

The HS2 route in the Chilterns and the Colne Valley

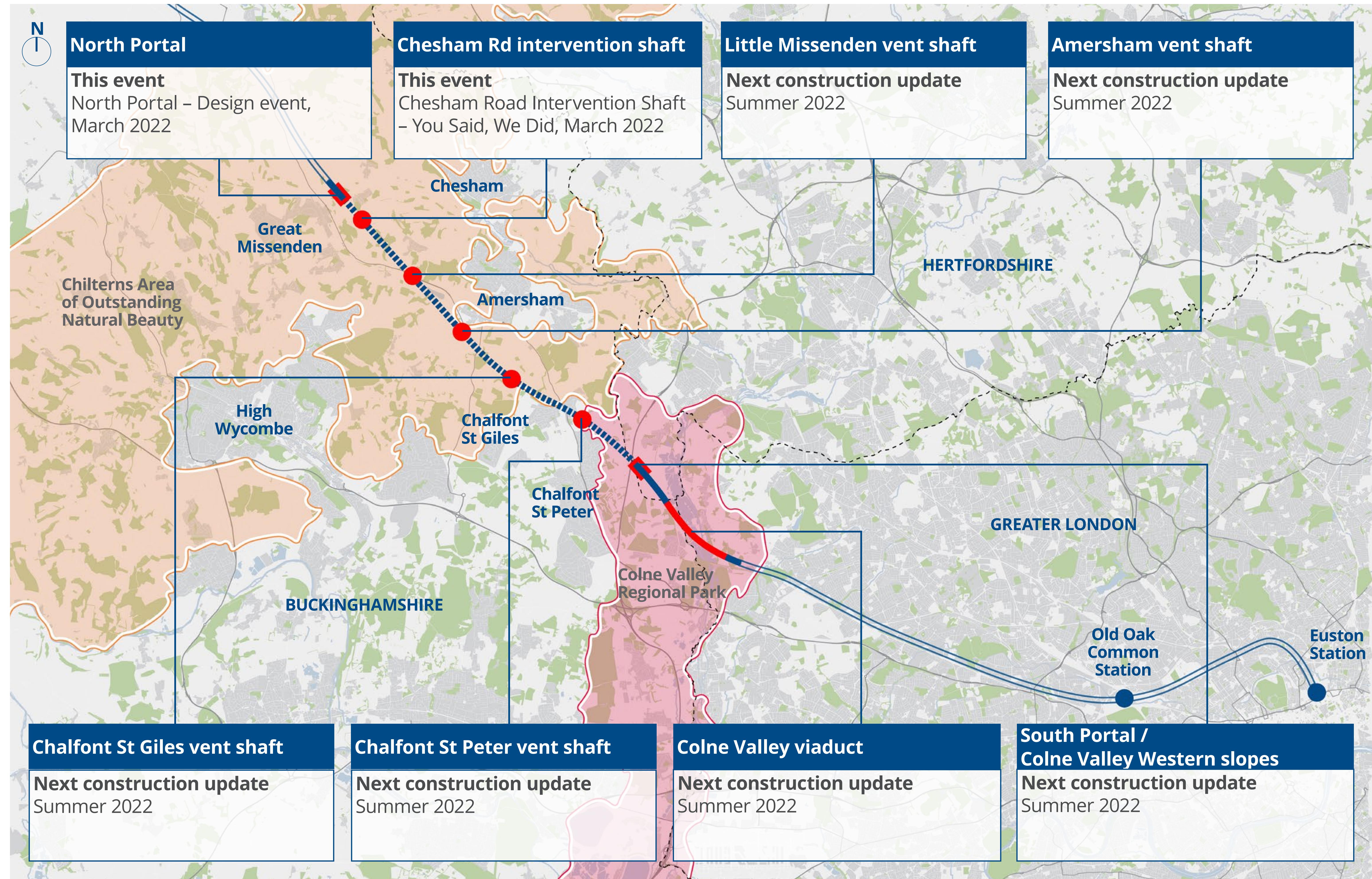
High Speed Two (HS2) is the new high speed railway for Britain.

What we are doing

Align are working on behalf of HS2 Ltd to build 22 kilometres of the high speed rail line, running between the Colne Valley and the Chilterns. It includes the 3.4 kilometre long Colne Valley Viaduct and the Chiltern tunnel with four ventilation (vent) shafts to regulate airflow, one intervention shaft and the shaft headhouses which house electrical equipment.

Our main works programme is now well underway and we are sending out construction updates each quarter for each main site. Due to the continuing concerns around Covid-19 and the new variants we have had to postpone all public face to face engagement events and will continue with online engagement for the time being.

Visit the local community pages at <https://hs2.org.uk> for the latest on what's happening in your area.



Introduction

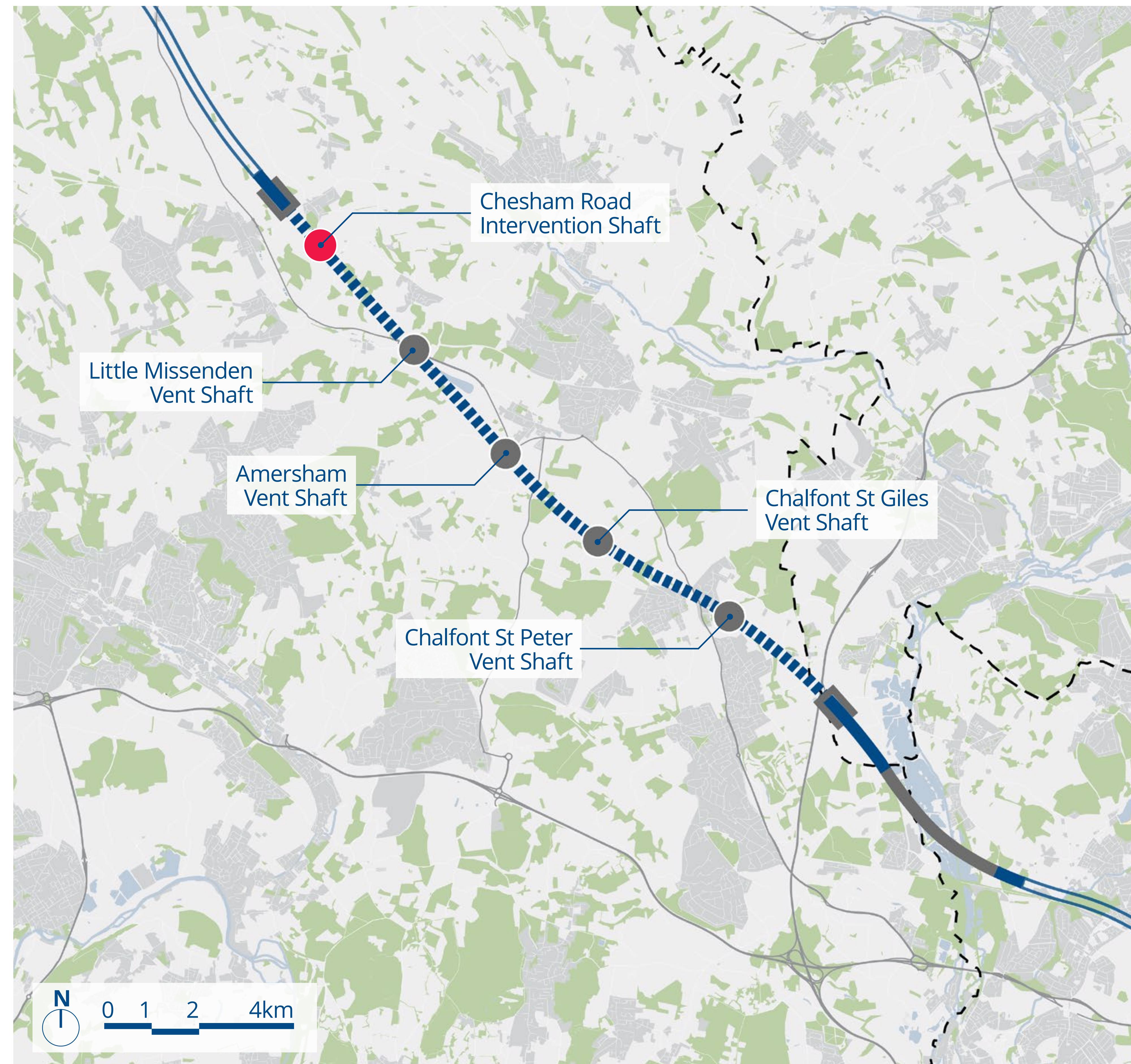
Welcome to our 'You Said, We Did' event for the Chesham Road intervention shaft

In September 2021 we held an event to share our plans for the Chesham Road intervention shaft, the construction processes, traffic management plans and the design for the headhouse and associated buildings around the intervention shaft.

Now we would like to:

- Show you the feedback that we have received from the first event, and how it has influenced the final design
- Share the final designs with you
- Provide information on the construction of the intervention shaft.

HS2 route through the Chilterns



The Chesham Road (B485) intervention shaft will provide access for emergency services. It will be located off the B485 at Hyde End, near Gt Missenden.

Public feedback

In September 2021, we held a public engagement event and you gave us feedback on four topics about our design. We asked you to rank our objectives in order of priority and provide comments. Your ranking of these objectives are shown below:

Landscape

- Use existing trees, hedgerows and new planting to conceal structures as far as possible
- Reflect the rural character of the site and its surrounding landscape
- Replace hedgerows which are removed during construction
- Use earthworks to integrate the headhouse into the landscape
- Maintain public access where people get close to the site

Ecology

- Restore the area using planting or seeding of native and indigenous species
- Protect existing wildlife species on the site during construction
- Create habitats that support as many species as possible (biodiverse)
- Create habitats that are typical of the area but rare and declining for example, chalk grassland
- Consider the long term management of the site and maintenance of habitats
- Create ecological features to encourage wildlife, for example a hibernaculum

Design of the headhouse

- Design structures that can be concealed or blend into the landscape
- Reduce visibility through lowering of buildings where possible
- Keep the overall footprint (of the compound as small as possible
- Maintain a familiar scale and form to local agricultural buildings
- Reduce the operational impact of the proposed structure
- Add building colour and detailing to help blend into the local landscape

Construction

- Return the wider construction site to how it was before construction started
- Reduce noise and vibration on the construction site
- Let people know when noisy works are occurring and keep residents regularly updated
- Minimise any visible impact of construction
- Reduce movements of earth and dirt by road
- Minimise carbon footprint and reduce the noise and air pollution across construction fleet

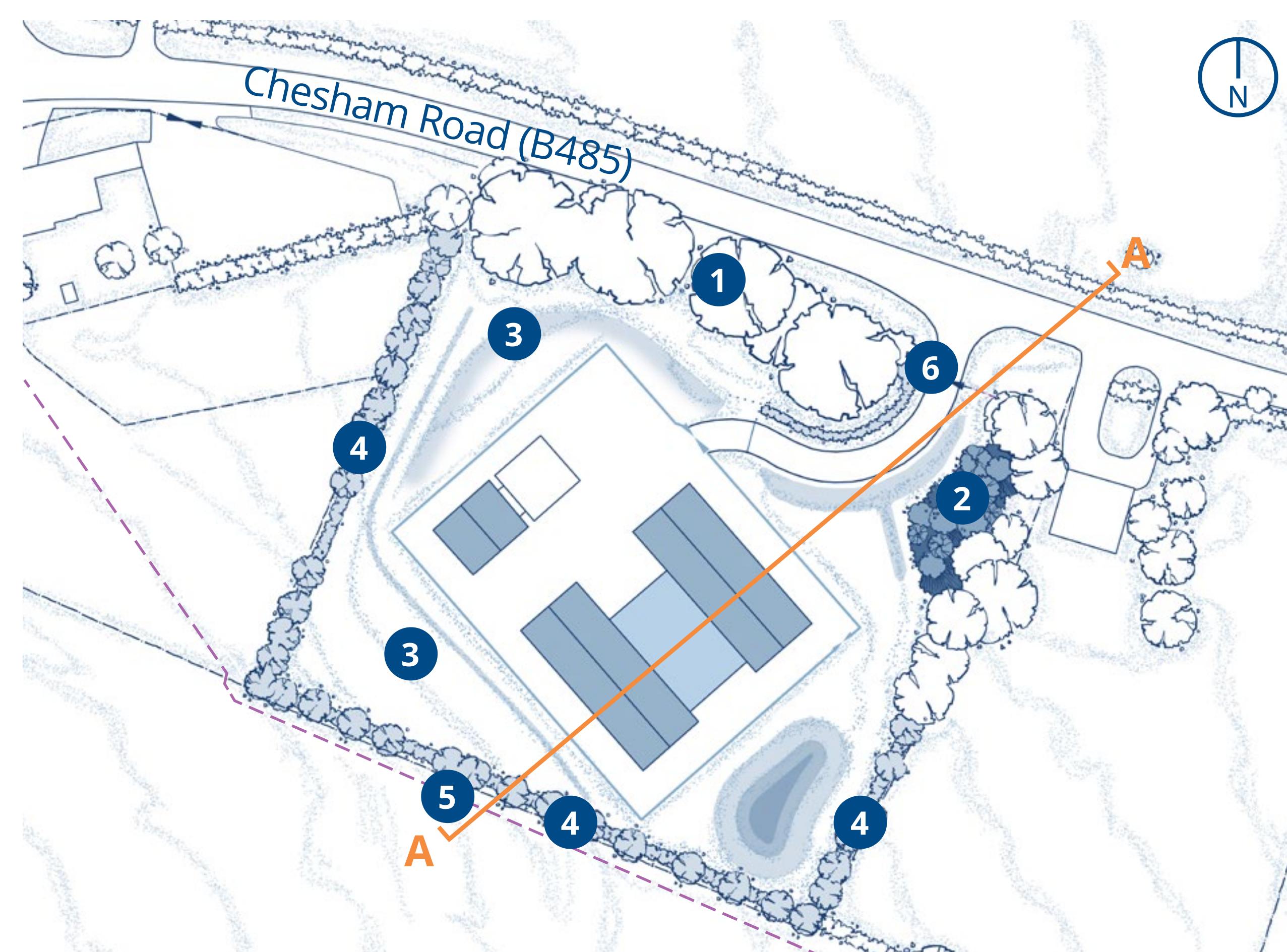
Landscape

You said: "Use existing trees, hedgerows and new planting to conceal structures as far as possible"
"Adequate screening is a top priority"

We did:

Maintain existing vegetation

We have retained as much of the existing vegetation along Chesham Road (B485) as possible. This has included the protection of the large oak trees along the northern boundary of the site.



Landscape plan

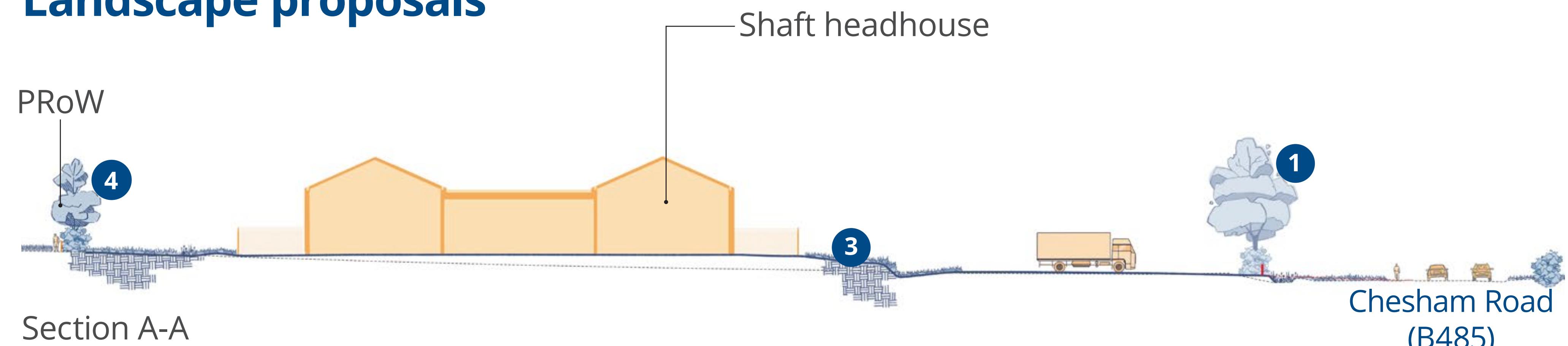
Improved screening

Following feedback, we have increased the proposed hedgerow depth and the size of the native tree and shrub species used to screen views of the building.

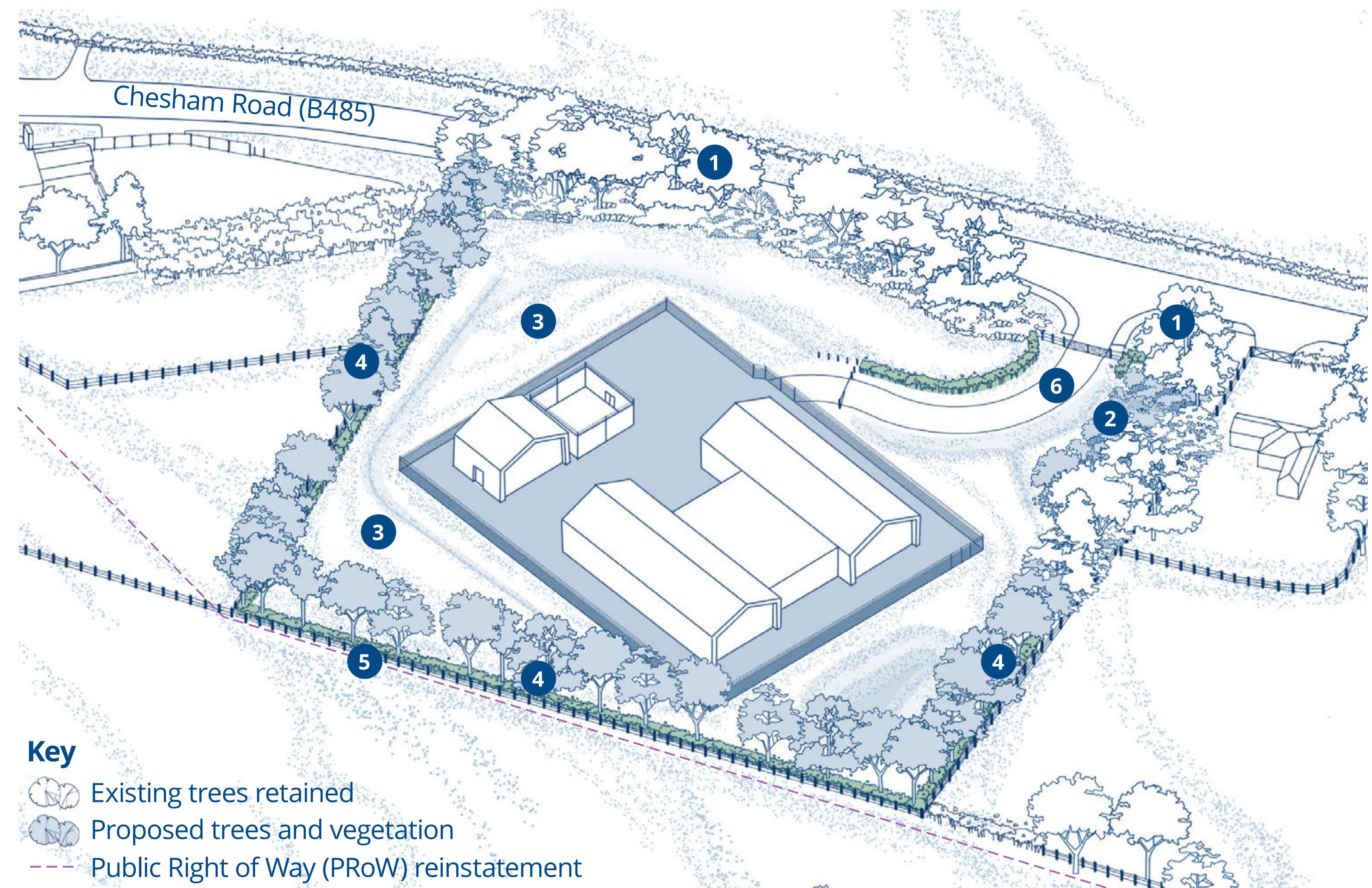
Key

- 1 Retained hedgerow and oak trees
- 2 Proposed woodland edge screening planting
- 3 Species rich grassland
- 4 Proposed hedgerow with trees
- 5 Reinstatement of Public Right of Way (PRoW)
- 6 Site access from Chesham Road (B485)

Landscape proposals



Section A-A



Illustrative view of the site

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Ecology

You said: "Restore the area using planting or seeding of native indigenous species"

We did:

Propose new habitats and prepare management plans

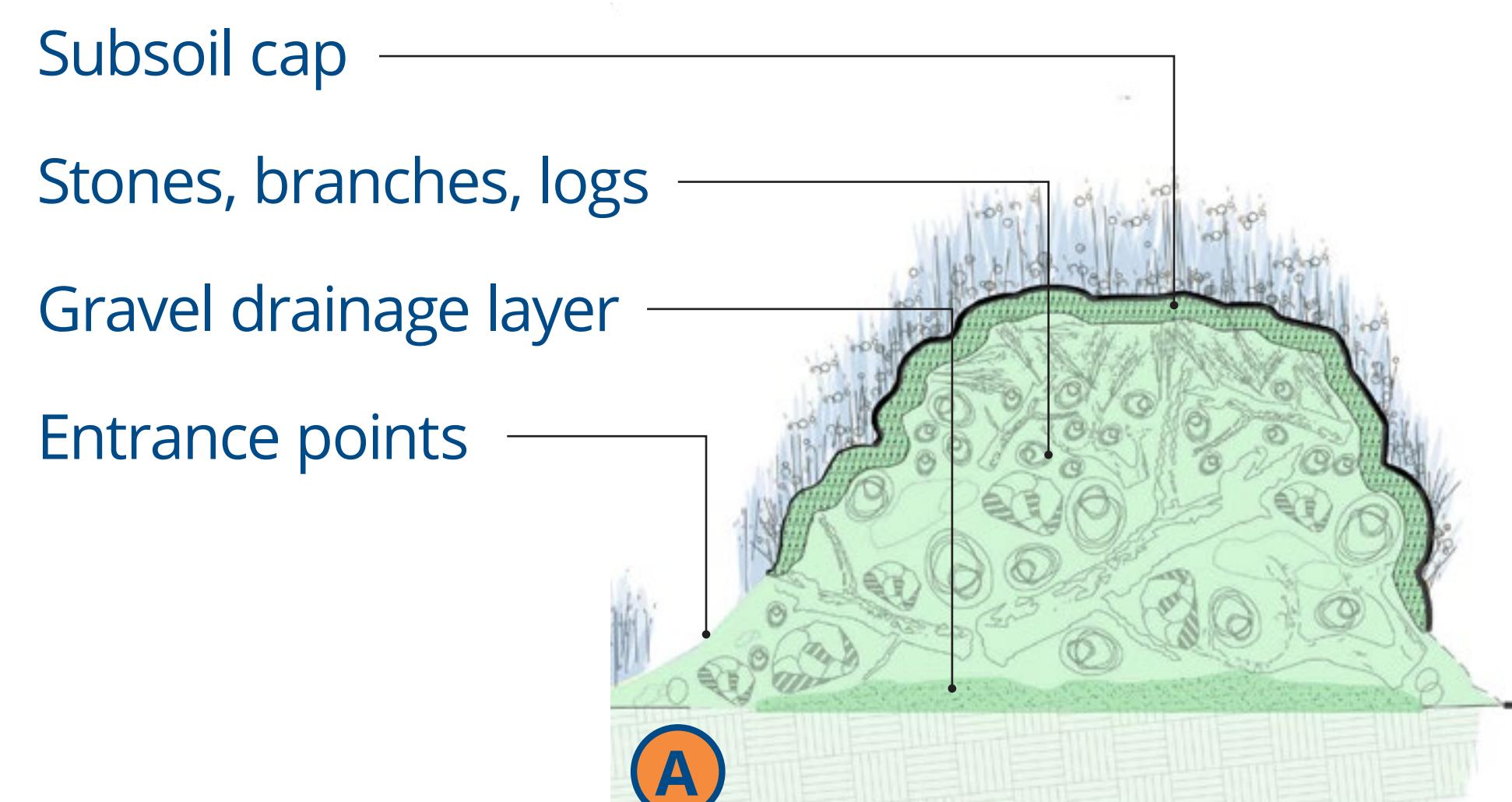
We will create habitats using native plants and seeds to enhance the biodiversity value of the site.

HS2 will undertake long-term management of land in its ownership guided by a Habitat Management Plan for the lifespan of HS2. Our plans include:

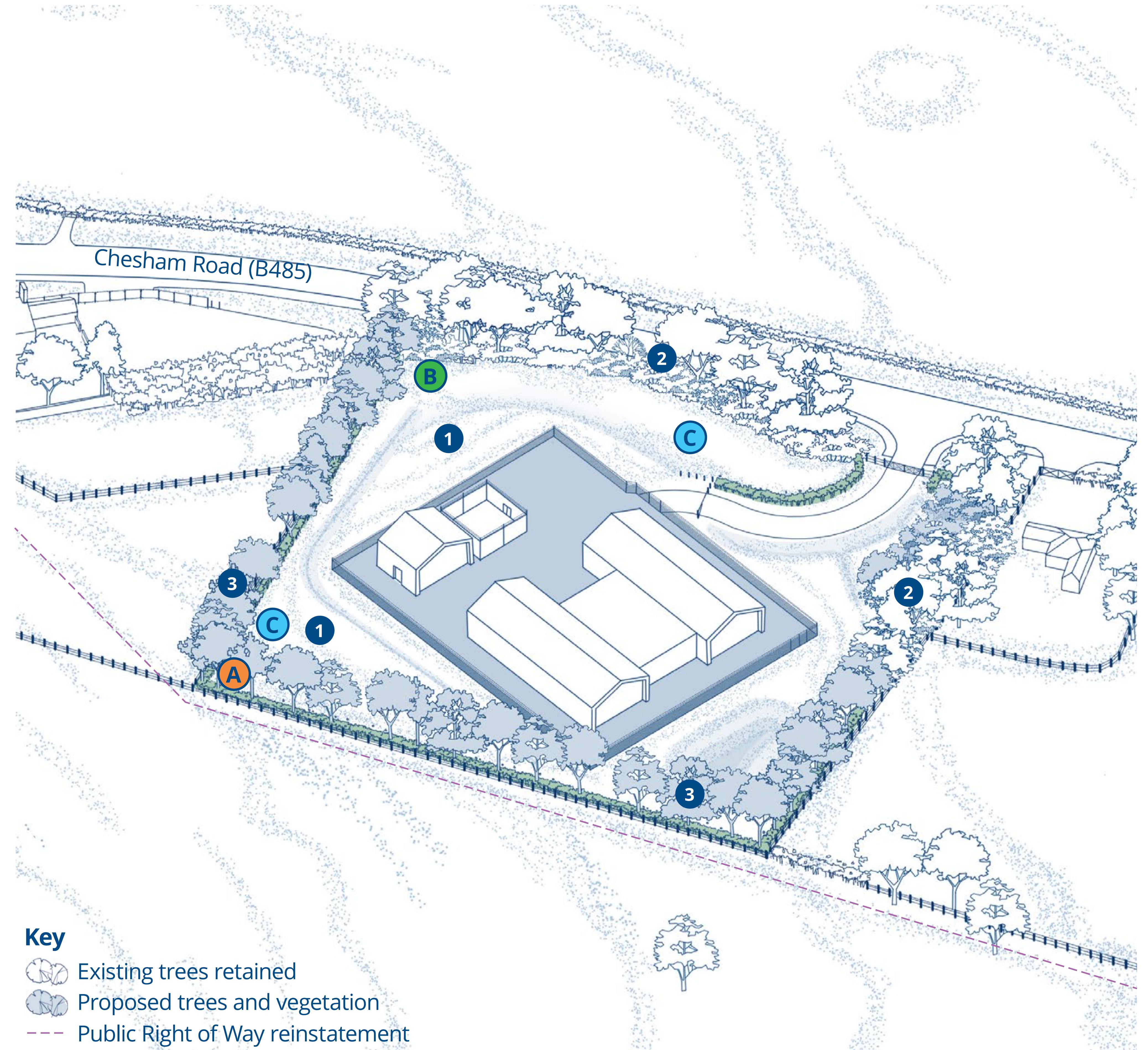
- 1 Creation of species rich grassland habitat reflective of Chilterns grassland
- 2 Retention and protection of existing habitat connectivity
- 3 New hedgerow and tree planting used to allow animal foraging and movement
- 4 Incorporation of habitat features such as:
 - (A) Hibernaculum
 - (B) Reptile egg laying heaps
 - (C) Reptile and invertebrate / basking bank



Species rich grassland (target habitat)



Section – Typical hibernaculum



Habitat creation proposals

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Building design

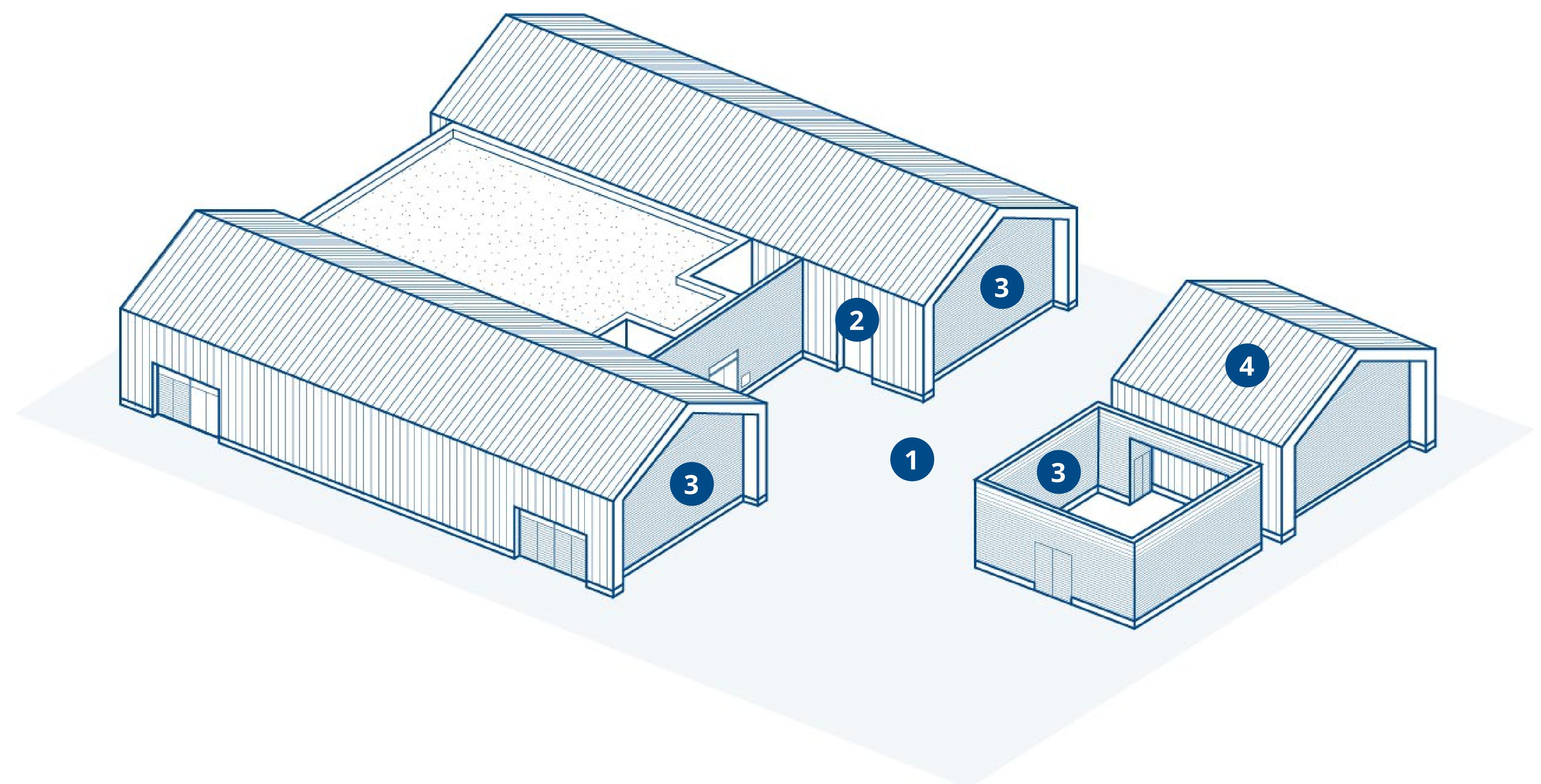
You said: "Keep the overall footprint of the compound as small as possible."

We did:

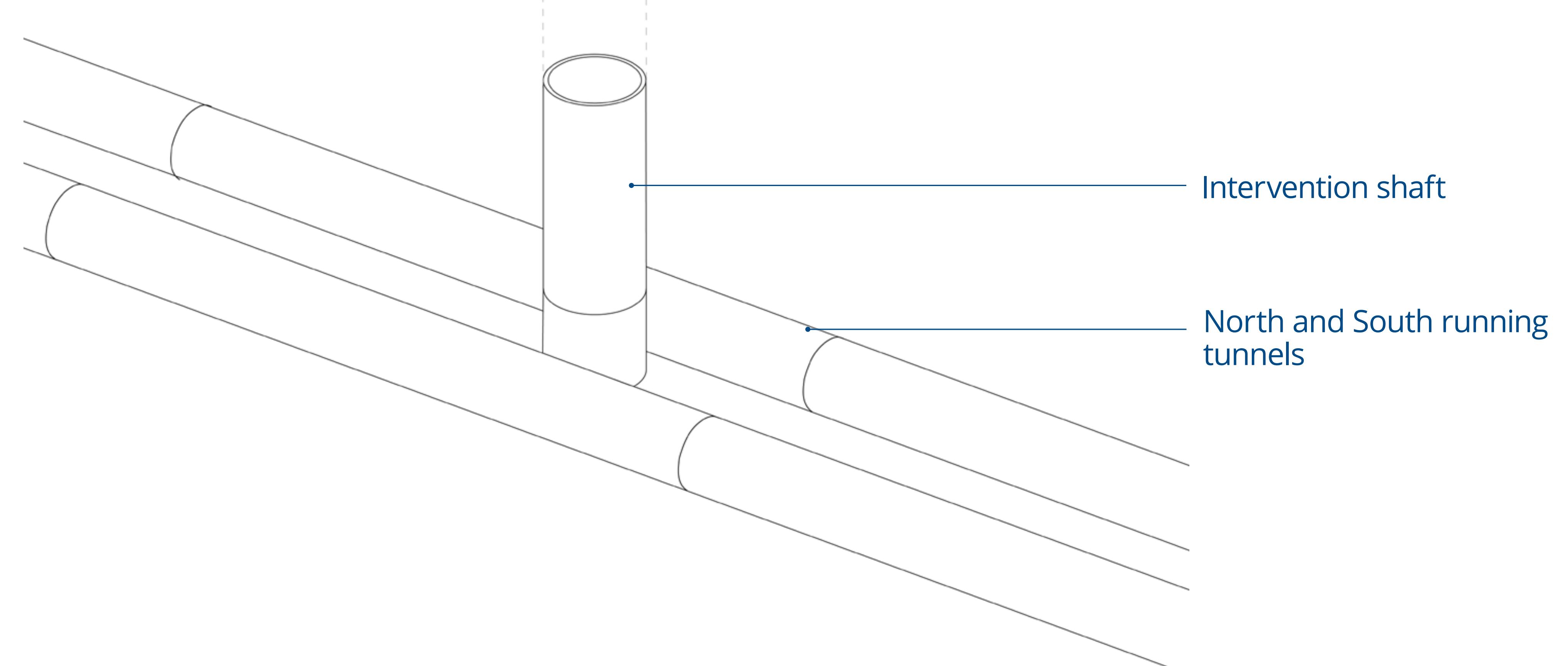
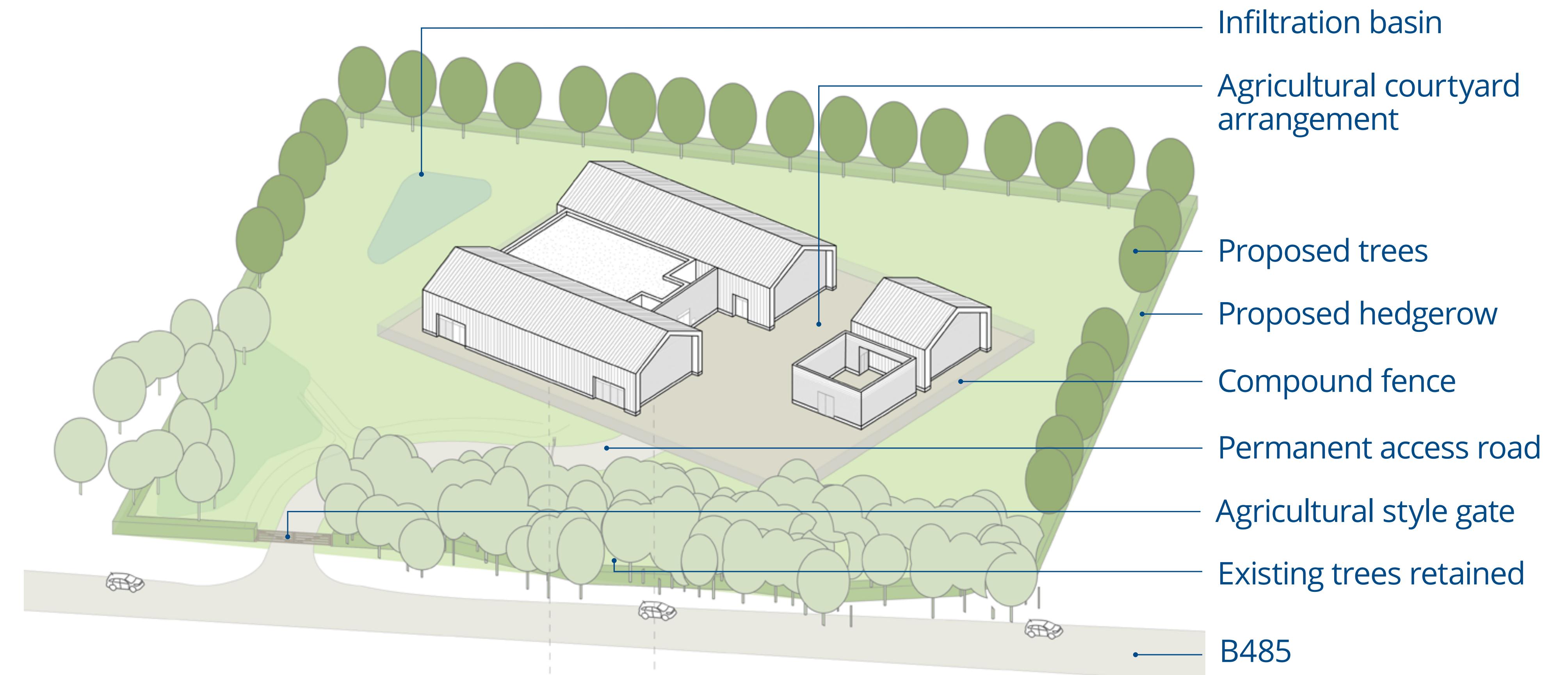
Arrange buildings in an agricultural compound layout

The arrangement of the buildings is based on an agricultural courtyard layout, with the overall footprint of the compound kept to a minimum.

- 1 Central courtyard for access and maneuvering
- 2 Doors accessed from the courtyard
- 3 Primary elevation of each building faces into courtyard
- 4 Ancillary structures in courtyard arrangement



3d view – Building arrangement



3d view – Site arrangement



Building design

You said: "Maintain a familiar scale and form to local agricultural buildings."

We did:

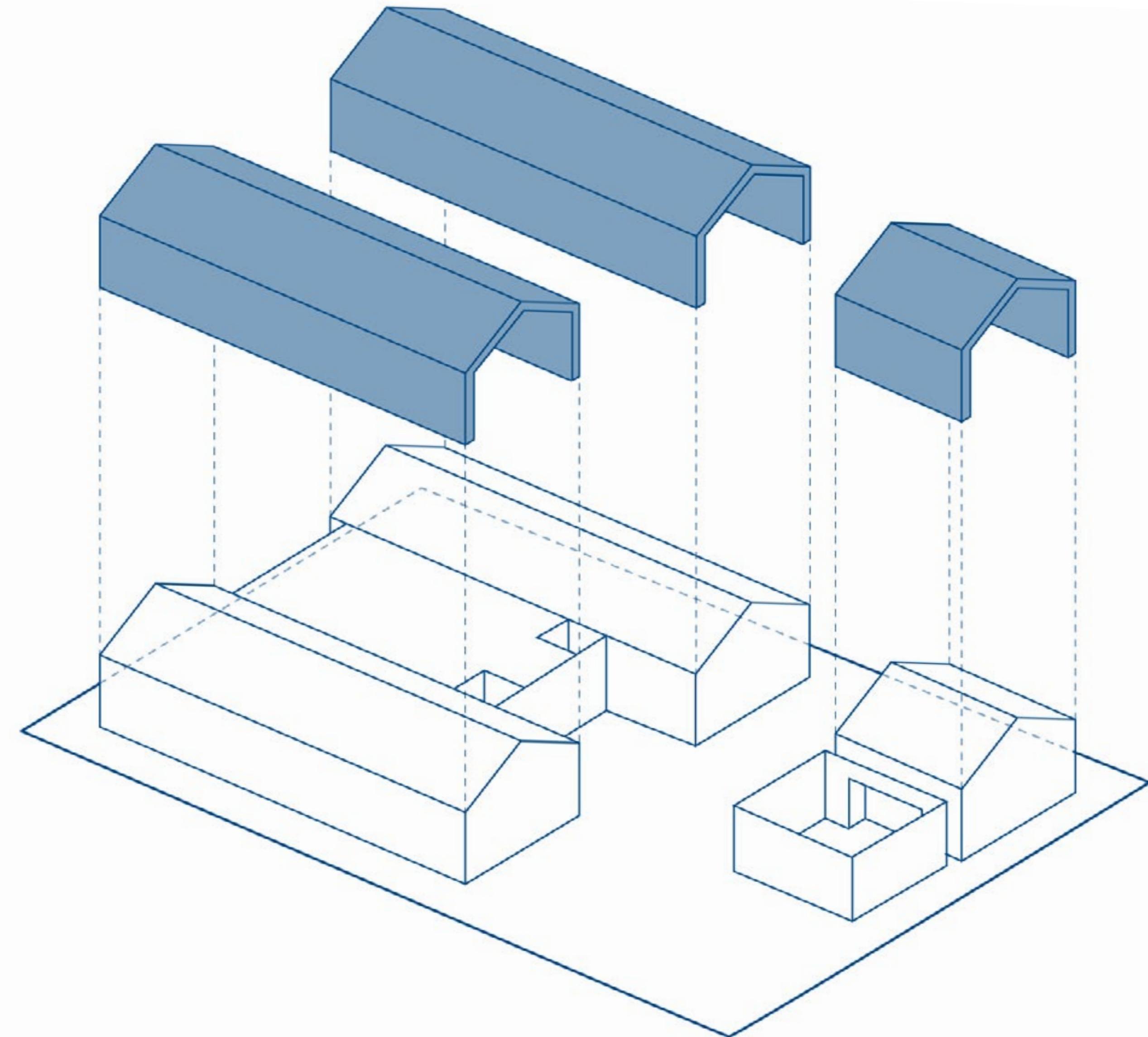
Take inspiration from the local historic and industrial agricultural buildings

Pitched roofs wrap around the buildings, creating simple agricultural barn forms. Buildings are orientated to reduce their perceived scale from key viewpoints. Door and ventilation openings are

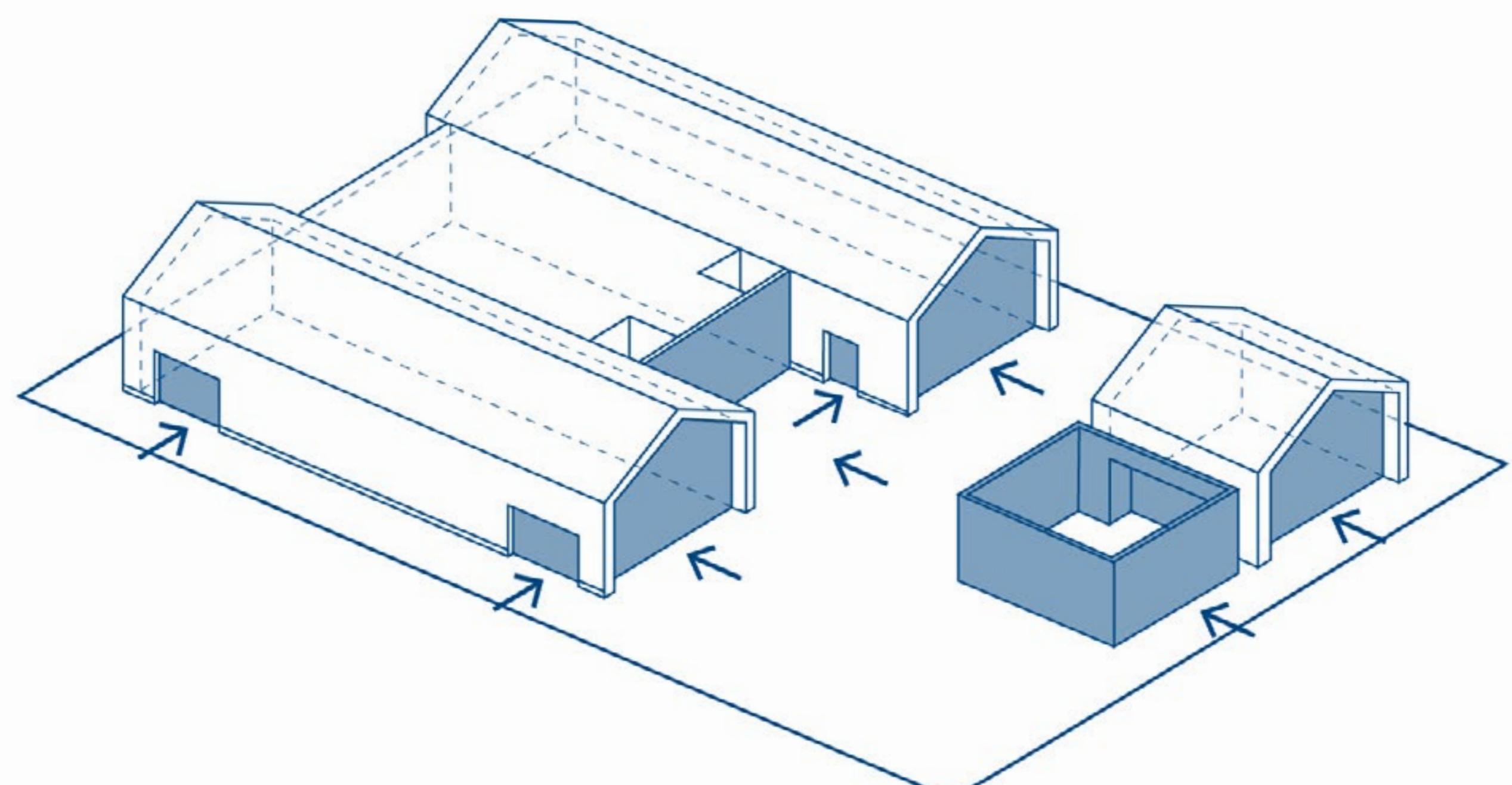
recessed and treated in a different material, providing greater clarity to the buildings. The louvred screens break up the overall form and conceals plant equipment.



Visualisation – Aerial view (Year 15)



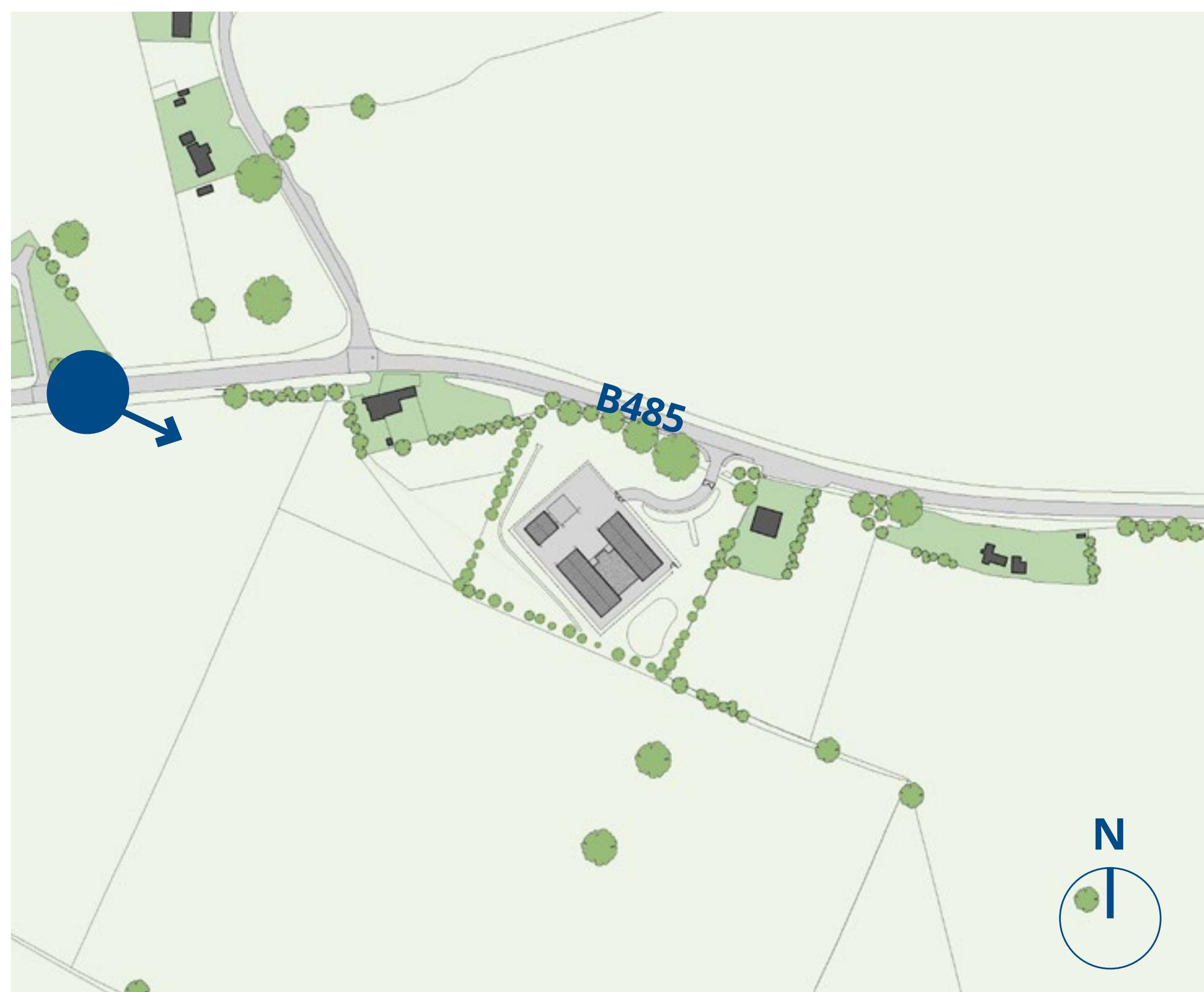
3d diagram – Form and scale



3d diagram – Louvred openings

Building design

View looking east from Chesham Road (B485)



Key Plan – View location



Visualisation – View from Chesham Road (B485)
(Year 1)



Visualisation – View from Chesham Road (B485) looking east (Year 15)

Building design

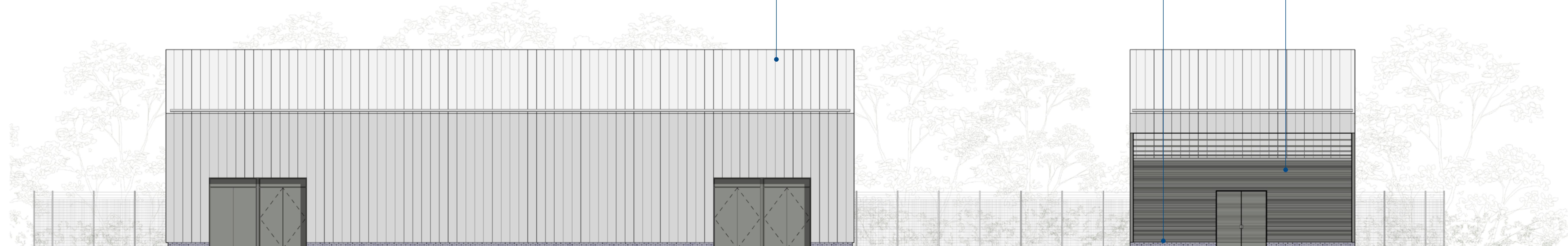
You said: "Add building colour and detailing to help blend into the local landscape."

We did:

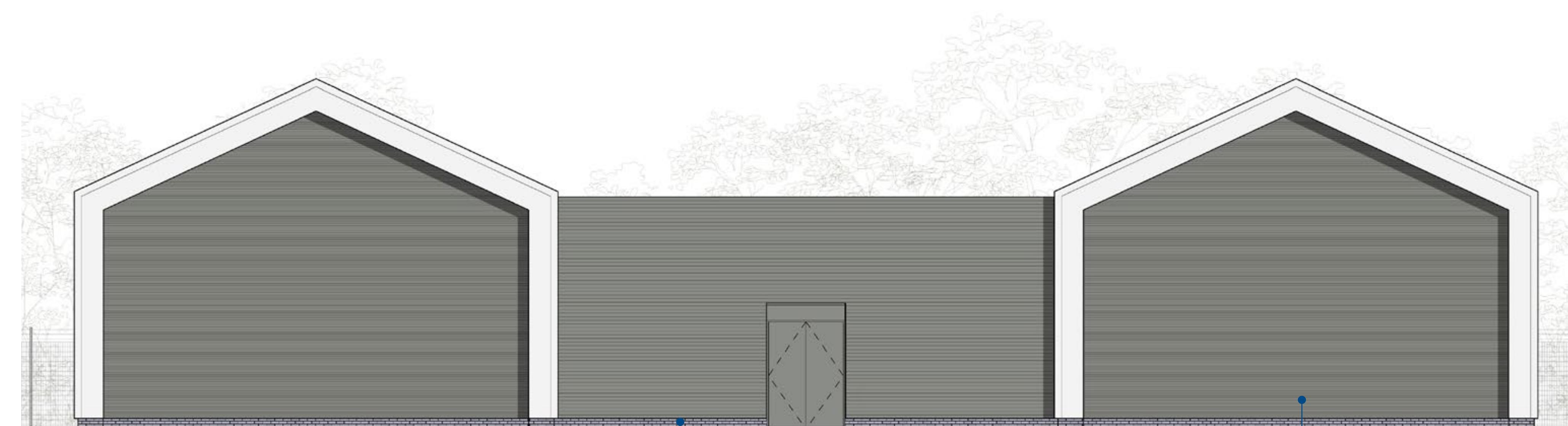
Use a simple palette of robust materials that blend in

The zinc, painted steel and engineering brick will be durable and designed to age gracefully over time without losing robustness and quality. Dark, neutral colours will ensure the buildings appear recessive as much as possible.

The building colour and detail has been designed to blend into the landscape, using a simple palette of materials inspired by local agricultural and industrial buildings.



Elevation – Main building and auto transformer station building

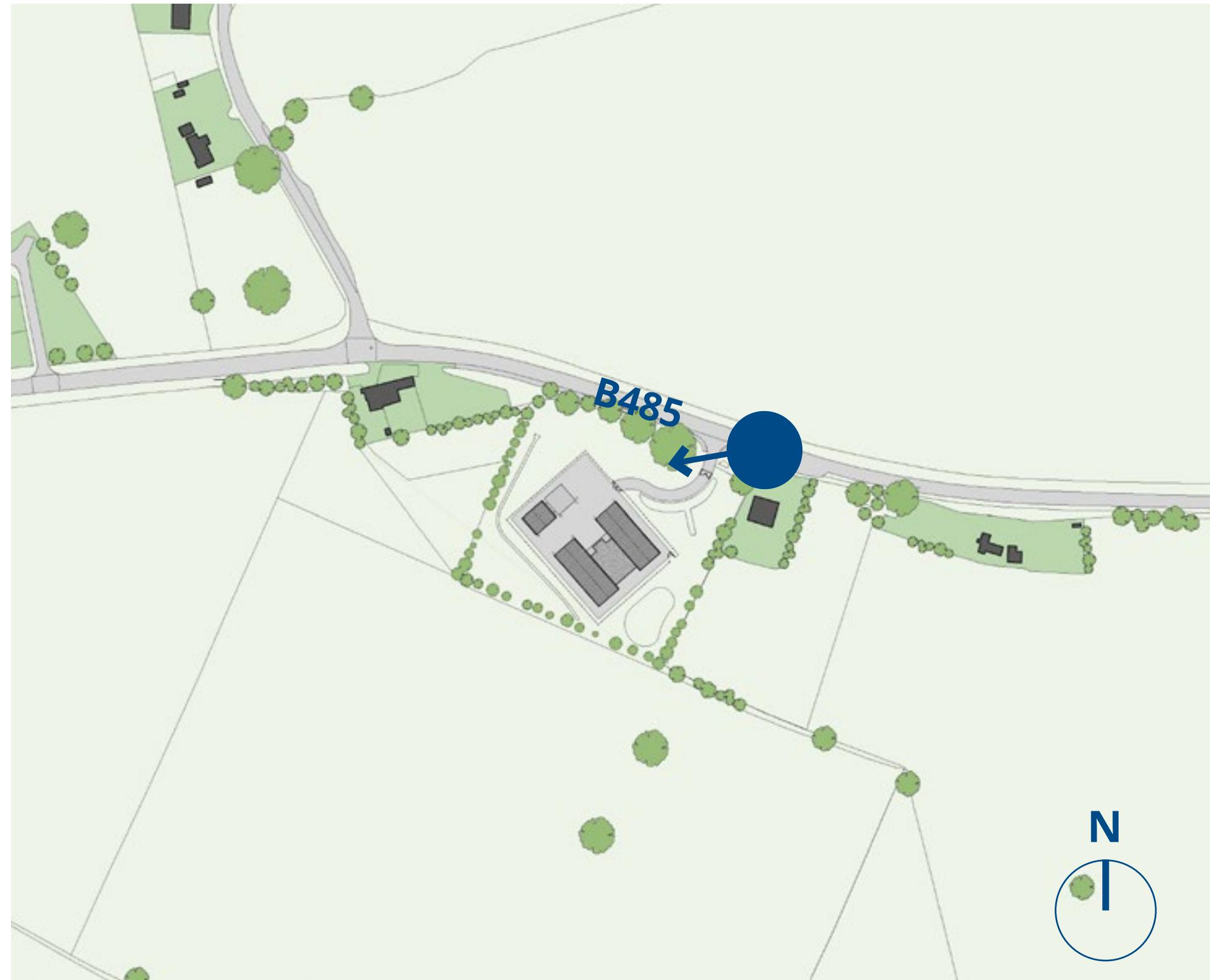


Elevation – Main building

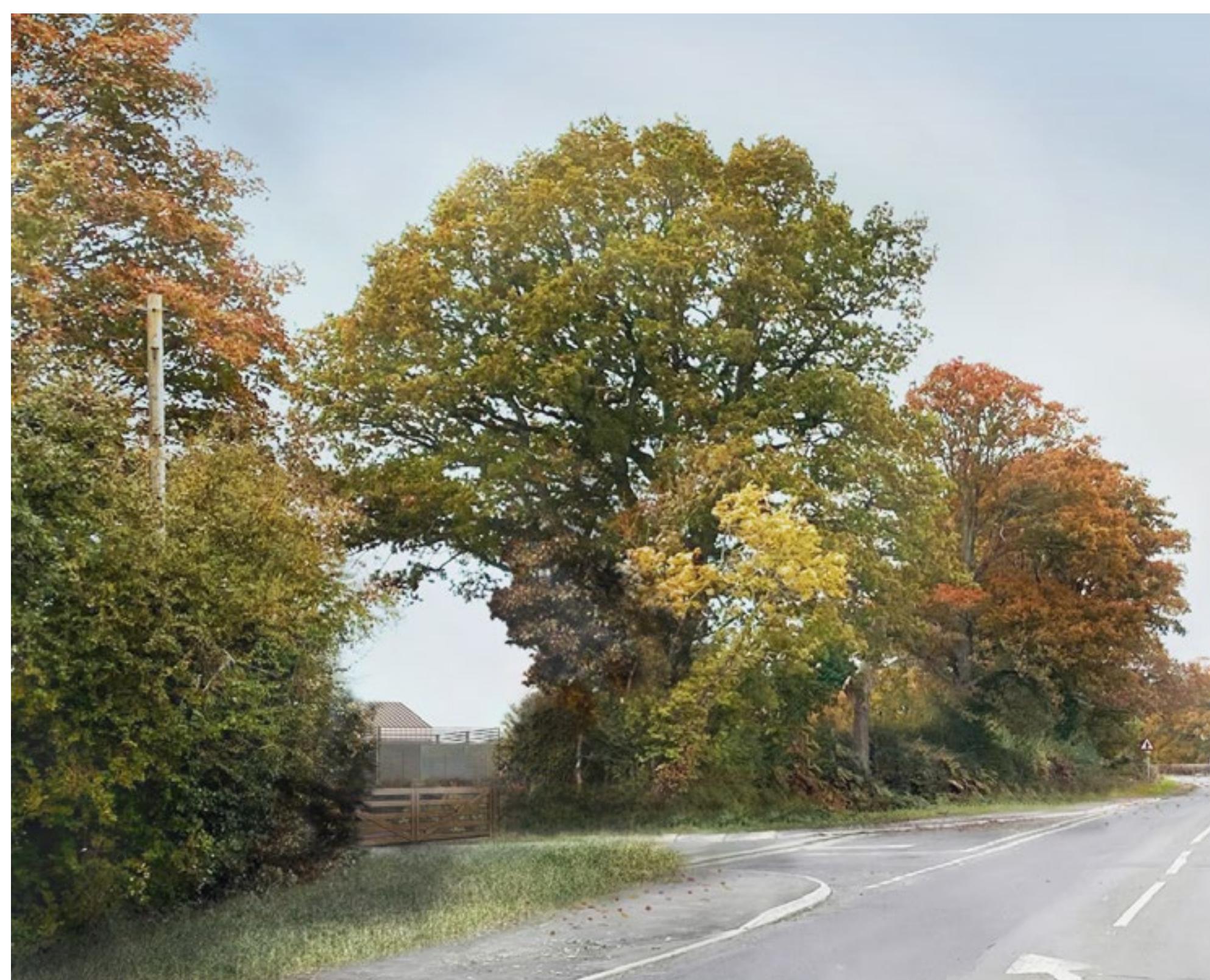


Building design

View looking west from Chesham Road (B485)



Key Plan – View location



Visualisation – View from Chesham Road (B485)
(Year 1)



Visualisation – View from Chesham Road (B485) looking west (Year 15)

Building design

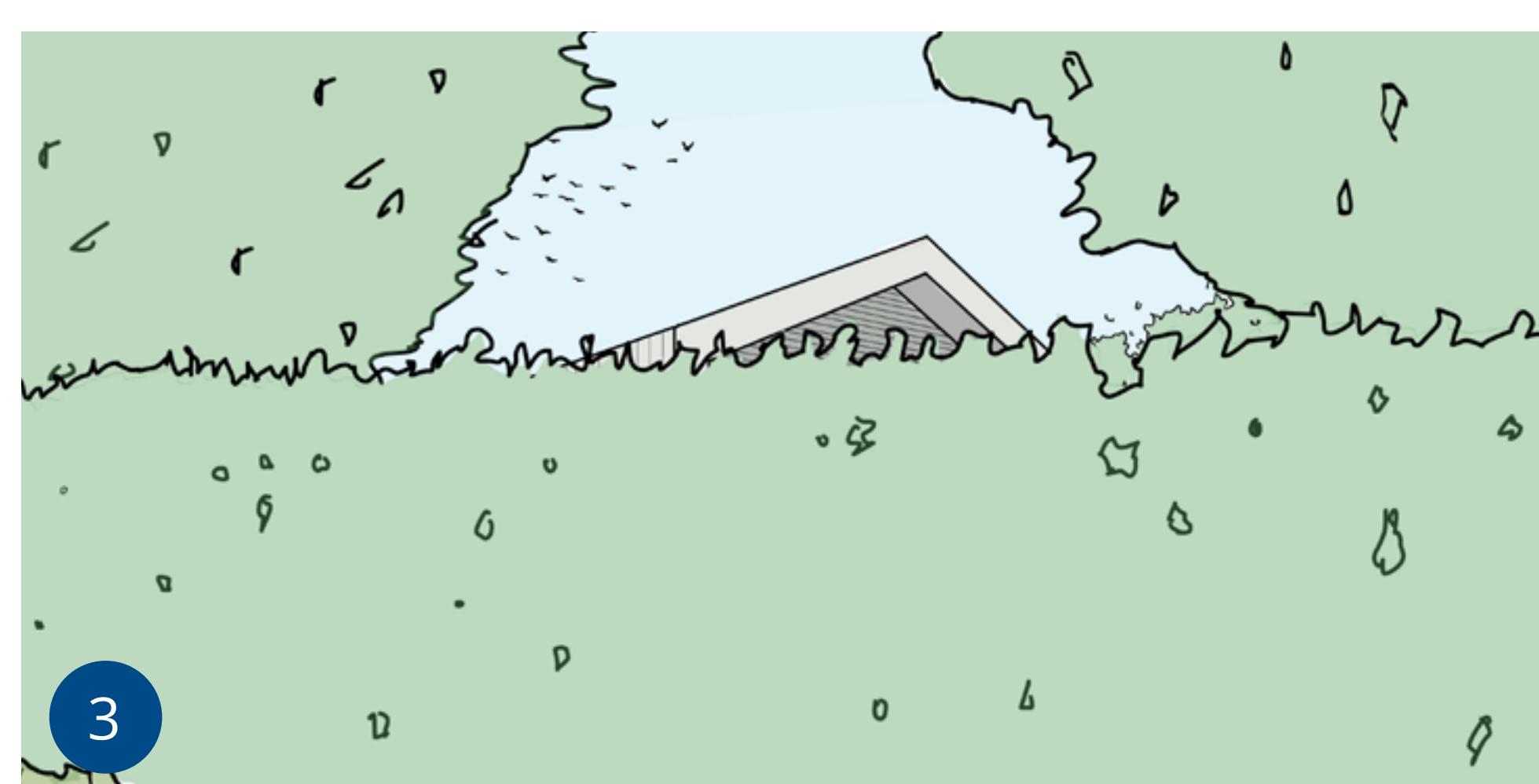
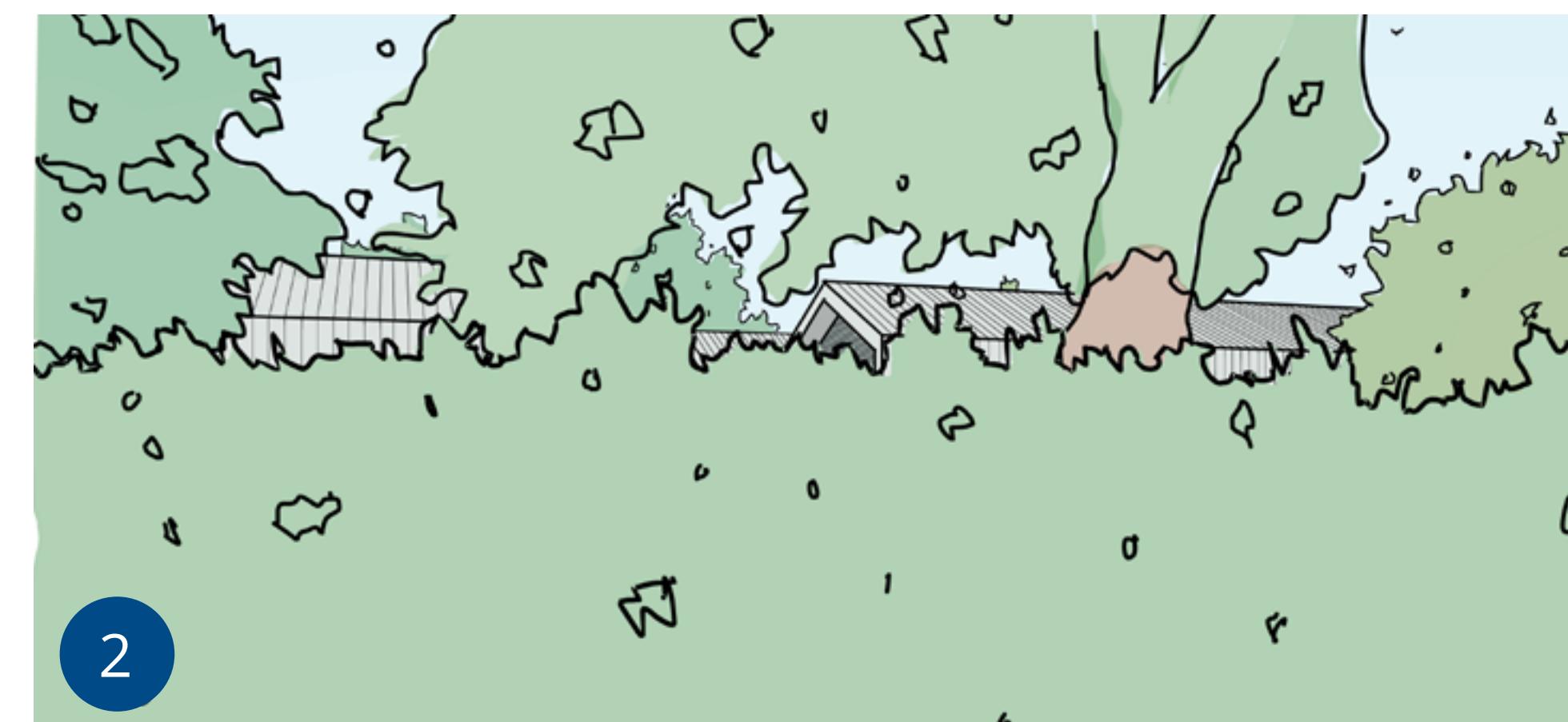
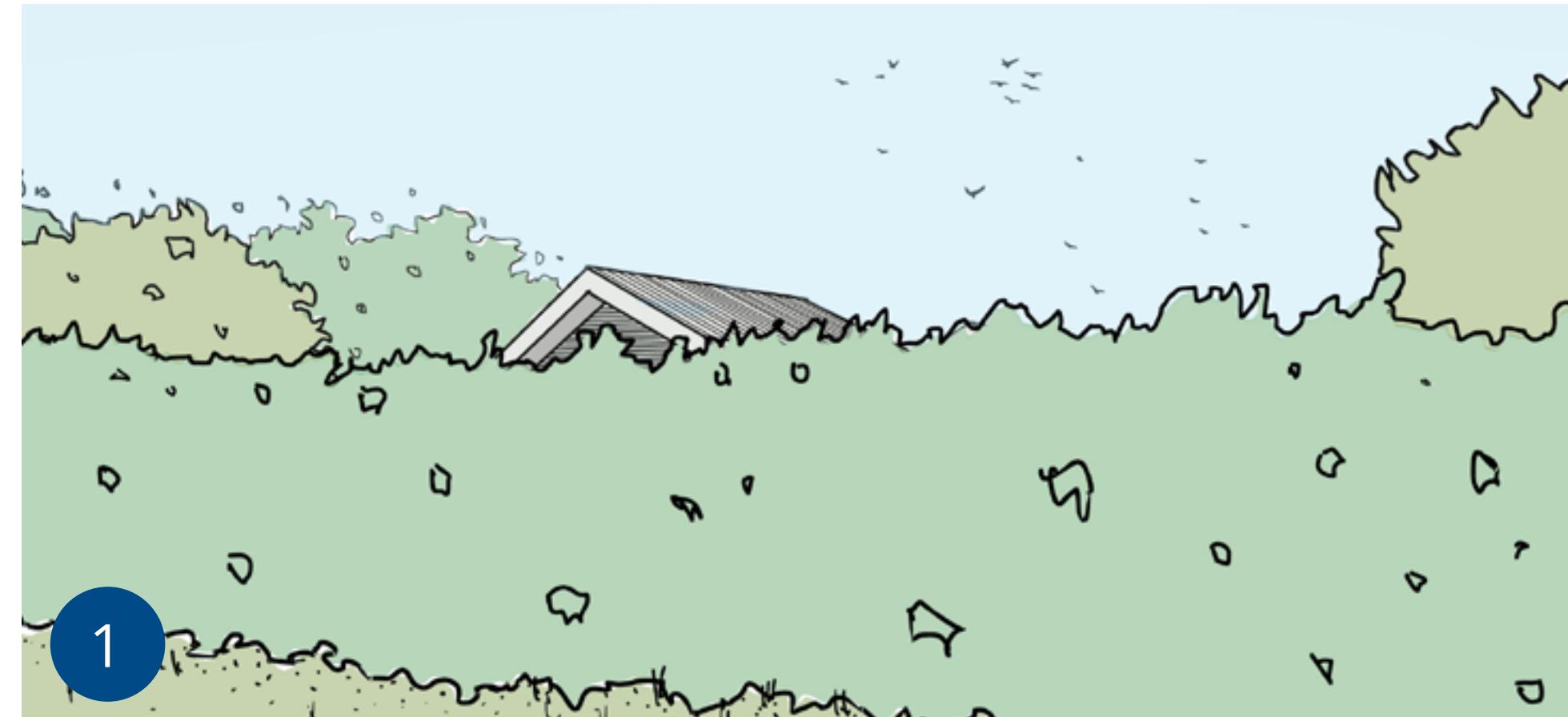
You said: " Design structures that can be concealed or blend into the landscape."

We did:

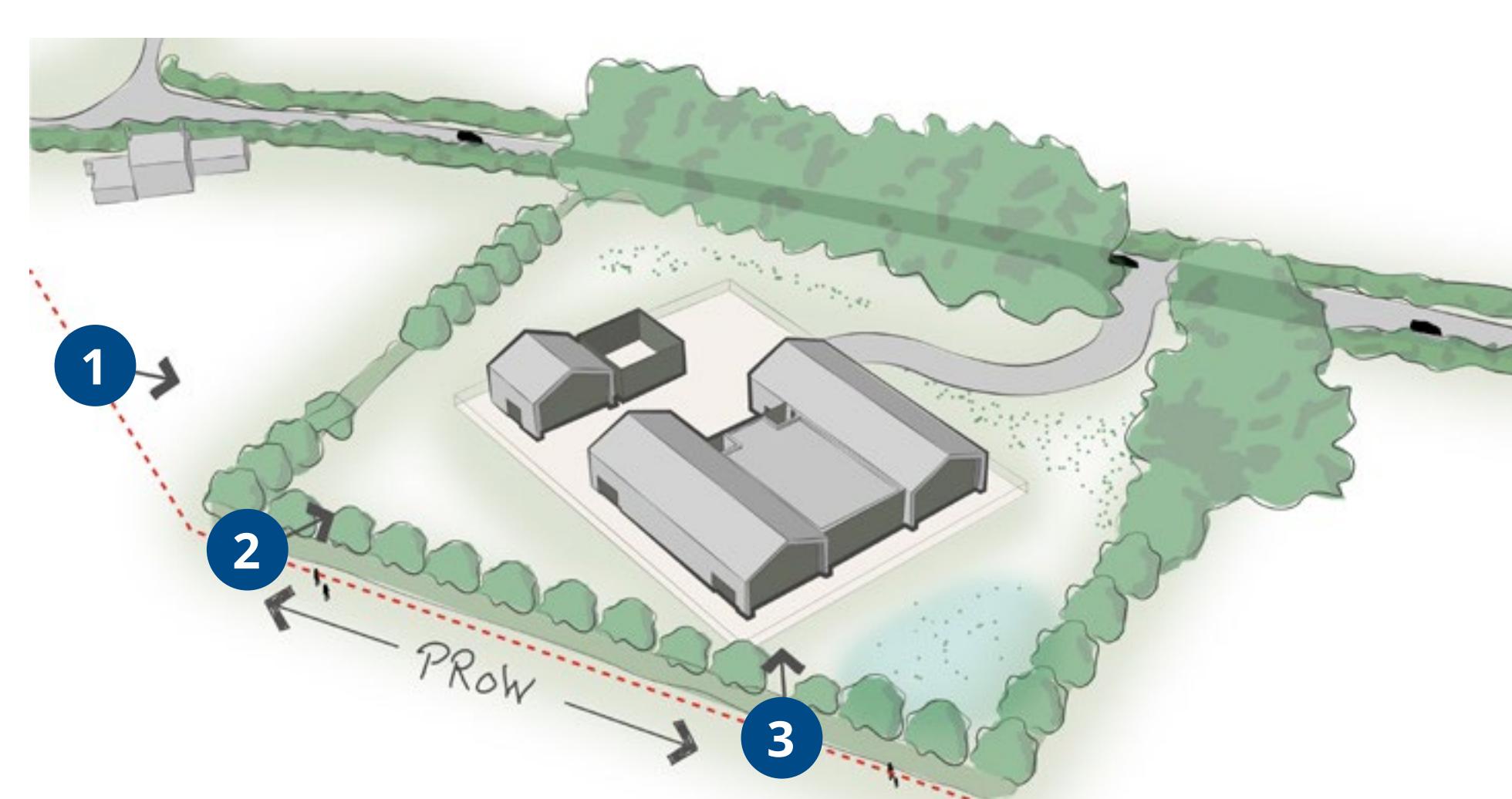
Screen views of the building from the public footpath

Where possible the compound has been concealed from sight using planting and landscape earthworks.

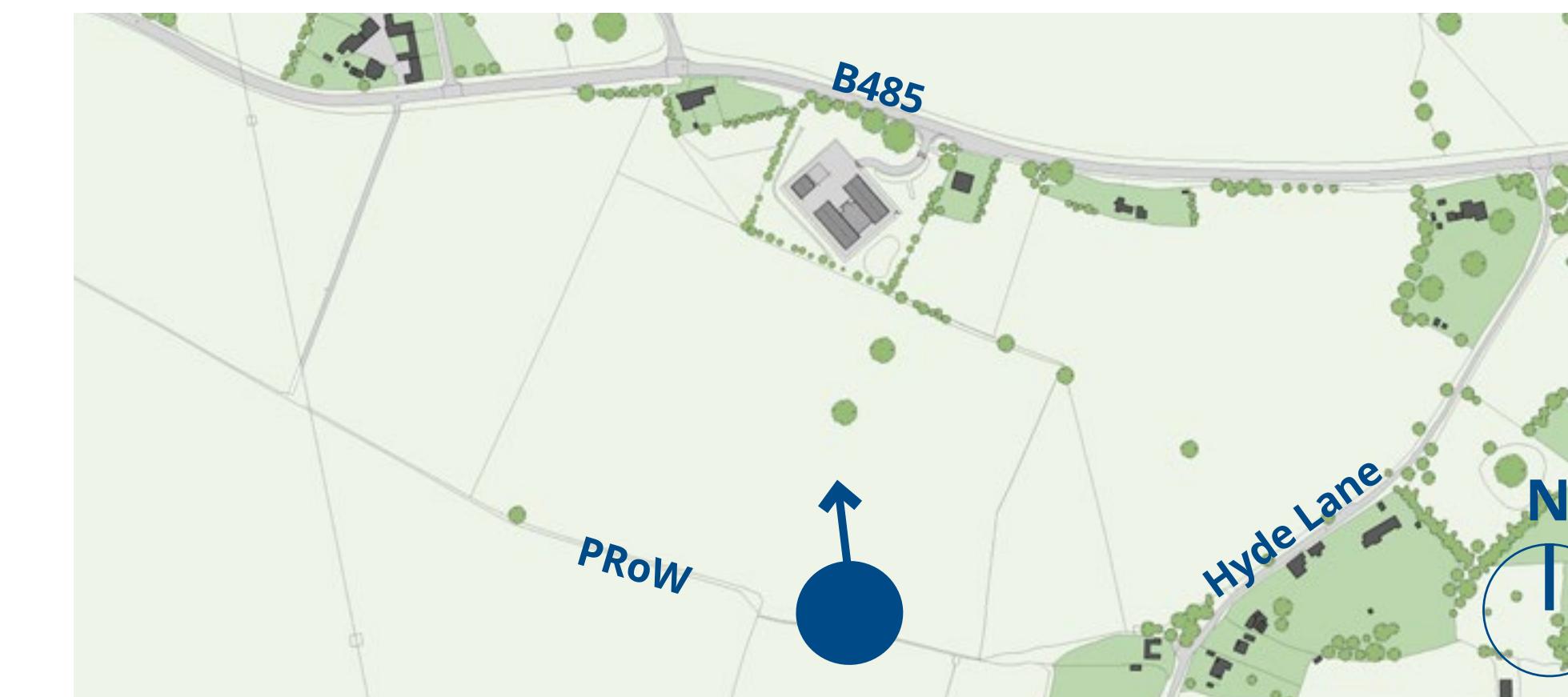
New hedgerows and tree planting screen the compound and headhouse buildings from views along the public rights of way (PRoW) located to the south of the site.



Sketches – Visibility experience



Visualisations



Key Plan – View location



Visualisation – View from PRoW (Year 1)



Visualisation – View from PRoW looking north (Year 15)

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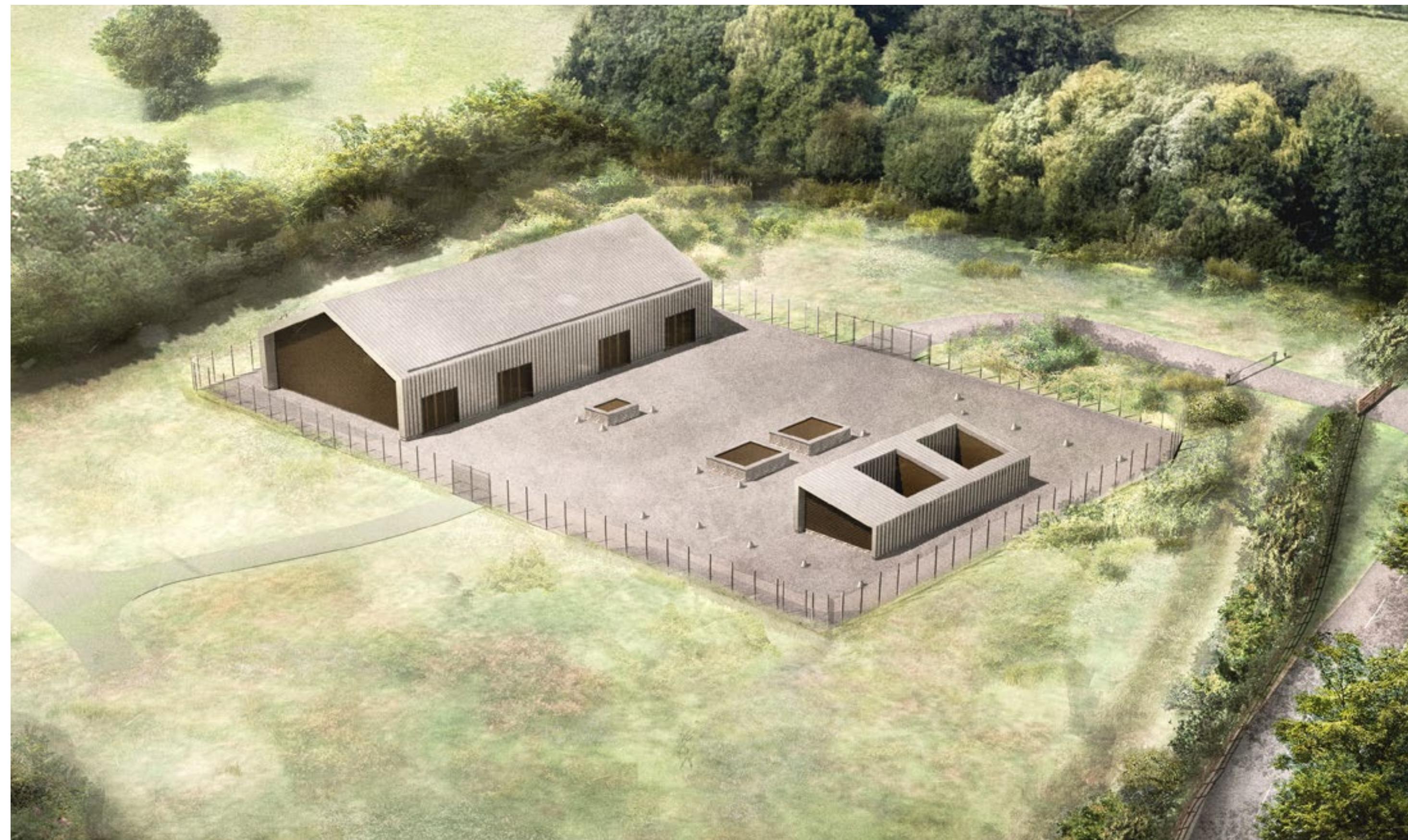
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Building design

Family of buildings

The headhouse is one of four which are located on rural sites within the Chilterns. They have been designed to blend into the existing landscape and form part of a common family of buildings. The headhouses are distinguished by the colour of the painted horizontal louvres, selected to reflect the specific features of each site. For this site we have selected a green-grey colour to respond to the mature woodland on the site and surrounding agricultural fields.



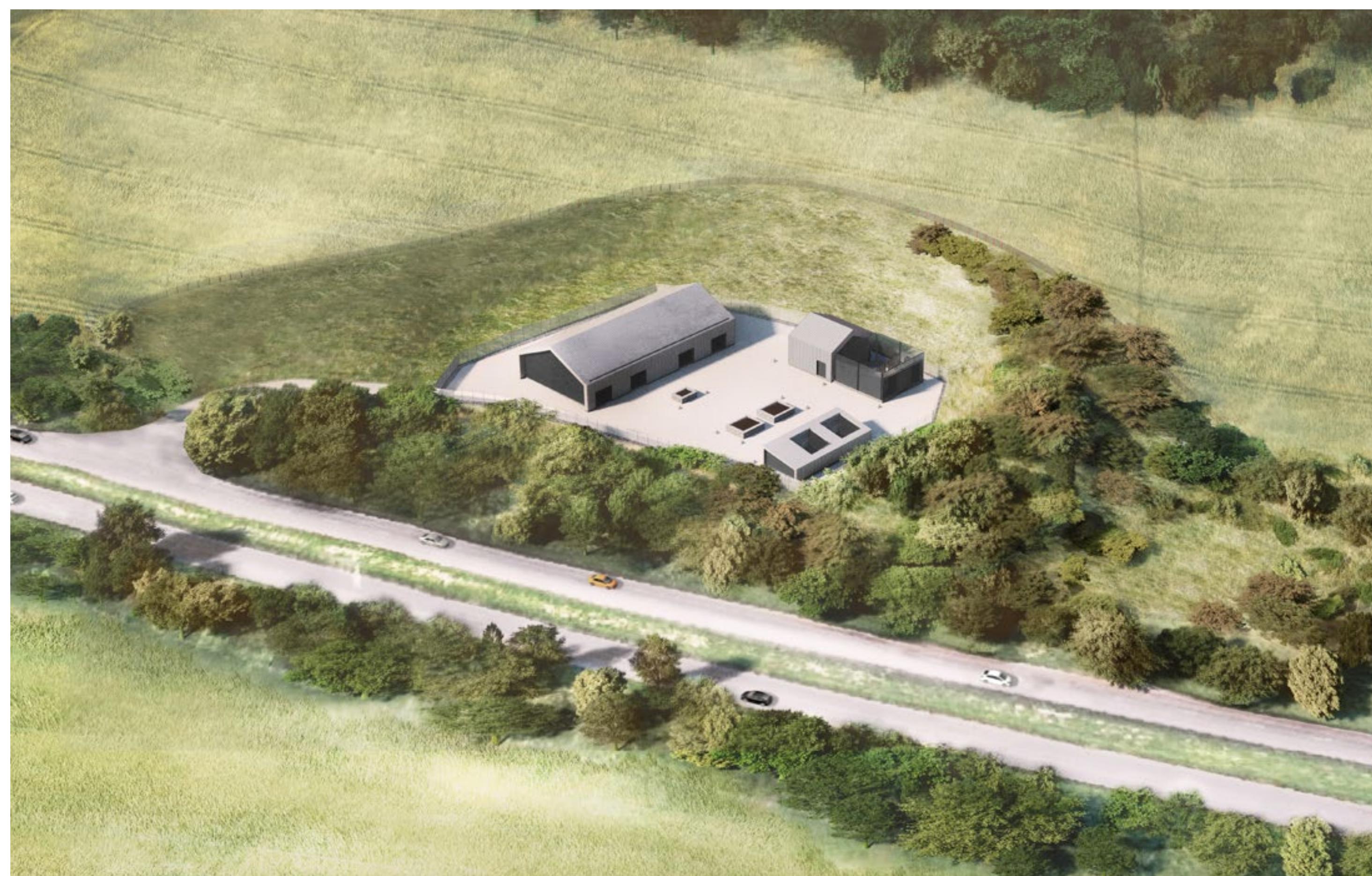
Visualisation – Chalfont St Peter headhouse (Year 15)



Visualisation – Chalfont St Giles headhouse (Year 15)



Map – Shaft locations

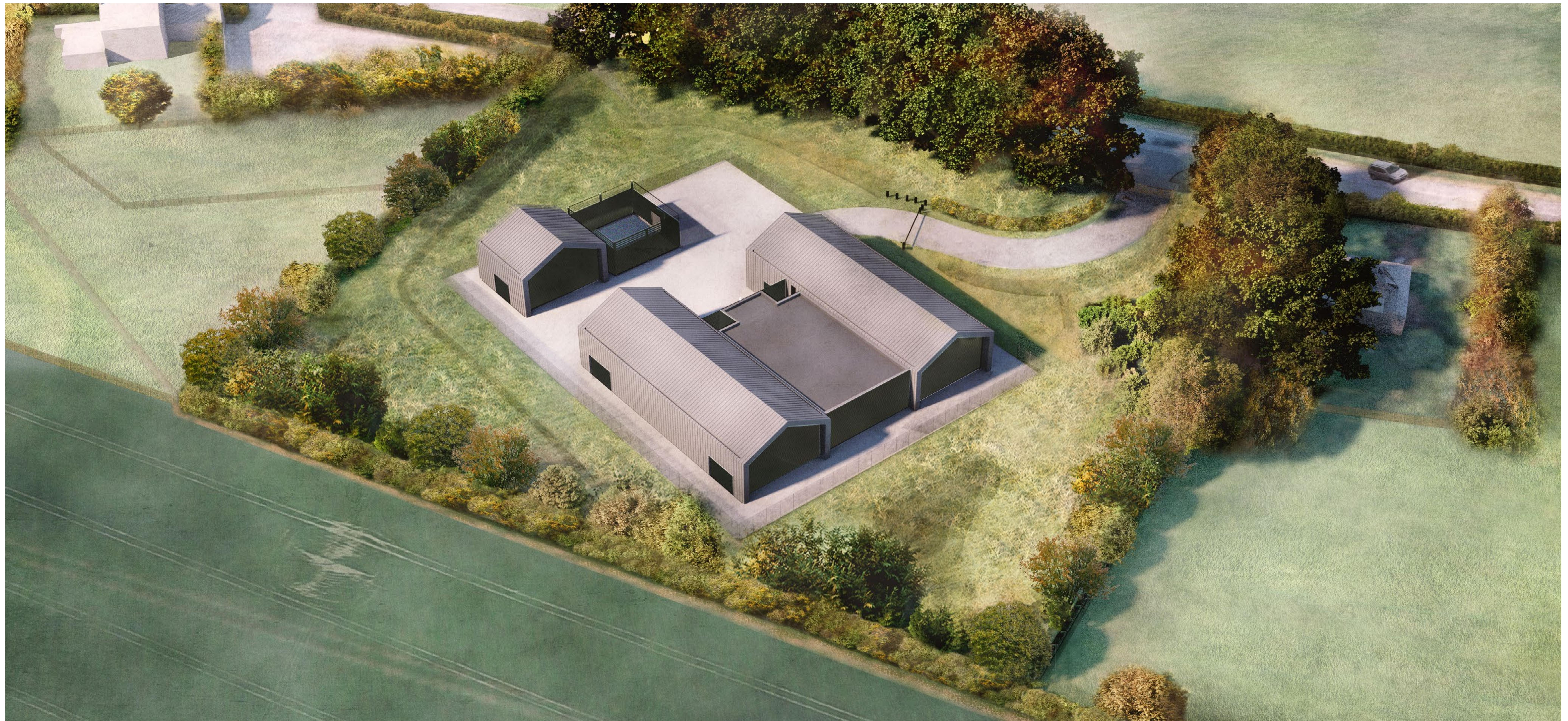


Visualisation – Little Missenden headhouse (Year 15)



Visualisation – Chesham Road (Year 15)

Building design



Visualisation – Aerial view looking north (Year 15)

Traffic management and planning

We recognise that there are concerns regarding Heavy Goods Vehicles using local roads in the area of the shaft site. Our routes to each site are carefully planned to reduce impact on local communities.

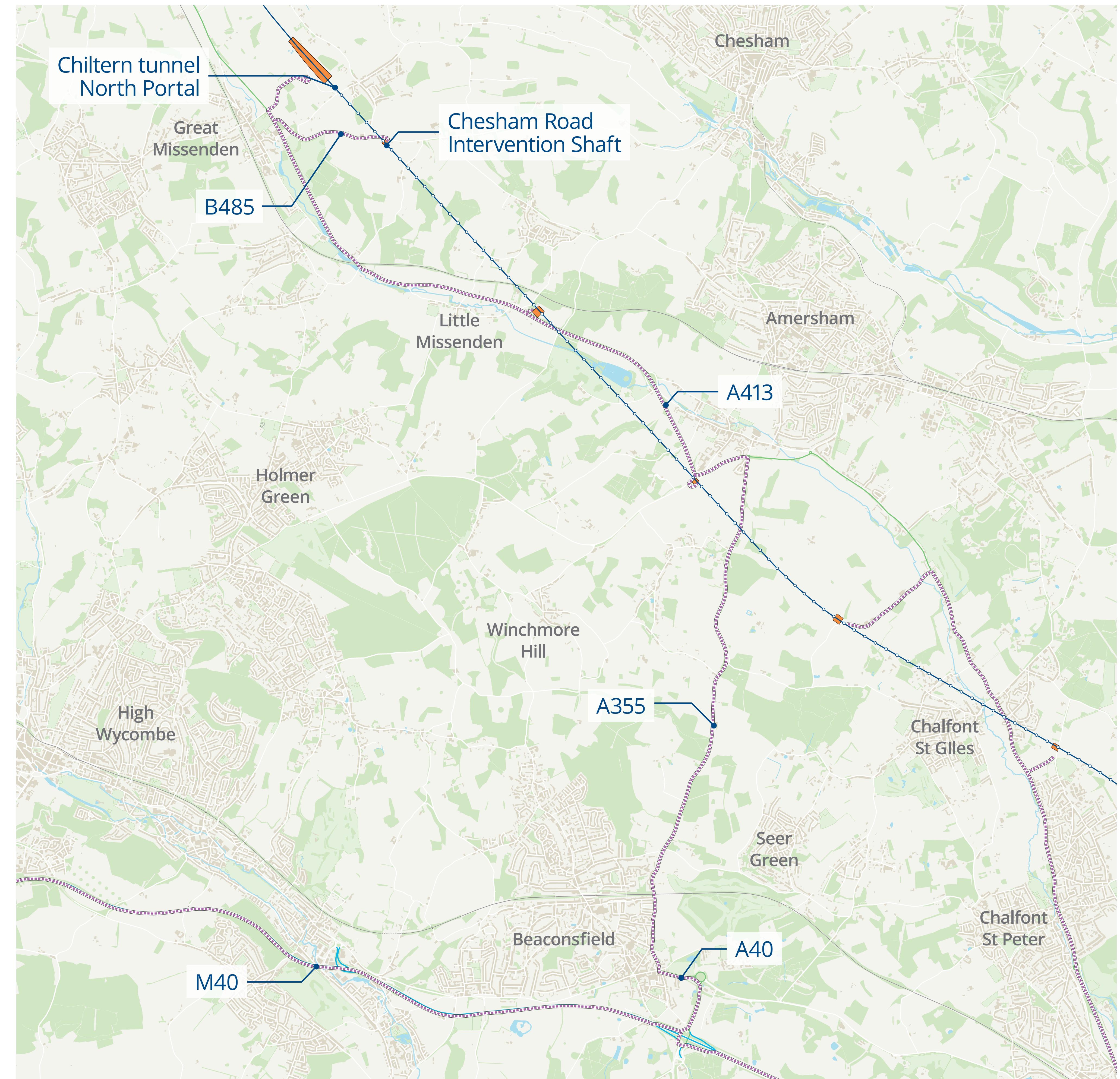
During stages of high activity on site – such as excavation, concreting and piling works – there will be a corresponding increase in Heavy Goods Vehicle (HGV) movements.

Our main period of construction is about to start on site and will go through to summer 2022.

There will also be periods where the need for HGV movements will be lower.

We are:

- Reducing the number of HGV movements by changing the method of construction on site
- Scheduling all deliveries electronically to prevent congestion near the site. This includes working with the main works contractor EKFB who are building the next part of the line from South Heath northwards
- We have now built the permanent access to the site



HGV routes to Chesham Road site

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Construction site map

We will build the intervention shaft safely, and minimise our impact on the local community.

Air quality

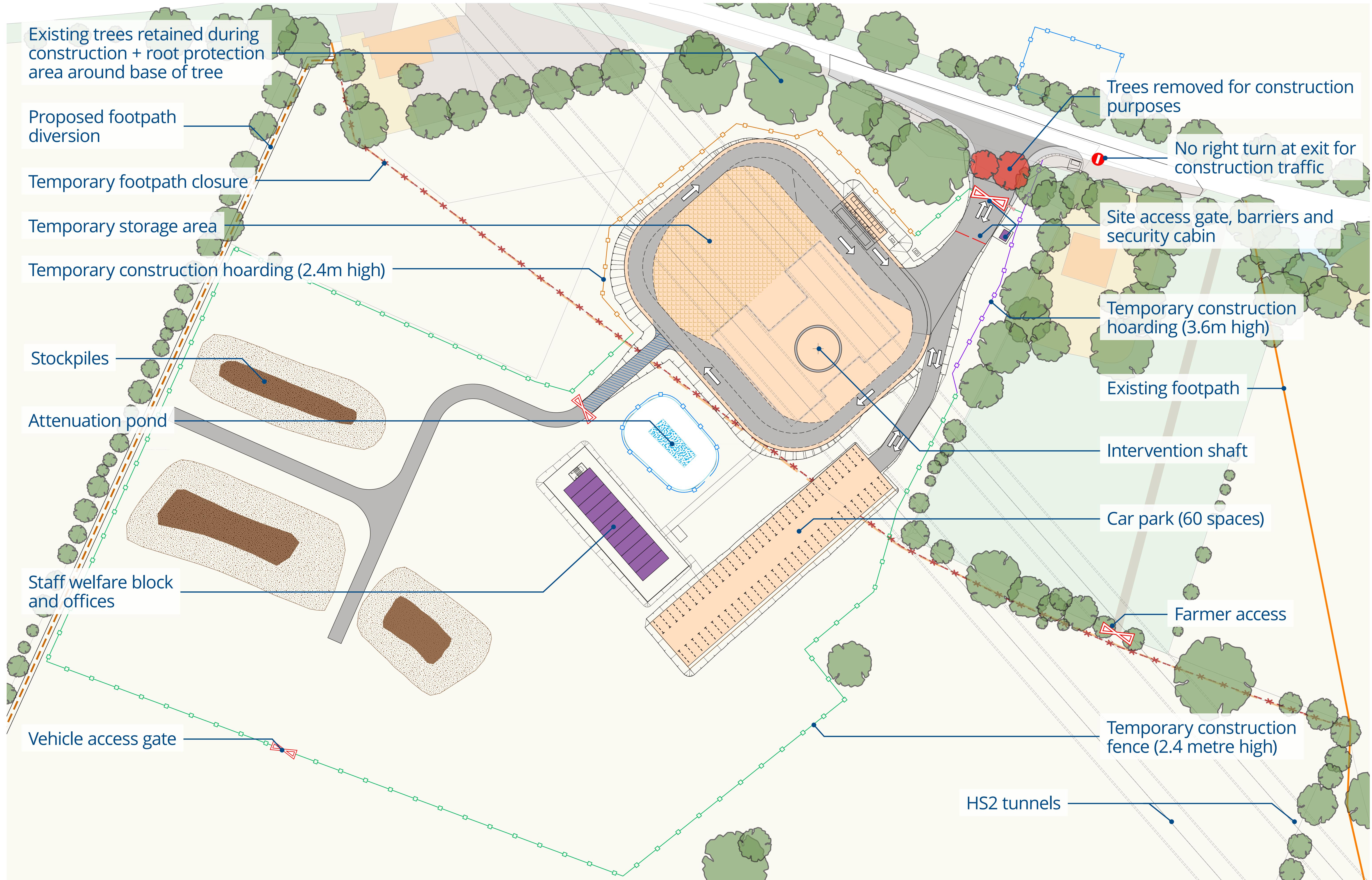
We will manage air quality by:

- Regularly inspecting and monitoring site and equipment
- Cleaning on site roads and vehicles
- Managing earthworks to contain dust
- Monitoring air quality on site

Noise

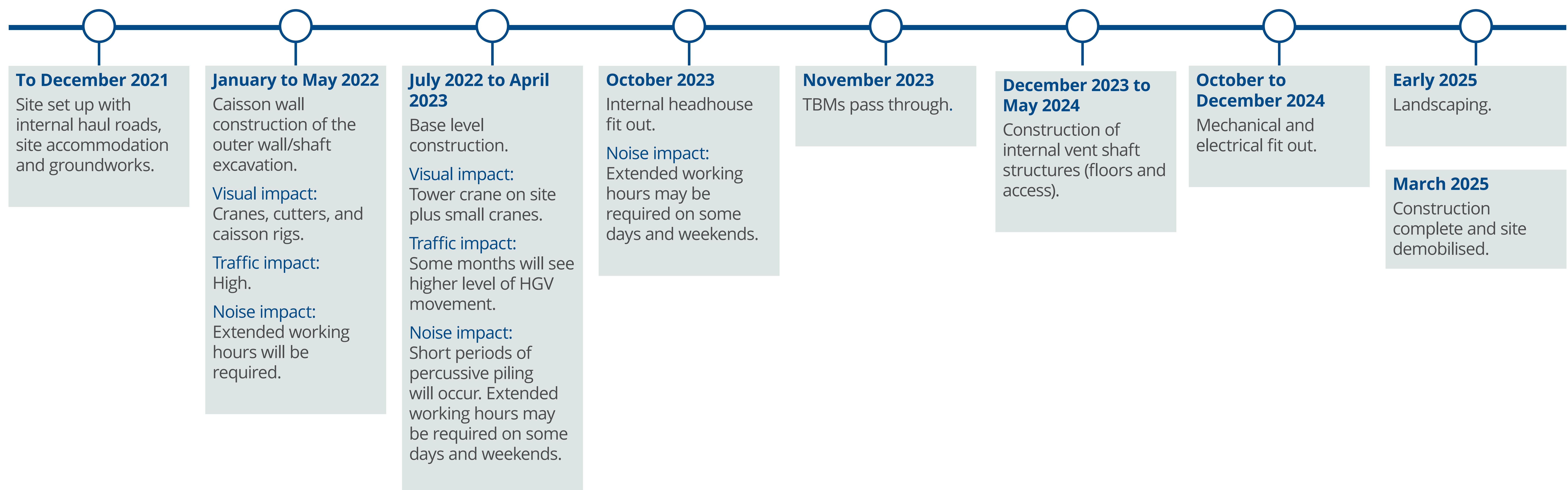
We will control noise and vibration by:

- Monitoring noise using automatic monitoring equipment
- Tackling noise at source and reviewing location of equipment
- Screening and enclosing noisy activities



Chesham Road Construction Programme

To minimise our impact on the local community, we will build the intervention shaft and headhouse as quickly and safely as possible. Below is an indicative timeline of construction activities. We have highlighted those which may be more noticeable to local residents.



Thank you

Thank you for viewing
our online exhibition.

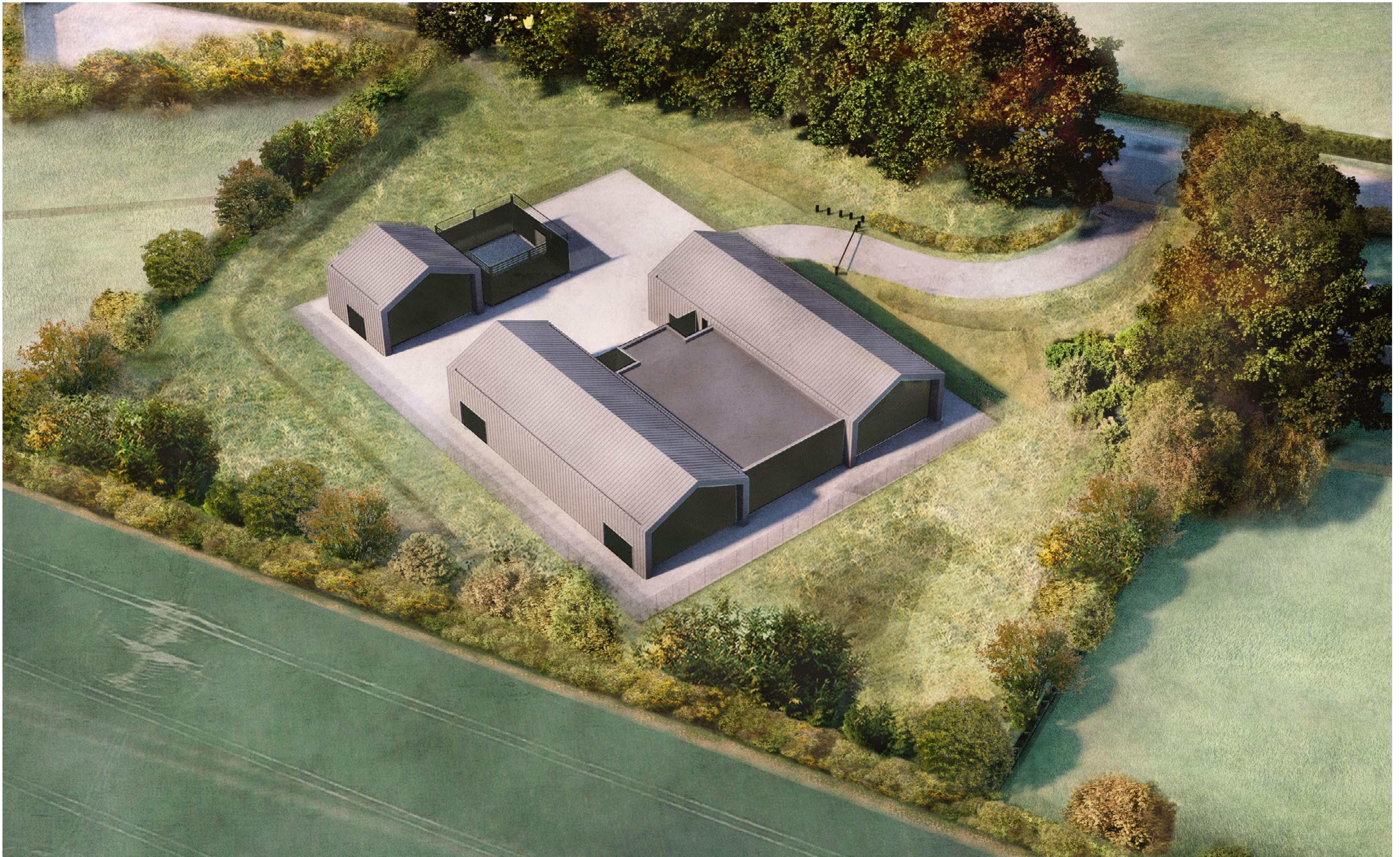
Next steps

We will continue engagement with the local community to provide regular updates on the progress of construction.

Information events

For more information and to find out how to receive regular updates, please visit: www.hs2.org.uk and view the local community in your area page webpages.

If you have a question about HS2 or our works, please contact our HS2 Helpdesk team on 08081 434 434 or email hs2enquiries@hs2.org.uk



Aerial view looking north (Year 15)