Introduction

This document is one of 22 Annexes to the main HS2 Cycleway Project Report. It sets out the preferred routes which were identified in workshops, refined in subsequent field surveys and then discussed further with local authorities.

The detailed mapping shows the different traffic free and on road sections, and includes brief notes and photographs describing points of particular interest along the route.

Background to the First Stage

In January 2014, the Department for Transport (DfT) commissioned consultants, Royal HaskoningDHV, to carry out a Feasibility Study into creating a series of world class cycling routes from London to Birmingham, Manchester and Leeds. The project considers a study area that is generally three miles either side of the planned HS2 Rail alignment, and was conceived as an opportunity to deliver excellent local facilities for communities along the whole length of the proposed railway.

It is envisaged that each section of cycle route would serve as an important facility at a local level, connecting where people live to where they want to go to: and by linking the individual sections together, a continuous long distance could be created that would provide an attractive leisure and tourism facility as well.

As far as possible the project was also to enhance pedestrian routes, and in some cases bridleways too, all within the context of creating continuous, safe and attractive routes which would encourage the public to cycle for local trips, for leisure and as tourists.

The report of this first phase of work was completed in December 2014. It included a total of 18 detailed annexes, of which this is one, each of which described a section of the preliminary route options in some detail. The routes themselves were derived from discussions with local authorities and other interested bodies, backed up by cycling the routes as far as this was possible.

In order to avoid too much repetition in the text and explanation of details, a selection of photographs of appropriate arrangements and details from both the UK and the Netherlands is included here to indicate the sort of quality of route the HS2 Cycleway aspires to realise.
Second Stage

The second stage of the study was carried out during 2015. It comprised meeting with the local Highway Authorities and with the principal institutional landowners, such as Network Rail and the Canal & River Trust. Following on from these meetings, and any necessary further fieldwork, the route proposals were revised, and a series of "workbooks" prepared covering the details of how the proposed cycleway would interact with Network Rail, HS2 and others. In addition 4 further Annexes were prepared covering links to the Peak District, and HS3 cycle routes from Manchester to Liverpool, Sheffield and Leeds.

South from Crewe the HS2 Railway bypasses Newcastle-under-Lyme and Stoke-on-Trent. We decided that the National Cycling route need not do this, as although well outside our notional 3 mile boundary either side of HS2, such a route would have much greater value, and interest, serving these two population centres.

Frequently Asked Questions

How will it be funded?
As the project is still in the feasibility stage, no specific funding commitments have been made; part of this study has been to determine the likely costs. However, should the project be commissioned, it is envisaged that it would be funded by DfT separately to current funding packages.

How will it be delivered, practically and politically?
Part of this feasibility study has been to identify potential delivery models. We have recommended that the local Highway Authority takes the lead, backed up by a central support team to handle commonly difficult matters such as land assembly.

How will it affect current funding streams?
It is not expected that this project would affect current funding streams, so that this project would be in addition to existing cycle infrastructure investment. It would, though, be advantageous to badge current schemes as part of the National Cycle Route

When will it be delivered?
This feasibility study has identified a potential delivery programme based on the dialogue with local authorities. Should the project be commissioned, we expect certain sections will be able to be delivered relatively quickly whilst others may take longer. Alternatively, funding arrangements could dictate that certain sections are delivered in a particular order. The findings of the feasibility study will help inform these decisions.
Design Standards - Summary

A set of design standards was developed as part of the first stage of the feasibility study. These are available as a separate document. The design standards strongly emphasise the need for continuity and integration of cycle infrastructure, and that facilities should be appealing to the end user and also consider the needs of non-users. The design standards are a working document, and will be reviewed throughout this stage of the feasibility study in order to best take into account differing local contexts.

The design standards are consistent with the project’s overall aim of the National Cycleway being a domestic exemplar of what high-quality integrated modern cycling infrastructure looks like: safe, direct, coherent, comfortable and attractive. The design standards also emphasise that adaptability will be important as the UK grows its cycling mode-share.

A strong focus is on the best practice seen in places with high levels of utility cycling like the Netherlands and Denmark. Attention is also paid to inclusivity, which not only covers all potential types of cyclists – including those with mobility impairment – but accessibility for all types of other users who will interact with the infrastructure. Benefits to the wider community should also be encouraged: even if individuals do not directly use the route for transport or leisure purposes, the design should take the opportunity for place-making along the route to improve the attractiveness of town centres or other areas through which the route passes.

The default position of the design standards is that cyclists should be afforded their own dedicated space with physical separation from other users. This is an effort to move away from infrastructure strategies that default to a shared use path, or on-carrigeway facilities with limited protection from motor vehicles on busy roads. The design standards, however, do allow for sharing with motor traffic, pedestrians or equestrians in certain circumstances – normally where volumes are low. Steps may nevertheless be required to engineer these conditions where they are not currently present. It is likely that many extant greenways through open space or in the countryside which are shared with pedestrians and equestrians would already be suitable for use by the National Cycleway with few changes necessary. In more built-up environments, however, the design standards promote the implementation of dedicated infrastructure for cyclists, consistent with the best practice found elsewhere in the world where cycling for everyday journeys is commonplace.

The design standards acknowledge the varied contexts of the areas through which the route is likely to pass. Quality of infrastructure should be highest where potential for the route to be used is greatest, which is in urban areas or between sizeable settlements in rural areas. However, designs should not be put forward that prevent further expansion as usage grows or new journey possibilities are created that stimulate demand for movement.

Single stage toucan crossing of dual carriageway in Aylesbury
HS2 Cycleway: A visual checklist of proposed standards

0 The HS2 Cycle route will start in the traffic calmed core of the town where cyclists share the road space on equal terms with motor vehicles. (Massluis)

1 Almost without exception cyclists will be permitted 2 way down one way streets in order to maximise their direct networks. (Gouda)

2 Sympathetic treatment of main street in typical small town

3 Closure of main street to traffic. (Rotterdam)

4 Typical English town with “pedestrianised” town centre already paved to delineate cyclists. (Stafford)

5 The Embankment, London, showing the space created for the Cycle Superhighway

6 Where space is limited the removal of the central white line and introduction of advisory cycle provision emphasises the presence of cyclists. (Gouda)

7 One lane of the road made into a two way cycling track (Redcliffe Bridge, Bristol)

8 Reallocation of road space through residential development to create 2 way cycle route. (Breda)

Throughout the section of HS2 Cycleway route described in these notes, it is intended that the overall route is created to the highest standards of design, of surface, of continuity and attractiveness all based on current best practice guidelines, including the Dutch CROW manual. The following examples drawn from England and Holland indicate what is intended, even though the brief descriptive notes attached to the route section maps may not explicitly say so. The photographs are loosely arranged to run from the town to the countryside ending up with the all-important junction and crossings details. These are required at each and every intersection with trafficked roads.
9 Cycle track set well back from main road and separated by avenue trees. (Rotterdam)

10 Wide promenade in urban park. (Tamworth)

11 New cycle track in Warwick University grounds with lighting

12 Typical railway path, 2.5m wide rural areas, 3.0m minimum urban areas. (Derby, Melbourne)

13 Wide towpath on Calder navigation

14 Narrow 2m wide towpath on Erewash Canal; note sealed surface with appropriate coloured gravel

15 Typical National Route in rural areas on lightly trafficked road. (Boxtel to Eindhoven)

16 Typical measures to show traffic on lightly trafficked rural roads on routes advertised for cyclists

17 Quiet lane approaching Lichfield – 20mph

18 Typical minor cul-de-sac in Holland, links to ongoing path for cyclists. No motor vehicles permitted except farm vehicles
19 Similar farm access on the way to Waddesdon

20 National Cycleroute (LF) parallel to main road in rural Holland. (LF13 Alphen)

21 Stone based cycle route through National Forest near Ashby-de-la-Zouch

22 Field boundary path with cattle grid and wicket gate approaching Kenilworth

23 Single stage toucan crossing of dual carriageway in Aylesbury

24 Dual use crossing of side road in Gouda

25 Cycling zebra at Aylesbury

26 Priority crossing of side road at Gouda

27 Path continuing parallel to main road (Gouda). Note the crossing is arranged on the desire line
28 Priority crossing in Rotterdam

29 Continuity of route on London Cycle Superhighway to Canary Wharf

30 Direct priority crossing in Lancaster

31 Direct crossing in York on the desire line

32 Treatment of approaches to splitter island at roundabout in Aylesbury

33 New shared use bridge over railway at Aylesbury Station

34 Tank Top bridleway bridge over M1

35 Major new cycle route attached to railway bridge approaching Nijmegen

36 Wide, on the level, underbridge at Tamworth
HS2 Cycleway: Crewe to Stoke-on-Trent Section

The route starts with good access to Crewe Station. Then there is a rural stretch from Weston to Winshill and Madeley. A disused railway takes the route smoothly over the M6 and through to Silverdale and Newcastle-under-Lyme town centre. The final challenge is to connect Newcastle to Stoke-on-Trent railway station and city centre.

The proposed route would be as follows:

1. Crewe Station to Weston Road. Widen the south side pavement to 4m taking space from the carriageway, to encourage shared use.
2. Connect with the existing cycling provision and crossings.
3. The Crewe Gates Farm Industrial Estate frontage road is not suitable for cycling. Rather run a promenade path centrally down the tree lined median strip.
4. The delay on the existing toucan is inordinately long. A second crossing phase needs to be introduced.
5. This first section of the existing cycling route is far too narrow and hard against this main road heavy with industrial traffic. The second section, which is set back behind trees, an almost textbook arrangement.

Over the first section an additional 5m or so of land should be acquired, the path shifted away from the road, and tree planting introduced.

6. The new link road to the A500 is to have a dedicated cycle track. This should be on the west side of the road, so as to avoid the roundabout, and should be set back from the road by a separating green border.
7. The new cycle track should tie in level with the existing Mill Lane Bridge so as to enable cyclists to avoid the A500 roundabout altogether. When completed this route will give a direct and convenient route for Weston residents to Crewe.
8. The Weston Lane is narrow, twisting and surprisingly busy. The best option would be to construct a field edge path as shown as far as the junction for Hough.
9. Casey Lane is a delightful country lane which will enable Hough residents to reach Crewe easily.
10. The HS2 Cycleway though needs to follow the field edge footpath so as to avoid using the busy main road.
11. Short length of path in wide verge to reach a crossing point for Chornton Lane. This will now provide a route for residents of the Chornton gated community to reach Crewe Station only 4kms away.
12. This lightly trafficked country lane does need some advisory cycle lanes around some of its bendy sections to remind local traffic of the possible presence of cyclists.
13. At the sharp bend on Waybutt Lane follow this gravel farm road (bridleway) through to Govsley Green Farm from where the way becomes an excellent concrete road. Surface the gravel section.
Den Lane to Wrinehall is an attractive road suitable for use provided the cycling lanes common on the Dutch National LF routes are laid.

Traffic calm and detail the main road for short section through Wrinehall.

Construct short section of new path along field edge/railway boundary. The first part will be on the County boundary line.

The bridleway route to Bower End Farm is a possible route but rather hilly.

Better follow the existing concrete slab track to the repeater Station and then forge a new path along the field edge boundary to the side of Lea Brook.

Make a path beside the brook all the way to the sewage works as an attractive and valuable local resource ending at the Mill Pond.

Widen the existing paths by the lake to 3m and provide a crossing of the main road.

There are a number of options through to the now derelict railway to Silverdale. The most direct is via Hungerford House Lane with a new link south of the M6. The most attractive, well away from traffic noise, is Netherset Hey Lane. This latter is to be preferred because it avoids any conflict with farming operations and because it connects well with potential links to Madeley Park Wood and Baldwin’s Gate.
HS2 Cycleway: Crewe to Stoke-on-Trent Section

22 Ramp down from the railway path and make up this footpath for a shared use route to Whitmore Heath. Care needs to be taken with the arrangement for passing HS2 Rail at this point.

23 Extend railway path to link to Aston Cliff for Aston and a network of minor roads.

24 Convert the whole railway route to a high quality greenway with a 3m wide asphalt surface and wide grass verge for everyday and recreational journeys - 6km of new route.

25 A long ramp is needed south of this short tunnel to connect with the road from Stoney Low Farm to Three Mile Lane for Keele University.

26 Excellent bridge high over M6. Exposure to motorway traffic noise is only for a brief period on this route.

27 Honeywell Tunnel (300m) is straight and dry and emerges into the midst of most attractive woods.

28 Make a link to the track at Honeywell Farm/Highway Lane for the best connection to Keele University and a link to the track for Madeley Heath. There may be alternative options to explore.

28a The University sits on the top of a high hill, which makes cycling to it a challenge and numbers doing it will inevitably be limited.

29 Excellent bridge over A525.

30 There are extensive traffic free tracks in the hilly country north towards Alsagers Bank. It would be very useful to forge a link up the hill on the edge of these woods to connect with the Finney Green roads. Making a good ramp down the side of the cutting near the west portal of the tunnel would need careful design to achieve an easy gradient.

31 The Silverdale Tunnel is 600m long, straight with good visibility. It will require lighting.

32 Link up with the existing Silverdale railway path. This has been built to a very high standard, except for its repressive access barriers which should be modified or better removed. Note the extensive network of greenways, open spaces and country paths in this area.

33 There are a number of useful connections to and from the Silverdale Path. Some need enhancing, particularly a crossing of Lower Milehouse where presently there is none.

34 The path passes under Liverpool Road.
Connect to the centre via Hempstalls Lane and the existing crossing of Ryecroft. At either end details and continuity need to be addressed.

Link to end of Iron Market and their award winning gardens.

The route to Stoke is best by the Stoke Old Road now a quiet residential street which could be made into a cul-de-sac. The question is how best to reach its start. Probably the best option would be to replace the old swimming pool subway with a single phase light crossing to School Street and then take highway space to make a 4m wide shared pavement along the south side of Brunswick Street and George Street all the way to the roundabout at the top of the hill. Hassell Street is another option.
38. Provide a raised table junction at Victoria Street.

39. Consider closing the rather awkward connection to Cumming Street so as to minimise traffic on the Stoke Old Road.

40. The success of this whole section of the route very much depends on achieving an attractive connection from the end of Stoke Old Road BEFORE it drops steeply away. Hartshill Park offers the solution. We propose a 2km long “promenade” falling at an exactly even gradient but winding in plan to match the contours to create a magnificent approach to Stoke and achieve a gradient climbing up to Newcastle of no more than 1:30. This could usefully be done in stages.

There is no possibility of a good route beside Shelton New Road, due to its lack of space for footway widening and the weight of adjacent traffic.

41. The connection to North Street will need care. Ideally it would be via the old sheds currently for sale. This would give the necessary space for the path to climb behind the terrace of houses even if a single zig-zag was required.

42. Include an avenue through this development site and emerge through the existing arch to Shelton Old Road.

43. There have been plans for a new promenade and bridge flying over the railway, canal and Queensway to unify Stoke Town Centre and the City Centre. This would need to be integrated into the rebirth of the Historic Centre. Glebe Street would be the alternative connection through to the Station and the University but this would require a radical overhaul of how this road worked with a closure to traffic of the section under the railway and enhanced approaches.

Alternatively close Glebe Street to traffic as has been mooted in the past.

44. Make 4m wide footway up one side of Regent Road

45. Stoke-upon-Trent Railway Station.

46. The key link to the Caldon Canal (for the Peak District and the city centre) requires:
   a. 4m wide footway from the Station and up the north side of Leek Road to Boughey Road
   b. Boughey Road needs tree planting
   c. Excellent drive through Hanley Park
   d. Canal towpath
   e. Make 4m wide footway up one side of Regent Road
   f. The route to the City Centre is being enhanced as part of the construction of the new Council Offices and Business Centre

47. The route south to Stone and Stafford is described in a separate document.