Lilian Greenwood MP
Minister for the Future of Roads
(by email to [redacted])

31 July 2025

Dear Ms Greenwood

Queensbury Tunnel

We would like to thank you for hosting the Queensbury Tunnel stakeholders meeting on 22 July 2025. This letter has been written to place on record our position in relation to comments made during the meeting and the contents of your presentation, the receipt of which we acknowledge.

We are surprised that the presentation makes no reference to the £7.2M of strengthening works undertaken by National Highways (NH) between 2018 and 2021 - "ensuring that any future plans for the re-use of the structure can be realised", according to NH - or make clear that the potential of the proposed active travel network to benefit the economy through tourism increases the Benefit:Cost Ratio (BCR) above those quoted. The presentation was clearly not balanced.

We note that the landowner at the south end of Queensbury Tunnel has written to you separately in response to the allegations of wrongdoing made against him by civil servants from NH and the Department for Transport (DfT).

It was asserted during the meeting that the flooding is getting "increasingly worse". This is incorrect and indeed impossible due to the drainage pipe installed by the landowner which limits the level to which the floodwater can rise. Furthermore, the flooding is not inevitable: NH/DfT have chosen to accept it through their seven-year refusal to seek an agreement whereby a dewatering regime could be reinstated.

Risks resulting from "dangerous gases" are routinely mitigated through Confined Spaces procedures, including the use of gas monitors and rebreather sets. We note the assertion that Queensbury Tunnel presents "*rising* gas levels", without any indication being given as to the date of the levels being used for comparison purposes (noting that air flow was good in 2016-18 after dewatering) or whether gas monitors have ever reached their alarm thresholds. Poor ventilation in the tunnel today is substantially self-inflicted.

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Risk presented by the tunnel/shafts

According to NH, there are currently no concerns about properties above the tunnel and the risks associated with the shafts are currently rated low. The only specific evidence of "deterioration" comes from the identification of one new defect located between Nos. 5 & 6 Shafts (396-808m from NP) which NH's examiners have reportedly refused to pass. This has resulted in NH determining that Queensbury Tunnel is now "too dangerous to enter".

Rather than implementing a repair which would provide safe access beneath this defect (as contractor AmcoGiffen did at several locations within the tunnel during its 2018-21 works), NH has instead chosen to end routine inspections of the structure and manage the asset from a position of ignorance. This is not an approach any appropriate custodian would take, given the concerns NH has expressed previously.

The Queensbury Tunnel Society (QTS) has submitted a FOIA request to NH for inspection reports since 2021, in an effort to understand the nature of the new defect. In their absence, we believe it is likely that - at worst - the installation of a short length of full-profile RamArch would enable the safe resumption of inspections at a cost less than 1% of the £7.5M you propose to spend putting the tunnel permanently beyond use. Given this option, it is not clear to us how abandonment can be regarded as offering "best value" to the taxpayer. Doing so would deliver no quantifiable public benefit at very considerable cost and destroy the opportunity to deliver *future* public benefit through an active travel route.

It was asserted that a collapse at this defect during an inspection could leave the examiners unable to escape from the tunnel due to the flooding and blockages further south. This is incorrect. There is no realistic likelihood of a 147-year-old structure collapsing during an annual inspection with such severity that it becomes impossible to get past the debris. But even if such an event was to occur, there is no risk of entrapment as No.4 Shaft provides a legitimate secondary means of escape. We note that hoisting personnel in/out via shafts is both the *primary* and secondary means of access/egress at Rhondda Tunnel in south Wales.

Page 5 of the presentation states that there is a "risk of shafts collapsing leading to potential destruction of infrastructure above the tunnel". National Highways has offered no explanation of the failure mechanism(s) for such an event.

We can find no record of the total number of permanent 'open' shafts associated with the UK's collection of railway tunnels. NH's website indicates that the Historical Railways Estate (HRE) comprises 51 shafts at 153 tunnels. Network Rail data from 2017 lists 593 tunnels for which it is responsible, whilst online sources suggests that around 460 other disused railway tunnels are located across the UK, beyond those within the HRE. If every third tunnel has one open shaft - as per the HRE - an estimate of 400 nationally would seem reasonable.

Across 200 years of railway history, we have been able to find just one record of a permanent open shaft partly collapsing. This occurred at Colwall Tunnel in 1907 when persistent heavy rain destabilised the ground around the top of a 160-foot shaft, resulting in its upper part falling onto the track below.

NH's citing of the 1953 tragedy at Clifton Hall Tunnel suggests worrying ignorance on NH's part regarding its causes/circumstances, or a clumsy attempt to scaremonger and mislead. This event involved a hidden, backfilled construction shaft about which nobody had any knowledge. As a result, a pair of semi-detached houses was built directly above it in 1909.

The timber structure at the base of the shaft rotted over time due to the effects of the wet sand it was supporting. It eventually failed and transferred its load onto the tunnel lining which was not designed to support the weight. The lining gave way and the 200-ton column of sand emptied into the tunnel. The surrounding ground - a loose mixture of sand and clay - poured into the shaft, creating a void on the surface into which the houses collapsed.

There are no hidden, backfilled construction shafts at Queensbury Tunnel; its five permanent open shafts are supported by the masonry of the tunnel lining and their condition is fully understood, having been subject to periodic inspections for the past 147 years. Thus, the events at Clifton Hall Tunnel simply could not occur at Queensbury and have no relevance.

We cannot identify any plausible failure mechanism whereby a permanent open shaft that has been subject to any reasonable asset management regime could collapse. Even if a shaft's entire formal support structure was lost such that load paths could no longer redistribute, it is still not certain that a collapse would occur due to the effects of friction between the lining and surrounding material.

In practical terms, there is no realistic likelihood of a shaft collapse at Queensbury Tunnel, given the prevailing circumstances.

Page 5 of the presentation also states that there is a "risk of lining collapse leading to potential loss of life for any individual in the tunnel".

One of the fundamental requirements of risk assessment is to make a judgement as to the likelihood of occurrence, based on professional experience and knowledge. NH is obliged to inspect Queensbury Tunnel on an annual basis, under the terms of its Protocol Agreement with the DfT. Other occasional incursions will take place on an ad hoc basis, but entry into the tunnel - outside major works programmes such as those undertaken in 2018-21 - is limited in terms of duration and the number of people involved. With the exception of six-yearly detailed examinations, they will likely involve no physical contact with the structure.

The bricks forming the lining of Queensbury Tunnel were mostly laid in the mid-1870s. In walking through the tunnel, an individual would pass beneath a strip of brickwork that is approximately 10% of the tunnel's width and they would remain beneath each individual brick for perhaps one second, unless they have stopped for some reason.

In Queensbury Tunnel, for the asserted loss of life to occur, a brick (or bricks) laid 150 years ago would need to detach from its/their neighbours and fall at the precise moment that someone who happens to be in the tunnel is about to pass directly under it. "Lining collapses" (i.e. more substantive events) are less likely and occur less frequently than falls of individual bricks. In practical terms, there is no realistic likelihood of a fatality due to a "lining collapse".

Perhaps more than any other, this stated 'risk' illustrates just how ridiculous the case put forward by National Highways really is. The material and comments presented by the company suggest that it is either unwilling or incapable of assessing risk in a reasonable and proportionate manner. As a result, the taxpayer is to be burdened by the obligation of funding major works that will result in no meaningful positive change to Queensbury Tunnel's risk profile, at a time when some authorities are struggling to find the money for vital, basic services.

In your letter of 9 July 2025, you assert that "safety risks need to be addressed". NH made a similar case in relation to the disused railway bridge at Congham, Norfolk, which it infilled under misapplied emergency permitted development rights in 2021. As a result of the works being unauthorised, NH was forced to apply for retrospective planning permission.

In its submitted Planning, Design & Access Statement, NH stated that:

- "Works to the single span railway bridge…were necessary due to the continuing deterioration of the structure and the threat to public safety."
- "…the bridge works were required as emergency works, to safeguard the bridge…"
- "The infill here was driven both by the capacity failure and the condition of the structure."

The planning application was refused, but NH won on appeal following a public inquiry which examined around 1,000 pages of asset management documentation. This insight painted a different picture of why the works took place, such that NH was forced to concede in its closing argument to the inquiry that "Safety or load-carrying capacity was *not* the main motivation for the infilling scheme. As made plain by the Request for Financial Authorisation prepared in September 2018, the scheme was 'predominantly a maintenance/durability driven scheme'."

The Inspector was more explicit, stating that "The works were not carried out principally (if at all) for reasons of safety…", contrary to NH's previous claims.

National Highways has a track record of exaggerating risk and misrepresenting condition evidence in order to justify works that are motivated by its determination to reduce liabilities. As is stated in NH's 2016 Long Term Plan for management of the HRE, "The optimal option always removes or mostly reduces all future liabilities and mitigates the risk of reputational or financial harm to [NH] in each case."

This is the company's overriding priority.

Active travel network and costs

Page 6 of the presentation states that Sustrans' feasibility study into the Queensbury Tunnel Greenway identified "3 tunnel and 3 alpine routes". However, it fails to acknowledge that between Holmfield and Queensbury - the section in which the tunnel is located - there is only one alternative option.

Whilst the off-road tunnel alignment is 1.9 miles in length and involves a gradient of 1:100 for most of that distance, the circuitous 'Alpine' alignment has a length of 3.7 miles and climbs around 150m (500 feet) across two phases, at gradients often exceeding the 1:20 maximum set out in guidance LTN 1/20. It includes several on-road sections, including one of around 280m through the busy junction of the A644/A647. Your assertion that the two options provide "the same or similar active travel benefits" is unsustainable: the Alpine route would not be safe for use by families, and would not attract commuters or tourists.

The ‘Most Advantageous & Attractive’ option incorporating Queensbury Tunnel sets out a network of paths extending for 27.7 miles (44.5km) between Bradford, Keighley and Halifax, with two separate approach options to the north and south of the tunnel. This network has an estimated cost of £65.6M, including optimism bias. Less ambitious networks (typically of 21 miles (34km)), with only one approach option at each end of the tunnel, are costed at £64.5M and £57.1M.

Sustrans recognises that the “development of an iconic and nationally significant network of routes between these sizeable northern conurbations has multiple benefits over and above purely hard economic factors. Restoration of the tunnel would not only provide a flagship walking and cycling scheme, but also complement and celebrate the industrial heritage of the area, increasing the potential for both recreational and heritage tourism.”

It would be not be necessary, practical or financially viable to deliver the chosen network in one phase of works. Rather, it would be tackled incrementally - over time - as pots of funding become available for specific interventions. However, the ability to eventually complete the network relies on the continued availability of Queensbury Tunnel as the key connector between Bradford District and Calderdale. Your decision to abandon the structure - at a cost of £7.5M - permanently shuts the door on that opportunity. Doing so on the basis of a single new defect that could be repaired at modest cost is perverse, given the “challenging fiscal environment” you refer to in your letter of 9 July 2025.

The tunnel repair costing of £22.3M, developed by Jacobs, is a significant contributor to the high level of funding required for delivery of any of the three networks involving the tunnel. In 2016, the same company suggested that the works needed to bring the structure back into use would cost £35.4M (or £48.7M adjusted for inflation), so the new cost effectively represents a welcome reduction of 54%.

In 2018, Bradford Council secured funding for a two-week programme of investigations which provided valuable and extensive insight into the tunnel’s construction and condition. The work, undertaken by AECOM - highly-respected civil engineering consultants - resulted in the development of a tunnel repair programme and costing of £6.9M (or £9M adjusted for inflation).

The significant difference in these sums reflects the approach taken by the two firms. Jacobs failed to recognise the tunnel as a historical asset with the potential to attract heritage tourism and therefore put forward a scheme that would have resulted in the application of sprayed concrete throughout much of the tunnel’s length, with the associated loss of most of its original fabric. In contrast, AECOM proposed a programme of proportionate, traditional and sympathetic repairs, using concrete only where necessary.

The £6.9M AECOM costing pre-dated the spending of £7.2M on strengthening works in the tunnel. If the company's specification was updated to reflect works that are now complete, extended to include the former 'exclusion zone' between Nos. 3 & 4 Shafts and then put out to competitive tender, we believe it is likely that the £7.5M you propose to spend on abandonment would substantially - if not entirely - fund repairs that would make the tunnel 'greenway ready'. Such an investment would secure "best value for the public purse" - an outcome you regard as "imperative", according to your letter.

We absolutely accept that, as Minister, you can only act on the advice given to you by civil servants and you did not take the decision to abandon Queensbury Tunnel "lightly". That said, based on the information currently disclosed to us, it appears that your "full view of the facts" is, at best, partial and skewed to promote NH/DfT's desired outcome - to rid themselves of the liabilities presented by the tunnel once and for all.

Our solicitors have written to you separately to request sight of the full advice and evidence that was before you in making the decision. We look forward to receiving your response to that letter at your earliest opportunity.

Given the long-term strategic importance of Queensbury Tunnel as a future potential transport asset, we reiterate our view that the decision to abandon the structure should be subject to full independent scrutiny.

Yours sincerely

[redacted]

Graeme Bickerdike

Engineering Coordinator, Queensbury Tunnel Society

cc

Tracy Brabin: Mayor of West Yorkshire
Robin Tuddenham: Chief Executive, Calderdale Council
Judith Cummins MP, Naz Shah MP, Kate Dearden MP
Ruth Cadbury MP: Chair, Transport Select Committee
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Lorraine O'Donnell: Chief Executive, Bradford Council
Relevant Bradford Council officers
Cllr Alex Mitchell, Cllr Hazel Johnson, Cllr Alex Ross-Shaw
Helene Rossiter: Head of HRE, National Highways
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