National Cycleway in association with HS2: Preliminary Feasibility Study

Banbury, Brackley, Buckingham and Waddesdon: Fieldwork Note Annex B16

Route maps and notes December 2015
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.

On this Banbury to Waddesdon section we have given particular attention to Brackley as this is a relatively isolated town but one which will be very close to the HS2 Railway. We have suggested that 3 really good greenways could be constructed serving Brackley, including one along the mostly intact disused railway formation to Buckingham. In addition we have prepared detailed “place making” material for Brackley itself, as an example of the sort of measures which a town of this size could introduce to popularise everyday cycling, as well as enhance the quality of life for everyone.

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-carriageway 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.
HS2 Cycleway: A visual checklist of proposed standards

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.

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)
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
Banbury to Brackley - 8 miles - Map 1 of 2

Banbury is the nearest main station to Brackley and it would be worth considering if this could ever be a regular cycling journey for even a few people. The Middleton Cheney, Marston, Lawrence and Halse road is a fairly direct route which is already popular with cyclists. The former railway route might have been an option, and indeed it is still mostly in place, but the critical bridge over the A422 west of Farthinghoe was lost decades ago and with it the main value of the western section. Furthermore it would not have served local communities as well as a route via Middleton Cheney. However, we do think that it would be very worthwhile to negotiate for a greenway along the Greatworth to Brackley section of the railway, some 6 kms long. This would avoid the long climb up to Halse and provide a real resource for Greatworth and Brackley enabling people to learn to cycle again and to go to real destinations. The lands are private but horse riding is popular in the area, and the railway formation has the width to provide a path or farm access road, together with a generous grass verge for horses.

The other small improvement which would be welcomed, we think, would be to construct a field edge path between Overthorpe and the motorway bridge. There is no footway on the road at all and as it is only 2.5 kms to the centre of Banbury, this is a distance which could easily be walked, as well as cycled.

We also considered a number of more southerly routes, for example the bridleway track from Astrop Hill Farm off the Overthorpe/Kings Sutton Road, which provides a slightly shorter route via Hinton-in-the-Hedges. We decided not to recommend this option because the road from Overthorpe is fairly busy, the route passes only a very small population and there is no chance of providing a really positive asset for Greatwood in the form of the Greenway option to Brackley.

We also considered a route via Kings Sutton, but the Oxford Canal towpath link from Banbury required for this option is very narrow with no real capacity to be widened to anything remotely near a useful standard for shared use.

The recommended route can be described in the following numbered points.

1. Banbury Bridge Street/High Street/Town Centre crosses the A4260 via existing traffic lights. Advance cycling boxes with clear lead-in lanes are required at this junction.
2. Windsor Street leads to the station and a rather too steep ramp northwards to a small park and the Oxford Canal to Cropredy.
3. Bridge Street is heavily trafficked at times but has space for clear cycle lanes.
4. A right turn facility is needed.
5. The Causeway is closed off to traffic at either end, so makes an ideal route for cyclists.
6. From Thorpe Way, there is a clear cycle path on the north side verge which needs a raised crossing of Westminster Way.
7. The cycle route contours around the Ermont Way Junction and needs “zebra” crossings.
8. Continue the cycleway as far as the motorway bridge.
9. Remove the central white line and add advisory cycle lanes over the motorway bridge.
10. Construct a new path up the field edge to provide a shared use route to Overthorpe. Care is needed to even the gradient so that this path is no steeper than the road (which has no verges or footpath over its upper section).
11. Join the road through the village.
12. This lightly trafficked road needs clear markings at the Warkworth Road crossing.
13. Cul-de-sac tarmac surface is poor.
14. Existing link adjacent to main road is narrow and bumpy. There is ample space to reconstruct this 3m wide.
15. This is the old main road, so it is very spacious compared with its traffic loads. We think that it would be valuable to construct a 3-4m wide path on the north side of the road, taking road space, in order to provide a traffic free route through to the school. Allow for detour to visit All Saints Church.
16. Delightful minor road has been used as a regional cycling route.
17. Brackley Road from Greatworth. This is the link to the potential railway path which would give the village an excellent route into Brackley in the valley well away from HS2 Rail.
Banbury to Brackley – 8 miles - Map 1 of 2
This link (part of the former railway to Towcester) is used as part of the Marston Estate permissive horse riding routes.

Existing track through the cutting. The Study team has not had the opportunity of discussing options and requirements with the landowners along this former railway.

Although the route is all privately owned, it appears to remain continuous along a hedge line and its bridges are intact. Between the Farthinghoe and the Steane bridleways the track bed is well used as a linking bridleway. South of Steane the railway is a farm access route and signed as a conservation area.

At this end the route is used by farm traffic.

The railway runs close to the main road on an embankment. It would be really valuable to make a link to the housing at Johnson Avenue.

Make a link through this open space to reach Humphries Drive.

Provide a “zebra” road crossing.

Existing railway path needs to be re-constructed.

Possibly route via the lake to avoid wet cutting.

Join main road.

Arrange for a shared use path along the south side of Market Street and High Street to reach the town centre and shops. See the detailed pages for the treatment of the Brackley Town area.

Halse Road is straight and fast and its steep hill is a deterrent which really precludes its use as an everyday route from Greatworth suitable for families, novices and all cyclists.

The link to Hinton-in-the-Hedges route is a valuable local connection but the options for a through route are not attractive.
Link to Helmdon – an HS2 Cycleway Link

The Radstone Road feels most unpleasant to cycle with too much traffic and poor lines of sight. This is only going to get worse with a further 900-1000 houses due for construction to the north side of Brackley. The old railway formation appears to be almost wholly intact and, indeed, its heavy earthwork cuttings and embankments have made it hard to assimilate into adjacent farmlands although it is a useful farm access route in parts. This would be a magnificent local greenway if it could be made into a traffic free route, both a resource for Brackley and a boon to Helmdon 7 kms away. This greenway route is identified in the Helmdon Parish Plan and has been an aspiration for a number of years. This study recommends that this link is put in place to provide a positive benefit for the communities of Helmdon, Radstone and Brackley. Once in place, the railway formation will give an appreciation of this type of habitat as well as enable the public to have a safe crossing of the hazardous Welsh Lane.

1. This bridge – Station Road – has very recently been infilled. It would be worth taking the route farther north from this crossing to be nearer the centre of Helmdon and even further towards Sulgrave. Note that this railway path can link through to an extensive network of minor roads in Northamptonshire, and connect with the existing NCN route to Daventry for a potential scenic option to re-join the proposed HS2 Cycleway as it approaches Leamington Spa.

2. The B4525 road bridge remains to give a safe crossing under this busy road. The railway cutting shown here is a SSSI on account of its grasslands. A path through the floor of the cutting would serve to give the public an appreciation of this type of habitat as well as enable the public to have a safe crossing of the hazardous Welsh Lane.

3. The railway formation appears to be intact. Its northern section is used for game cover whilst a long part past Radstone is used for farm access. Any greenway on this section would have to be constructed to a suitable standard to accommodate this traffic.

4. Links to Radstone. The northern one should run along the field edge at the foot of the embankment leading up to the road bridge. To the west of the village the HS2 road works should take care to include a central island crossing of this busy road in order that users of the bridleway can safely cross the road for the existing route to Halse. There may be merit in making this up to a cycling standard to serve that village.

5. HS2 Rail could enhance the greenway by making a spacious crossing of it. There would be a real benefit in organising both the existing public footway and the nearby bridleway to run along the old railway as far as Radstone thereby reducing the number of new bridges required over HS2 from 2 to 1 in this area.

6. The housing to be built either side should ensure that the route remains as a greenway through the development, and is well connected in all directions. Note the need for a link to Whitfield which is otherwise cut off by the main road and HS2 Rail.

7. The greenway, which has run across the filled in railway cutting, ends on the Northampton Road, where the existing footway should be widened for shared use.

8. The route can then continue via widened footways and Bulwell Hill to the Town Centre as described in the detailed mapping here.
Link to Helmdon – an HS2 Cycleway Link

- Traffic free and access roads
- On road

scale 1:25,000 AT A3

0 0.5 1km 1.5 2.0km
Brackley – Details through the Town - Map 1 of 4

The following maps describe the proposed routes in greater detail. The Town Centre, the schools and the industrial employment areas need to be connected to residential streets. This one route along the main high street cannot serve every purpose, but it can play a key part in a multitude of journeys as well as link the Greenways across the town. Because of the route’s high visibility to traffic and passers-by in general, it does need to be of a particularly high standard here so as to give out the message that pedestrians and cyclists are really encouraged in Brackley Town.

**G Route from Greatworth**
- G1 Make ramp up to Johnson Avenue for local access.
- G2 Make link path across open spaces for local access.
- G3 Cross road at midpoint between the two roundabouts on a raised zebra crossing – this will also serve to slow traffic down.
- G4 Reconstruct railway path.
- G5 Provide ramped access to this link path to Banbury Road
- G6 Ramp up at 1:20 to reach the edge of the Park for views and to bypass the flooded area.
- G7 Rejoin the railway route.
- G8 Continue through to join Hinton Road.
- G9 Widen footway to 3m so as to allow the public to continue on a traffic free route even though the road is only lightly trafficked. If possible plant avenue trees so as to draw the park out towards the Town.
- G10 Provide appropriate crossing detail of main Oxford Road.

**HH Link to Hinton-in-the-Hedges**
- HH1 Lightly trafficked road from Hinton with excellent views over valley towards Brackley.
- HH2 Provide wide central island, located in existing ghost lines, so as to enhance the safety of the road crossing by enabling the public to cross the traffic in two stages.
- HH3 Remove remains of barrier and restore old road at least 3m wide.
- HH4 Follow cul-de-sac road with links to the Park and Lake.

**B Route to Buckingham**
- B1 Herries Farm Road is scarcely used. It does need reconstruction.
- B2 Excavate all this material to supply the material needed for the Bypass Bridge, and leave 1:30 graded ramp down to the railway path.
- B3 Follow railway track-bed.
- B4 Construct bridge over the bypass. The western approach needs to be heaped up against the high northern side of the cutting.
- B5 Warren Truss Bridge 3m wide, 40m long or similar.
- B6 Construct ramp on east side from fill, and acquire piece of adjacent land for this embankment.
- B7 Good railway route once past the road.
- B8 Provide new bridge on existing abutments.

**C Route though the centre of the Town**
- C1 Widen pavement into highway to gain 4m shared use, plus space outside door entrances.
- C2 Follow road to south of Town Hall.
- C3 Create dedicated way through edge of car park.
- C4 Contraflow cycling on this side road and minimise traffic.
- C5 Widen footway to 4m. Note that one could equally follow the north side footway which might better serve the schools in the Manor Road area.
- C6 Provide crossing sequence at existing traffic lights.
- C7 Create 4m wide footway all through.
- C8 Rebuild short length of Brackley Park Wall at pinch point.
- C9 Use existing signals to cross road.
Brackley – Details through the Town - Map 1 of 4
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Brackley – Details through the Town - Map 2 of 4

B Route to Buckingham

B9 Arrange stock fences and gates over this section to suit farmer.

B10 Replace new bridge on existing abutments. Make a ramped connection to the bridle path below coming off the embankment on the north east side. Reconstruct track back to the northern railway route permissive path.

B11 Maintain this railway bridge as a feature. It is almost at the meeting point of the 3 Shires.

B12 At HS2 Rail either provide for a feature bridge on the line of the railway path, or construct a path on a new alignment carefully arranged so as to minimise the length of diversion under the HS2 viaduct.

B13 Link to Westbury needs to be built to a good standard. If possible the path needs to be set at the level above any floods in the River Great Ouse.

B14 Construct permanent link to Mixbury.
Brackley – Details through the Town - Map 3 of 4

H Route to Helmdon

H1 Cross High Street on existing signals – update to toucan.
H2 Provide raised crossing of Hulse Road.
H3 Allow two way cycling on old road and rebuild surface.
H4 Bulwell Hill – old main road – is a residential street bypassed by the new road
H5 Create 3m wide shared use footway along this side by widening pavement into carriageway. If possible space should be gained so as to plant avenue trees in order to enhance the attractiveness of this route.
H6 Provide raised pavement crossing of Radstone Road.
H7 Widen footway to 3m as far as line of old railway.
H8 Look to developers to provide promenade along the general line of the old railway the full length of their site, including with links to the developments.

T Link to Turweston and Stowe

T1 Follow a number of residential roads through Old Town.
T2 Narrow link paths could gain width by replacing hedges with fences.
T3 Wide track under former viaduct
T4 Make provision for gently graded link in any new development and connection to Top Station Road.
T5 Existing bridge over River.
T6 Wide bridge under bypass.
T7 Widen link path to village.
T8 Quiet residential cul-de-sac.
T9 HS2 passes beneath lane in short tunnel. This is the way to the airport and Stowe.
Brackley – Details through the Town - Map 3 of 4
**Whitfield Link**

W1 Arrange for convenient link through Development Site.

W2 Provide crossing in design of new road. At this point the road runs on an embankment, and a 2.4m high straight through subway should be possible. It would be appropriate for this fast road. It may be possible to divert the bridleway via this crossing too, in which case the subway needs to be 3.0m high.

W3 Cyclists and walkers can follow the line of the old main road once the new alignment has been built.

W4 A new cycling bridge over HS2 would be better than a pavement extension to the main road bridge, as well as the more economical.

W5 Continue on old road to reach the Avenue for Whitfield.

**Route to Helmdon**

H9 A path on the former railway will allow for both the adjacent footpath and bridleway alignments to be greatly improved, and the current two bridge crossings of HS2 to be consolidated into one.

**Suggested rerouting of public rights of way in this area**

H10 Railway path continues to Radstone.
Brackley – Details through the Town - Map 4 of 4

- traffic free and access roads
- on road

[Map showing traffic-free routes and access roads through Brackley Town.]
Brackley to Buckingham

Brackley is rather cut off from Buckingham, even though it is only 12 kms away. The main A422 road is much too fast and busy for general cyclists. There is a minor road route, via Stow Park, which relies on the rather rough Weston Airstrip roads and bridle paths. This gives a useful if circuitous route.

However, a much better option would be to negotiate to create a greenway along the former railway, as this would be a tremendous local resource for both communities; a linear park, a traffic free route and an invaluable place to learn to cycle again as well as popularising this activity.

Just as importantly this railway route provides a real transport option for Westbury and Mixbury both villages very close to HS2 Rail.

This study recommends that this railway path is taken forward as the key link to this part of the HS2 Cycleway network. As HS2 Rail cuts right across it, this recommendation could hardly be more appropriate.

The Stowe route is treated as a leisure option for the more experienced cyclists, as well as a tourist destination.

1 Leave Bridge Street via Herries Farm Road which needs a good tarmac surface
2 Ramp down to the railway path and follow this attractive cutting through to the A43.
3 The main road is at the same level as the old railway and its volume and speed of traffic requires a new bridge. The approaches of this should be arranged in earthworks – see detailed section
4 Alternatively enhance existing shared use path down Buckingham Road, build up the riverside path with a new bridge over the stream to straighten out the route, use the existing key bridge under bypass and follow banks of the River Great Ouse to reach the line of the railway.
5 Place new bridge on existing abutments.
6 The railway is mostly intact but in places it may be more convenient for the farmer if the path was to follow the river bank rather than cut across the fields.
7 Ramp down to cross the track, or it may be easier to replace a bridge span, provided adequate clearance is achieved. East of the bridge there is currently a clear path.
8 Very striking Great Central Bridge fl ies over the railway.

Note: An alternative greenway route might be developed as a link perhaps,
(a) Very difficult crossing of main road – needs “zebras”
(b) Existing cycling route – old road.
(c) Provide central island crossing of main road.
(d) Existing railway path is currently a permissive route. It would need formalising with a new surface.
(e) Replace missing bridge on existing abutments.
(f) Ramp down at 1:20 to reach lower railway.

9 Railway well used by construction plant and equipment for HS2 investigations. Currently HS2 Rail makes no provision for a path on the alignment. A high bridge through their embankment would serve to make a feature of the route – better than a diversion around to the planned viaduct.
10 Bridleway to Westbury crosses open fields. Ideally this would be made up with a tree lined path fenced off from the livestock. Note the remains of flagged causeway across the flood plain. In the opposite direction to the south make up the whole track to Mixbury to make for a good everyday connection for that village.
11 Wide track continues as far as drive to house. The path is in a cutting and does not overlook this property.
12 This last section of the route has a good stone surface. Any bitmac re-construction should be 4m wide to allow for access to the house. The river bridge appears to be in good condition.
13 Provide “zebra” crossing at Finmere Road.
14 Railway is open fi eld over this section.
15 River bridge remains.
16 Wide grass bank ending in gates.
17 Heavily overgrown embankment section.
18 Short section with newly built jumps. These would have to be re-located.
19 Magnificent avenue of trees line the footpath to Finmere. Although not on the actual alignment, this is a nice monument to the original plans to make an avenue from Stowe to Finmere.
20 Well used farm track through cutting.
21 Old level crossing.
22 Open grasslands with “circular walks”.
23 Rough land. It may be best to drop to the south side of the railway embankment.
24 The road bridge and the following river bridge are missing. It would be best to negotiate along the south bank of the river to regain the railway route. Alternatively, follow the field edge along the railway embankment and place a new bridge over the river at a lower level before climbing up to re-join the formation.
25 This well wooded embankment is used for game management.
26 The bridge over the river is missing. The new one could be at a lower level as neither side is used by the landowner. The River Great Ouse is really quite small this far up its catchment.
27 Another wooded embankment. The way through along its top is kept clear for the management of pheasants. The brick arch near the river remains in use and the farmer has cut through the embankment 100m further to the east.
28 The railway is built across here and the greenway will need to drop down to the adjacent field and join the road via an existing track.
29 Follow the road in Radcliffe to reach an existing track (footpath status) to reach the railway again.
30 This beautiful section leading into Buckingham is owned by New College. The viaduct remains intact.

31 A massive slice has been taken out of the embankment. This will need replacing with material from either side, all to a slightly lower level.

32 Join the path which runs to the side of the old station. This has the space for widening to 3m. Ensure link is made to any new development.

33 A subway through the road embankment is warranted here so as to extend the existing Jubilee Path to the best standard.

34 This is a well established section of railway path crossing two viaducts with good views of the town. It all needs re-building to the HS2 cycleway and greenway standard.

35 Leave by Station Road for a smooth descent to the river and road into the Town Centre.
This route should be seen as an additional route taking in Stowe Park. It is very much a less satisfactory route than the proposed railway path in that it is circuitous, hilly and partly trafficked. The route relies on the link via Turweston Airfield, which locals say is well used and accepted.

1. There are a number of options through this maze of residential roads.
2. Existing path passes the remains of the Great Central Viaduct, then under the A23 via a spacious bridge through to the village on a narrow tarmac path which can readily be widened.
3. This minor road is a quiet cul-de-sac.
4. Good bridleway tracks all of which can be made up to a good standard.
5. Around the perimeter of the airport the common route follows concrete hard standings and other paraphernalia of the former military airfield (now only used for industry and light aircraft).
6. The route joins the public road at an entrance used by a few commercial vehicles.
7. These minor roads are all quiet and appropriate for the HS2 route. They are signed as part of the Great Central Ride, route 70.
8 To go via Stowe Park, follow the Oxford Water Avenue, which drops and climbs more than one might think. This first section has rather too much traffic and a separate path down the side of the Avenue would be preferred.

9 This bridleway route was once a tarmac road, but is now much damaged by farm and construction traffic. The road needs to be re-built and, as far as possible, estate traffic should be directed onto the parallel public roads to prevent future problems.

10 Stowe Drive down to garden entrance. New Inn Farm is now the main visitor entrance to the National Trust Property.

11 Stowe Avenue is not pleasant to cycle because it has a good deal of traffic, feels rather narrow between high verges and has a couple of steep hills. It is undeniably magnificent though with the Corinthian Arch staring down on it. It would be much better if the east side promenade was re-built. This tarmac path is worn out and needs re-building to a 2.5m width, on appropriate mesh to protect the tree roots of the avenue either side.

12 We have to use a short length of the main road. This has space for clear advisory cycle lanes to warn motorists to expect cyclists.

13 A small memorable stretch could be incorporated by going past the church (built in 1700 on the site of the old castle) and connected to the old graveyard by Church Street. At this point you need to re-join the road, but here traffic calming measures have been put in place. This “detour” avoids the main road for most of the way and is a useful detail for this HS2 link.
The course of this section may be affected by whether or not a new station is built at Calvert on the Oxford/Cambridge line, and how best to link it. The proposals here are independent of this and include a link from Hillesden to Steeple Claydon, to make the most direct route possible and the wonderful traffic free link via Rome Wood, which delivers a memorable link to Waddesdon. HS2 Rail is very close here and there may be opportunities for making further enhancements of the route as the Rail details are worked up.

1. The signed road to Gawcott is rather awkward, steep and narrow. It would be better to follow the steep path to Primrose Way and join Embleton Way to the roundabout.

2. The details here need to be designed to give a clear route for cyclists.

3. The Buckingham Road is slightly busy, but it is level and quite well used by cyclists. Removal of the central white line and the addition of advisory cycling lanes would be desirable. The separate footway could perhaps be suitable for family groups or school children.

4. The Hillesden road – The Barracks - is exceedingly beautifully maintained and only lightly trafficked.

5. Although the option via the church and Church Hill Farm climbs a bit, the view is well worth it. Alternatively, a route around the excellent farm roads may be possible.

6. This lovely avenue unfortunately takes us out of the way!
Buckingham to Waddesdon Manor - Map 2 of 3

7 This direct route, although a public footpath, is clearly used by cyclists. Its details would need to be discussed with the farmer, including perhaps a diversion to the field edge.

8 These two narrow footbridges will need to be replaced.

9 The best link to the village is via this utility service track, if agreement can be reached. The footpath route is rather more circuitous, but still possible.

10 Past the shops and pub.

11 This is our current proposal linking to Claydon House.

12 This route would be better if a Steeple Claydon station were to be developed.

12a This rerouted bridleway should be constructed to a full shared use standard with a sealed surface and wide grass verge adjacent. This will then provide a good cycling route from the relatively isolated Calvert. A wide landscaped margin should be provided against the side of the active tip. Once the landfill and tip operations are complete then a more direct and landscaped route should be put in hand.

12b Edgcott Road is a very lightly trafficked road and suitable for the national Cycleway.

13 Ideally, there would be a new link path on the Claydon House estate, but otherwise follow the road and fashion a straight over crossing to the Knowlehill Farm Avenue.

14 The current bridle path climbs steadily through the woods on a fairly good stone road to eventually reach Finemere Hill House. This has spectacular views but the climb is significant and the drop to the railway is steep.

15 It would be much better to negotiate a route more on the level, perhaps on the line shown, following the field edge hedge line and a short new path through the woods. This would perhaps allow the bridle path below Finemere Hill House to be extinguished, or reduced to a footpath?
Buckingham to Waddesdon Manor - Map 3 of 3

16 This route will require a bridge over HS2 Rail, through to the existing bridge over the Waste Recycling plant new works access road on the old railway.

17 The existing bridle path runs through the extensive farm buildings, which must be less than satisfactory. We suggest that it is diverted around the field edge boundary of the railway/works access road, to join the Edgcott Road and pass under the old railway.

18 From Edgcott Road follow the north side of the Network Rail corridor utilising HS2 Rail tracks and links where possible. This will be an attractive route using open spaces and small woodlands.

19 Pass under the new road bridge adjacent to the railway, continue along the margin of the railway land to pass under the side span of Station road Bridge before turning north to link to the road. This route will give an excellent link to the Railway Centre.

20 The current proposals do not serve a Quainton/Waddesdon link at all well. A direct route could be achieved by running along the boundary of HS2 Rail land and then crossing over the line to reach Quainton Road via the planned accommodation bridge (which will need to be revised with 1:20 ramps orientated along the desire lines).

21 If possible this part of Quainton Road needs to be closed off to through traffic, except walkers and cyclists. It is slightly surprising that the HS2 Rail project has not taken the opportunity to provide a bypass taking the main road away from Waddesdon in this area. In the future, should this area ever be developed in any way then a direct ‘greenway’ route should be provided through to Waddesdon Village centre so that everyday trips can be made on foot or by cycle.

22 The centre of Waddesdon can only be dealt with by means of detailed traffic calming.
Appendix: Route options at Brackley
National Cycleway in association with HS2: Preliminary Feasibility Study – B16 Banbury, Brackley, Buckingham and Waddesdon section

December 2015

B16

National Cycleway associated with HS2

Mini-Study with Place-Making: BRACKLEY

1/1000em

Artist's impression 1

Artist's impression 2

Rationalise car parking
Promote and enhance local features
Incorporate other modes of transport
Design for pedestrians and cyclists
Narrow carriageway – maximise footpath
Enhance public realm
Ensure high level of comfort for all users
Implement traffic calming measures
Create destinations and places
Connect spaces
Design to be responsive to the Environment and local context

Achieve a balance between movement and place

Design for continuity
Provide Crossings at key locations
Ensure visual attractiveness
Create and define clear gateways
Design for high legibility

Greening streets and maximise green space
Ensure a clear hierarchy of streets and paths
Facilitate retail activities