

SLOUGH BOROUGH COUNCIL

REPORT TO: Neighbourhoods and Community Services Scrutiny Panel

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PART I

FOR COMMENT AND CONSIDERATION

WESTERN RAIL LINK TO HEATHROW –TRANSPORT MODELLING OF PROPOSED CLOSURE OF HOLLOW HILL LANE

1. **Purpose of Report**

To provide an explanation of the decision by Network Rail for the routing choice for the rail lines for the Great Western Main Line and Western Rail Link to Heathrow at Langley; the decision to close Hollow Hill Lane and not provide a replacement; and permission in principle/ permissive rights for a road bridge over the rail line to futureproof proposed mitigation/ compensation.

2. **Recommendation(s)/Proposed Action**

2.1 The Panel is requested to note the report and comment on it.

3. **The Slough Joint Wellbeing Strategy, the JSNA and the Five Year Plan**
3a. **Slough Joint Wellbeing Strategy Priorities**

Whilst not directly delivering the strategy's four health and wellbeing priorities, the Western Rail link would improve connections to Heathrow which would support the JSNA vision for Slough as a place where "People are proud to live, where diversity is celebrated and where residents can lead safe, fulfilling, prosperous and healthy lives."

3b. **Five Year Plan Outcomes**

Western rail and its appropriate mitigation in Langley are key elements of the following outcome of the Five Year Plan:

- Outcome 5: Slough will attract, retain and grow businesses and investment to provide opportunities for our residents.

Two of the Council's four long term priorities for Outcome 5 are "Collaborate on the Heathrow Expansion" and "Encourage modal shift to sustainable forms of transport to reduce traffic congestion and emissions". One of the performance measures for Outcome 5 is the journey time from the town centre to the M4 Jn6.

4. **Other Implications**

(a) Financial

There are no direct financial implications of the proposed action; however, there are significant wider economic benefits from the implementation of the Network Rail proposed Western Rail Link to Heathrow. The project will support employment opportunities at Heathrow as well as provide a direct fast rail service to Heathrow for passengers and employees living in the Slough area.

A S106 planning obligation would secure funding for works to be undertaken to improve highway junctions in Langley or measures with equivalent effect at the discretion of the local highway authority. The requirement to safeguard/ permissive rights for a road bridge over the rail line in the future will also avoid the costs of negotiating this at a later date should mitigation being proposed as a result of modelling be insufficient in practise.

(b) Risk Management

There are no risk management implications arising from this report.

(c) Human Rights Act and Other Legal Implications

There are no legal or Human Rights Act implications relating to the content of this report.

(d) Equalities Impact Assessment

No Equalities Impact Assessment has been undertaken as part of this update. However; Network Rail will need to assess as part of the Development Consent Order process the impact on local communities and the vulnerable in order to satisfy the Planning Inspectorate.

5. **Supporting Information**

WRLtH Scheme Overview

5.1 The Western Rail Link to Heathrow scheme objective is to provide direct access to and from Heathrow Airport Terminal 5 from the West, avoiding the need to interchange at London Paddington.

5.2 The journey time from Slough to Heathrow will be just 6-7 minutes. Four train services per hour have been specified with all trains planned to call at Reading, Slough, Heathrow Terminal 5 and London Paddington, and (alternately) additionally at either Twyford or Maidenhead.

Routing

5.3 The new rail link would leave the relief lines to the east of Langley station before diving down in to a cutting and passing under 3 new bridge decks which will support the Great Western Main Lines (GWML) above. There is then a short section of open cut/cut and cover tunnel before entering 4.5km of twin-bore tunnels which pass under the M4, M25 and Heathrow Airport before connecting to the existing stub tunnels at Terminal 5. A new embankment is constructed to the north of the GWML which carries the up-relief on a permanent basis and the down-relief on a temporary basis.

- 5.4 The current design and delivery methodology have been developed in order to minimise the risk of disruption on the GWML (except for 6 major track possessions over Christmas and Easter Bank Holidays).

The Development Consent Order Process

- 5.5 The scale and nature of WRLtH means it is considered a Nationally Significant Infrastructure Project (NSIP) and the decision to give consent to implement it must be given at a national level by the Secretary of State for Transport through the Development Consent Order Process.

The process for approval

- 5.6 As an NSIP there is a requirement to submit a Development Consent Order (DCO) to the Planning Inspectorate (PINS). After an examination PINS will submit a report with recommendation to the Secretary of State. The SoS will then have three months to consider whether to provide the consent for a statutory instrument to implement the scheme. The DCO is scheduled to be submitted to PINS by Spring 2020, subject to receiving a funding statement from the Department for Transport (DfT).

Traffic and transport assessment methodology

- 5.7 The Development Consent Order process requires the applicant to carry out and consult on an “Environmental Impact Assessment” or EiA. The EiA enables all parties to assess the likely significant social, economic and environmental effects of the proposal during construction and operation. This then allows for the scheme to integrate mitigation measures into the design and operation of any approved scheme in order that the benefits outweigh the negative impacts.
- 5.8 The Preliminary Environmental Information Report (PEIR) is an intermediate stage of the EiA process to allow for consultation on the developing proposals and methods for assessing impacts.
- 5.9 In response to the (PEIR) published by Network Rail for the Western Rail Link to Heathrow statutory consultation, Slough Borough Council advised that the Slough Borough Traffic Model should be used to quantify the changes in traffic volumes and journey times. SBC also noted that the Environmental Impact Assessment (EIA) should present a comparison of journey times with and without the Proposed Scheme on all key routes affected using the updated model.
- 5.10 Network Rail consulted with the local highway authorities of Slough Borough Council, Buckinghamshire County Council and a decision was taken to use the Slough Multi-Modal Model (SMMM17) for the transport modelling (details will be set out in Volume 3 – Supporting Information – Appendix 20.1 of the WRLtH DCO Environmental Statement). At the time of the assessment, no other available model covered the road network near Hollow Hill Lane to a level of detail sufficient to undertake the assessment.
- 5.11 The use of the criteria for determining the “magnitude of change” took into account the volume of vehicular change in comparison with the underlying congested nature of the road network in Slough. For example, a 30% increase on a heavily trafficked road could be a major impact whereas a 30% increase on a lightly/uncongested road could be a minor impact as it could be accommodated within the residual capacity.

5.12 The full assessment details will be included in the traffic and transport chapter of the EIA that will accompany the Development Consent Order submission. (Environmental Impact Assessment: Environmental Statement – Volume 2: Chapter 20 Traffic and Transport).

5.13 Key outputs are summarised below.

Impact on local roads

5.14 Detailed analysis of the Slough highway assignment models data identified five junctions for further assessment: North Park/Sutton Lane, Station Road/Waterside Drive, Langley High Street/Parlaunt Road, Langley High Street/Trelawney Avenue, and A4 London Road/Langley High Street. Local modelling indicated only one would require specific improvement because of the Proposed Scheme: Station Road/Waterside Drive. The modelling indicates that other junctions would all operate within acceptable thresholds.

5.15 Network Rail have also proposed indicative measures for addressing significant effects on non-motorised users (NMU'S such as pedestrian and cyclist). Amenity and severance have been proposed on other local roads such as Langley Park Road, Station Road, Langley High Street, Meadfield Road.

Justification for preferred routing - Alternative tunnel alignments assessed

5.16 The Option Selection appraisal process was conducted between 2013 and 2015, and alternative tunnel alignments were considered, some of which would have had a greater or lesser impact on the functionality of Hollow Hill Lane. The alternatives considered are set out below and were assessed in the overall context of WRLtH scheme requirements.

5.17 There are a number of technical challenges with any options for keeping Hollow Hill Lane open and all of these have an impact. The proposed closure of Hollow Hill Lane at Chequers Bridge results in the existing trips on the highway network being re-distributed and the modelling assesses this impact. The overall aim of the WRLtH scheme is a modal-shift to encourage transfer of trips to/from Heathrow from road to rail, with a greatly reduced rail journey time achieved between Slough and Heathrow T5 (6-7 minutes train journey Slough-T5).

5.18 The Great Western Main Line (GWML) is on an embankment between Langley Station and just to the west of Thorney Business Park. Currently, where Hollow Hill Lane passes under the embankment at Chequers Bridge there is 4.2m clearance above the existing road level.

5.19 In order to construct the WRLtH the existing up relief line (slow line to London) needs to be diverted to the north of the proposed WRLtH. The proposed GWML up relief line in order to tie back into the GWML needs to be on an embankment as it crosses Hollow Hill Lane in order to maintain a level rail between Langley Station and Thorney Lane Business Park.

5.20 To minimise impact on the main line train services between London and the west the airport lines connect into the up and down relief lines which are the two northern most lines on the GWML. As a result, the proposed WRLtH needs to cross the GWML to head south towards Heathrow Terminal 5. To cross the GWML the WRLtH needs to either descend and go under the GWML or climb to go up and over the GWML.

- 5.21 Going over the GWML would require a structure to provide a minimum clearance of approximately six metres over the GWML to allow for overhead line electric power equipment (OHLE). To achieve this and provide suitable rail gradients a substantial structure and additional land take would be required. Once over the GWML the airport lines would need to descend into tunnel, due to the height over the GWML the proposed tunnel portal would need to move southwards by approximately 700m (the WRLtH line would be at ground level at North Park Road). This would require a new road bridge to take North Park over the WRLtH. In order to construct the bridge existing houses along North Park would have to be demolished and part of golf course would be lost. This is not considered an efficient or economic design proposal.
- 5.22 To pass under the GWML, the WRLtH will descend into a retained cutting. Where the airport lines cross Hollow Hill Lane they will be at existing ground level. To keep Hollow Hill Lane open on its existing alignment would either involve a bridge over or a tunnel under the proposed up relief line embankment, the WRLtH and the GWML embankment. Section A-A and the image in Figure 1 shows the level difference in the vicinity of Hollow Hill Lane.
- 5.23 A bridge over the three rail lines would require a clearance of approximately six metres to allow for the OHLE. The existing GWML embankment in this location is approximately five metres higher than the surrounding ground level. To achieve the required highway gradients, lengthy approach structures would be required either side of the railway. To the south this would sever the access to Chequers Bridge cottages and block existing views from the cottages towards the east. It would require the existing junction between Market Lane and Maplin Park to be remodelled and a new structure over the Horton Brook. To the north it would sever the farm land either side of Hollow Hill Lane and a new bridge would need to tie into the existing access to the caravan park and Meads Bridge over the Grand Union Canal. The new structures would be within Flood Zone 3 resulting in an increase in the proposed area of floodplain compensation. Overall this would increase the land take and potentially give rise to significant environmental effects for the project particularly in relation to townscape and visual amenity, socio economic and water resources.
- 5.24 Alternatively, a tunnel under the up relief line, WRLtH and GWML embankments would have much the same effects due to the approach structures required e.g. Chequers Bridge cottages would lose their access, existing road junctions would need to be remodelled and farm access to the north would be severed. In addition, the ground water in this area is quite shallow so additional drainage and pumping would be required to keep a tunnel dry. The Horton Brook would need to be diverted further south to allow for the tunnel approach.
- 5.25 Diverting the road to the west of Hollow Hill Lane is constrained by the residential area of Maplin Park. An option to divert the road to the east of Hollow Hill Lane would require a new road and bridge over the GWML and WRLtH. A new road running eastwards, to the south of the existing caravan park before turning south adjacent the existing public footpath IVE/15A/1 passing over the GWML and then over the WRLtH where it is in either retained cut or cut and cover tunnel. The road would then need to link up with North Park, See Figure 1. This would require approximately 1.3km of new road to be built within the greenbelt, this could be reduced if the road was combined with the Shaft 1 access road.

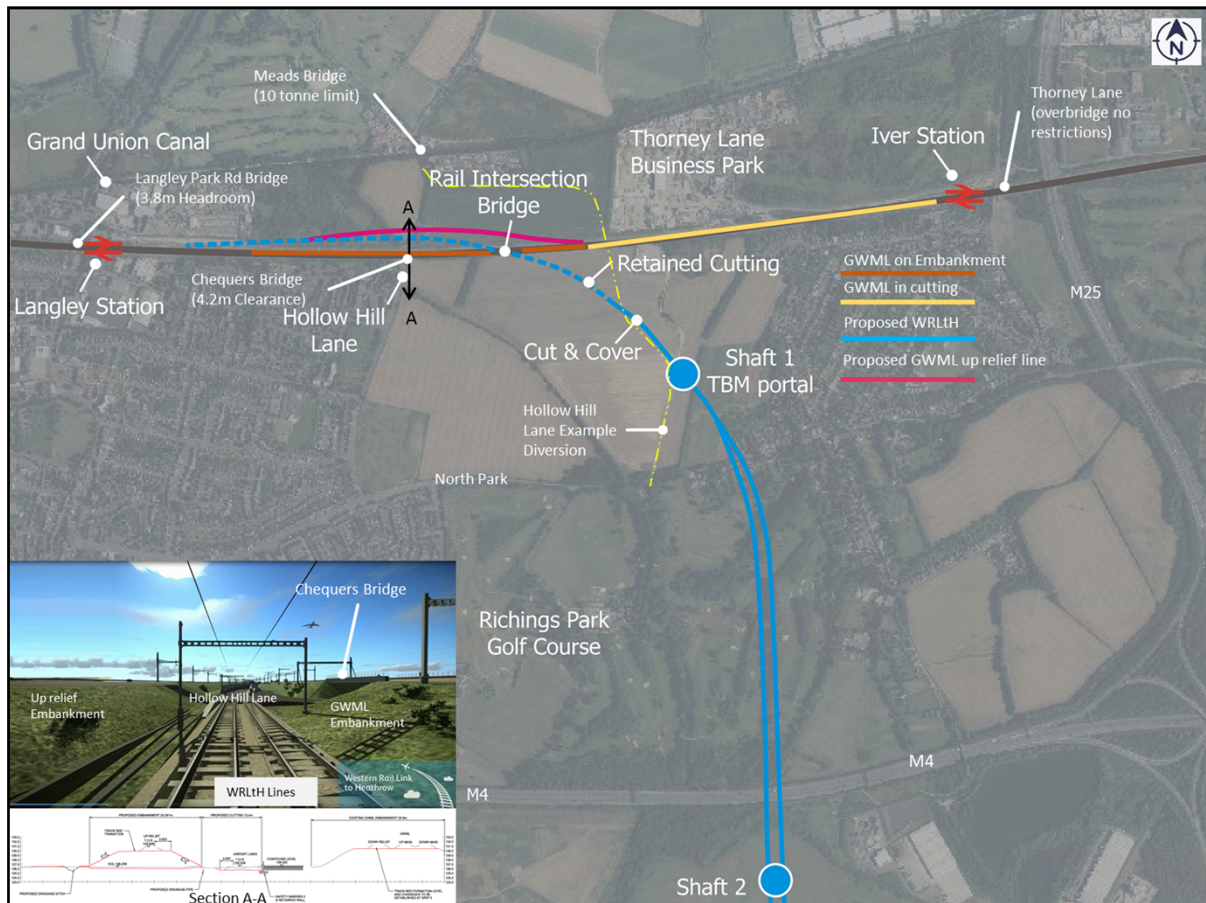


Figure 1: Hollow Hill Lane / WRLtH Issues and Constraints

5.26 The preferred route that has been taken forward for DCO submission was chosen because it avoided impacts on the Staines Moor Sites of Special Scientific Interest (SSSI) and Wraysbury Reservoir SSSI; required less construction through historic landfill sites; caused least disruption to the local community and environment; delivered the fastest rail journey times and the engineering solution was less complex and met the Department for Transport's scheme requirements.

Mitigation proposed

5.27 The council will liaise with Network Rail on the details of mitigation measures ahead of DCO submission.

5.28 The traffic modelling outputs demonstrate that with localised junction mitigations, the redistribution of the existing trips on the highway network is mitigated. If the proposal is approved, Network Rail will sign a planning obligation with Slough Borough Council to undertake the appropriate and proportionate junction mitigations, or alternative measures it considers to have an equivalent effect.

5.29 Following the adoption of these measures, the overall conclusion of the traffic and transport assessment is that there would be no significant adverse residual environmental effects for traffic and transport from the Proposed Scheme. As a result, none of the alternative road alignments involving bridges and/or tunnels are considered a proportionate response to the modelled impact of the proposed closure of Hollow Hill Lane that can be mitigated by other junction improvements. Therefore, there is no justification to support the additional cost or additional

environmental impact of providing a replacement to Hollow Hill Lane as part of the proposed WRLtH project.

- 5.30 Network Rail is a publicly funded company, accountable to Government via the Department for Transport (DfT). As such it has a responsibility to be cost-effective in its operations. Therefore, the cost of construction projects must be fully justified with any proposed mitigation proportionate to the assessed effects of the scheme and all expenditure is subject to public scrutiny.
- 5.31 The Council understand the parameters of the DCO process and will request that, alongside commitment to local road improvements, the DCO process delivers a mechanism (such as a “protective provision” and monitoring) to assess if the effects of the closure remove capacity on the road network required for Slough’s own future growth, and provide mitigation for this. This will include the preference for a road bridge over the Rail line at some point in the future as mitigation or compensation.
- 5.32 We will be seeking contributions towards AQ monitoring in Langley to determine the operational effect of potential increased traffic and emissions from closing Hollow Hill Lane.

6. **Comments of Other Committees**

That a further report be brought back to NCS Scrutiny from Network Rail.

7. **Conclusion**

The traffic modelling that has been undertaken to assess the impact of the Western Rail Link to Heathrow scheme using the Slough multi modal model is noted. The report explains the preferred routing option and how the impact on local roads from closure of Hollow Hill Lane can be mitigated for by junction improvements. Officers from SBC will continue to discuss suitable proportionate mitigations with Network Rail, noting the context of the Development Consent Order process for this Nationally Significant Infrastructure project and the need for proposals not to negatively impact the Borough’s future growth and the potential expansion of Heathrow.

8. **Background Papers**

‘1’ - Agenda Papers and Minutes, Neighbourhood and Community Services Scrutiny Panel, 8th September 2016.

‘2’ - Agenda Papers and Minutes, Neighbourhood and Community Services Scrutiny Panel, 27th February 2019.