HS2

ECRG Presentations & Slides

21 October 2021

HS2

Traffic Impact

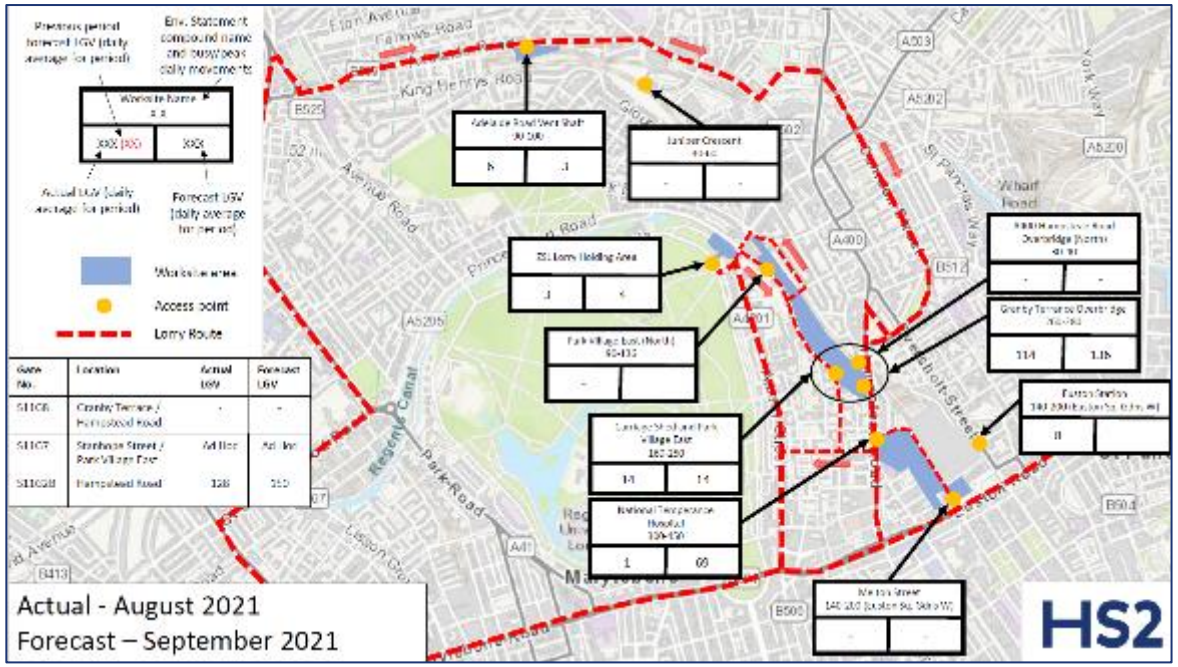
October 2021

Assess of the cumulative impact of HS2 related traffic and that arising from other works in the area.

- Assessment of the cumulative impacts for HS2 works are included within the Local Traffic Management Plan (LTMP) for the area.
- HS2 works are co-ordinated through the Traffic Liaison Group meetings and Co-ordination group meetings. The output of these meetings are discussed at the Camden Community Traffic Working Group.
- HS2 works are uploaded to the DfT StreetManager system prior to being progressed to a permit, all works are co-ordinated with other contractor works through this system. This allows Highway Authorities to notify other works of any future HS2 works on the network.
- In coordination of works, any co-working or collaborative planning is discussed to reduce impacts to the network, this is not always possible.

Reporting lorry numbers by road - discussion

- The ‘Actual vs Forecast’ slides (shown to the right) are what are presented to the CTWG, numbers of HGVs are shown by compound and also gate. Also shown are the routes to and from each gate. By showing the routes, the number of HGV’s on each road can be determined.



Measures to reduce the impact of traffic on local roads.

General HS2 Measures Traffic management | High Speed 2 (hs2.org.uk)

Avoiding local roads

We will minimise the use of local roads in several ways, including:

- Building some dedicated 'haul roads' within the construction boundary, which will allow us to move materials and to access our construction sites effectively.
- Re-using most of the earth we excavate during construction in our earthworks and landscaping around the railway. This means the material won't need to be moved long distances on the road network.
- Sourcing some of our materials to build the railway from local 'borrow pits', reducing the need to import materials over long distances.
- Using rail transport for the movement of construction materials and bulk waste, where possible.
- Using A roads and motorways, where possible, to reduce the impact on local communities.
- Assessment of the cumulative impacts for HS2 works are included within the Local Traffic Management Plan (LTMP) for the area.

Measures to reduce the impact of traffic on local roads.

General HS2 Measures Traffic management | High Speed 2 (hs2.org.uk)

Working with local authorities

- The High Speed Rail (London to West Midlands) Act 2017 provides the overall powers required for HS2 Ltd to build the railway. The powers also enable us to alter roads, where necessary.
- However, we will still need to obtain the consent of local planning authorities and relevant highway authorities for some aspects of our work in the future. This includes permission for the routes that lorries over 7.5t will take to and from our sites, if the number of vehicle movements exceeds 24 two-way trips per day.
- HS2 runs regular Local Traffic Liaison Meetings with highway authorities and the emergency services along the route between London and the West Midlands. These meetings provide an opportunity for our contractors to present proposals for future works affecting the highway, allowing the highways authorities to discuss our proposals and coordinate the work.

Measures to reduce the impact of traffic on local roads.

General HS2 Measures Traffic management | High Speed 2 (hs2.org.uk)

Improving local roads

- In some locations we will be temporarily improving and increasing the capacity of the road network so it can accommodate our construction traffic.
- Crucially, these improvements will typically be constructed 'off line'. This means that a new junction, for example, would be constructed off the existing highway in adjacent land. It can then be 'tied in' to the existing road when ready. This reduces the need for extensive traffic management measures or diversion routes while the improvements are being made.

Planning effectively

- We have prepared a Route-wide Traffic Management Plan (RTMP) for Phase One of the railway. It covers how our contractors are required to plan traffic and transport during construction. Contractors will need to prepare Local Traffic Management Plans which will set out how they intend to deliver the project, including significant changes to highways. The RTMP also sets out our requirements for monitoring construction traffic flows, as well as setting the project's standards for vehicle and driver safety, the development of workforce travel plans and how we need to protect highways and other assets.

Measures to reduce the impact of traffic on local roads.

Euston additional measures

Improving local roads

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Measures to reduce the impact of traffic on local roads

Additional Euston measures

- Camden Community Traffic Working Group
- U&A compliance eg schools and churches consulted on proposed traffic routes
- Traffic Liaison Group
- Co-ordination meetings
- Environmental Minimum Requirement compliance
- Vehicle Management Booking System to schedule bookings based on time, preventing vehicles queuing on the highway network.
- London Zoo VHA to stand vehicles, undertake compliance and regulate flows.

HS2

Air Quality & Carbon

October 2021

Air Quality & Carbon

A national endeavour

HS2

More **Capacity**

Better **Connectivity**

Cutting **Carbon**

Our low carbon future

HS2

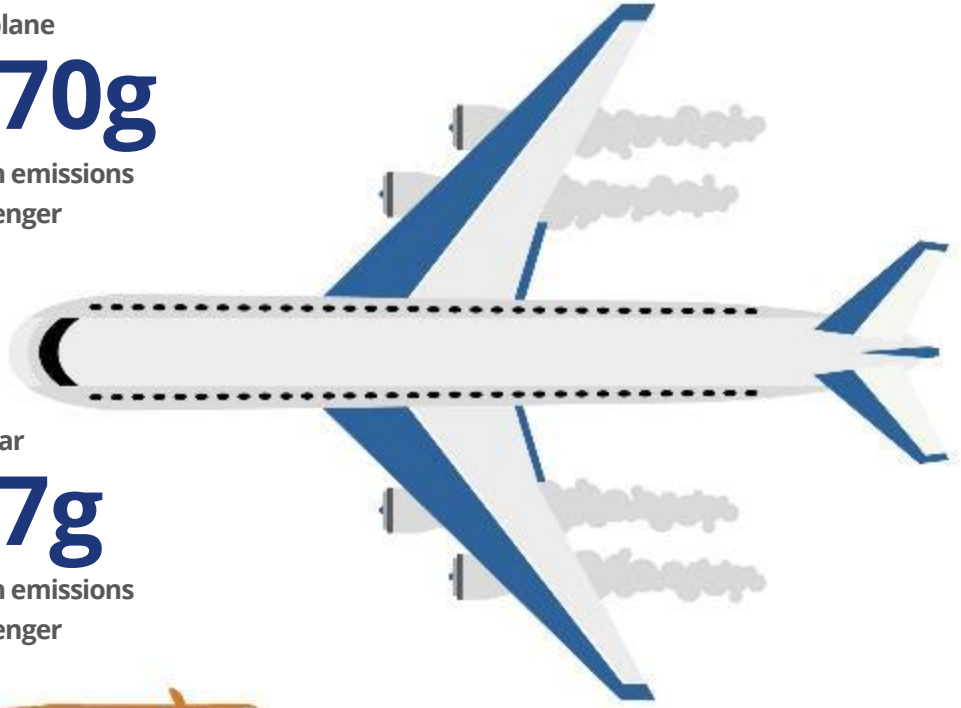
HS2 will be the **low carbon alternative** for long distance travel.

HS2 is crucial to realising the government's ambition of bringing greenhouse gas emissions down to **net zero by 2050.**

1km by plane

=170g

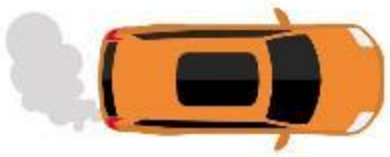
of carbon emissions per passenger



1km by car

=67g

of carbon emissions per passenger



1km by HS2

=8g

of carbon emissions per passenger

More freight by rail

HS2

HS2 will take hundreds of thousands of lorries off the roads every year as more freight can travel by rail.

Rail freight has a key role to play in the low carbon economy

Rail produces

76% less carbon dioxide

emissions than the equivalent road journey.

A gallon of diesel will carry a tonne of freight

246 miles

by rail, as opposed to

88 miles

by road.

UK's largest rail freight company, DB Cargo UK.

Sustainability at HS2

Our ambition is to build the most sustainable high speed railway of its kind in the world. We have set a strategic objective to design, build and operate HS2 to reduce carbon.

We aim to support the UK's transition to a net zero carbon economy and deliver social, environmental and economic benefits.

HS2 sustainability approach, includes:

Spreading the benefits:
Economic growth and community regeneration

Opportunities for all:
Employment and education

Safe at heart:
Health, safety and wellbeing

Respecting our surroundings:
Environmental protection and management

Standing the test of time:
Design that is future proof

Cla

What's the Construction Challenge?

The UK government committed to bring all greenhouse gas emissions to net zero by 2050. HS2 expected by government and stakeholders to be part of the solution.

HS2 Legal obligation (Phase One Act): to limit the carbon footprint to that reported in the Environmental Statement.

HS2 Strategic Objective to 'design, build and operate HS2 to reduce carbon '

HS2 Environmental Policy: Sets objectives to against Climate Change and Being a good neighbour

Commitments:

- HS2 Corporate **KPIs** on Carbon reduction
- MWCC, station and rail system contractors are required to achieve **50% carbon reduction**
- HS2 Air Quality **Emission Requirements** and Targets for all construction vehicles and plant & machinery

Our approach to Air Quality

HS2 emission standards have been set for all construction vehicles and non-road mobile machinery

Dust control measures in line with Best Practice Guidance

(as set out in the Code of Construction Practice)

Dust Monitor trigger alerts are set, if reached require immediate on-site action and review of mitigation measures

Monthly Monitoring Summary Reports

https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2

HS2 & Air Quality Webpage

https://www.hs2.org.uk/building-hs2/hs2-environment-facts/hs2-and-air-quality/

Air Quality Objectives, Monitoring, Controls

Policy: Our overarching policy pertaining to the Control of Air Quality during our works is contained in **Information Paper E31 (IP E31)**, and the Code of Construction Practice (Chapter 7 Air Quality), summarised below:

Air Quality Objectives

Air Quality Strategy, sets out our key air quality objectives for the project, which are to:

- **Avoid pollutant emissions** to air.
- **Avoid exposure** to pollutants where emissions cannot be avoided.
- **Reduce pollutant emissions** where they cannot be avoided.
- **Minimise exposure** to pollutant emissions where exposure cannot be avoided.
- **Collaborate** with the authorities to maintain air quality.
- Provide **mitigation** for dust soiling, where it cannot be prevented.

CoCP and IP31 set out the mitigation in place to meet these objectives and reduce the potential for impacts on air quality.

Air Quality Monthly Monitoring Reports & Raw Data

(summarising works, monitoring, complaints and trigger alerts)

Monthly Monitoring Reports summarising the works, monitoring data, complaints received and trigger alerts per Local Authority area are published at https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2.

Monthly raw monitoring data is published at https://ckan.publishing.service.gov.uk/dataset/environmental-impact-data.

An **Annual Air Quality Monitoring Report** details the annual air quality monitoring compared to the ES predicted levels and Air Quality Standards, published at https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2.

LAs have access to the live continuous monitoring data.

Air Quality Monitoring

(if reached immediate on-site action & review of mitigation measures)

We **monitor air quality** where significant effects were predicted, and **dust monitoring** on the site boundary of Medium and High Risk sites to ensure the effectiveness of our mitigation measures.

Dust monitors have trigger alert levels set in line with the Institute of Air Quality Management (IAQM) guidance. In the event of a trigger alert and to prevent reoccurrence:

- An immediate on-site investigation takes place. If the trigger is associated with the works, we re-assess & revise methods and mitigation before works recommence.

LAs are notified of a trigger alert, with details of the investigation and remedial measures implemented.

As noted in the study by King's College London on Testing PM10 trigger values at construction sites (August 2016) "*The trigger is not based on any health standards and does not indicate a breach of EU Limit Value concentrations or occupational limits, merely the presence of a construction source*." Thus acts as an early-warning tool allowing for immediate actions to be taken.

Measures to control Air Quality impacts

(as set out in the Code of Construction Practice)

Best Practicable Means (BPM) applied to all construction work:

- Set construction vehicle and plant emission requirements and targets route-wide
- Best Practise dust mitigation measures, as set out in the CoCP
- Undertake monitoring to ensure the effectiveness of mitigations deployed in managing potential air quality impacts associated with our works

Innovation Projects underway to develop evidence and technologies, and reduce potential air quality impacts further (i.e. renewable energy alternatives).

The HS2 and Air Quality Webpage https://www.hs2.org.uk/building-hs2/hs2-environment-facts/hs2-and-air-quality/ provides more information on on-going innovation projects.

Air Quality & Trees Working Group

Proposed Dates circulated (to be confirmed):

- Tuesday 05/10 (14h00 – 16h00)
- Monday 11/10 (10h00 – 12h00)
- Thursday 14/10 (14h00 – 16h00)

Proposed Agenda:

1. Welcome and Introductions
2. Project / Works Update
3. Air Quality Updates
   - Requirements & Compliance
   - Monitoring & Annual Report
4. Innovations
5. Tree Panel Update
6. Any Other Business

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Dust and Air Quality

What are we doing at Euston?

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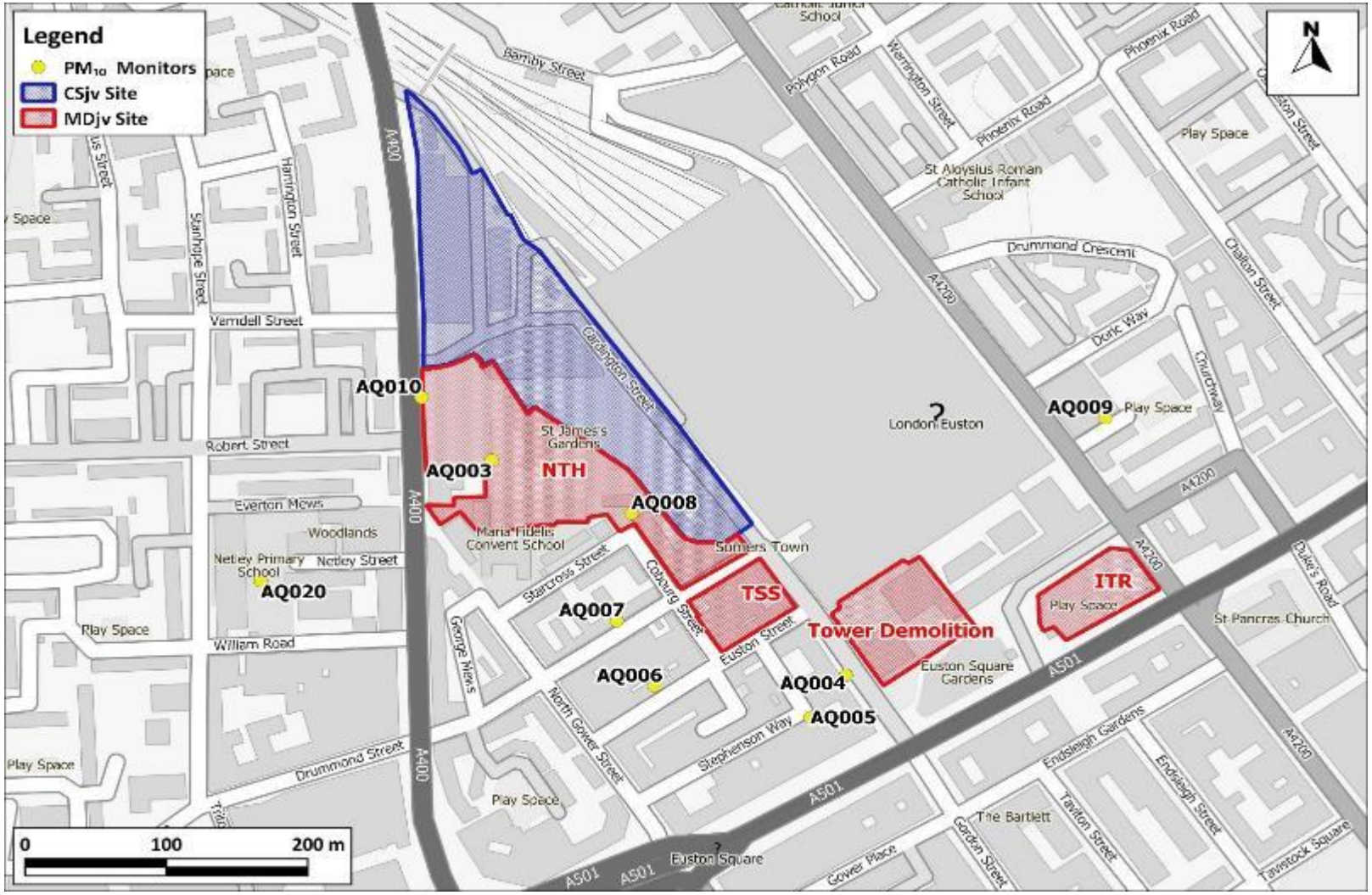
Actions

- Hybrid generators – reduce emissions and noise
- NRMM Stage V engines used – minimise air pollution and particulates
- Photovoltaic tower lights – carbon zero, no emissions and silent
- Localised dampening down of site activities – removing dust at source
- Road Sweeper – to dampen down roads, in and around our site
- Site water bowser – to dampen internal site areas to minimise dust
- Hydrogen powered cameras – no emissions or noise.

HS2

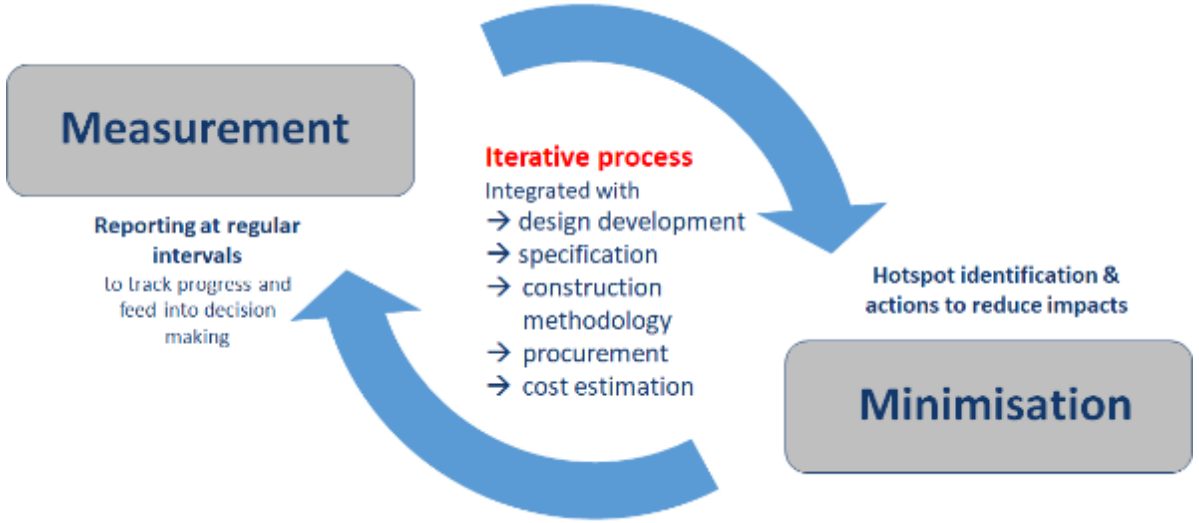
Monitoring



SCSjv Carbon Management Approach

SCS are committed to minimising the carbon footprint of its scope of works:

- We have been certified to PAS 2080 'Carbon Management in Infrastructure' standard since late 2018.
- Life Cycle Assessments have been undertaken and will continue throughout construction phase through to hand-over.
- A detailed baseline has been calculated based on our scheme design at tender stage (aligned to AP03) and subsequent calculations are compared against that.
- SCSJV use a detailed 'bottom up' carbon calculation method whereby material and resource quantities are pulled from our Bill of Quantities, based on the designs in our BIM (Business Information Management) computer model of the works.
- Carbon management is a collaborative endeavour, where 'hotspots' of high carbon impact are identified, which could be a specific structure or a key material, and this is where attention is focussed to minimise the impacts.



SCSjv contract-wide key priorities

Top carbon reduction opportunities

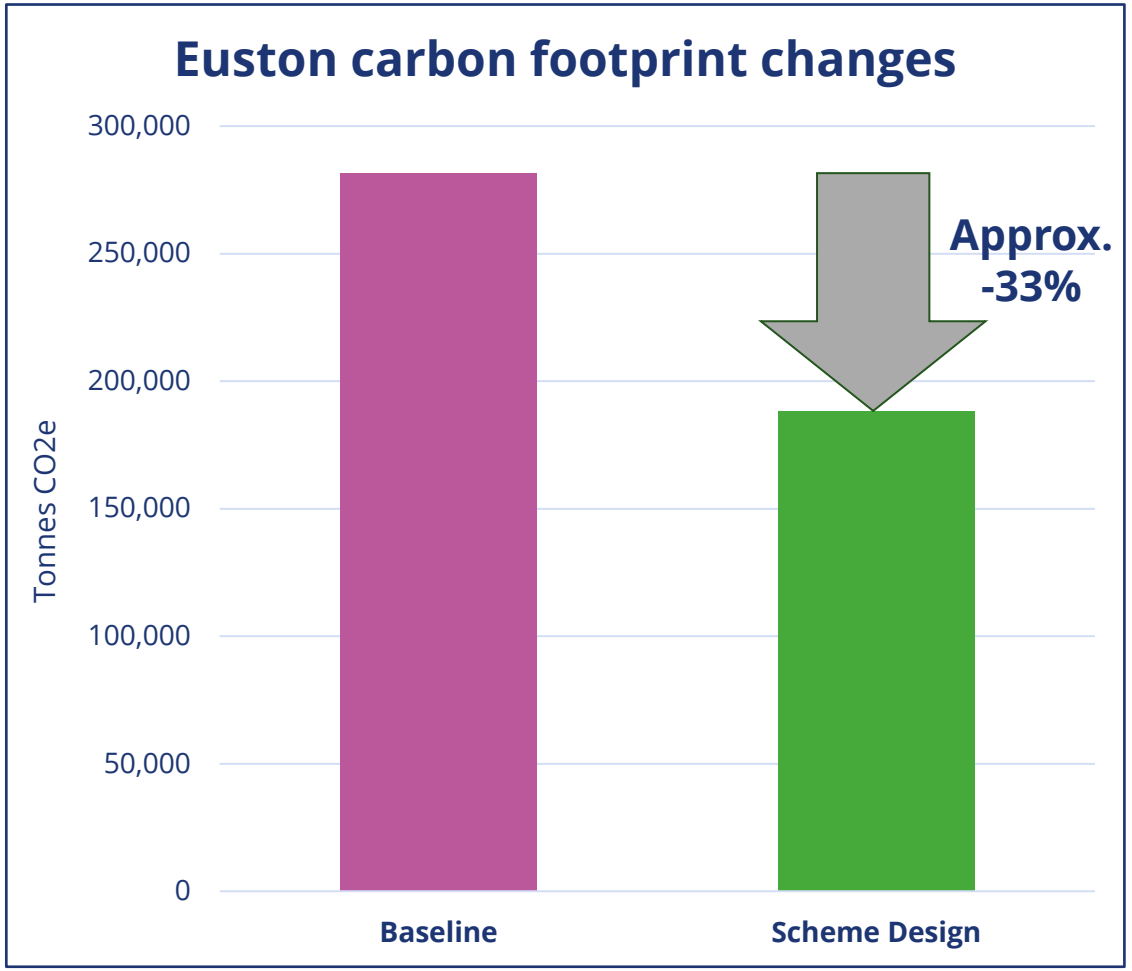
Selected based on highest potential for impact, likelihood of implementation (risk/opportunity) and timeliness

#	Opportunity
1	**Concrete and grout mix optimisation** Minimise total cementitious content & maximise cement replacement in in-situ & precast concrete including piling
2	**Steel specification with high recycled content** for reinforcement bars, structural steel, sheet & fibres
3	**Clean site power** Timely connection to mains electricity grid & securing renewable energy tariffs
4	**Alternative fuels for construction vehicles, plant & machinery** Electricity-powered equipment and cleaner diesel alternatives: biofuels, etc.

Changes from Baseline to Scheme Design for Euston

- The carbon footprint of the assets in the Euston area has reduced substantially since the AP03 design. The shift from part of what originally was a heavy concrete box structure to a leaner tunnelled solution has played a crucial part in reducing material quantities and subsequent carbon impacts.

- The graph to the right captures these savings achieved through major design changes. This is anticipated to reduce further as progress is made on the key priorities on the previous slide are, including some of the examples presented next.



Euston specific measures

Piling platforms with cementless concrete

- When installing piles, a **piling platform or mat** needs to be created which is a temporary working platform designed to provide a reliable and stable surface on which piling rigs can operate. The traditional method of installing a pile mat is to use a 1m layer of compacted granular material. However, when piling rigs travel along this piling mat it becomes damaged and needs to be repaired. In order to maintain the piling mat an additional 20% of the original aggregate volume is typically required every week, which can equate to a significant of additional hardcore being required.
- A solution was developed by our Euston team to use a 700mm layer of granular material with a 200mm layer of concrete, **eliminating the need for additional fill material** to maintain the piling mat and keep it fit for purpose.
- Our sub-contractor Capital Concrete then supplied Wagner's Earth Friendly Concrete (EFC); a **cement-free concrete** which typically offers a **50% saving in embodied carbon compared to standard concrete** mixes. EFC does not use Portland cement and can be used as a robust equivalent to traditional concrete in this application.

Euston specific measures

Piling platforms with cementless concrete

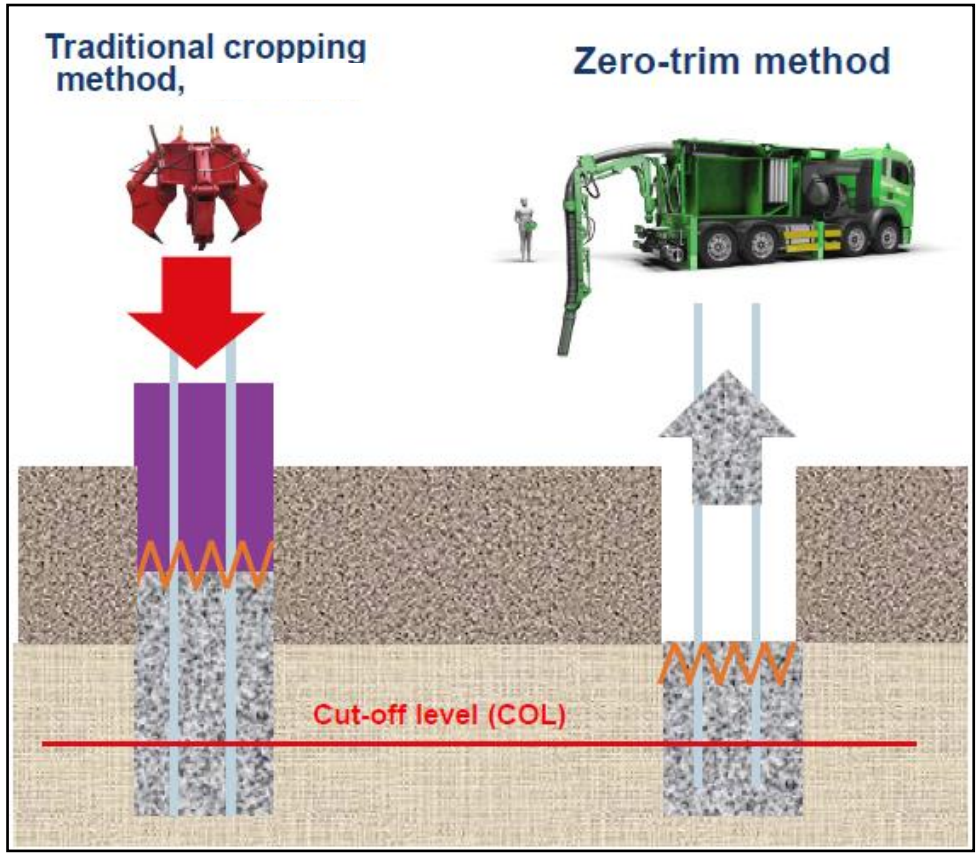
The benefits:

- Less wagon deliveries and vehicles on site.
- Clean and well-maintained working conditions on site.
- Circular economy potential - our team are exploring whether upon completion of piling works, the pile mat platforms could be crushed on site and the material re-used as hardcore.
- Carbon saving of 79% compared to the traditional method, based on a 7-month works period
- Uses only around 15% of the total aggregate volume compared to that used for a traditional loose hardcore piling platform with high maintenance requirements was employed

Euston specific measures

“Zero-Trim” pile cropping

- The result of collaboration between SCSjv, Cementation Skanska and Hercules Site Services, **Zero-Trim** is a revolutionary method to carry out pile cropping.
- For the ground conditions at Euston, as a pile is drilled it is filled with an engineering support fluid that helps retain the structure of the surrounding granular soil. The concrete for the permanent pile is then pumped in, which pushes the support fluid to the top. However the very top layer of concrete is ‘contaminated’ by the support fluid in the process.
- Traditionally, extra concrete is used to ensure that the pile is made of only good quality concrete right up to the finished level (or ‘cut off level’). Pile croppers are then used to chop down the hardened concrete to the correct level.
- Zero-Trim uses a vacuum excavator to suck away the contaminated concrete whilst it’s still wet, thereby minimising or often even eliminating the need for cropping of cured, solid concrete later on . This can significantly reduce any associated impacts for our neighbours in the surrounding area and our workforce.



Euston specific measures

“Zero-trim” pile cropping

The main benefits:

In Euston alone (approx. 2,100 piles), we will have saved:

- 60,000 working hours (pile breaking activities)
- Approx 840 tonnes CO_2e, primarily through the reduced overpouring of concrete and subsequent waste

Other benefits include:

- No noise and dust from drilling and breaking out
- Faster completion of works
- Less or no repair on reinforcement required
- Integrating with capping beam reinforcement made easier
- No lifting of equipment required
- Improved health & safety by avoiding the risks of concrete cutting and removal

Euston specific measures

“Hydro-treated Vegetable Oil” - HVO

- HVO (Hydrotreated Vegetable Oil) is a renewable alternative to red diesel, synthesised entirely from sustainable raw materials (vegetable or animal oils and fats). This fuel has been used as a replacement to traditional red diesel in Euston since mid-2020, starting with one fuel tank and increasing to three soon after. This has produced benefits including reductions NOx and PM emissions as well as CO_2e due to the carbon neutrality of sustainable biofuels, when compared to use of the same volume of diesel.

- Use of HVO has since been spread across the project with all SCS sites now on HVO supply. Although there are still some specialist items of equipment that cannot currently use it, we are proud of this step towards cleaner air and reduced carbon emissions

Emissions	Red Diesel	HVO	Reductions	% Reduction
CO2 e (kg)	139198	12781	-126416kg CO2e	91
CO (ppm)	95	81	-15 ppm CO	15
Nox (kg)	23	20	-3kg Nox	11
PM (kg)	437	265	-172kg PM	39
Fuel Efficency (l)	47118	44103	-3015 litres	6

HS2

Noise Insulation Status

Data as of 13th October 2021

Noise Insulation Programme Overview

ALBERT STREET		
Eligible Units: 11		
Postponed: 0		
Concluded	9	82%
Completed	2	18%
In Progress	0	0%

AMBLESIDE		
Eligible Units: 31		
Postponed: 0		
Concluded	16	52%
Completed	11	35%
In Progress	4	13%

ARLINGTON ROAD		
Eligible Units: 1		
Postponed: 0		
Concluded	1	100%
Completed	0	0%
In Progress	0	0%

AUGUSTUS HOUSE		
Eligible Units: 60		
Postponed: 1		
Concluded	32	53%
Completed	20	33%
In Progress	8	13%

BECKFOOT		
Eligible Units: 12		
Postponed: 0		
Concluded	6	50%
Completed	5	42%
In Progress	1	8%

GILLFOOT		
Eligible Units: 80		
Postponed: 80		
Concluded	0	0%
Completed	0	0%
In Progress	80	100%

GLENRIDDING		
Eligible Units: 12		
Postponed: 0		
Concluded	9	75%
Completed	1	8%
In Progress	2	17%

GOLDSMITH HOUSE		
Eligible Units: 52		
Postponed: 0		
Concluded	0	0%
Completed	52	100%
In Progress	0	0%

HAMPSTEAD ROAD		
Eligible Units: 5		
Postponed: 0		
Concluded	3	60%
Completed	1	20%
In Progress	1	20%

LANGDALE		
Eligible Units: 60		
Postponed: 2		
Concluded	20	33%
Completed	33	55%
In Progress	7	12%

BORROWDALE		
Eligible Units: 1		
Postponed: 0		
Concluded	0	0%
Completed	1	100%
In Progress	0	0%

BRATHAY		
Eligible Units: 12		
Postponed: 0		
Concluded	9	75%
Completed	2	17%
In Progress	1	8%

CALGARTH		
Eligible Units: 24		
Postponed: 0		
Concluded	16	67%
Completed	8	33%
In Progress	0	0%

CANTERBURY HOUSE		
Eligible Units: 12		
Postponed: 0		
Concluded	7	58%
Completed	3	25%
In Progress	2	17%

CARLTON HOUSE		
Eligible Units: 40		
Postponed: 0		
Concluded	19	48%
Completed	19	48%
In Progress	2	5%

MICKLEDORE		
Eligible Units: 12		
Postponed: 0		
Concluded	6	50%
Completed	5	42%
In Progress	1	8%

MIDLAND TERRACE		
Eligible Units: 1		
Postponed: 0		
Concluded	0	0%
Completed	0	0%
In Progress	1	100%

MORNINGTON CRESCENT		
Eligible Units: 75		
Postponed: 1		
Concluded	54	72%
Completed	16	21%
In Progress	5	7%

MORNINGTON PLACE		
Eligible Units: 26		
Postponed: 0		
Concluded	9	35%
Completed	16	62%
In Progress	1	4%

MORNINGTON STREET		
Eligible Units: 36		
Postponed: 0		
Concluded	7	19%
Completed	23	64%
In Progress	6	17%

CARTMEL		
Eligible Units: 69		
Postponed: 0		
Concluded	24	35%
Completed	38	55%
In Progress	7	10%

CLARKSON ROW		
Eligible Units: 10		
Postponed: 0		
Concluded	1	10%
Completed	9	90%
In Progress	0	0%

COBOURG STREET		
Eligible Units: 15		
Postponed: 0		
Concluded	1	7%
Completed	14	93%
In Progress	0	0%

CONISTON		
Eligible Units: 24		
Postponed: 0		
Concluded	6	25%
Completed	17	71%
In Progress	1	4%

CUBITT COURT		
Eligible Units: 40		
Postponed: 0		
Concluded	14	35%
Completed	24	60%
In Progress	2	5%

MORNINGTON TERRACE		
Eligible Units: 123		
Postponed: 2		
Concluded	53	43%
Completed	55	45%
In Progress	15	12%

NASH HOUSE		
Eligible Units: 8		
Postponed: 0		
Concluded	7	88%
Completed	0	0%
In Progress	1	13%

NORTH GOWER STREET		
Eligible Units: 1		
Postponed: 0		
Concluded	1	100%
Completed	0	0%
In Progress	0	0%

OXENHOLME		
Eligible Units: 80		
Postponed: 80		
Concluded	0	0%
Completed	0	0%
In Progress	80	100%

PARK VILLAGE EAST		
Eligible Units: 16		
Postponed: 2		
Concluded	6	38%
Completed	3	19%
In Progress	7	44%

DALEHEAD		
Eligible Units: 80		
Postponed: 80		
Concluded	0	0%
Completed	0	0%
In Progress	80	100%

DELANCEY STREET		
Eligible Units: 54		
Postponed: 0		
Concluded	31	57%
Completed	16	30%
In Progress	7	13%

DRUMMOND STREET		
Eligible Units: 22		
Postponed: 0		
Concluded	6	27%
Completed	15	68%
In Progress	1	5%

ENNERDALE		
Eligible Units: 1		
Postponed: 0		
Concluded	1	100%
Completed	0	0%
In Progress	0	0%

EUSTON STREET		
Eligible Units: 6		
Postponed: 0		
Concluded	2	33%
Completed	2	33%
In Progress	2	33%

PARKWAY		
Eligible Units: 16		
Postponed: 0		
Concluded	13	81%
Completed	3	19%
In Progress	0	0%

RICHMOND HOUSE		
Eligible Units: 40		
Postponed: 0		
Concluded	16	40%
Completed	23	58%
In Progress	1	3%

SILSOE HOUSE		
Eligible Units: 29		
Postponed: 2		
Concluded	1	3%
Completed	25	86%
In Progress	3	10%

ST MARY'S SCHOOL		
Eligible Units: 1		
Postponed: 0		
Concluded	0	0%
Completed	1	100%
In Progress	0	0%

STARCROSS STREET		
Eligible Units: 24		
Postponed: 0		
Concluded	8	33%
Completed	15	63%
In Progress	1	4%

STEPHENSON STREET		
Eligible Units: 2		
Postponed: 0		
Concluded	2	100%
Completed	0	0%
In Progress	0	0%

STOCKBECK		
Eligible Units: 12		
Postponed: 0		
Concluded	7	58%
Completed	5	42%
In Progress	0	0%

THE TARNS		
Eligible Units: 28		
Postponed: 0		
Concluded	10	36%
Completed	14	50%
In Progress	4	14%

TINTERN HOUSE		
Eligible Units: 21		
Postponed: 0		
Concluded	12	57%
Completed	9	43%
In Progress	0	0%

WELLS HOUSE ROAD		
Eligible Units: 1		
Postponed: 0		
Concluded	1	100%
Completed	0	0%
In Progress	0	0%

Overview/ Current Status

	6th September 2021	13th October 2021	Difference
Not Eligible	122	122	0
Concluded (No works to take place)	423	446	+ 23
Completed (Glazing and/or Sonair installed)	487	506	+ 19
In Progress	376	334	- 42
Total (Properties within scope)	1408	1408	n/a
Heritage applications (outstanding for live properties)	4	4	0

Noise Insulation Status - Heritage

	Total	% of Live	% of Scope
Noise Insulation Status - Heritage			
Eligible	266	80%	100%
Concluded	145	33%	55%
Live	33	10%	12%
Completed	88	17%	33%

Noise Insulation Timeline

Feb 2017 – Royal Assent

Mar 2020: Ampthill Towers Fire safety/strategy report requested.

February 2021: Selectaglaze sub-con replace Everest

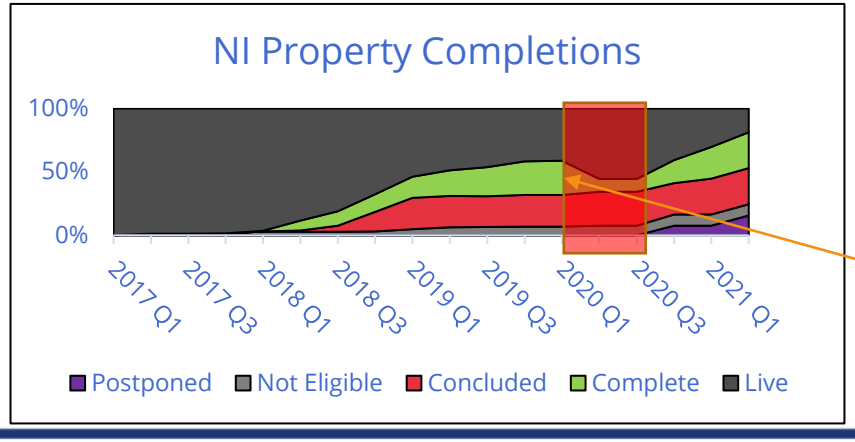
March 2017	September 2017	July 2018	Dec 2018	July 2019	Dec 2019	May 2020	Dec 2020	May 2021	October 2021
• Contract awarded to CSjv	• Mobilisation began • First sub-contractor procured	• 110 SG installed • 20 MV installed • 6 concluded	• 195 SG installed • 21 MV installed • 162 concluded	• 286 SG installed • 22 MV installed • 339 concluded	• 385 SG installed • 23 MV installed • 372 concluded	• 415 SG installed • 41 MV installed • 377 concluded	• 418 SG installed • 109 MV installed • 390 concluded	• 494 SG installed • 176 MV installed • 446 concluded	• 545 SG installed • 247 MV installed • 569 concluded

Feb 2020 - Feb 2021: Augustus House delay access due to Camden works

March-Sept 2020: Covid-19 CSjv stand down

July 2020: Everest sub-con go into administration (Responsible for 705 properties)

Sept 2020: Adept sub-con additional resource



Note – Completion measure changed to from SG only to SG+MV

HS2

Adelaide Road

October 2021

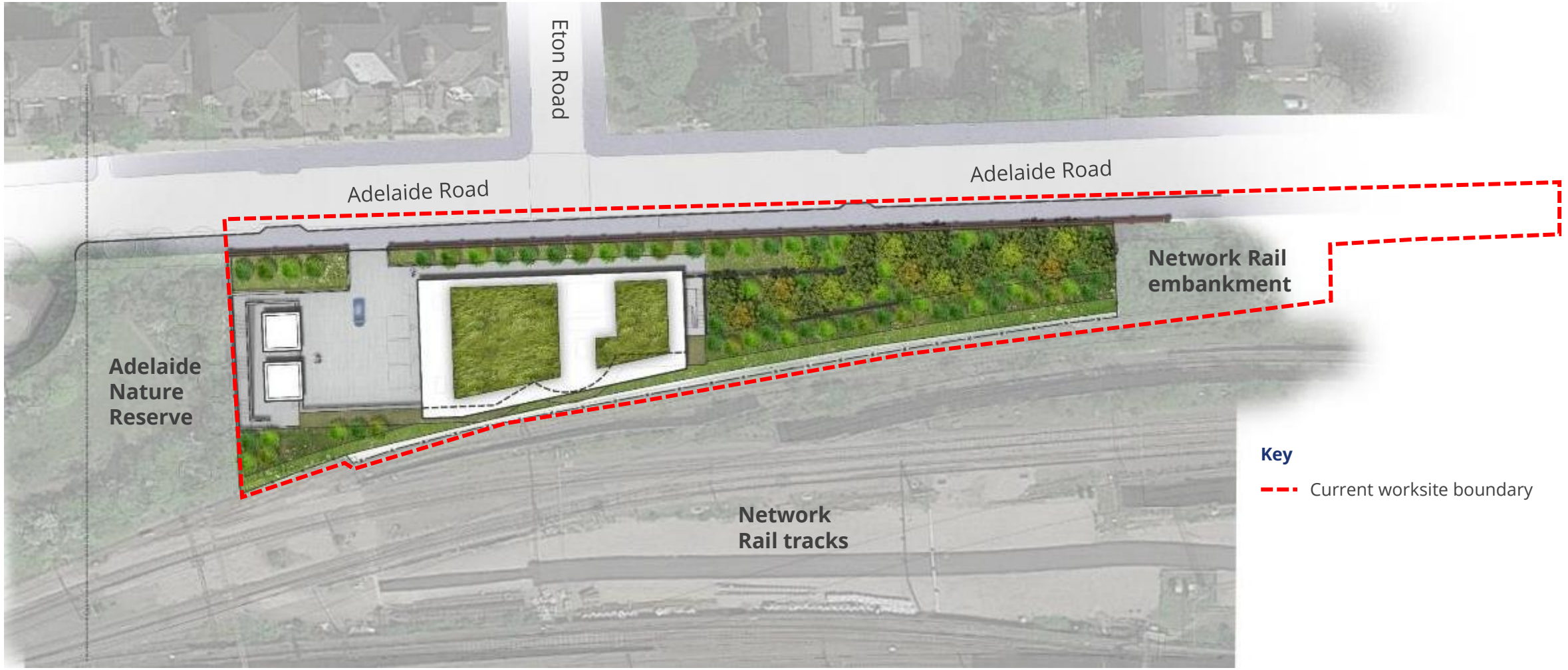
SKANSKA COSTAIN STRABAG Working in partnership with HS2

Adelaide Road headhouse and compound

Key Design Element engagement – September 2021

Location

The Adelaide Road site is located in the London Borough of Camden, between Chalk Farm Road and Primrose Hill Road. The site sits in the Network Rail embankment area. Our site does not include the Adelaide Nature Reserve.



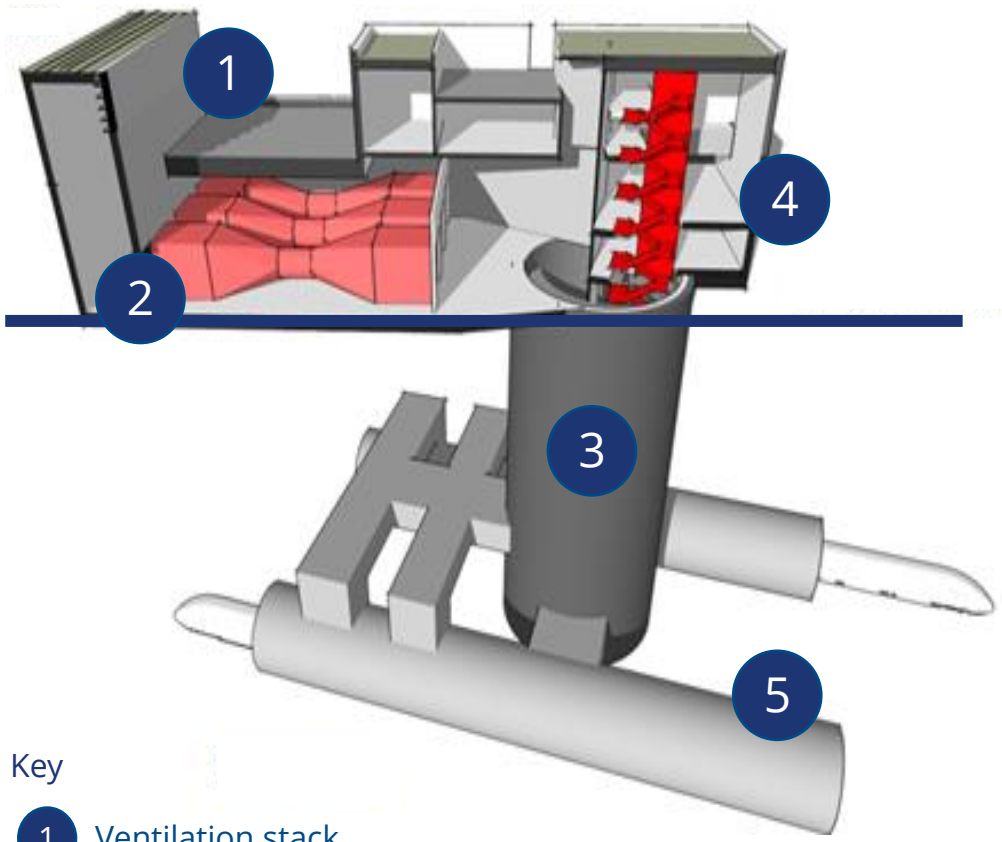
Overview of a vent shaft and headhouse

The vent shaft and headhouse are key components in any rail infrastructure. We will build a vent shaft and headhouse at the Adelaide Road site.

What is a vent shaft?
A vent shaft, or ventilation shaft is a vertical opening that connects the tunnels to the surface and open air.

What is a headhouse?
The headhouse is the building on top of the vent shaft which contains the fire control and ventilation systems for the railway tunnels below. The headhouse will include a fan room.

This is a visualisation of the headhouse from the Network Rail tracks and King Henry's Road



Key

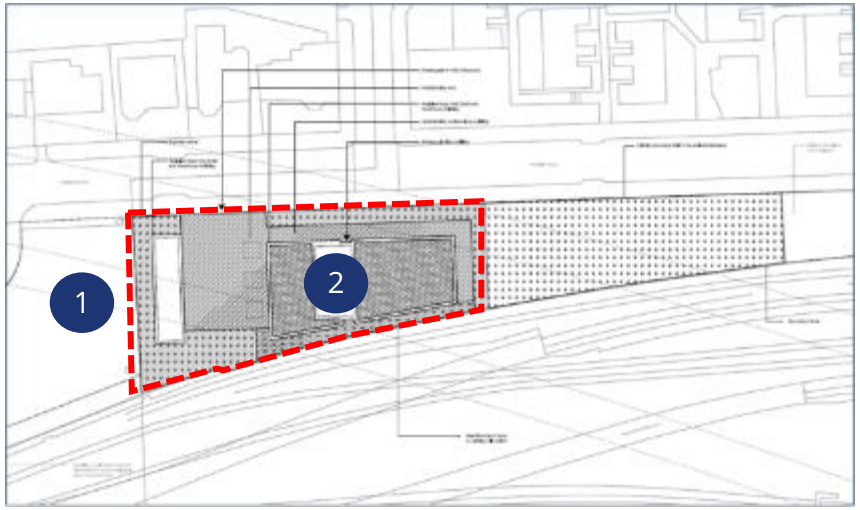
1. Ventilation stack
2. Fan room
3. Shaft
4. Emergency intervention
5. Running tunnels

Previous design

Here you can see our previous design of the Adelaide Road headhouse and compound.
We engaged with the community about the design in summer 2018.

Key

- Adelaide Road compound
- 1 Adelaide Nature Reserve
- 2 Headhouse



Previous materials

Previous headhouse design

Current design

Revised design characteristics from previous design

- Set back to minimise industrial street frontage
- Set into the embankment to minimise visual impact
- Single storey building from Adelaide Road side
- Double storey building from railway side
- Headhouse embedded into landscape
- Further development of plans for green roofs
- Boundary treatments to be confirmed

Key

1. Site entrance
2. Stairs
3. Ventilation stacks
4. Courtyard / hardstanding as small as possible
5. Green roof
6. Headhouse
7. Green buffer
8. Network Rail tracks
9. Adelaide Road
10. Adelaide Nature Reserve

Local materials and colours

We have carried out photographic surveys of materials and colours in the local area

Principle building materials
Brick / Painted render

Principle paving materials
Concrete slab paving / Asphalt / Granite kerbs

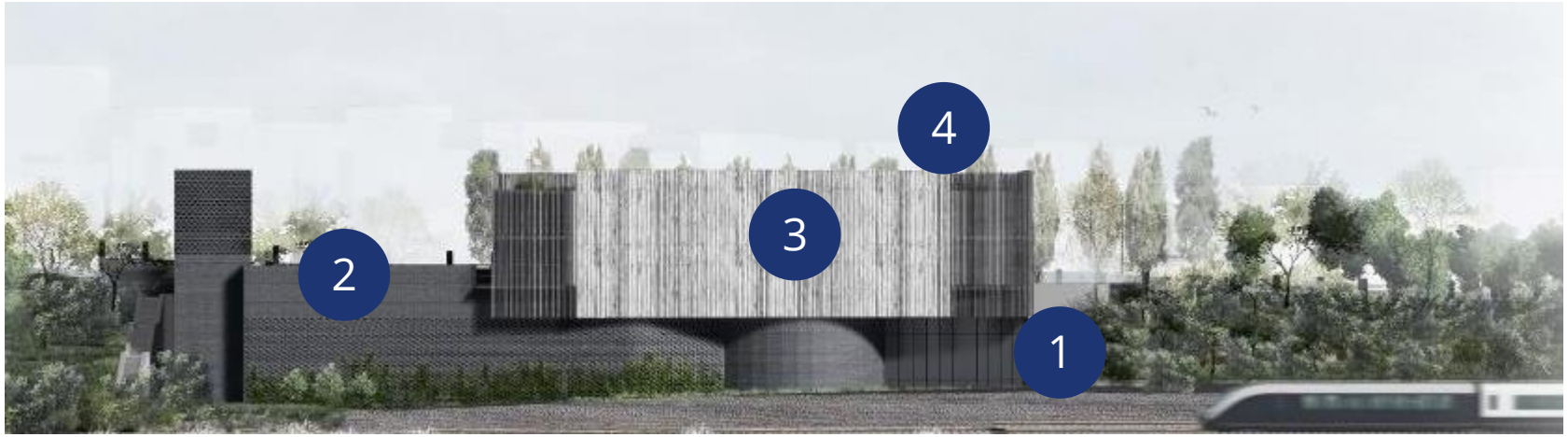
Principle boundary treatments
Brick walls / Timber fencing

Principle vegetation types
Mature street trees / Ornamental / amenity planting / Woodland / scrub along rail corridor

Headhouse appearance

Here you can see the materials proposed in our design for the Adelaide Road headhouse.

The materials proposed in our design for the Adelaide Road headhouse are timber, metal, concrete and brickwork. We are also planning to install a green roof.



This is a visualisation of the headhouse from the Network Rail tracks and King Henry's Road

1

Metal

Dark grey metal panels and louvres

3

Timber

Accoya or similar modified softwood naturally weathered to sliver grey colour

2

Brick

Engineering brick for walls, retaining walls and paviours in dark grey or similar

4

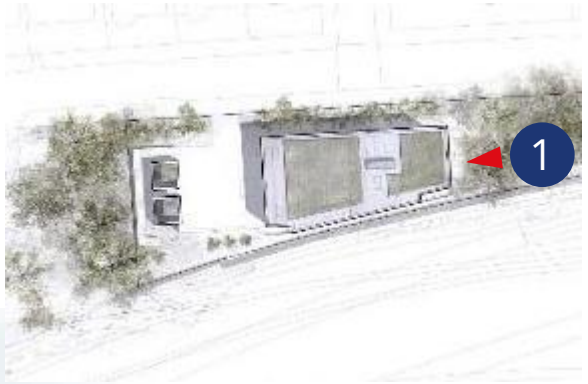
Green Roof

Intensive Green Roof with deep growing substrate and biodiverse painting of grasses, herbaceous and shrub planting

*The landscape elements are indicative only – please refer to the following slides showing our landscape plans.

Headhouse design

Here you can see a visualisation of the headhouse showing a view from the eastern end of Adelaide Road and the Network Rail embankment.



1

*The landscape elements are indicative only – please refer to the following slides showing our landscape plans.

Headhouse design

Here you can see a visualisation of the headhouse showing a view from the western end of Adelaide Road and the Adelaide Nature Reserve.

2

*The landscape elements are indicative only – please refer to the following slides showing our landscape plans.

Headhouse design

Here you can see visualisations of the headhouse showing a view from the south of Adelaide Road (from the railway tracks and King Henry's Road properties)

3

3

*The landscape elements are indicative only – please refer to the following slides showing our landscape plans.

Headhouse design

Here you can see a visualisation of the headhouse showing the view of the view from Adelaide Road with a grey or red boundary wall

4

Option 1: Grey brick wall

4

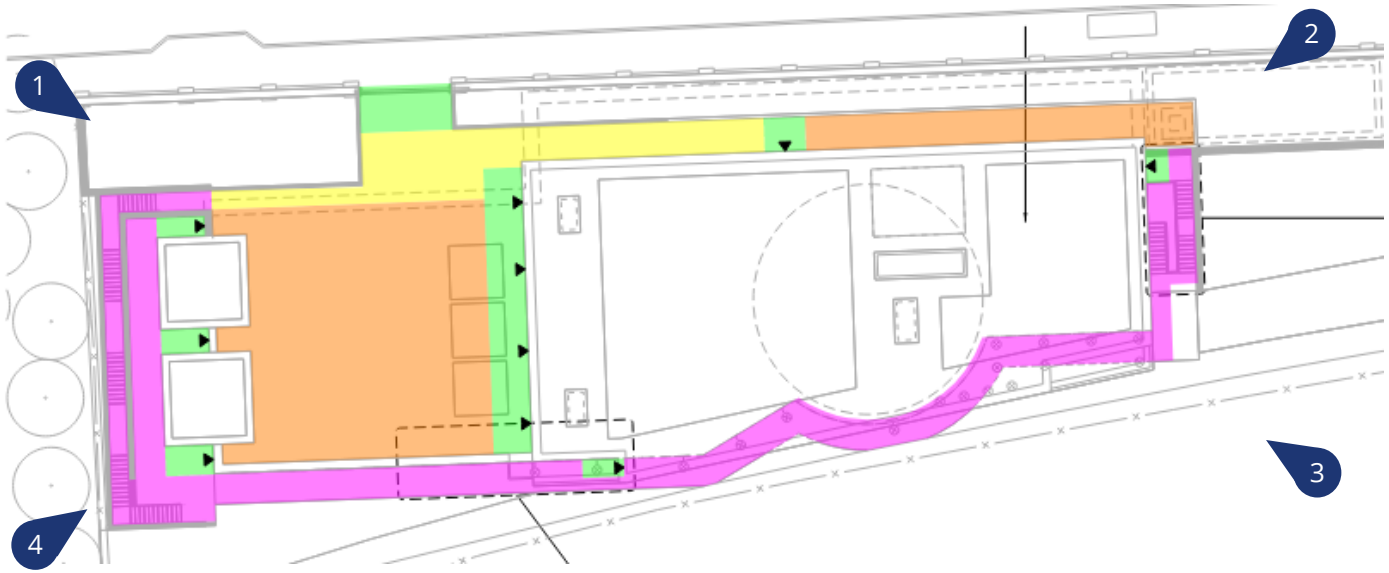
Option 2: Red brick wall

4

*The landscape elements are indicative only – please refer to the following slides showing our landscape plans.

Lighting plans

Here you can see our future lighting plans



We will be illuminating various zones throughout the site with a mixture of lighting fixtures. When the site is unoccupied, a dimming factor will be applied to all lights in order to minimise lighting pollution, as shown in the images on the right hand side of this slide.

The lighting levels will increase in the following scenarios:

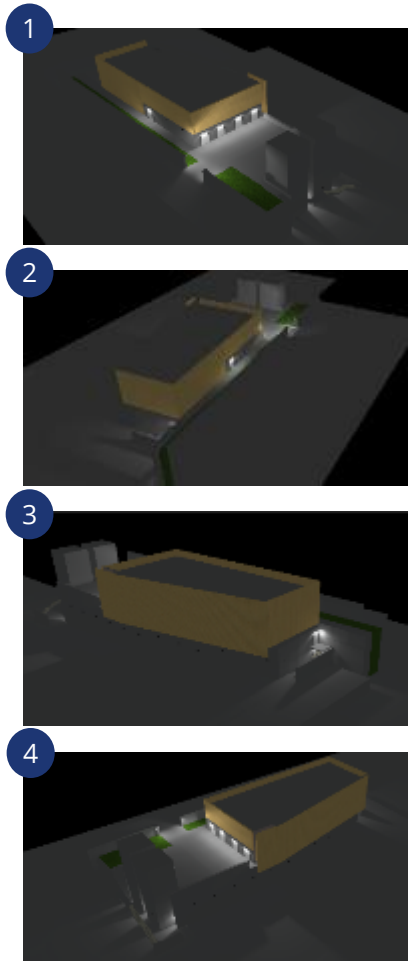
emergencies, when switched on locally/remotely,

when vehicles are manoeuvring

upon gate opening

when intrusion is detected by the CCTV security system.

Unoccupied compound



Occupied compound

Lighting plans

Lighting levels are measured in lux (lx), which determines the illumination of an area at ground level. 0 lux is completely dark, 5 lux are comparable to the lighting level on a city pedestrian walkway at night. 20 lux are comparable to lighting levels of a city road at night.

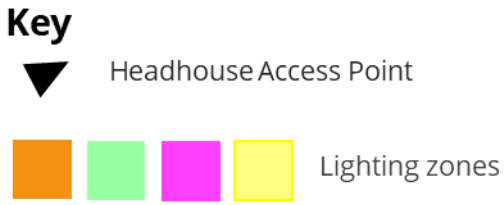
The colours represent different operational zones. These zones will have different lighting levels depending on whether the site is occupied or unoccupied.

Pink zone:
0 lx when the headhouse is unoccupied and
20 lx in the following situations:

- during an emergency
- when switched on locally/remotely
- when intrusion is detected by the CCTV security system.

Green zone:
5 lx when the headhouse is unoccupied and
20 lx in the following situations

- during an emergency
- when switched on locally/remotely
- when vehicles are manoeuvring
- when gates are opening
- when intrusion is detected by the CCTV security system.



Orange zone:
0 lx when the headhouse is unoccupied and
20 lx in the following situations:

- when switched on locally / remotely
- when vehicles are manoeuvring
- when gates are opening
- when intrusion is detected by the CCTV security system.

Yellow zone:
0 lx when the headhouse is unoccupied and
20 lx in the following situations:

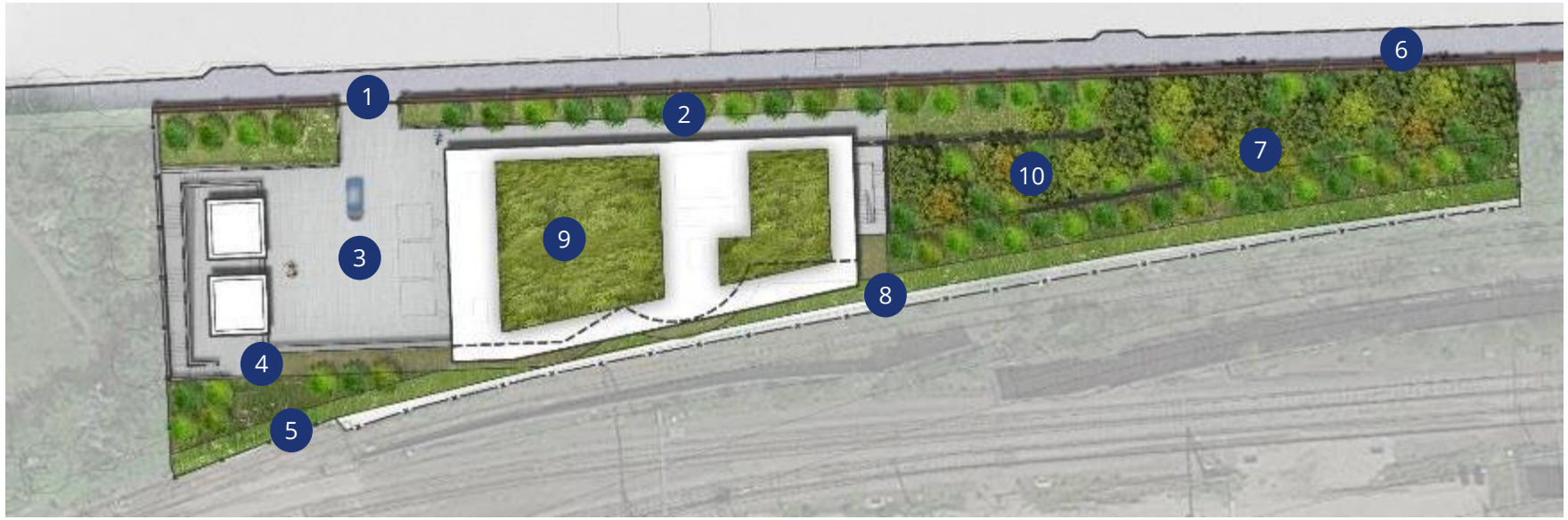
- during an emergency
- when switched on locally/remotely
- when vehicles are manoeuvring
- when gates are opening
- when intrusion is detected by the CCTV security system.

Landscape design

Here you can see our landscape plans

Key

1. Compound entrance
2. Linear tree planting
3. Concrete block paving
4. Reinforced grass
5. Trees and scrub habitat planting
6. Boundary wall surrounding the site
7. Woodland planting
8. Grassland planting
9. Green roof
10. Vegetated retaining wall or Bio-Active self-healing concreter wall




Green Roof

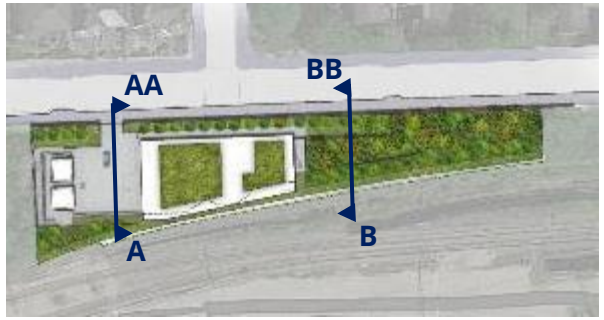

Linear tree planting


Broadleaved woodland


Species rich grassland

Landscape design

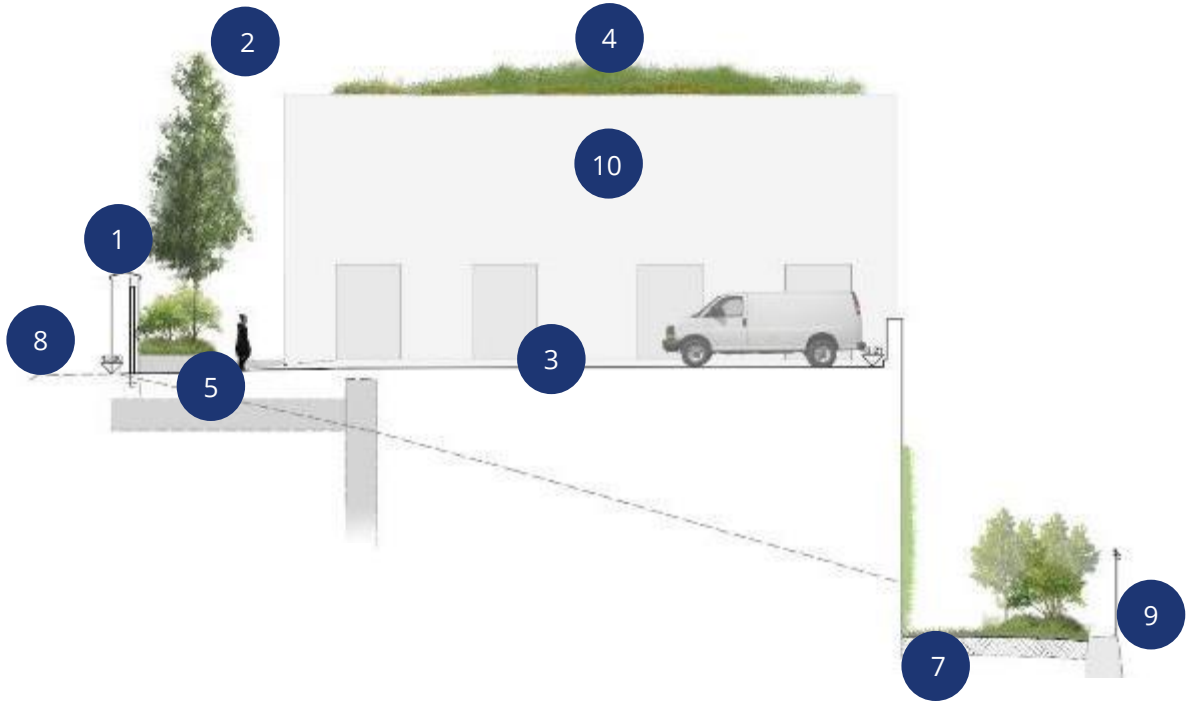
Here you can see our future landscape plans from different viewpoints



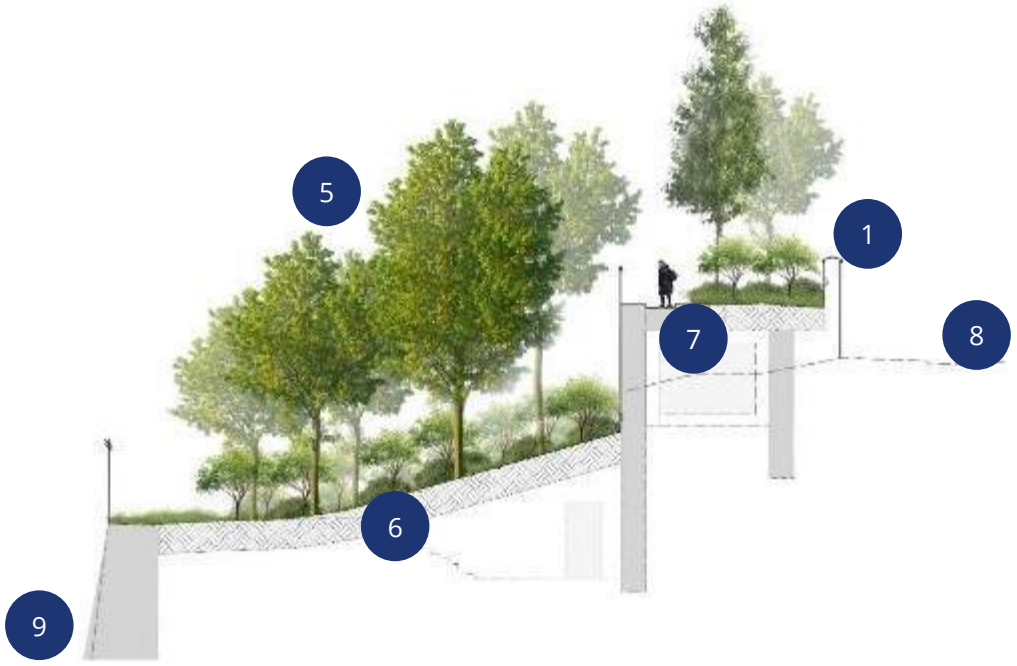
Key

1. 2.8m high boundary wall
2. Linear tree planting
3. Manoeuvring area
4. Green roof on headhouse
5. Tree and scrub planting
6. Woodland planting
7. Access corridor
8. Adelaide Road
9. Network Rail tracks
10. Headhouse

Section A-AA is a section viewpoint from the Adelaide Nature Reserve

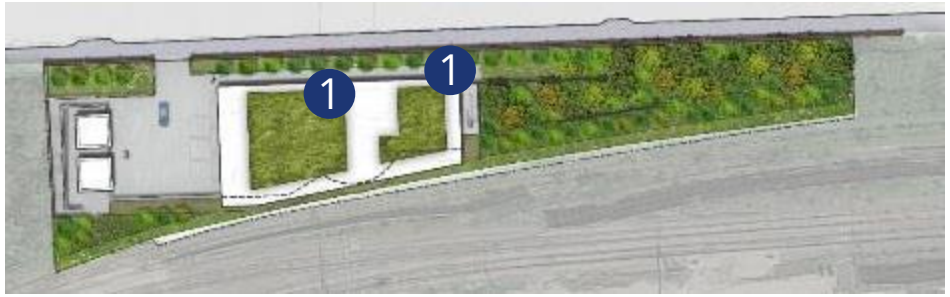


Section B-BB is a section viewpoint from the Network Rail embankment



Landscape design

Here you can see our plans for green roofs on the headhouse



Key

1 Green roof location

Type A: Deep substrate

With more depth of growing substrate, it can support a greater diversity of plants.

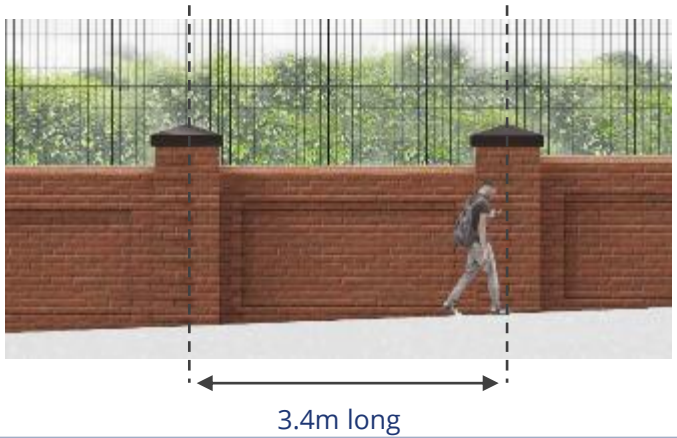
Type B: Rocky substrate

With shorter flowering plants will be beneficial to a range of invertebrate species and birds. Sand pockets/gravel beds, log piles, and bug hotels will also help creating more habitats for insects.

Adelaide Road boundary wall

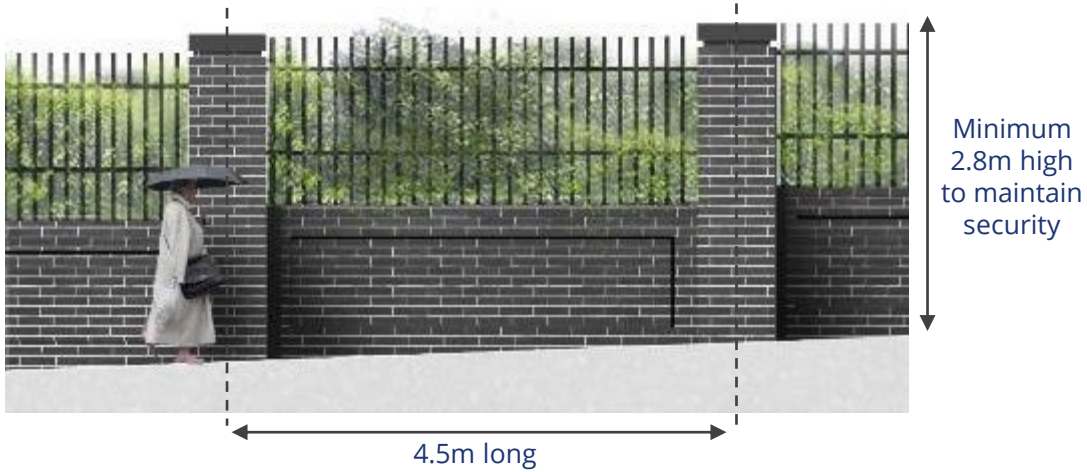
Here you can see our plans to rebuild the boundary wall on Adelaide Road.

Previous Adelaide Brick boundary wall

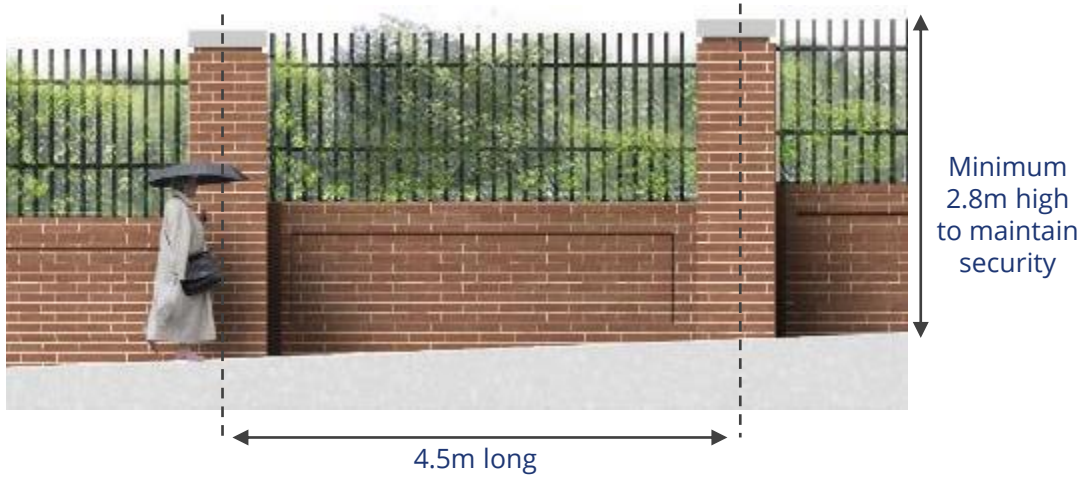


Options for new Adelaide Road boundary wall

Option 1 – low wall with piers and railings (grey brick) on Adelaide Road



Option 2 – low wall with piers and railings (red brick) on Adelaide Road



We would like to hear from you

Do you think the materials used for the future headhouse will help integrate the building with the local context?

Do you think tree and shrub planting to partially screen the headhouse building from Adelaide Road is a good idea?

The proposal is to incorporate railings into the boundary wall to increase visibility of the greenery behind. Do you agree with this approach?

We are proposing a red or grey brick wall. Which colour of brick do you think is most appropriate for the boundary wall?

Have your say

Please provide us with your feedback by 30 September 2021

You can do this by:

- Completing our survey at **HS2incamden.co.uk**
- Emailing **hs2enquiries@hs2.org.uk**
- Phoning the HS2 Helpdesk on 08081 434 434
- Using our minicom service on 08081 456 472
- Freepost SCS RAILWAYS

Next steps

We will consider the comments and feedback received to see what can be included in our final design

We will provide information and hold an event to let you know how the comments and feedback have been included in our final design

We will request for approval of the planning application for the design from Camden Council

We will keep the local community updated about the design and our ongoing construction at the Adelaide Road site

Planning Approvals required for Adelaide Road

Schedule 17 Plans & Specifications	Schedule 17 Bringing into Use	Schedule 17 Site Restoration
Seeks approval for permanent buildings, such as the head house, boundary fences, walls, lighting etc	Seeks approval for mitigation schemes prior to bringing into use of any scheduled above-ground work, such as the head house	Construction sites must be restored in accordance with a scheme submitted to the local planning authority within four months of the end of works at the site
Submission estimate **Late 2021/ early 2022***	Submission estimate **2025***	Submission estimate **2025/26***

** These are indicative dates and currently under review, so are subject to change depending in design progress*

HS2

HS2 Update

October 2021

HS2 Engagement Update

HS2 route-wide roadshows took place between the beginning of August and the end of September, including London Kings Cross on 5 September.

Return to in person engagement

- Some in person engagement activities have already restarted, including site walks and individual meetings with residents.
- Key design element engagement is taking place between 1 and 30 September on the Adelaide Road headhouse and compound. This includes two online events (9 and 13) and one in person event (15).
- SCS held five pop up engagement events on 13, 16 19, 21 July; 40 residents engaged in Camden Cutting and Euston Approaches area. Two site specific visits with the residents in RPE and Harrington Square held on 30 June and 26 August respectively.
- Weekly site walks and one-to-one meetings with businesses in Drummond Street and Stephenson Way.
- Discussions are being had with groups that meet regularly about preferences of in-person meetings or virtual meetings.

Community Investment

Students pictured after successfully passing the challenges, including a group bench-building exercise and the creation of planters using recycled decking.

- **Timber reuse from Adelaide Road site works:** Felled tree logs donated to Adelaide Community Garden & Beaumont Walk Residents Association; these were delivered by SCS at the end of July & early August.
- **STEM and works experience events**
  - Young people from across the London borough of Camden recently took part in various activities designed to introduce them to careers in construction and the built environment. Events were organised in the partnership with Construction Youth Trust.
  - Two virtual work experience programmes that were attended by young people going to Camden schools including Parliament Hill School for Girls, La Sainte Union Catholic School for Girls, The UCL Academy and Acland Burghley School.
  - Network Rail hosted STEM event on 10 August for children aged 4-16 years old where the engineers across the project talked about careers and routes into rail and construction. A giant colouring wall along with other educational and fun-filled activities made this event popular in Kings Cross on the day.

HS2

Complaints management

Update on HS2 complaints

ECRG actions #287 and #301

HS2 and Network Rail review

Action 287: "LW to escalate concerns about the poor response to complaints by Network Rail and HS2 at the next Euston Partnership Board. Partners to be asked to provide proposals on how they will improve their responses."

Following escalation, working group set up by The Euston Partnership combining the HS2 public response team, HS2 Helpdesk team, HS2 engagement team, contractor engagement teams and Network Rail's engagement team. Outputs were:

- A shared template for collecting information from callers has been implemented on the Network Rail and HS2 helpdesks to allow tracking of complaints across the two organisations;
- HS2 and NR privacy notices have been updated to allow information sharing between the helpdesks without breaching GDPR; and
- Clear, agreed lines of communication between the HS2 and Network Rail helpdesks have been established and regular meetings of the two teams are scheduled.

HS2 complaints quality control

Action 301: "Contact Group and HS2 to consider the quality of answers to complaints."

- Unsatisfactory responses can be escalated to the Independent Construction Commissioner (ICC). There are currently no open cases with the ICC as relate to Camden.
- HS2 carried out regular reviews of its engagement activity through the use of surveys and mystery shoppers. These reviews are carried out multiple times a year to ensure progress can be measured and tracked.
- Mystery shoppers were used to review telephone calls to the Helpdesk and emails to the Helpdesk. Sample case reviews of complaints management was also carried out by independent mystery shoppers.
- On complaints:
  - Responses to complaints were considered to be detailed and informative.
  - An issue was identified with the consistency of distinguishing between complaints and enquiries.
  - Recommendations from the latest review recommended personalisation of responses (signed off by a person, not organisation) and that the 20 day response time was insufficient in some cases.

Upcoming changes to HS2 complaints

As we move into main works, HS2 has reviewed the current 20 working day target deadline for responding complaints in order to better deal with urgent construction related issues that are having a direct and immediate impact on residents and communities.

Later in the year, a new category of '**urgent and immediate construction concerns**' will be implemented with a significantly shorter target response time (2 working days).

HS2 is currently working through the necessary steps with the Helpdesk and our contractors to implement this new deadline.

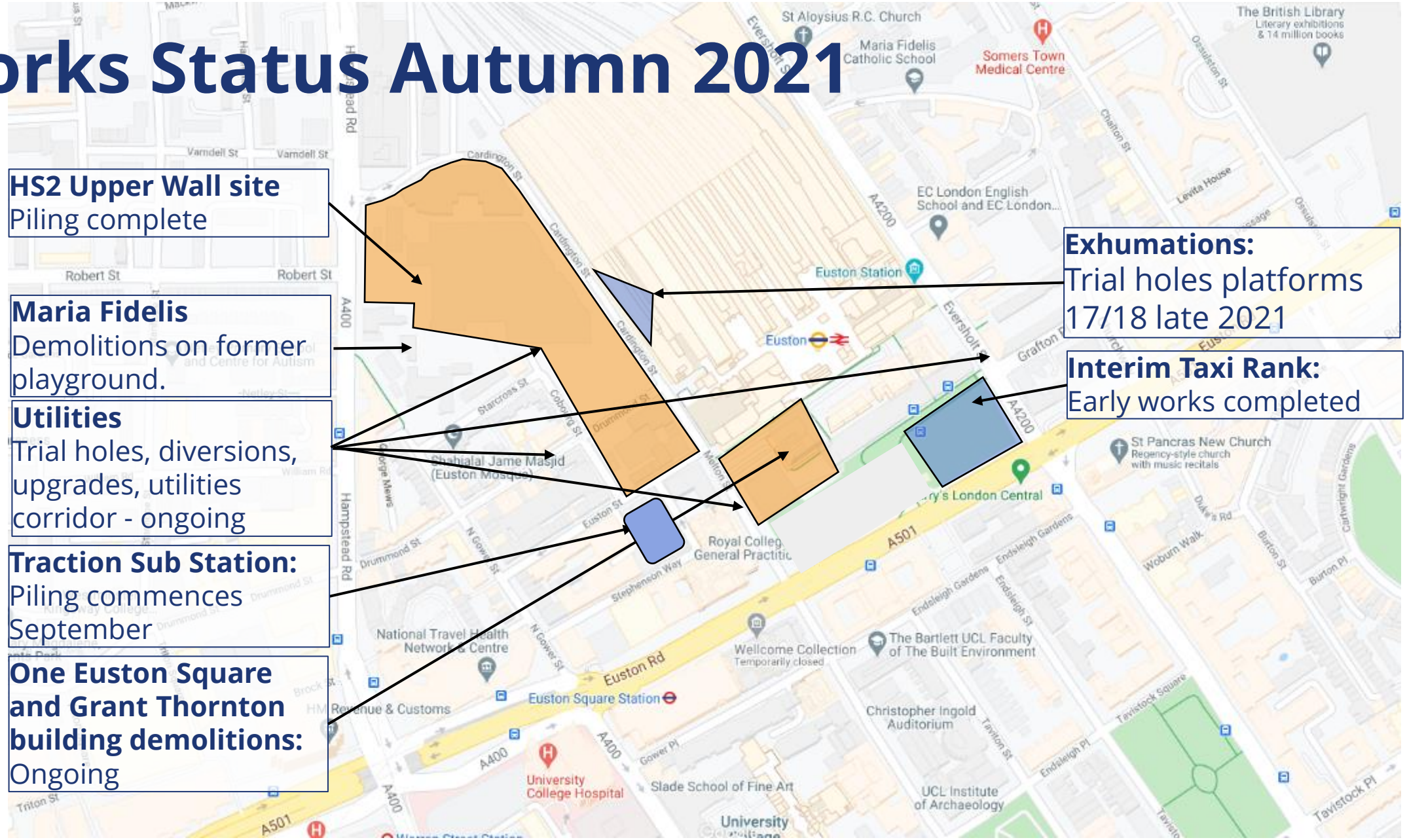
Urgent and immediate construction concerns	All other complaints and enquiries
2 working days	20 working days

HS2

Euston Station Integrated Project Team Update

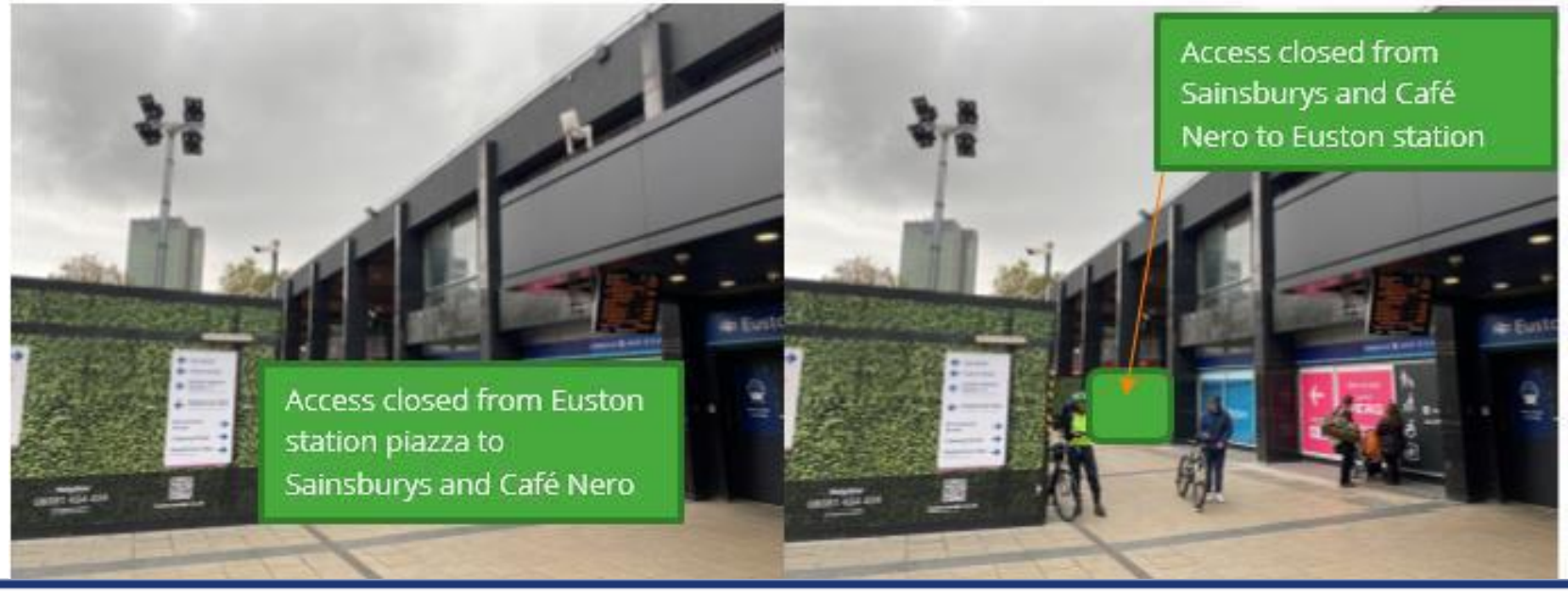
October 2021

Works Status Autumn 2021



Euston Station Piazza

- As part of the ongoing demolition works to One Euston Square and Grant Thornton House Buildings there will be a hoarding change at the Euston Station Piazza
- From October 2021 we will extend the current hoarding line and close the external route from the Euston Station piazza to the West Colonnade.
- In preparation for this work, there will be a 2-week pilot closure in mid-September 2021 in the same location and will monitor pedestrian movement through the station. Access to the west of Euston Station will be via the Station. Diversional and directional signage will be implemented and marshalls will be positioned either side of the closure to direct the public via the internal route. We are also assessing how this will operate/alternative arrangements during the night when the station is closed.



Volunteering

Construction Youth Trust, Virtual Work Experience, Story Garden

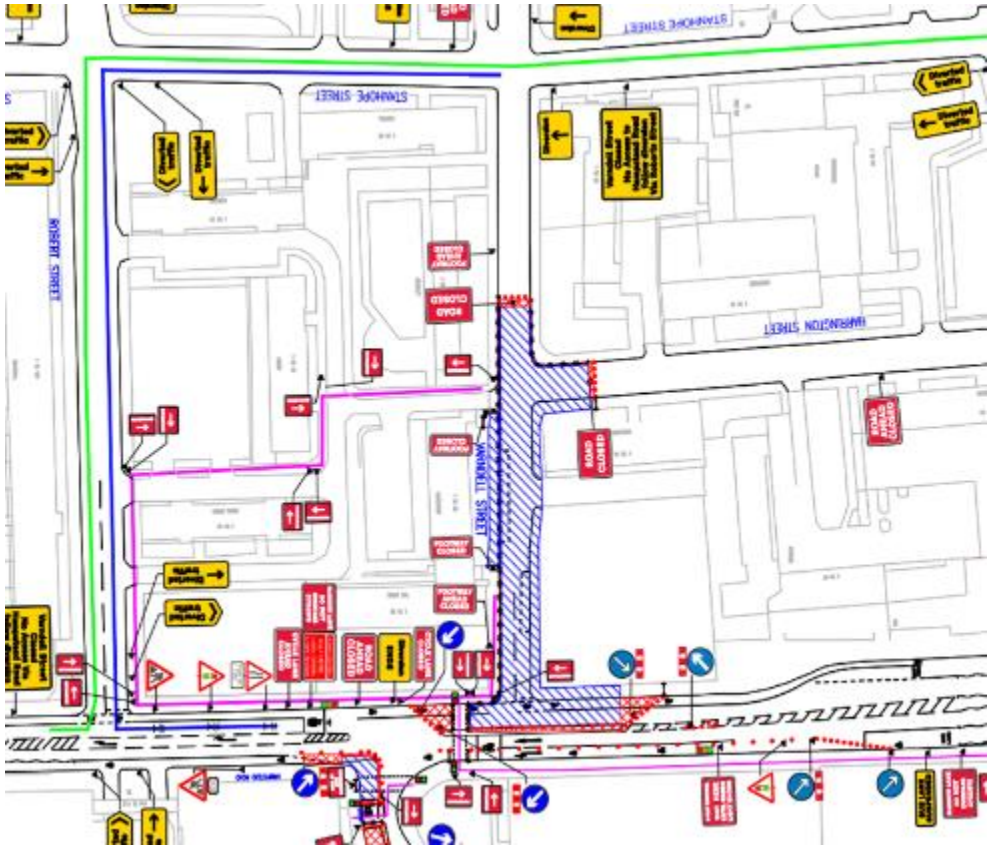
HS2

CSjv ECRG Update

October 2021

CSjv enabling works update

Activity	Start Date	End Dates
Gas works - Varndell Street / Hampstead Road Junction	18 Oct 21	19 Nov 21



HS2

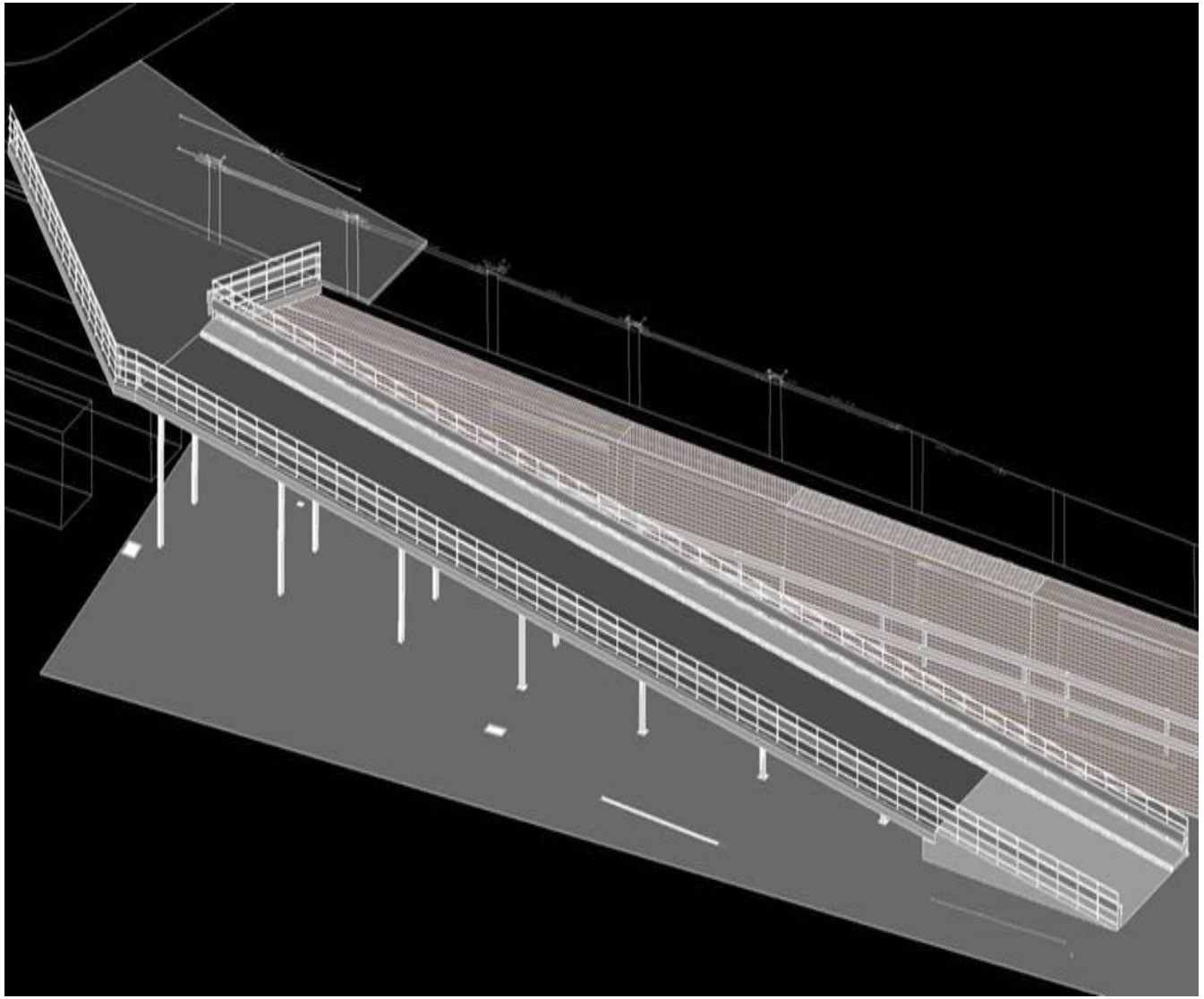
Network Rail ECRG Update

October 2021

Clarkson Row Access Point 3 Month Forward Look Ahead:

Clarkson Row Access:

- Planning application submitted
- Ongoing stakeholder engagement
- Daytime on-site surveys
  (15th and 20th November)
- Foundations breaking out work at track level between (13th and 17th November)
- Delivery of excavator and materials at nights and weekends.



Euston station upgrades:

Ongoing final finishes to London Underground entrance

More space being created to platforms 8 - 11

HS2

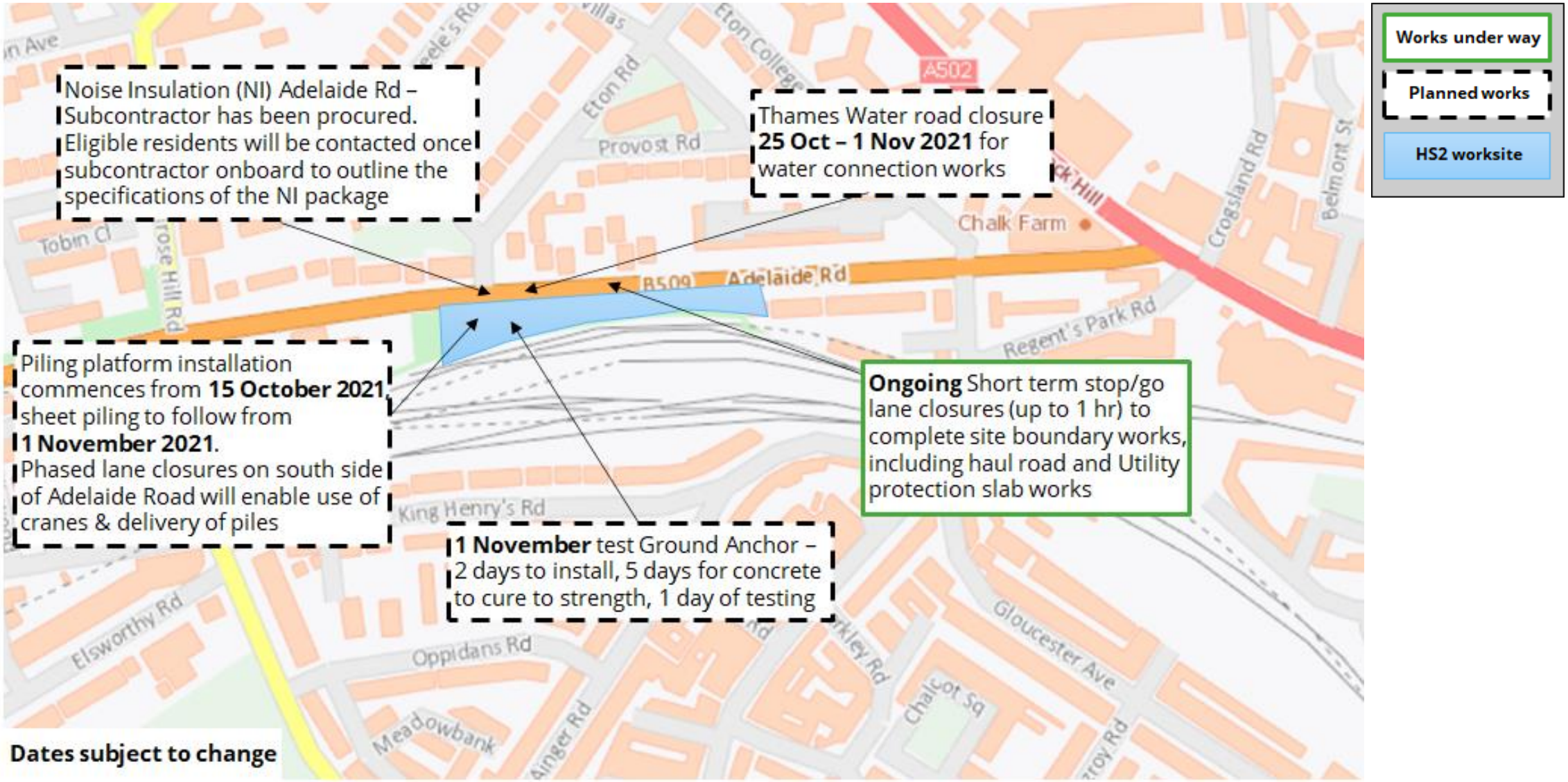
SCS ECRG Update

October 2021

HS2

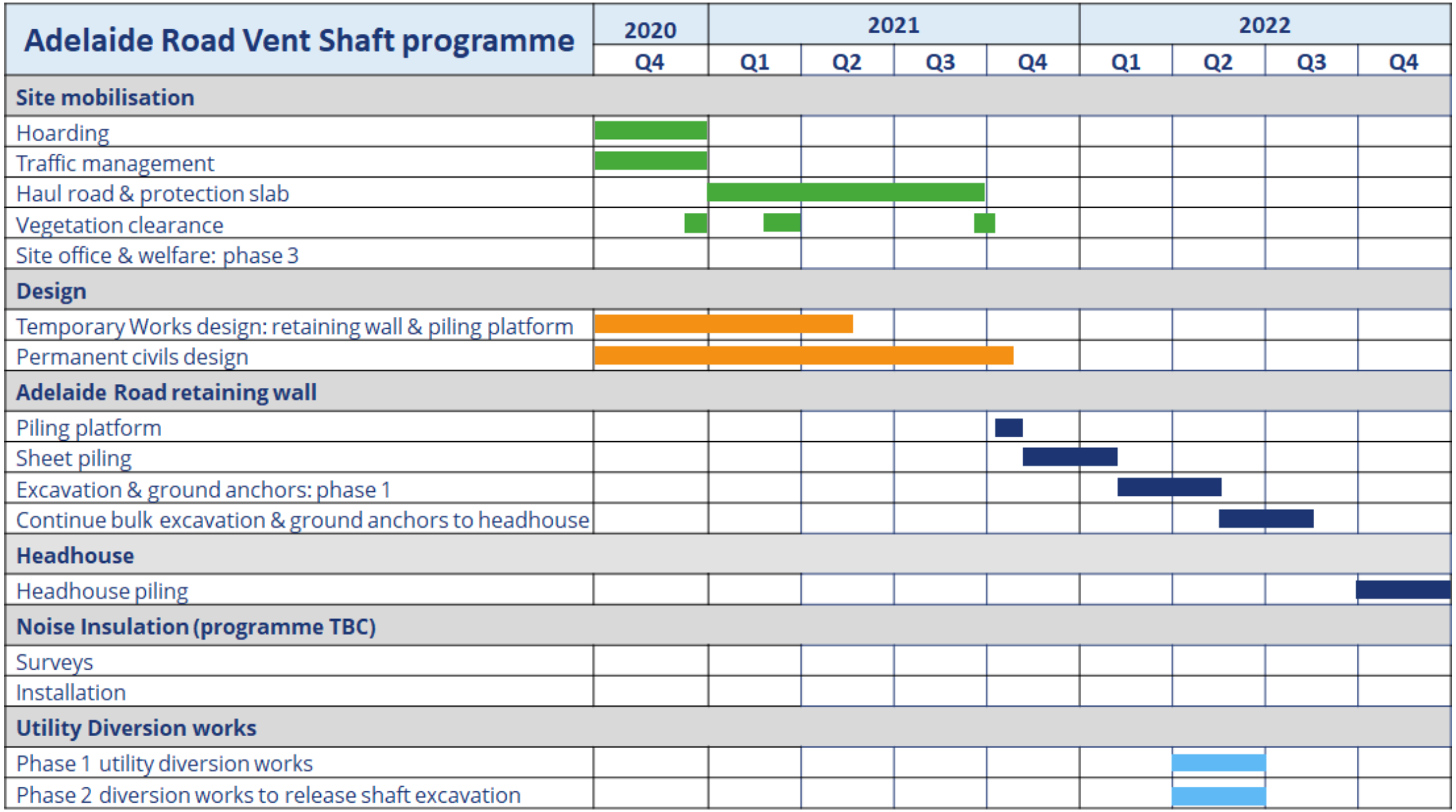
SCS ECRG Update

Adelaide Road Vent Shaft – works update



Dates subject to change

Adelaide Road Vent Shaft programme

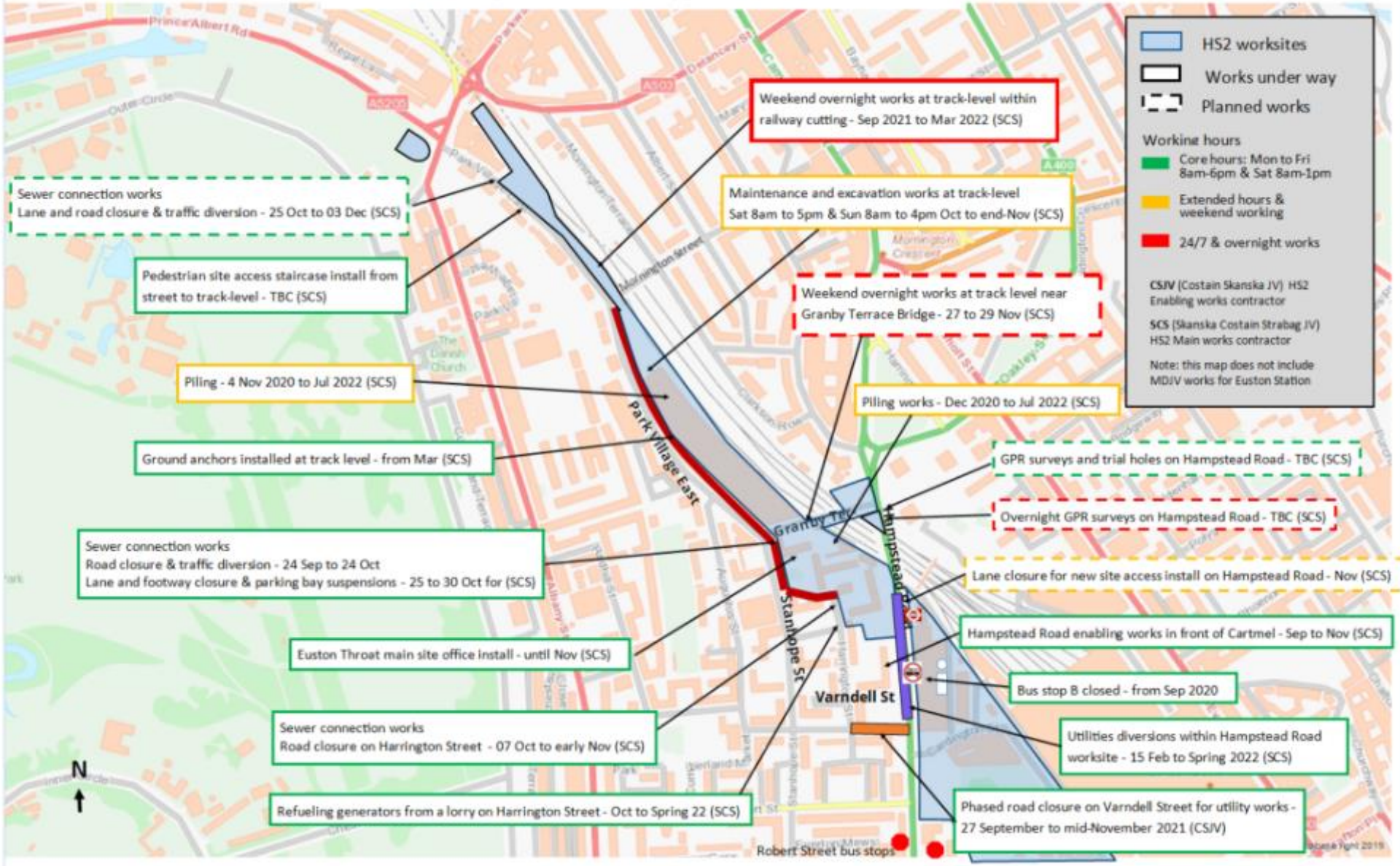


SCS Euston Approaches – summary of road works

	Start	Finish
1. Vehicle holding area / Parkway		
• Ground investigations at street-level on Parkway | TBC	Nov 2021 (TBC)	Dec 02021 (TBC)
2. Camden Cutting		
• Ground anchor install | at track-level within worksite	*Under way* 29/03/2021	Feb 2022 (TBC)
• Site access staircase install on Park Village East | lane and footway closure and parking bay suspensions	Oct 2021 (TBC)	Oct 2021 (TBC)
• Sewer connection to Camden Cutting north worksite | road closure and parking bay suspensions	End-Oct 2021 (TBC)	Dec 2021 (TBC)
• Sewer connection to Camden Cutting south worksite | road closure and parking bay suspensions	*Under way* 23/09/2021	30/10/2021
3. Euston Throat		
• Ground water discharge into Harrington Street | temporary until permanent drainage in place TBC	*Under way* 14/12/2020	30/11/2021
• Utility diversion on Hampstead Road (phase 1 of 3) | lane and footway closure, bus stop diversion, & pedestrian crossing removed	*Under way* 15/02/2021	Apr 2022 (TBC)
• GPR surveys and trial holes on Hampstead Road Bridge to prepare for junction works | footway closures, overnight lane closures, and cycle lane closures	TBC	TBC
• Sewer connection to Euston Throat worksite | road closure and parking bay suspensions	07/10/2021 (TBC)	Nov 2021 (TBC)

SKANSKA COSTAIN STRABAG Working on behalf of HS2

HS2 works update—Euston Approaches *(8 October 2021)*



Vehicle Holding Area now operational

We use the Vehicle Holding Area (VHA) to keep lorries off roads and in a safe location until our worksite is ready to receive them

We aim to make as many deliveries as possible directly to site. This minimises use of the VHA and helps reduce lorry movements

The VHA will be operational until 2033

Operates Mondays to Fridays 8am to 6pm and Saturdays 8am to 1pm

There will be occasions where we need to use the VHA before or after core working hours to receive oversized deliveries or to facilitate 24/7 work programmes. This may be at short notice for safety or operational reasons

We agree any extended working hours with Camden Council

We will give advance notice of extended hours working whenever possible

Lorry numbers

From Sep – about 30 per day

Maximum number allowed – 70 per day

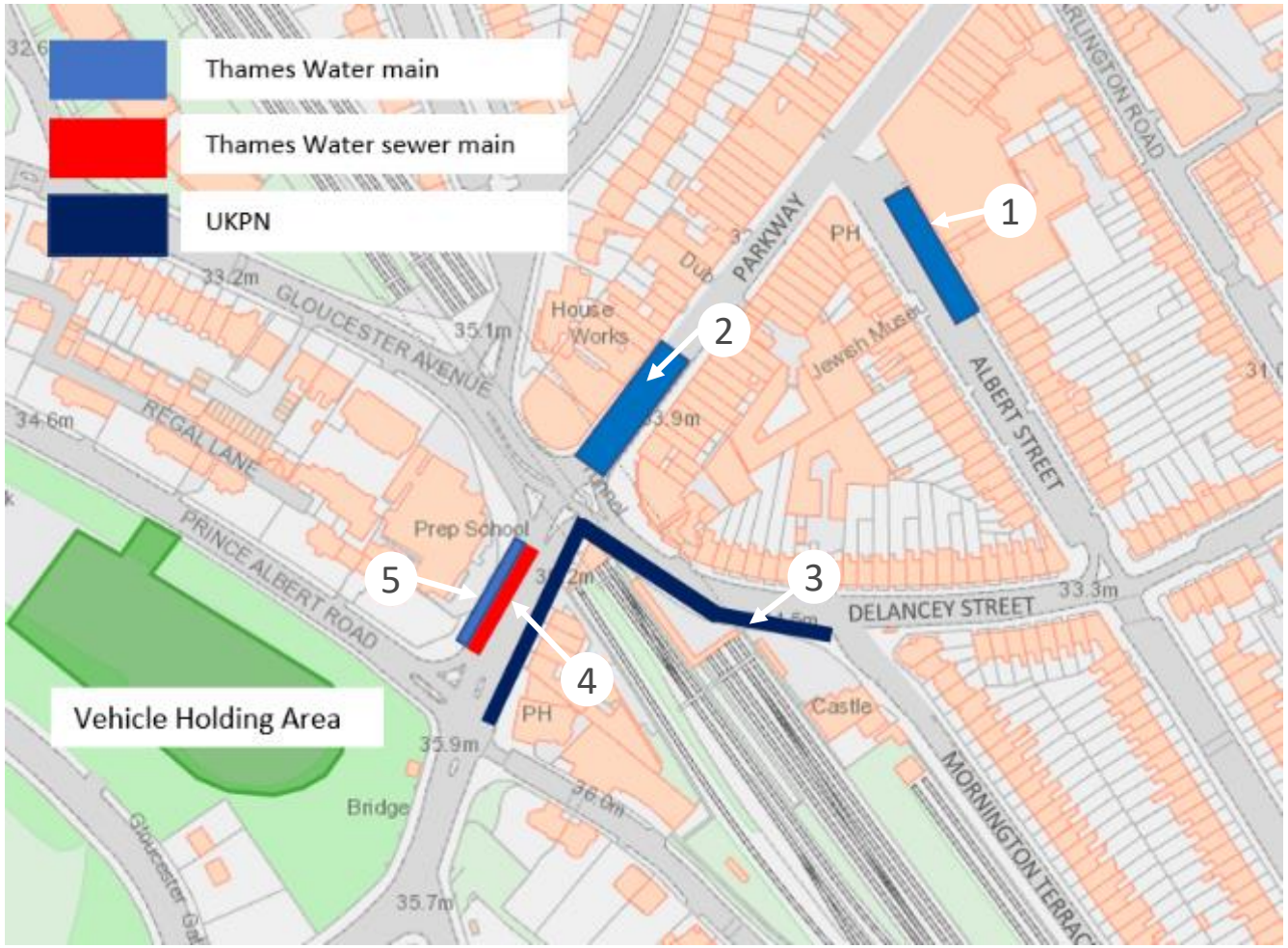
Parkway utility works – from March 2022

We will work in phases over a 12-month period to reduce impacts:

1. Replace a section of the water main beneath Albert Street and install monitoring equipment
2. Replace a section of the water main beneath Parkway with a more flexible pipe that allows for ground movement
3. Divert electricity cables beneath Parkway and Delancey Street
4. Line a section of the sewer main beneath Parkway, to make it stronger
5. Install monitoring equipment on the water main beneath Parkway

Impacts will include road, lane and footway closures. We will provide updates as more information becomes available.

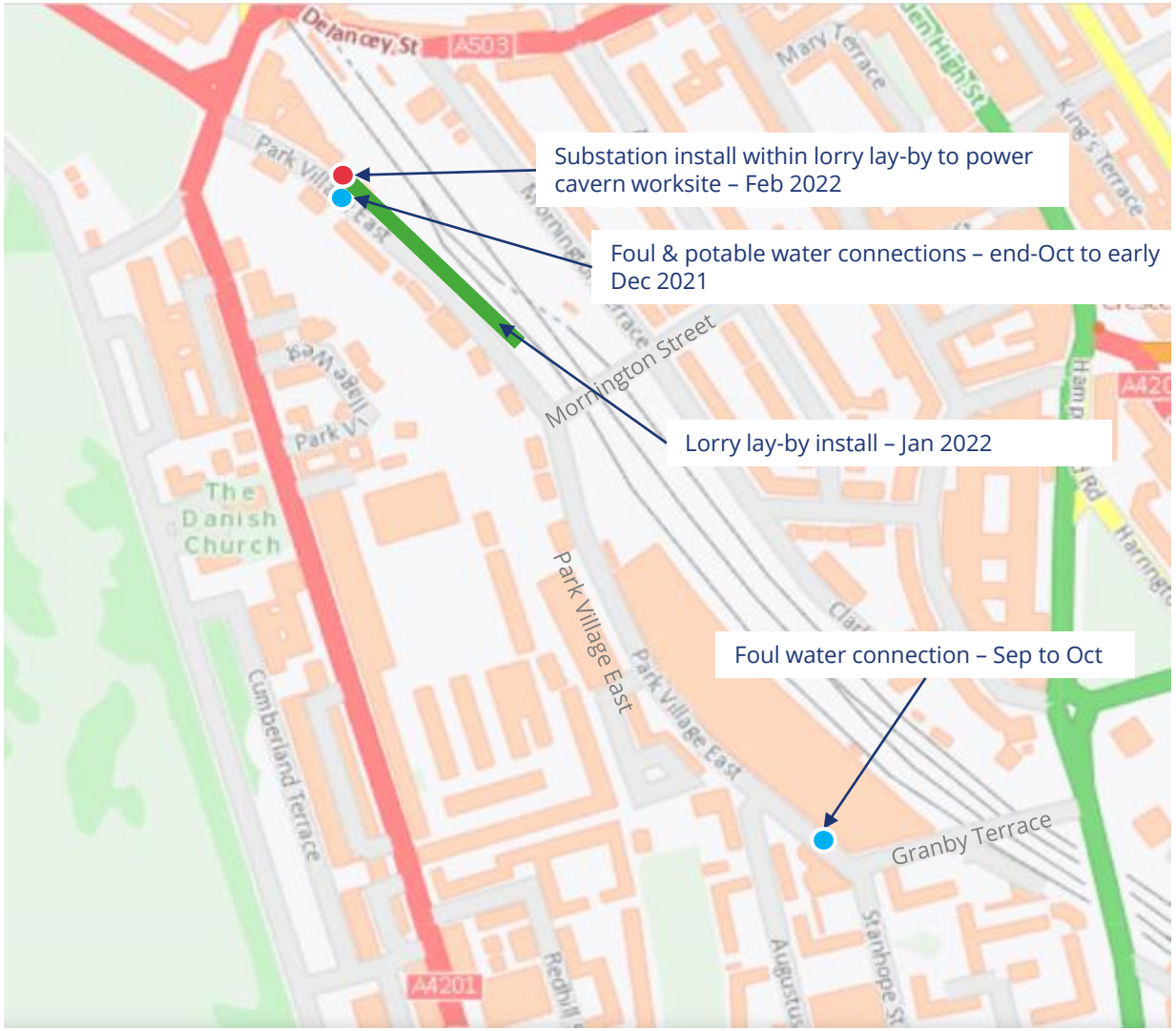
Planned start date	March 2022 (for approx. 12 months)
Traffic management plans finalised	late 2021



Upcoming works on Park Village East – Sep 2021 to Mar 2022

- Installing utility connections to our worksites
  - Sewer connection from Park Village East to Camden Cutting south worksite – Sep to Oct
  - Sewer and water connection to Camden Cutting north worksite – end-Oct to early Dec
  - Power connection to Camden Cutting north worksite (UKPN substation) – Mar 2022

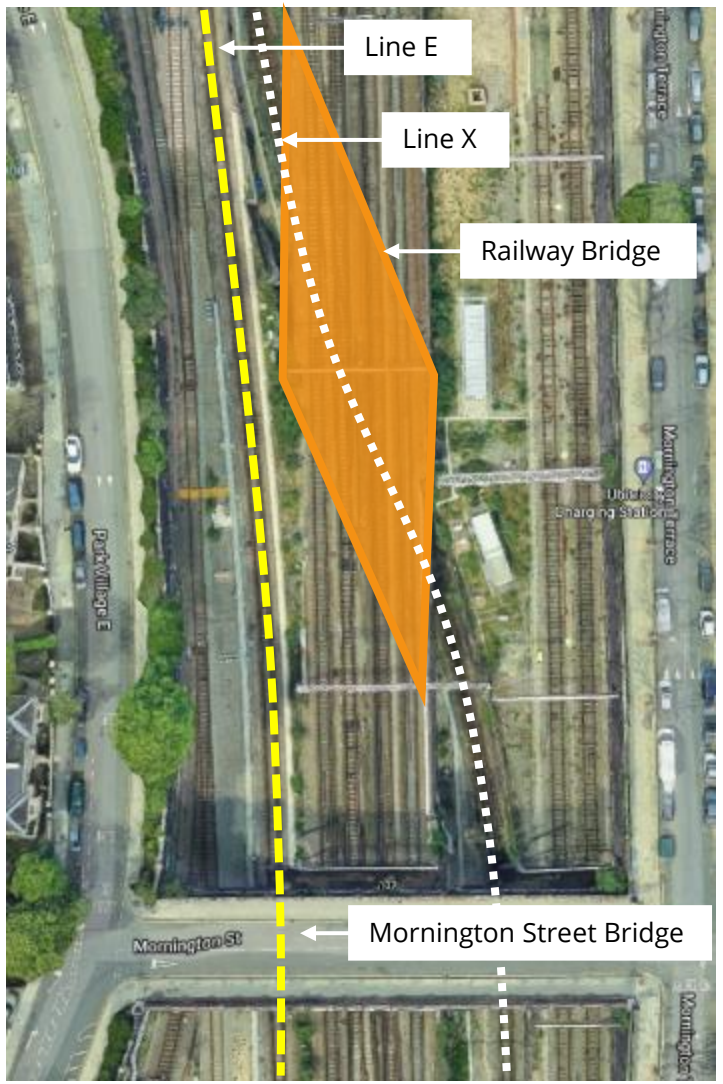
- Road and lane closures and parking bay suspensions required
- Access to properties will be maintained



Review: Summer rail closure – 17 July to 31 Aug

- Works to strengthen the Network Rail bridges, prior to tunnelling, to prevent damage from tunnel-related ground movement
- Due to the proximity of the bridges to the tracks, these works must be carried out during a rail closure when trains are not operating and overhead lines are isolated
- We carried out works to the railway bridge 24/7 over the course of the six-week rail closure

- Our works to strengthen the railway bridge included:
  - Installing ground anchors into bridge abutments (24/7, weekdays & weekends)
  - Installing bridge supports (24/7, weekend works)
  - Steel strengthening works (dayshift, weekdays)
  - Removing brickwork (dayshift, weekdays & weekends)
  - Track-level surveys & monitoring (dayshift, weekends)



Update: summer rail closure – 17 Jul to 31 Aug

- Hotel respite offered 17 to 24 July - when predicted noise levels would be close to threshold
  - x 2 residents from the same property made separate requests for hotel respite during this period
- Works monitored 24/7, actual noise levels have been below predicted noise levels
- No complaints or enquiries about the works

Haki staircase from Mornington Street bridge

- The staircase access from Mornington Street bridge to track-level has been postponed and will be installed in spring 2022

Engagement

- Notifications (including newsletters) issued to stakeholders and community
- 5 webinars
- 5 pop up events
- Notifications posted on HS2inCamden website
- Weekly update map and slides on HS2inCamden website
- Information provided at stakeholder forums
- Coordination with Network Rail
- Hotel respite offered to nearby residents
- HS2 and NR helpdesk briefings and complaints protocols
- Site team briefings

Weekend possession works – Sep to Dec 2021

We have been carrying out works to strengthen the track-level rail bridge before we begin tunnelling

We began these works during the summer rail closure (17 Jul to 31 Aug) and will continue to work overnight during weekends from September to December to complete the works

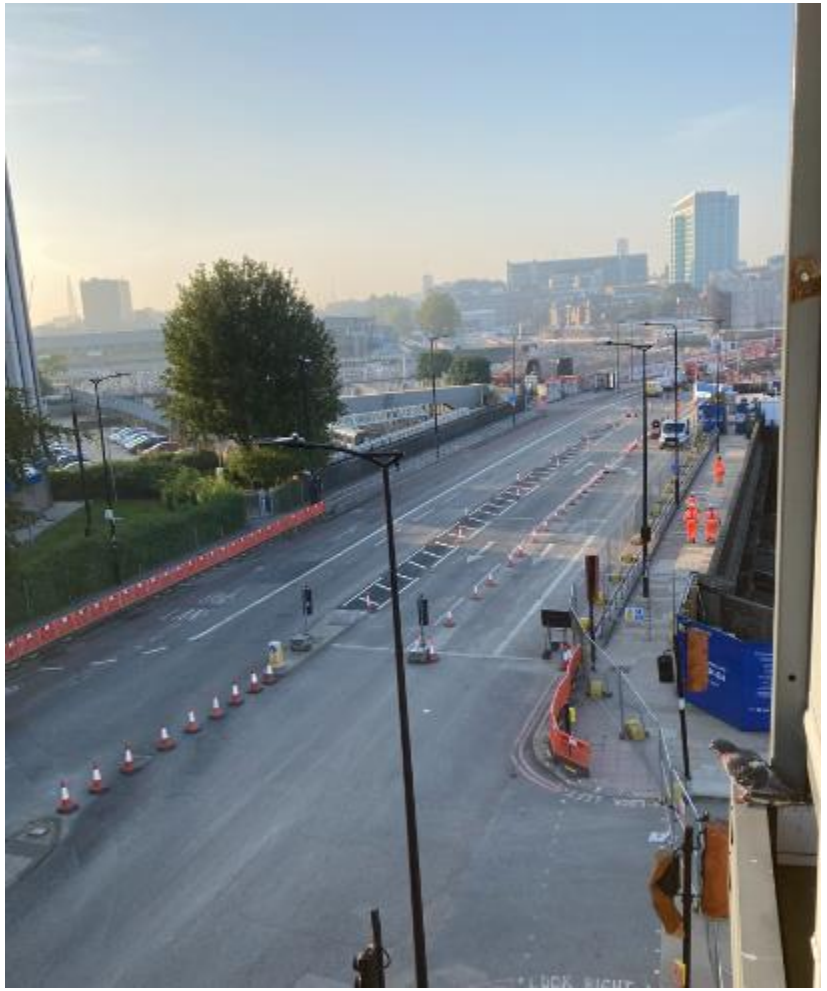
We will also continue to carry out surveys and monitoring of bridges and structures at track-level

Contingency weekend works

- Contingency weekend closures (for outstanding mitigation works): 4 September to 6 December
  - 1am Saturday to 4am Monday, each weekend
- Christmas rail closure: 12.01am 25 December to 6.30am 27 December

Update: Hampstead haul road – right-hand turn

- **Central reserve removal works – completed on 22 Aug (see photo)**
- To install the right-hand turn out of our site haul road we need to
  - to carry our works to the junctions at Granby Terrace bridge and Cardington Street
  - install new traffic lights on Hampstead Road at the entrance to our worksite
- These works are planned from Oct to Dec
- This will enable vehicles to travel south towards Euston Road, immediately after exiting our worksite, rather than turning at Harrington Square Gardens
- The right-hand turn is expected to be operational from Jan 2022
- There will still be periods throughout construction where we cannot use the Hampstead Road site access, and will need to revert to the Stanhope Street site access



Use of Stanhope Street access gate – from winter 2021

- We will use the Hampstead Road gate and right-hand turn as often as possible to reduce impacts on Harrington Square and other local streets in the Regent's Park estate
- There will be periods during our works where lorries are unable to use the Hampstead Road gate and will have to use the Stanhope Street gate instead
- This is because the major works inside the worksite, such as piling and excavations, will be moving to areas that make it impossible for vehicles to pass safely if they use the Hampstead Road gate
- We understand the disruption caused by lorries in local streets and we are doing all we can to minimise the impacts
- We will keep you updated about when we need to use Stanhope Street gate.

HS2

12 month lookahead

October 2021

12 month lookahead – Indicative*

September 2021

- Adelaide Road sheet piling, ground anchors and excavation package ongoing
- Vehicle Holding Area fully operational
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Utility works on Park Village East
- Hampstead Road phase 1 utility diversion
- Hampstead Road junction works at Granby Terrace and Cardington Street
- UKPN power cable install
- Haki staircase install on Park Village East
- UKPN power cable install
- Site set-up at old garage at Hampstead Road
- TSS main works piling
- Maria Fidelis temporary buildings demolition

October 2021

- Adelaide Road sheet piling and earthworks ongoing
- Adelaide Road and surrounds utility diversions
- Ground investigation boreholes on Parkway
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Utility works on Park Village East
- Hampstead Road phase 1 utility diversion
- Hampstead Road junction works at Granby Terrace and Cardington Street
- TSS main works piling
- Maria Fidelis temporary buildings demolition

November 2021

- Adelaide Road sheet piling and earthworks ongoing
- Adelaide Road and surrounds utility diversions
- Ground investigation boreholes on Parkway
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Utility works on Park Village East
- Hampstead Road phase 1 utility diversion
- Hampstead Road junction works at Granby Terrace and Cardington Street
- TSS main works piling
- Maria Fidelis temporary buildings demolition

** These dates are subject to change; they are presented here to give a sense of the project timeline. We will notify and update the community as the works progress.*

12 month lookahead – Indicative*

December 2021

- Adelaide Road sheet piling and earthworks ongoing
- Adelaide Road and surrounds utility diversions
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Hampstead Road phase 1 utility diversion
- Hampstead Road junction works at Granby Terrace and Cardington Street
- Tower crane install in Euston Throat
- Christmas rail closure works (haki staircase install on Mornington Street bridge)
- Traction Sub Station main works
- Mari Fidelis cabin install

January 2022

- Adelaide Road sheet piling and earthworks ongoing
- Adelaide Road and surrounds utility diversions
- Lorry lay-by install on Park Village East (north)
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Strengthening works to retaining wall
- Hampstead Road phase 1 utility diversion
- GTB utilities route works
- Traction Sub Station main works
- Mari Fidelis cabin install

February 2022

- Adelaide Road sheet piling and earthworks ongoing
- Adelaide Road and surrounds utility diversions
- Substation install on Park Village East (north)
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Strengthening works to retaining wall
- Hampstead Road phase 1 utility diversion
- Hampstead Road piling works
- GTB utilities route works
- Traction Sub Station main works
- Mari Fidelis cabin install

March 2022

- Parkway utility works
- Substation install on Park Village East (north)
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Strengthening works to retaining wall
- Hampstead Road phase 1 utility diversion
- Hampstead Road piling works
- GTB utilities route works
- Traction Sub Station main works
- Mari Fidelis cabin install
- Secondary utilities diversions
- Maria Fidelis accommodation fit out

April 2022

- Parkway utility works
- Substation install on Park Village East (north)
- Piling in Camden Cutting and Euston Throat
- Strengthening works to retaining wall
- Park Village East utilities mitigation works
- Hampstead Road phase 1 utility diversion
- Hampstead Road piling works
- Tower crane install in Camden Cutting
- GTB utilities route works
- Traction Sub Station main works
- Mari Fidelis cabin install
- Secondary utilities diversions
- Maria Fidelis accommodation fit out

May 2022

- Parkway utility works
- Piling in Camden Cutting and Euston Throat
- Strengthening works to retaining wall
- Park Village East utilities mitigation works
- Construction of Granby Terrace bridge structure
- Hampstead Road piling works
- GTB utilities route works
- Traction Sub Station main works
- Mari Fidelis cabin install
- Secondary utilities diversions
- Maria Fidelis accommodation fit out

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12 month lookahead – Indicative*

June 2022

- Adelaide Road sheet piling, ground anchors and excavation package ongoing
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Strengthening works to retaining wall
- Park Village East utilities mitigation works
- Construction of Granby Terrace bridge structure
- GTB utilities route works
- Hampstead Road piling works
- Secondary utilities diversions
- Maria Fidelis accommodation fit out
- Traction Sub Station main works

July 2022

- Adelaide Road sheet piling and earthworks ongoing
- Adelaide Road and surrounds utility diversions
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Strengthening works to retaining wall
- Park Village East utilities mitigation works
- Construction of Granby Terrace bridge structure
- GTB utilities route works
- Hampstead Road piling works
- Traction Sub Station main works

August 2022

- Adelaide Road sheet piling and earthworks ongoing
- Adelaide Road and surrounds utility diversions
- Piling in Camden Cutting and Euston Throat
- Ground anchor install works
- Park Village East utilities mitigation works
- Construction of Granby Terrace bridge structure
- GTB utilities route works
- Hampstead Road piling works
- Traction Sub Station main works

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