



HIGH SPEED TWO PHASE ONE INFORMATION PAPER

E13: MANAGEMENT OF TRAFFIC DURING CONSTRUCTION

This paper outlines the framework for the control and management of traffic associated with the construction of the Proposed Scheme.

It will be of particular interest to those potentially affected by the Government's proposals for high speed rail.

This paper was prepared in relation to the promotion of the Bill for Phase One of the scheme which is now enacted. Although the contents were maintained and updated as considered appropriate during the passage of the Bill (including shortly prior to the enactment of the Bill in February 2017) the contents are now historic and are no longer maintained.

If you have any queries about this paper or about how it might apply to you, please contact the HS2 Helpdesk in the first instance.

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E13: MANAGEMENT OF TRAFFIC DURING CONSTRUCTION

1. Introduction

- 1.1. High Speed Two (HS2) is the Government's proposal for a new, high speed north-south railway. The proposal is being taken forward in two phases: Phase One will connect London with Birmingham and the West Midlands and Phase Two will extend the route to Manchester, Leeds and beyond.
- 1.2. HS2 Ltd is the non-departmental public body responsible for developing and promoting these proposals. The company works to a Development Agreement made with the Secretary of State for Transport.
- 1.3. In November 2013, HS2 Ltd deposited a hybrid Bill¹ with Parliament to seek powers for the construction and operation of Phase One of HS2 (sometimes referred to as 'the Proposed Scheme'). The Bill is the culmination of nearly six years of work, including an Environmental Impact Assessment (EIA), the results of which were reported in an Environmental Statement (ES) submitted alongside the Bill. The Secretary of State has also published draft Environmental Minimum Requirements (EMRs), which set out the environmental and sustainability commitments that will be observed in the construction of the Proposed Scheme.
- 1.4. The Bill is being promoted through Parliament by the Secretary of State for Transport (the 'Promoter'). The Secretary of State will also appoint a body responsible for delivering the Proposed Scheme under the powers granted by the Bill.
- 1.5. This body is known as the 'nominated undertaker'. There may well be more than one nominated undertaker – for example, HS2 Ltd could become the nominated undertaker for the main railway works, while Network Rail could become the nominated undertaker for works to an existing station such as Euston. But whoever they are, all nominated undertakers will be bound by the obligations contained in the Bill and the policies established in the EMRs.
- 1.6. These information papers have been produced to explain the commitments made in the Bill and the EMRs and how they will be applied to the design and construction of the Proposed Scheme. They also provide information about the Proposed Scheme itself, the powers contained in the Bill and how particular decisions about the project have been reached.

¹The High Speed Rail (London – West Midlands) Bill, hereafter 'the Bill'.

2. Background

- 2.1. This information paper outlines the framework for the control and management of matters that will affect the road network, such as construction traffic and temporary measures affecting traffic that will be necessary during construction of the Proposed Scheme. It also sets out the process by which affected residents, businesses and others will be informed of how construction activities could impact on the road network and existing traffic, as well as how construction traffic flows will be controlled and managed in their area.

3. Construction traffic impacts

- 3.1. The impact of construction traffic on local roads is likely to be a particular concern for residents who live or work near the line of route. HS2 Ltd is committed to ensuring that the adverse effects of such impacts are minimised, as far as reasonably practicable.
- 3.2. Construction traffic consists of the delivery of equipment and materials, and the movement of excavated materials. Along the whole line of route, the majority of construction traffic movements will be due to the movement of the quantities of excavated materials arising from tunnelling and earthworks. The project is reducing the amount of material that needs to be removed through its policy of reusing or recycling as much of the excavated material as reasonably practicable. The majority of material that will be excavated across the Proposed Scheme will be reused where possible within the design of the Proposed Scheme, such as the earthworks.
- 3.3. Where it is necessary to move excavated material and it is reasonably practicable to do so:
 - excavated material will be moved along the construction corridor (land required for the construction of the railway) of the Proposed Scheme so as to reduce impacts on the road network;
 - as appropriate and where reasonably practicable, rail or water transport will be used for the movement of materials and waste in bulk;
 - elsewhere, where necessary, excavated material will be transported by public highway along designated lorry routes, using A roads and motorways where possible and minimising the use of local roads; and
 - where transporting excavated material would result in levels of traffic leading to major significant adverse environmental effects, HS2 Ltd has proposed sustainable placement. 'Sustainable placement' is the local on-site placement of excavated material to avoid the environmental effects associated with transporting it (see Information Paper E3: Excavated Material and Waste Management).
- 3.4. As well as the movement of construction materials, construction traffic will include the movement of workers to and from worksites. In order to minimise

private car movements, contactors will be required to prepare travel plans. They will encourage workers to use sustainable modes of transport, where reasonably practicable, to reduce the impact of workforce travel on local residents and businesses.

4. Assessment of environmental impacts of construction traffic

- 4.1. The Environmental Statements (as updated by the Additional Provision Environmental Statements and Supplementary Environmental Statements) identify the environmental impacts of construction traffic. They forecast the level of light goods vehicle and heavy goods vehicle (lorry) construction traffic for each construction site, as well as construction worker car traffic. The number and frequency of lorry movements and the duration of busy periods have been forecast using estimated quantities of materials to be transported and the likely construction programme. Lorry movements for each construction site were assigned to routes that provide the most suitable links from worksites to the main road network, in order to minimise the environmental effects, as far as this is reasonably practicable. This assessment is on a 'plausible worst-case basis' and, therefore, represents a cautious assessment of the likely environmental effects.
- 4.2. The assessment of construction traffic focused on the following issues:
 - a temporary increase in construction traffic on a route that causes delays and congestion for road users and has a severance effect for non-motorised users (e.g. pedestrians and cyclists), making it harder for them to cross the road;
 - changes in potential accident rate and safety, parking and loading and public transport interchange resulting from construction traffic; and
 - changes in noise levels and air quality as a result of additional vehicular traffic as set out in Information Paper E31.
- 4.3. The assessment of construction traffic also looked at delays that could be caused by temporary closures of roads and public rights of way around construction sites.
- 4.4. Criteria were developed to identify significant impacts based on estimated increases in traffic levels resulting from construction traffic movements. These took account of current guidance and standards, as well as criteria developed for recent major railway projects, in particular the Channel Tunnel Rail Link (High Speed One) and Crossrail. Further details of the criteria are set out in the Volume 5 Technical Appendix Scope and Methodology Report (CT-001-000/1).
- 4.5. Estimated numbers of heavy and light construction traffic and worker car movements to and from the worksites formed the basis for the assessment of community impacts and noise and air quality impacts arising from construction traffic. Predicted changes in road traffic noise and air quality are described in the 'HS2 Phase One Environmental Statement Volume 2: Community Forum Area'

reports for each of the 26 community forum areas along the route. The reports also give information on worksite locations and proposed designated routes for construction traffic.

- 4.6. Where proposed worksites would be near each other and operating at the same time, cumulative traffic impacts on local roads were assessed. Where appropriate, this assessment was extended to consider the possible cumulative impacts on the wider road network.

5. Control and management of construction traffic to mitigate impacts

- 5.1. The Bill includes powers for the control of construction traffic by qualifying planning authorities (see Information Papers B1: The Main Provisions of the Planning Regime and E14: Highways and Traffic during Construction - Legislative Provisions).
- 5.2. This means that the routes to be used by large goods vehicles must be approved by qualifying planning authorities when the number of large goods vehicles, over 7.5t, exceeds 24 one-way trips per day to and from a site. The consent of the relevant highway authority is also required for the provision of any new or altered worksite access to and from a highway, if this is not shown on the plans deposited with the Bill. The highway authority must be consulted before works affecting highways or traffic can be undertaken and consent must be sought before interfering with any property of the highway authority or, in some cases, for construction under the surface of a highway (see Information Paper E14: Highways and Traffic during Construction - Legislative Provisions).
- 5.3. The Environmental Minimum Requirements and the HS2 draft Code of Construction Practice (CoCP), together with the various controls prescribed in the Bill, are intended to ensure that the impacts of the Proposed Scheme, including those relating to construction traffic, will not exceed those assessed in the ES. As part of these controls, the nominated undertaker will require that public access to premises be maintained, where reasonably practicable, and appropriate measures will be implemented to ensure the local community, economy and transport networks can continue to operate effectively. Where this is not reasonably practicable, alternative measures shall be identified to maintain continual public access, especially for pedestrians and cyclists, to routes in the vicinity of the construction sites. Information Paper D11: Maintaining Access to Residential and Commercial Property during Construction gives further details.
- 5.4. The draft CoCP is included as an appendix to the ES. It will provide a consistent approach to the management of construction activities throughout Phase One. It will evolve and will be subject to refinement and amendment as necessary, as the project design, assessment and Parliamentary processes develop. It will be finalised for Phase One when the hybrid Bill is enacted. (For further information, see Information Paper D3, Code of Construction Practice.)

- 5.5. The CoCP will require the nominated undertaker to prepare a route-wide traffic management plan in liaison with highway and traffic authorities and the emergency services. As appropriate, the plan will include:
- the means of managing and monitoring lorry flows;
 - the requirement for vehicle and driver safety;
 - requirements for preparing workforce travel plans;
 - the strategy for design and consultation for traffic management (including the signing strategy for emergency service access and lorry wayfinding); and
 - the requirements for protecting highways.
- 5.6. A draft route-wide traffic management plan was consulted on with key stakeholders, including all highway authorities along the Phase One route, during 2015 and a final version has been prepared and published:
<https://www.gov.uk/government/publications/hs2-phase-one-route-wide-traffic-management-plan>
- 5.7. The CoCP will require the nominated undertaker to also prepare local traffic management plans in liaison with the relevant highway and traffic authorities and the emergency services. As appropriate, these will include:
- the contractors' construction traffic flow assumptions;
 - the local routes to be used by large goods vehicles (approved where applicable), including lorry holding areas; and
 - significant works affecting roads and public rights of way, including temporary and permanent closures and diversions.
- 5.8. The impact of road-based construction traffic will be reduced by implementing clear controls on vehicle types, hours of site operation, and routes for large goods vehicles. Contractors will be required to consider and, where reasonably practicable, mitigate noise generated by road-going construction traffic.
- 5.9. The CoCP will cover measures to minimise mud from construction sites being spread by construction vehicles onto the highway, control vehicle parking (including parking by the nominated undertaker and contractor staff) and control the transfer of excavated material and waste to approved disposal sites. Measures to control road mud also need to be approved by the relevant planning authorities under the planning regime.
- 5.10. The planning of the works will take into consideration the affected residential, commercial, industrial and farming premises, and specifically their requirements for access and servicing (including delivery, collection and maintenance). Access and servicing will be maintained, as far as reasonably practicable, within the constraints of the works and the need to ensure the safety of the public; this may involve diversions, temporary traffic controls and the use of temporary

carriageways and footways. However, the Bill includes a general requirement to maintain reasonable pedestrian access to premises.

6. Traffic management measures

6.1. The construction works for the Proposed Scheme will inevitably affect other forms of transport. A wide range of temporary traffic management measures will be required, as appropriate, to facilitate the construction works and mitigate the potential impacts. These measures will vary and have a variety of impacts for different users and could potentially include:

- changes for pedestrians, cyclists and equestrians:
 - narrowing or realignment of footways to maintain pedestrian routes;
 - narrowing or realignment of carriageway cycle lanes, combined footways/cycleways, off-road cycle tracks and bridleways/byways to maintain cycle access;
 - signed diversions for where there is a temporary closure of roadside footways and public rights of way (i.e. footpaths, bridleways and byways) where it is not possible to maintain pedestrian and cycle routes;
 - signed diversions for equestrians where narrowing, realignment or temporary closure of bridleways/byways is required;
- changes for public transport users:
 - alterations to railway station entrances and exits and circulation of rail passengers within stations;
 - diversion of bus routes and suspension and relocation of bus stops and stands;
 - relocation of taxi ranks and pick-up and set-down areas;
- changes for general vehicular traffic:
 - road closures with signed diversions;
 - lane closures;
 - two-way traffic temporarily using a single lane, including under traffic signal control;
 - temporary road and junction layouts;
 - introduction or removal of traffic regulation measures (such as one-way streets, banned turns and weight restrictions);
 - temporary traffic-calming measures;
 - changes to traffic signal timings;

- temporary speed limits; and
 - suspension and (where practicable) relocation or reallocation of parking bays.
- 6.2. All temporary traffic management will be implemented and maintained in accordance with relevant guidance and codes, such as Chapter 8 of the Traffic Signs Manual, and with Safety at Street Works and Road Works (both published by the Department for Transport). Traffic management will have due regard for the needs of vulnerable road users.

7. Consultation

- 7.1. The Highways Sub-Group of the HS2 Planning Forum, which includes representatives from all the local highways authorities affected by the project, acts as a focus for consultation and liaison on highways and traffic issues that are route-wide. It will consider general construction traffic issues and the procedures for consultation and obtaining any necessary consents once construction commences.
- 7.2. Liaison will continue on a more local basis during construction to discuss specific day-to-day issues around construction traffic management as they arise. This is likely to involve the nominated undertaker, the HS2 contractor(s), highway authority officers responsible for traffic management, highway maintenance, street lighting, traffic signals, walking, cycling and public transport services (as well as utility company representatives where necessary)
- 7.3. Once contractors have been appointed, regular local traffic liaison meetings will be arranged with highway authorities, bus operators, taxi and trade representation (as appropriate), and the police - other emergency services will be included, as appropriate. These meetings will provide an opportunity for contractors to present proposals for future works affecting the highway, including methods of construction and proposed programme, and for a review of the associated traffic management requirements.
- 7.4. Some traffic management proposals may require Traffic Regulation Orders under the Road Traffic Regulation Act 1988 to cover measures such as the introduction of one-way streets, banned turns and temporary speed limits. These will be discussed at the liaison meetings. Applications for these orders will be made to the relevant traffic authority and advertised locally in the normal way.
- 7.5. The nominated undertaker will require contractors to communicate regularly with parties affected by the works. Local residents and businesses will be informed - appropriately and in advance - of the dates and durations of any closures of roads or public right of way, and will be provided with details of diversion routes at least two weeks in advance or when final details are available. Advance warning signs of road closures will be provided for users of roads and public of rights of way.

8. More information

More detail on the Bill and related documents can be found at: www.gov.uk/HS2