

environmental impact but further work would be undertaken to refine these locations and layouts.

- 8.4.13 Connection with the Curzon Street terminus in Birmingham would also require a number of demolitions and pass through an area, in Freeman Street and Seymour Street, of limited industrial heritage and townscape quality, as much of its integrity has been lost. The route would also intersect a small section of the Warwick Bar Conservation Area and would have adverse impacts on the setting of this area. However, as with Euston, Birmingham Curzon Street station lies in an area proposed for major redevelopment. The regeneration of Eastside is a fundamental civic ambition and is a key part of the City Council's Core Strategy (see 6.5.17). The proposed terminus could be integral to positive townscape change.
- 8.4.14 At Old Oak Common, the London Borough of Hammersmith and Fulham also views HS2 as a potential major catalyst for regeneration, and has plans to use the transport interchange to launch substantial residential and commercial/industrial redevelopment (see 6.5.12), with significant, largely beneficial, implications for the townscape.
- 8.4.15 West of Old Oak Common the new surface route would run on the trackbed of the existing railway along the Northolt corridor. The proposed widening of the rail corridor has been kept as narrow and within the existing railway corridor as far as possible, through the use of retaining walls. A number of locations along the route would require the demolition of buildings. These are dispersed along this route section and would affect small numbers of residential properties to the east of West Ruislip station.

8.5 Cultural heritage

Overview

- 8.5.1 The proposed scheme would adversely affect a number of archaeological assets, historic buildings and historic landscapes. Considerable work has been undertaken since March 2010 to mitigate impacts on the designated parks and gardens that would have been affected by the March 2010 preferred scheme. Potential impacts at Shardeloes, Hartwell House (see above) and Stoneleigh are now significantly reduced as are those affecting the 18th century grounds of Edgcote House, although at the latter a scheduled monument would now be adversely affected. Grim's Ditch scheduled monument would also be physically impacted by the proposed scheme, as it was by the March 2010 preferred scheme.

Archaeology

- 8.5.2 The appraisal of archaeological assets considered impacts on world heritage sites and scheduled monuments. No world heritage or other internationally important sites would be affected by the proposed scheme. Two scheduled monuments would be physically impacted by the route:
- Grim's Ditch in the Chilterns, west of South Heath. Grim's Ditch is a name shared by a number of Iron Age bank and ditch earthworks across the chalk uplands of southern England. The proposed scheme would remove some 23m of the ditch at this location.
 - Remains of a Roman-British Villa within the grounds of Edgcote House. This impact results from realignment to reduce impacts on views from the Grade I listed Edgcote House and on the ornamental lake, that would have resulted from the March 2010 preferred scheme. The proposed scheme would affect about 1.5ha of the monument, resulting in landtake to around a third of the designated site.
- 8.5.3 Where these sites cannot be avoided, some remedy could be achieved through excavation and record, involving a phased programme of archaeological work. This would need to be agreed with English Heritage.

- 8.5.4 Five scheduled monuments lie within 350m of the proposed scheme and would potentially have their settings adversely affected.

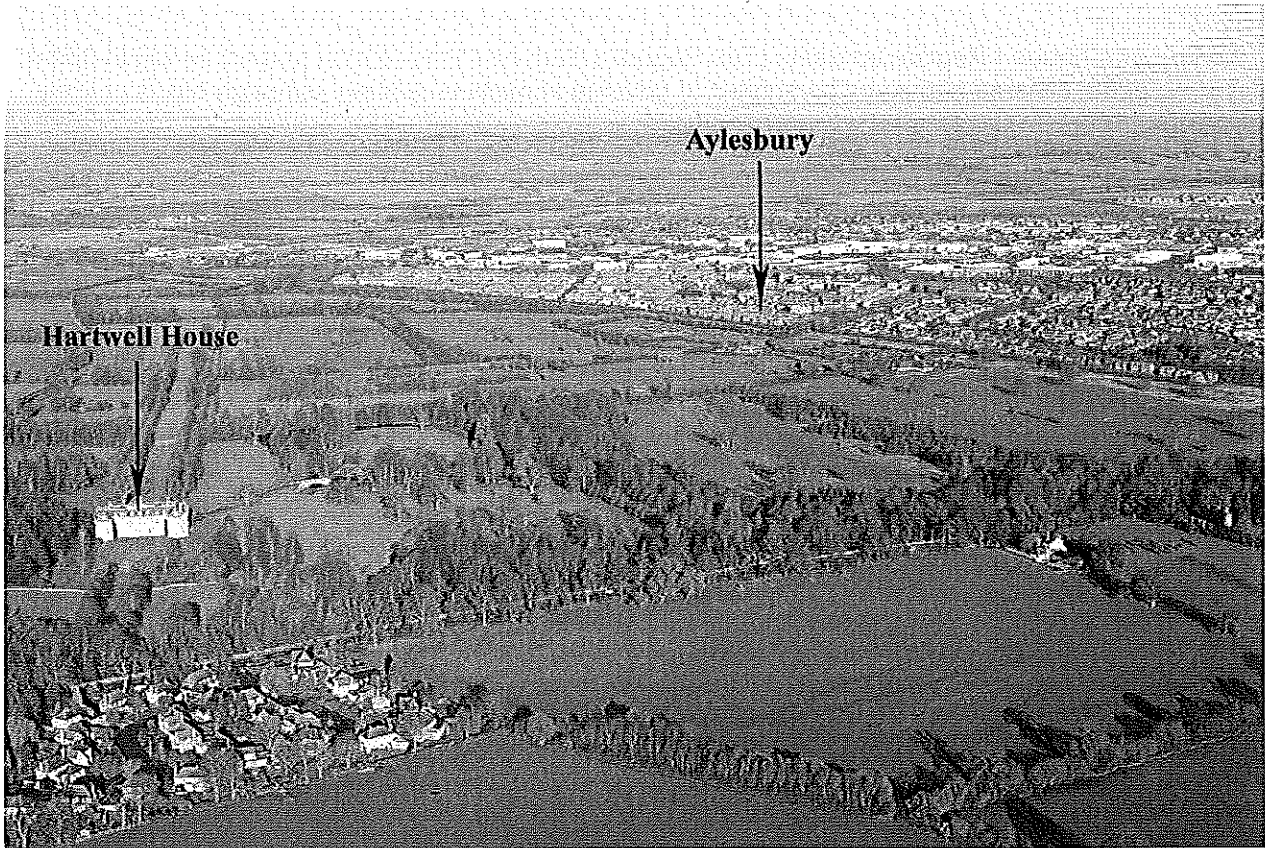
Historic buildings

- 8.5.5 The historic importance of buildings is determined, at a national level, through their grading by the relevant statutory agency. The proposed scheme has been aligned so as to avoid any potential direct impacts on Grade I buildings. One Grade II* building, the Department of Health and Social Security building at Euston and associated railings at 194a Euston Road, lies immediately adjacent to the proposed new station concourse, but careful alignment has ensured that this would be avoided. However, 194a Euston Road would be very close to the new station and, as it is attached to the Grade II listed 9 Melton Street which would be demolished, 194a Euston Road would require very careful protection.
- 8.5.6 A second Grade II* building, Park Farmhouse at Hampton-in-Arden, is close to the proposed car park for Birmingham Interchange Station. Construction would need to be carefully managed to minimise potential impacts on this building. Impacts on the setting of this building would however remain.
- 8.5.7 Eleven Grade I and twenty six Grade II* listed buildings lie within 350m of the proposed scheme and would potentially have their settings affected. This could be a positive change at Euston (seven and fourteen buildings respectively); and in central Birmingham (one and four buildings respectively). At Birmingham Curzon Street station, the Grade I listed former British Rail Goods Office would be situated about 25m from the HS2 platforms, so direct impacts are avoided but there would be impacts on its setting. However its current setting is poor and there would be opportunities for its enhancement.
- 8.5.8 A number of Grade II listed buildings would be affected. Fifteen would potentially be physically impacted including six at Euston and three by the Birmingham terminus at Curzon Street. A Grade II listed barn at Lavender Hall Farm in Berkswell would be likely to be demolished, with potential adverse impacts on the settings and context of the Grade II* listed Lavender Hall farmhouse.

Historic landscapes

- 8.5.9 Three Grade II* Registered Parks and Gardens would be physically impacted by the proposed scheme, but the impacts are all substantially less than would have resulted from the March 2010 preferred route. A green bridge covering the cutting north of Shardeloes would now largely screen views from the grounds, which have already been severed by the A413. At Hartwell House near Aylesbury, eastwards realignment by 75 to 85 metres would largely preserve the integrity of the landscaped grounds. Although still passing through the registered park, the route would affect ground that has already been remodelled and planted in recent years. The linear view from Hartwell House, which would have been significantly affected by the March 2010 preferred scheme, has now been largely avoided. The realignment has taken the scheme away from Hartwell House. This would place the line at the northern end of the avenue at a point where the existing ground level is generally higher and the avenue has been replanted in recent years. This would put the line in a deeper cutting and, with the removal of some newer avenue trees plus ground re-modelling, effective screening could be provided.
- 8.5.10 Re-alignment and lowering of the proposed route has reduced the degree of severance of the historic parkland at Stoneleigh near Kenilworth, which would now be largely avoided. The proposed route would be closer to the Grade II* listed and scheduled Stare Bridge, although well screened from it by woodland. The connection between and bridge and Stoneleigh village would, however, be maintained having been potentially severed by the March 2010 preferred route.

Figure 28 – The proposed route would run between Hartwell House and Aylesbury [HS2 Ltd]



- 8.5.11 Two Grade I Registered parks (The Regent's Park and Waddesdon Manor) lie within 350m of the scheme and could be subject to adverse impacts on setting, although this is unlikely.
- 8.5.12 Two larger areas of landscape considered within Natural England's Landscape Character Assessment to be of potential regional importance in historic terms, and traversed by the proposed scheme, comprise the Northamptonshire Uplands and the Chilterns.

Summary of generic mitigation measures for landscape, townscape and cultural heritage

Incorporated mitigation:

- Significant efforts have been made to mitigate potential impacts of the published scheme, particularly through better integration with landform. The section of the proposed line through the Chilterns has been lowered into tunnels and cuttings where reasonably practicable to do so, and the proposed route aligned to tie in with existing transport corridors. These have now been augmented by re-threading the proposed route past and through sensitive locations, further lowering of the route in places, and the introduction of 'green bridges'. This has been described further in Section 3.
- The development of the proposed route alignment and landtake requirements in urban areas have sought to reduce the impact on townscape to a practicable minimum; in particular attention has been given to townscape and listed buildings. In rural locations, the development of the proposed route alignment has sought, where possible, to reduce impacts on known landscape, townscape and heritage features and to seek landscape and visual integrity in listed parks and gardens. Examples of recent changes affecting registered parks and gardens have already been given.
- The known location and extent of archaeological sites and monuments has been taken into account in developing the recommended scheme and the alternatives.

Mitigation options:

- The appraisal has been undertaken without architectural design being in place with respect to form, massing and finishes. Adverse townscape impacts could be avoided or minimised and benefits could emerge on the basis of effective architectural treatment of structures such as viaducts and stations.
- Where practicable, the vertical alignment could be adjusted to avoid any identified deposits of archaeological significance.
- Refinement of route alignment to further utilise existing topography and land use features to screen views of route would be explored wherever practicable.
- Further design would consider the potential for additional earthworks to provide bunds and false cuttings to integrate the railway into the landscape and make substantial use of spoil from tunnels and cuttings along the route.
- Consideration could be given to the provision of replacement planting to mitigate landscape and visual impacts, especially those that occur during construction. In particular, the introduction of some two million trees along the rail corridor, as part of a general landscape mitigation strategy, would help to screen views and integrate the scheme within the landscape.
- Opportunities would be identified to introduce new planting and to promote high quality architectural treatment of civil structures.
- Tree retention could be adopted as a design principle where practicable and restrictions on working space could be imposed to avoid loss of trees. Where tree loss is unavoidable, replacement tree and shrubs could be planted close to their original location.
- Where vulnerable historic structures overlie a proposed tunnel, their structure and condition would be determined to give an indication of the risk of impact from settlement so that protective measures could be implemented.
- Measures to control visual impacts of the construction works would be implemented as part of a wider environmental management system that includes stipulating a code of practice for construction.