substation, as part of outline plans, we already introduce a 3m basement to reduce the height of the building. Unfortunately, below this level there are existing services in the ground which facilitate the ongoing delivery of power from this site to the community and so cannot be moved.

30. Can the configuration and the location of the buildings be changed?

As part of the planning process, we considered a number of layouts. The current layout chosen met several criteria including getting the required services on site, allowing the existing substation to continue to operate throughout the site works and placing any noise generating equipment as far away from residents as possible. At this stage, the configuration of the site cannot be changed.

31. What is the difference between the two buildings within the UK Power Networks substation, what is the purpose of the annexe building?

The lowest part of the building closest to Southwell Road is an amenities block. Where the building raises up as it steps away from Southwell Road, this contains apparatus for transporting the electricity.