

Site Before Construction

Landscape context

The area is characterised by large open fields and shallow chalk valleys which are crossed by sunken lanes and historic footpaths and hedgerows. Views across the Colne Valley and towards the Chiltern Hills are valued. Despite the presence of the M25 and A412 the landscape retains a rural character.

Landscape photography (pre construction)



1 Photograph - view along Tilehouse Lane, looking north (September 2017)



2 Photograph - view towards Harefield from Old Shire Lane, looking south east (September 2017)

Key

- Proposed railway alignment
- Site boundary
- Site area
- Building
- Agricultural land
- Green space/ private gardens
- Woodland
- Ancient and semi-natural woodland
- Lake / canal / river



Site plan showing its wider environmental context

The Construction Site

The construction site near West Hyde is the main compound for the Chiltern Tunnel and Colne Valley Viaduct.

The large self-contained construction site allows us to reduce our impact in the following ways.

We are:

- Reducing the number of HGV movements on the local road network by creating a temporary internal access road to serve the Colne Valley Viaduct
- Using new M25 access slip roads to reduce works traffic on the A412
- Stockpiling excavated soil on site and reusing materials in the landscape design wherever possible
- Scheduling all deliveries electronically to prevent congestion near the site
- Implementing pre-cast concrete construction for both viaduct segments and tunnel lining at the main compound – removing concrete delivery trucks from local roads.



Pre-cast concrete factories for the tunnel lining



Tunnel Boring Machine assembly at the South Portal

Key



Site access from M25 slip road



Temporary construction stockpiles (topsoil, subsoil and general fill)

1

Chiltern Tunnel South Portal and cutting

2

Site offices, parking and temporary accommodation

3

Main construction and fabrication area

4

Tilehouse Lane cutting (approximate extents)

5

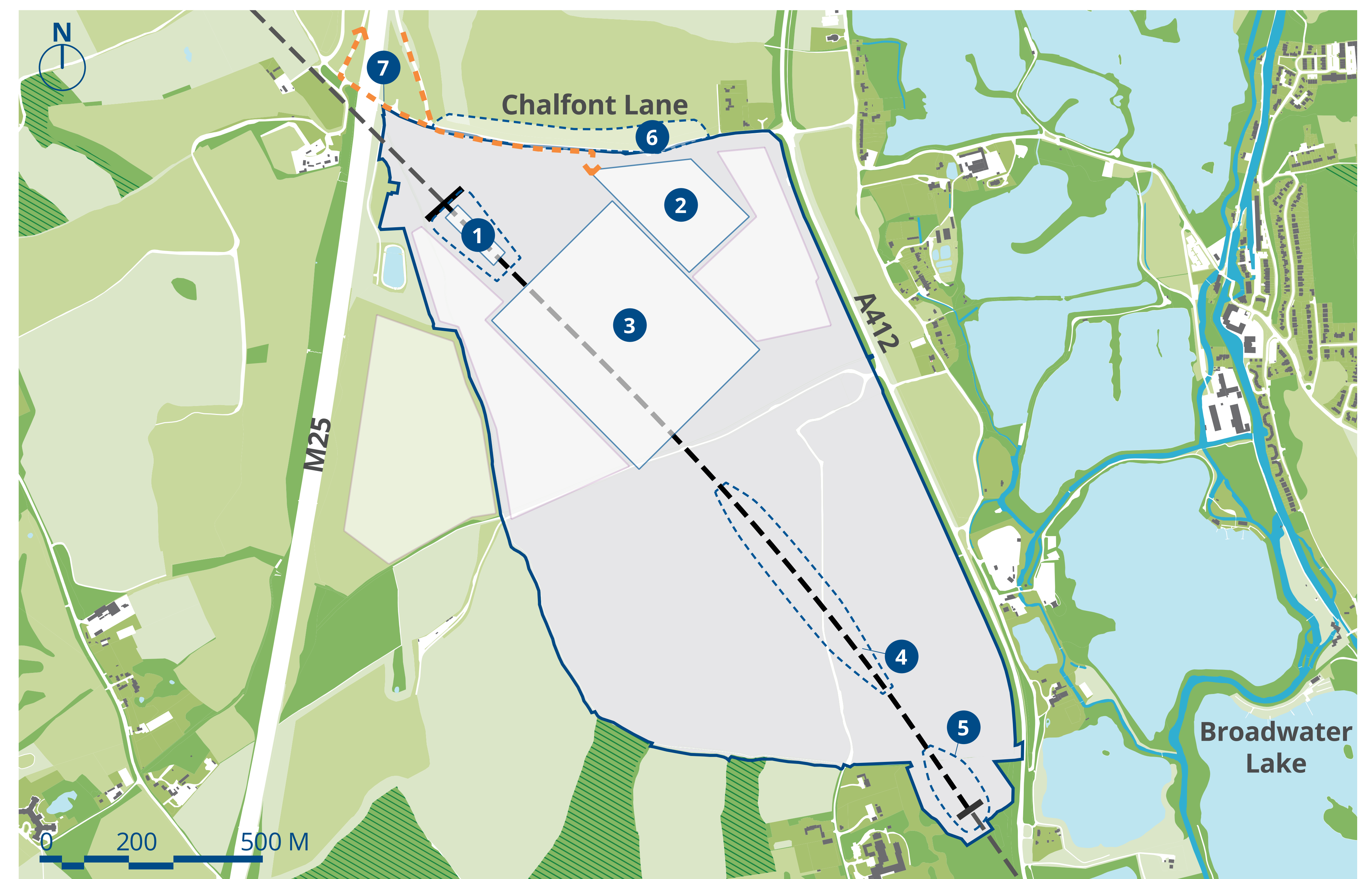
Colne Valley Viaduct north embankment (approximate extents)

6

Chalfont Lane bund (approximate extents - detail not shown)

7

M25 slip road for HGV access (temporary)



Overview of the construction site

Design Vision



Visualisation - Elevated view over the Colne Valley Western Slopes looking north west (Year 15)

We will establish a distinctive new landscape which is inspired by its setting and is capable of delivering meaningful benefits for the natural environment and for the surrounding communities.

Our proposals will create a substantial new green space which is rich in biodiversity and where people can explore and connect with nature.

We will fully integrate the railway, tunnel portals and bridge structures into the surroundings using planting and carefully shaped earthworks, reusing all of the chalk material we have removed from the tunnel.

We will manage the site in sustainable ways to secure a lasting environmental legacy for the project.

Colne Valley Western Slopes Masterplan



Illustrative masterplan

Our proposed masterplan

The masterplan sets out our proposals for the site and shows what we are creating in terms of new planting and habitats; footpaths and roads; buildings and structures; and the alignment of the railway itself.

Key

Habitat types:

Calcareous grassland

Woodland

Wood pasture

Waterbodies

1

2

3

4

5

6

7

Chiltern Tunnel south cutting

Chiltern Tunnel South Portal and buildings

Tilehouse Lane overbridge

Colne Valley Viaduct

Quarry access road

Tilehouse Lane

Old Shire Lane bridleway

Site boundary

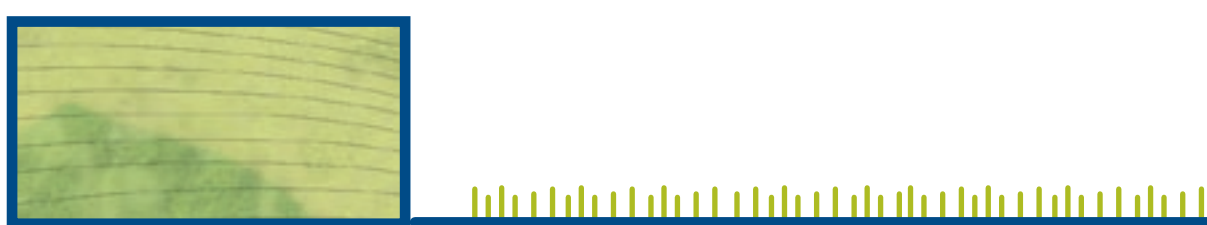
Colne Valley Western Slopes Masterplan



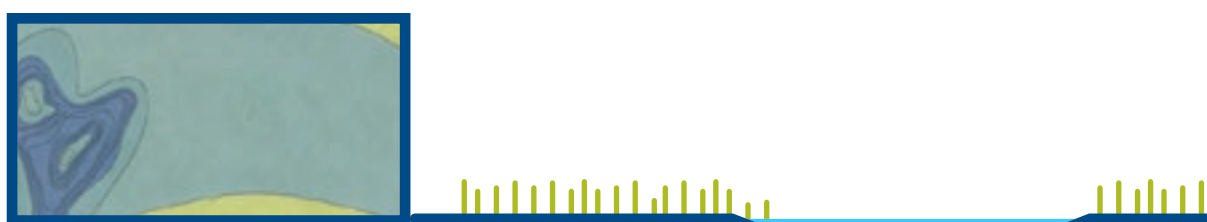
Illustrative masterplan of landscape and habitat design

Landscape and habitat design

Our landscape and habitat creation proposals will create **127 hectares (ha)** of habitat across the Colne Valley Western Slopes, including:



88ha of calcareous grassland and scrub



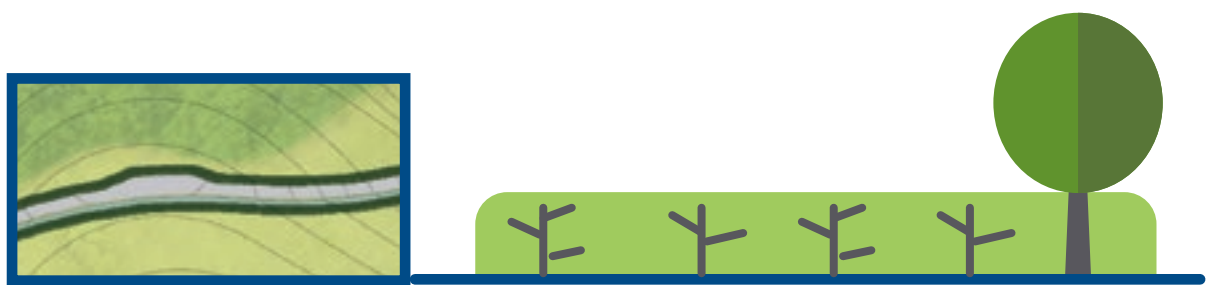
10ha of water habitats and wet grassland



18ha of mixed native woodland



11ha of woodland edge



3.7km of hedgerow

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Colne Valley Western Slopes Masterplan



Illustrative masterplan of visitor experience and views

Visitor experience and views

Publicly accessible footpaths, cycle routes and bridleways will be retained, realigned and extended across the site.

We will create: -----

3.3km of new surfaced and unsurfaced walking routes

1.25km of new bridleways and cantering routes

and install:

4 HS2 viewing areas

We will retain: ———

2.3km of the Old Shire Lane bridleway

and realign: - - - -

1.7km of existing rights of way including sections of the Old Shire Lane and Rickmansworth bridleway

We will connect: ———

...all of these routes into existing rights of way and highways outside of the site.



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Colne Valley Western Slopes Masterplan



Illustrative masterplan of earthworks

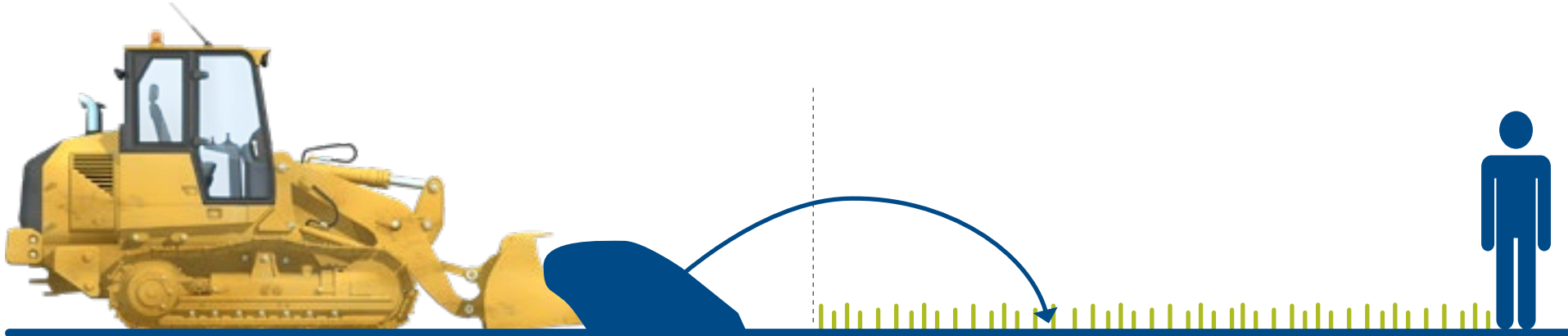
Earthworks

The CVWS will require extensive ground modelling to create the route for the railway; and to restore large areas of land which have been utilised for construction purposes.



3 million m³ of material excavated from the Chiltern tunnels will be used to integrate the railway into the landscape. That's enough material to fill 1,200 Olympic size swimming pools.

In addition, we are partnering with Cranfield University and Tim O'Hare Associates to trial the sustainable reuse of construction aggregates and chalk spoil from the tunnel to help deliver chalk grasslands.



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