

Test Pile Worksites 1 and 2: Harvil and Moorhall Road:

Schedule 17 Lorry Route request for approval: Written Statement Worksite to the west of Harvil Road and North of Moorhall Road Align JV Consent Ref: ALJ-TP-155

HS2 Submission Ref: 1MC05-ALJ-TP-REP-CS01_CL01-000001

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1 Introduction

1.1 Background Information

 Table 1: Schedule 17 Worksite Details and Description of Works

Site	Details
Scheme	High Speed Two
Applicant	High Speed Two (HS2) Limited
Applicant Address	c/o Align Joint Venture 1st Floor Euston House 24 Eversholt Street London NW1 1AD
Worksite Addresses	 Worksite 1: Land to the west of Harvil Road, south of Dews Lane and north of footpath U34. Worksite 2: Land to the north of Moorhall Road approximately 350 metres south west from the crossing of the Grand Union Canal; approximately 270 metres north east from the crossing of the River Colne. Worksite 1 X:505950 : Y:187700 Worksite 2 X:504650 : Y:188450
Description	Construction arrangements submission under Schedule 17 to the High-Speed Rail (London – West Midlands) Act 2017 for works to include: Lorry routing for vehicles over 7.5 tonnes to and from the worksite addresses listed above.

1.2 Terms of Reference

- 1.2.1 This Written Statement is compiled in accordance with the HS2 Planning Memorandum and Planning Forum Notes (PFNs) as required by the planning regime established under Schedule 17 of the High-Speed Rail (London West Midlands) Act 2017.
- 1.2.2 This Written Statement provides the London Borough of Hillingdon as the Local Planning Authority (LPA) with the necessary information to assist with the determination of the construction arrangements submission under Schedule 17 in relation to the above description of works. This Written Statement is for information only, and not for approval.

1.3 High Speed Rail (London – West Midlands) Act 2017

- 1.3.1 The High-Speed Rail (London West Midlands) Act 2017, referred to from this point forward as "the Act", provides powers for the construction and operation of Phase 1 of High Speed Two.
- 1.3.2 The works which are the subject of this construction arrangements Schedule 17 submission are being carried out by ALIGN JV. For these works HS2 Ltd is the nominated undertaker.
- 1.3.3 Section 20 to the Act grants deemed planning permission for the works authorised by it, including these works, subject to the conditions set out in Schedule 17. Schedule 17 includes conditions requiring various matters to be approved by the relevant LPA.
- 1.3.4 This is therefore a different planning regime to that which usually applies in England (i.e. Town and Country Planning Act) and is different in terms of the nature of submissions and the issues that the LPAs can have regard to in determining requests for approval.
- 1.3.5 Schedule 17 of the Act requires the nominated undertaker (HS2 Ltd) to submit requests for approval to the LPAs for the following:
 - Construction arrangements (including large goods vehicle routes)
 - Plans and specifications
 - Bringing into use requests
 - Site restoration schemes
- 1.3.6 Schedule 17 of the Act sets out the grounds on which the LPA may impose conditions on approvals or refuse requests for approval.
- 1.3.7 The construction arrangements associated with a lorry route submission seek approval for the routes by which vehicles over 7.5 tonnes (herein referred to as Heavy Goods Vehicles (HGVs)) will access the construction worksites needed to construct HS2. The construction worksites already have deemed planning permission under the HS2 Act and several routes were assessed by the Environment Statement (ES) submitted alongside the hybrid Bill to parliament in late 2013.
- 1.3.8 The submission therefore does not seek approval for a given number of and/or types of HGVs.
- 1.3.9 This Written Statement includes information supporting the construction arrangements Schedule 17 application in relation to the matters outlined in **Table 2** below.

Table 2: Schedule 17 Plans and Specifications Site Details

Site	Details
Construction Arrangement (Lorry Routes)	Lorry routing for vehicles over 7.5 tonnes to and from the following worksites within the London Borough of Hillingdon:
	Worksite 1: Land to the west of Harvil Road, south of Dews Lane and north of footpath U34.
	Worksite 2: Land to the north of Moorhall Road approximately 350 metres south west from the crossing of the Grand Union Canal; approximately 270 metres north east from the crossing of the River Colne.
	Both worksites are shown on Figure 1 below.

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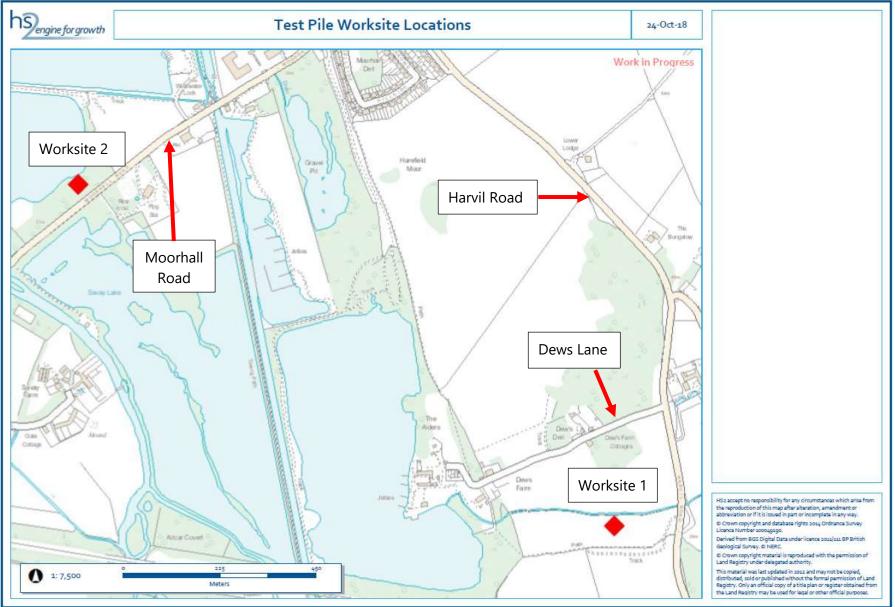


Figure 1: Test Pile Worksite Locations

1.4 High Speed Two: Code of Construction Practice

1.4.1 HS2 Ltd as the nominated undertaker will be contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMR). The scope of the EMR encompasses the High Speed Two Code of Construction Practice (CoCP).

1.5 Structure of Written Statement

- 1.5.1 Following on from this brief introduction, this Written Statement sets out the following:
 - A description of the location and main characteristics of the works area is provided in **Section 2**;
 - Section 3 describes the works being carried out at each worksite;
 - Section 4 sets out the engagement that has been undertaken;
 - **Section 5** states the expected number and timing of HGV movements associated with each test pile worksites within the Colne Valley.
 - Section 6 sets out the justification for the routes and other relevant information;
 - A high-level programme for the works and how they fit into the wider programme for other works in the area, as set out in Schedule 1 of the Act, is set out in **Section 7**; and;
 - **Section 8** identifies any other main consents, or known forthcoming consents associated with the works.

1.6 Synergy with other submissions

- 1.6.1 There are three test pile worksites proposed in the Colne Valley:
 - 1. To the west of Harvil Road and south of Dews Lane in the London Borough of Hillingdon. **[Included as a part of this submission**]
 - To the north and south of Moorhall Road in the London Borough of Hillingdon.
 [Included as a part of this submission]
 - 3. To the east of the A412 in Buckinghamshire County Council, district of South Bucks. [To be submitted to Buckinghamshire County Council]
- 1.6.2 It is likely that lorry routes for all three worksites will be being determined at the same time. Consequently, where parts of the routes for the test pile worksites are being shared, this has been accounted for in Section 5 and 6 below.

1.7 Routes Being Applied For

 1.7.1 Please see the map included with the submission (1MC05-ALJ-TP-MAP-CS01_CL01-000002). Worksite 1 includes provision of a lorry route for the Thames Water and Cadent Gas works also occurring within the same worksite (see paragraphs 2.1.4 below).
 However, for the avoidance of doubt, the lorry routes are as follows:

Worksite 1 (Test Pile 1, Cadent Gas HP07 and Thames Water Compounds) – To the worksite

- East from the A40/M40 junction 1 interchange to Swakeleys Roundabout/A40 junction.
- North, from Swakeleys Roundabout/A40 junction to the Swakeleys Roundabout/Harvil Road junction using Swakeleys Road.
- North from the Swakeleys Road/Harvil Road junction to the access to worksite 1, using Harvil Road.

Worksite 1 (Test Pile 1, Cadent Gas HP07 and Thames Water Compounds) – From the worksite – Excluding period of infill activity

- South from the access to worksite 1 using Harvil Road to the Swakeleys Road/Harvil Road junction, using Harvil Road.
- South from the Swakeleys Road/Harvil Road junction using Swakeleys Road to Swakeleys Roundabout/A40 junction.
- West from Swakeleys Roundabout/A40 junction to A40/M40 junction 1.

Worksite 1 (Test Pile 1, Cadent Gas HP07 and Thames Water Compounds) – From the worksite – All times

 North from the access to worksite 1 to the Harvil Road/Moorhall Road junction using Harvil Road.

- West from the Harvil Road/Moorhall Road junction to the Moorfield Road/A412 North Orbital Road Junction, using Moorhall Road and Moorfield Road. [Note the road name changes at the county boundary at the crossing of the River Colne].
- South from the Moorfield Road/A412 North Orbital Road Junction to the A40 Oxford Road/ A412 North Orbital Road junction, using the A412 North Orbital Road.
- Southeast from the A40 Oxford Road/ A412 North Orbital Road junction to the A40/M40 Junction 1, using the A40 Oxford Road

Worksite 2 (Test Pile 2 compound) – To the worksite

- Northwest from the A40/M40 Junction 1 to the A40 Oxford Road/ A412 North Orbital Road junction using the A40 Oxford Road
- North from the A40 Oxford Road/ A412 North Orbital Road junction to the Moorfield Road/A412 North Orbital Road junction using the A412 North Orbital Road
- East from the Moorfield Road/A412 North Orbital Road junction to the worksite access located on Moorhall Road using Moorfield Road and Moorhall Road.

Worksite 2 (Test Pile 2 compound) – From the worksite

- East from the worksite access located on Moorhall Road to the Harvil Road/Moorhall Road junction using Moorhall Road.
- South from the Harvil Road/Moorhall Road junction to the Swakeleys Road/Harvil Road junction, using Harvil Road.
- South from the Swakeleys Road/Harvil Road junction using Swakeleys Road to Swakeleys Roundabout/A40 junction.
- West from Swakeleys Roundabout/A40 junction to A40/M40 Junction 1.

2 Site Location and Characteristics

2.1 Site Location and Description of the Works Area and highways containing the works site.

Test Pile Worksite 1 – Land to the west of Harvil Road, south of Dews Lane and north of Footpath U34

- 2.1.1 This test pile worksite lies to the west of Harvil Road, to the south of Dews Lane and north of footpath U34. The worksite is on land between Harvil Road and the Hillingdon Outdoor Activity Centre (HOAC).
- 2.1.2 Harvil Road is the principal means of access both to and from the worksite.
- 2.1.3 Once the worksite has been accessed, the test pile works will be contained within a specific compound area. At present, there are no plans to link this test pile worksite to any other test pile worksite through use of internal haul roads.
- 2.1.4 Cadent Gas and Thames Water are also undertaking works in this location, with specific compound areas within the overall worksite. Consequently, the same worksite access and lorry route will be used for three individual compounds within an overall worksite. It is worth noting that parts of the worksite 1 lorry route are also shared with the other test pile worksites. This is shown in section 5 below.
- 2.1.5 Consequently, the access from which this lorry route commences, supports three separate elements of work: (1.) the Cadent Gas diversion of a gas main (known as HP07 works); (2.) the Thames Water investigation of a sewer; and (3.) test piling for the Colne Valley Viaduct.
- 2.1.6 Worksite 1 is in an area of grassland bounded approximately by Harvil Road, Dews Lane and Footpath U34. The Newyears Green Bourne forms approximately the northern edge of the worksite and flows in an east to west direction. Access in to the worksite will be via a new access directly on to Harvil Road. Shown on drawing (1MC05-ALJ-TP-DGA-CS01_CL01-803001) which is included for information.
- 2.1.7 Dews Lane to the north is a private access for some residential properties, a car servicing workshop and at its western end, HOAC. To the west of the worksite lies HOAC, which provides outdoor activities on both land and water for adults and children. To the south of the worksite lies the Chiltern Line. To the south of the Chiltern Line, there are several commercial and industrial premises, including a waste transfer station, accessed from Skip Lane, which has a direct access to Harvil Road. To the east of the worksite and east of Harvil Road, the land is predominantly semi-rural with a mix of open grassland and

agricultural activity and/or woodland. The West London Dogs Trust lies approximately 180 metres to the north of the proposed worksite access.

- 2.1.8 Harvil Road, which comprises a single carriageway, lies immediately to the east of the worksite. Harvil Road is the principal highway linking Harefield and South Harefield in the north to Ickenham and the A40 to the south.
- 2.1.9 Footpath U34 runs east from Harvil Road, approximately 80 metres to the south of the Newyears Green Bourne, towards HOAC. At HOAC the footpath turns generally northward passing along the eastern boundary of HOAC and the western boundary of worksite 1 before passing through predominantly grassland and woodland areas. The footpath continues northwards joining Dellside in South Harefield.

Test Pile Worksite 2: Land to the north of Moorhall Road approximately 350 metres south west from the crossing of the Grand Union Canal; approximately 270 metres north east from the crossing of the River Colne.

- 2.1.10 The test pile worksite lies to the north of Moorhall Road and the south eastern edge of Korda Lake. Moorhall Road is the principal means of access both to and from the worksite. The worksite will be accessed by a new bell mouth access to be created off the highway. This is shown on drawing 1MC05-ALJ-TP-DGA-CS01_CL01-803002 included for information. Once the worksite has been accessed, the works will be contained within a specific compound area. At present, there are no plans to link this worksite to any other compound through use of internal haul roads. It is worth noting that parts of the worksite 2 lorry route are shared with the other test pile worksites. This is shown in section 5 below.
- 2.1.11 This worksite is located to the south east corner of Korda Lake and is currently a mixture of woodland and some areas of cleared scrub/open tracks. Access in to the worksite will be via a new access to be created directly on to Moorhall Road However, at the start of the works it is possible that an existing access immediately to the east of the River Colne and towards the south west corner of Korda Lake will be used for preliminary site establishment and setup.
- 2.1.12 Immediately to the north of the worksite lies Korda Lake itself. The east of the worksite has an area of private grassland, a residential property and the private access which leads to an aggregate processing site, Broadwater Sailing Club and Broadwater Lake. All these lie to the north east of the test pile worksite. To the east of the worksite lies the Bear on the Barge restaurant, the Grand Union Canal and beyond that, the villages of Harefield and South Harefield. To the south of the site lies Savay Lake and to the west and south west lies the River Colne, areas of woodland and grassland. Denham village is approximately 550 metres to the south west.

No Public Rights of Way (PRoW) directly cross or provide access to this worksite.

2.2 Wider Site Area affected by the Lorry Route.

- 2.2.1 The following sections 2.3, 2.4 and 2.5 describe the lorry route subject to this application in an anticlockwise direction:
 - from the A40/M40 junction 1 interchange to worksite 1, utilising Swakeleys Road and Harvil Road;
 - from worksite 1 to worksite 2 utilising Harvil Road and Moorhall Road; and
 - from worksite 2 to the A40/M40 junction 1 interchange utilising Moorhall Road, Moorfield Road, the A412 North Orbital Road and A40 Oxford Road.

2.3 M40/A40 Junction 1 to Worksite 1

General Description

- 2.3.1 The road network in the surrounding area consists of several strategic routes due to its location on the north western edge of London. The A40 and M40 lie approximately two and a half miles to the south of the site. This provides access from the M40/M25 and subsequently the wider strategic network.
- 2.3.2 The route from the A40/M40 interchange consists of a dual carriageway highway. Swakeleys roundabout is the penultimate junction prior to the A40 becoming the M40 and the first junction providing an exit from the A40 from when travelling east from the M40.
- 2.3.3 Continuing north from Swakeleys Roundabout on to Swakeleys Road the route passes through south west Ickenham, an urban area with residential properties and side roads. The speed limit is 30 miles per hour. At the junction with Harvil Road the route continues north along Harvil Road.
- 2.3.4 Harvil Road changes in character from urban to suburban/semi-rural as it progresses north from Ickenham towards South Harefield and changes to a 50 miles per hour speed limit. Harvil Road passes Uxbridge Golf Course and several agricultural fields prior to passing Skip Lane and crossing the Chiltern Line. The worksite 1 access lies approximately 350 metres to the north of the Chiltern Line overbridge.

Highway Structures

- 2.3.5 The following highway structures lie along this of the section lorry route:
 - The present Network Rail overbridge on Harvil Road near Skip Lane, across the Chiltern Railway Line.

Present Restrictions

- 2.3.6 Other than speed restrictions, there are no height or weight limit restriction on this section of the lorry route. There are traffic islands present on Swakeleys Road and Swakeleys Roundabout junction arm.
- 2.3.7 It is worth noting that all this section of the lorry route is contained within the London Low Emission Zone.

Junctions and other receptors

- 2.3.8 The HS2 Environment Statement Community Forum Area Report 7 (Colne Valley)¹ identified Ickenham village as a receptor to traffic and construction effects along this section of the proposed lorry route. In particular, a significant major adverse effect on amenity was noted for residents between A40/Swakeleys Road and the Swakeleys Road/Moorhall Road section. It should be noted that this was for the peak period of construction and for an assumed higher maximum number of vehicles than was subsequently agreed in the London Borough of Hillingdon agreement (see para 2.3.6 below).
- 2.3.9 Principal junctions along the lorry route include, from north to south, the junction of Harvil Road with Swakeleys Road and the Junction of Swakeleys Road with the A40.
- 2.3.10 It should be noted that in the agreement between the London Borough of Hillingdon and High Speed Two (Ltd), which was developed at the time of the hybrid Bill Select Committee, there was a commitment to both improve Swakeleys Roundabout and limit the number of vehicles using Swakeleys Roundabout in each direction to 550 per day. The numbers expected to be generated for this specific set of work are forecast to be considerably lower than this.
- 2.3.11 At the time of preparing the Environment Statement, delays and congestion were noted to be likely along the proposed lorry route during the construction phase at the following locations, with the identified effect in brackets:
 - Harvil Road with Woodstock Drive (minor adverse effect);
 - B467 Swakeleys Road with Harvil Road (moderate adverse effect); and
 - A40 Western Avenue with B467 Swakeleys Road (moderate adverse effect).

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/397888/Vol_2_CFA_7_Colne_Valley.pdf

- 2.3.12 Severance related effects due to a greater than 30% increase in HGV movements, or all vehicles, were also predicted by the ES at the following locations along this section of the lorry route:
 - Slip road on to A40 westbound from Swakeleys roundabout (major adverse effect)
 - The slip road from A40 eastbound to Swakeleys roundabout (major adverse effect) due to an increase in HGV flow;
 - Swakeleys Road, between A40 and Harvil Road (major adverse effect) due to an increase in HGV flow; and
 - Harvil Road, south of Moorhall Road (major adverse effect) due to an increase in HGV flow.
- 2.3.13 Throughout this section, many properties have a direct access on to Swakeleys and Harvil Road.

2.4 Worksite 1 to Worksite 2 utilising Harvil Road and Moorhall Road

General Description

- 2.4.1 The route between worksites 1 and 2 utilises Harvil Road and Moorhall Road.
- 2.4.2 Continuing to the north of the worksite 1 access, Harvil Road remains as a 50 miles per hour speed limit and predominantly semi-rural passing Dews Lane, an entrance to a 'civic amenity site' and the outskirts of South Harefield before slowing to a 30 miles per hour speed limit.
- 2.4.3 Harvil Road then continues north passing residential properties and associated side roads. Most of the residential properties in South Harefield do not have a direct access from the main carriageway of Harvil Road and are accessed from a side road. Harvil Roads joins Moorhall Road at a mini-roundabout in the centre of South Harefield, which also contains a small parade of shops providing local amenity.
- 2.4.4 Continuing west along Moorhall Road the route passes through predominantly urban areas of South Harefield, the entrance to Widewater office park and Harefield Marina before crossing the Grand Union Canal and reaching the access to Worksite 2. A small number of residential properties (6. No) have driveways directly from Moorhall Road.
- 2.4.5 To the west of the Grand Union Canal, Moorhall Road changes to a 40 mile per hour speed limit and passes along a straight, predominantly wooded section of highway prior to reaching the access to worksite 2. It is worth noting that a site visit recorded the

presence of this 40 mile per hour speed limit. Up until recently, it was believed to have been a 60 mile per hour speed limit.

Highway structures

- 2.4.6 The following highway structures lie along this of the section lorry route:
 - The Harvil Road crossing of the Newyears Green Bourne culvert.
 - The Moorhall Road crossing of the Grand Union Canal.

Present Restrictions

2.4.7 Other than speed limits, there are no other restrictions along this section of the proposed route. The Harvil Road/Moorhall Road junction has central traffic islands.

Junctions and other receptors

2.4.8 Limited effects were expected along this section due to the likely lower number of vehicles that would need to utilise this portion of the lorry route. Particularly once haul roads and the proposed jetty for the Colne Valley Viaduct were in place. Consequently, although South Harefield and the Harvil Road/Moorhall Road was considered a receptor, only a traffic related severance effect was predicted in this section on Harvil Road, south of Moorhall Road (noted in para 2.3.8 above).

2.5 Worksite 2 to the M40/A40 interchange utilising Moorhall Road, Moorfield Road, the A412 and A40

General Description

- 2.5.1 Moorhall Road provides the only access in to worksite 2. At the point of the site access, Moorhall Road is a 40 mile per hour road in a predominantly wooded section.
- 2.5.2 To its west, Moorhall Road changes in name to Moorfield Road as it crosses the River Colne. At this point the speed limit increases to 60 mile per hour for a short section. Continuing west it then reduces in speed to a 30 mile per hour speed limit and meets the A412 in the centre of Denham Green village. The village contains a small parade of shops, has its own railway station (Denham) and has had several recent developments with direct access on to the A412, including the redevelopment of the Deluxe Laboratories site to residential apartments and housing. Additionally, several residential properties have direct driveway access on to Moorfield Road.
- 2.5.3 Continuing south on the A412, the route passes under the Chiltern Railway Line and over the River Misbourne before meeting the A40 approximately 3 kilometres to the south of the site. Between the Chiltern Line crossing and the A40, the A412 is predominantly semirural in character with limited accesses to properties. However, a peak time signal

junction is present which provides access to Old Rectory Lane. After passing under the Chiltern Line, the speed limit of the A412 increases to 50 miles per hour.

2.5.4 Turning southeast the route then becomes more suburban and passes along the A40 towards the M40, junction 1 giving a total route length of just under 4 kilometres. Along the A40, several businesses have direct access on to the A40 as do several residential properties and streets.

Highway structures

- 2.5.5 The following highway structures lie along this section lorry route:
 - The crossing of the River Colne (no weight restriction)
 - The crossing of the River Misbourne (no weight restriction)
 - Traffic islands and highway apparatus at the A412/Moorhall Road junction and A40/A412 junction.

Present Restrictions

- 2.5.6 Other than speed limits, the following height, width and weight restrictions lie along this section lorry route:
 - The advised height limit of 4 metres, 90 centimetres at the Chiltern Line underbridge on the A412.

Junctions and other receptors

- 2.5.7 The HS2 Environment Statement Community Forum Area Report 7 (Colne Valley)² identified the village and community facilities Denham as receptors along or in proximity to the lorry route.
- 2.5.8 Principal junctions along the lorry route include, from north to south. The A412 junction with Moorhall Road. The A412 junction with the A40 and the A40 junction with the A40/M40 interchange junction 1.
- 2.5.9 Three junctions were recently updated as a part of assurance funding from High Speed Two Ltd to improve traffic signalling synchronisation between the A412/Moorfield Road Junction; the A412/Old Rectory Lane Junction and the A412/A40. This will have improved capacity and flow through these three junctions since the ES was compiled.
- 2.5.10 Notwithstanding the above improvements, the following traffic related effects (delay and congestion) due to increases in vehicle numbers along the proposed lorry route were

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noted at the time of preparing the Environment Statement, its associated Additional Provision 2³ and Additional Provision 4⁴ updates:

- A412 Denham Way with Moorfield Road (major adverse effect)
- A412 North Orbital Road with Denham Green Lane (moderate adverse effect);

³

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/466756/SES3_and_AP4_ES_Volume_2_ CFA_7_Colne_Valley.pdf

3 Description of the Proposed Works

3.1 Introduction

3.1.1 This Written Statement supports the Schedule 17 submission for the lorry routes associated with the proposed test pile sites located adjacent to the A412 to the north west corner of the Denham Waterski Access.

3.2 Strategy for Submissions for Lorry Routes for Test Pile Worksites

Strategy

- 3.2.1 Schedule 17 to the High-Speed Rail (London-West Midlands) Act 2017 requires routes to and from construction worksites to be approved by the LPA. In the case of lorry routes approvals, the LPA is the county planning authority in two tier areas, or the local planning authority in single tier areas.
- 3.2.2 The test pile worksite locations are situated in three distinct locations in the Colne Valley. They are also bespoke pieces of work that need to be undertaken as a part of the early works in the Colne Valley to better inform the engineering requirements of the viaduct foundation design, cost and programme. They will be likely to have demobilised prior to the main works commencing and will receive and dispose of their construction materials and waste to offsite locations (e.g. no main compound will support them).
- 3.2.3 The general strategy for lorry routing for the test pile worksites is that material will be delivered directly to the worksites from off-site suppliers. Deliveries between test pile worksites will therefore be as indicated below. As the worksites lie in different LPA areas the general strategy is as follows.
 - To route large goods vehicles to worksite 1 adjacent to Harvil Road utilising Swakeleys Road and Harvil Road from the A40 Swakeleys Roundabout, turning left in to the site. Vehicles will then turn left out of the site, route up to the Harvil Road and Moorhall Road junction, travel west along Moorhall Road and Moorfield Road to the A412/Moorfield Road Junction. The route will then continue south on the A412 to the A40 and subsequently the A40/M40 junction 1. It is worth noting that some vehicles associated with the Cadent gas works will turn right out of the site and proceed back to the A40/M40 junction 1 interchange via Harvil Road, Swakeleys Road and the A40.
 - To route large goods vehicles to worksite 2 adjacent to Moorfield Road utilising Moorhall Road and Moorfield Road from the A412 and A40/M40 junction 1 interchange. Vehicles will then turn left out of the worksite and progress towards

south Harefield turning right on to the Harvil Road and continuing to Swakeleys Road and subsequently the A40, travelling west to the M40/A40 junction1 interchange.

- To route large goods vehicles to worksite 3 adjacent to the A412 using junction 17 of the M25 and subsequently the A412 and to route large goods vehicles away from the worksite using the A412, the A40 and the A40/M40 interchange, this would provide a preferred left-in and left-out solution to the works access from the A412.
- 3.2.4 The lorry route for worksites 1 and 2 subject to this application, as well as for the worksite 3 share portions of the route. Consequently, the estimated vehicle numbers for this application as a standalone and worksite 3 are shown in Table 4, 5, and 6 below. As stated above, it is only the route and not vehicle numbers that are subject to approval.

3.3 Description of the Works within the worksites subject to this approval.

- 3.3.1 As stated above, this lorry route approval seeks approval of routes to and from the worksite for the test piles worksites described in section 2 above.
- 3.3.2 The activities occurring at these worksites will be:
 - Site clearance and establish site security;
 - Setting up of compound and welfare facilities;
 - Establish formal access and improved access where relevant;
 - Construct a piling platform and set up specific compounds for piling works;
 - Undertake test piles construction;
 - Allow set period for piles;
 - Engineering tests of test piles; and
 - Demobilisation of the site and restoration (if relevant)
- 3.3.3 Additionally, at worksite 1, survey works for the Thames Water sewer, as well as the realignment of a Cadent Gas main will also be taking place.
- 3.3.4 It is likely that the access utilised for the test pile worksites may be further utilised at the end of the test pile works to facilitate construction of the Colne Valley Viaduct. A separate lorry route approval will be applied for, in due course, if this is to be the case.

4 Pre-submission Engagement

4.1 Introduction

- 4.1.1 This section outlines the consultation that has taken place during the pre-submission stage with the LPA and its statutory consultees.
- 4.1.2 The following pre-submission engagement has taken place

4.2 LPA and Statutory Consultees

Consultee Name	Consultation Date	Method of Consultation / Attended by	Summary of Consultation
London Borough of Hillingdon	18-Oct-18	Meeting, attended by London Borough of Hillingdon Streetworks and Planning managers; ALIGN traffic, consents and environment managers and HS2 Ltd traffic manager.	Provide indicative numbers for HGV and worker traffic. Describe measures to monitor correct lorry usage in LTMP. Advise how avoiding peak hours. Advise in LTMP on likely TM measures for worksites. Principle of left-in and left- out at worksites during peak movement period accepted to avoid excessive TM on highway.

 Table 3: Pre-submission Consultation with LPA and Statutory Consultees

5 Lorry Numbers – For Information

5.1 Introduction

- 5.1.1 The following Tables 4 and 5 indicate the expected maximum daily numbers of HGVs associated with each fortnight period for worksites 1 and 2 respectively.
- 5.1.2 It should be noted that as these are the total numbers and a left in and left out route is sought, a figure of 20, for example, would mean that 20 HGVs travel to the site and 20 vehicles leave the site. Please note that Table 4 also includes provisional figures for Cadent Gas and Thames Water works which shall utilise the same lorry route to access the worksite west of Harvil Road.
- 5.1.3 Table 6 indicates the expected numbers for test pile site worksite 3 to the east of the A412.

Table 4: Test Pile Site 1 (SUBJECT TO THIS APPROVAL) (West of Harvil Road) – Lorry Numbers

TEST PILE SITE 1 - LORRY NUMBERS						Fortnight Commencing																
Activity	Start	End	Total Vehicles	Total Days	Average Per Day	14-01-19	28-01-19	11-02-19	25-02-19	11-03-19	25-03-19	08-04-19	22-04-19	06-05-19	20-05-19	03-06-19	17-06-19	01-07-19	15-07-19	29-07-19	12-08-19	26-08-19
Site mobilisation, vegetation clearance, access creation and completion.	15-01- 19	05-02- 19	68	16	4.3	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pile Working Platform and area preparation for site set up	05-02- 19	18-02- 19	599	10	59.9	0	60	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Establish compound and delivery of piling rig equipment	19-02- 19	18-03- 19	32	20	1.6	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Piling material deliveries	20-03- 19	14-05- 19	109	40	2.7	0	0	0	0	3	3	3	3	3	0	0	0	0	0	0	0	0
Daily operation and demobilisation	15-01- 19	21-05- 19	Assump	otion of 2 pe during der	er day and 4 nob	2	2	2	2	2	2	2	2	2	4	0	0	0	0	0	0	0
Cadent Gas Works	On Site	August 2018	N/A	N/A	<12/Day	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Thames Water Survey	January 2019	April 2019	Limited	n peak Mob at other tim rusive surve	nes as limited	10	2	2	2	2	10	0	0	0	0	0	0	0	0	0	0	0
			Ċ.	Peak Per Period	Day in	28	80	76	18	21	27	17	17	17	16	12	12	12	12	12	12	12

*Note the Thames Water works expect to utilise up to 10 HGVs per day during mobilisation and demobilisation of their survey works. But use a maximum of 2 whilst works are ongoing

Table 5: Test Pile Site 2 (SUBJECT TO THIS APPROVAL) (North of Moorhall Road) – Lorry Numbers

TEST PILE SITE 2 - LORRY NUMBERS							Fortnight Commencing															
Activity	Start	End	Total Vehicles	Total Days	Average Per Day	14-01-19	28-01-19	11-02-19	25-02-19	11-03-19	25-03-19	08-04-19	22-04-19	06-05-19	20-05-19	03-06-19	17-06-19	01-07-19	15-07-19	29-07-19	12-08-19	26-08-19
Site mobilisation, vegetation clearance, access creation and completion.	15-01- 19	11-02- 19	68	20	3.4	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pile Working Platform and area preparation for site set up	25-02- 19	08-03- 19	599	10	59.9	0	0	0	60	60	0	0	0	0	0	0	0	0	0	0	0	0
Establish compound and delivery of piling rig equipment	19-02- 19	18-03- 19	32	20	1.6	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Piling material deliveries	26-02- 19	08-03- 19	109	9	12.1	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0
Daily operation and demobilisation	15-01- 19	11-06- 19	-	tion of 2 pe during dem	r day and 4 nob	2	2	2	2	2	2	2	2	2	2	2	2	4	0	0	0	0
					Per Day in Period	5	5	6	65	63	2	2	2	6	2	4	0	0	0	0	0	0

Table 6: Test Pile site 3 (NOT SUBJECT TO THIS APPROVAL) (East of A412) – Lorry Numbers

TEST PILE SITE 3 - LORRY NUMBERS							Fortnight Commencing															
Activity	Start	End	Total Vehicles	Total Days	Average Per Day	14-01-19	28-01-19	11-02-19	25-02-19	11-03-19	25-03-19	08-04-19	22-04-19	06-05-19	20-05-19	03-06-19	17-06-19	01-07-19	15-07-19	29-07-19	12-08-19	26-08-19
Site mobilisation, vegetation clearance, access creation and completion.	15-01-19	05-02-19	68	16	4.3	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pile Working Platform and area preparation for site set up	05-02-19	18-02-19	599	13	46.1	0	46	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Establish compound and delivery of piling rig equipment	19-02-19	18-03-19	32	27	1.2	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Piling material deliveries	04-03-19	11-06-19	109	99	1.1	0	9	0	2	2	2	2	2	2	2	2	0	0	0	0	0	0
Daily operation and demobilisation	15-01-19	02-07-19	-	ion of 2 per during dem	r day and 4 ob	2	2	2	2	2	2	2	2	2	2	2	4	4	0	0	0	0
					er Day in eriod	6	61	50	6	6	4	4	4	4	4	4	4	4	0	0	0	0

6 Route Justification

6.1.1 All the routes identified in this submission were included within the Environment Statement submitted with the Hybrid Bill and are shown on the relevant CT-05 drawings.

Highway safety and the free flow of traffic

- 6.1.2 The routes were assessed at the time of the Environment Statement and represent both the shortest and quickest way of getting to and from the construction worksites to the strategic road network.
- 6.1.3 All the routes proposed are presently utilised by similar vehicles that would be used for the test piling activity. For example, the Thames Material site adjacent to Harvil Road off Skip Lane presently receives deliveries of material in 4-axle 20 tonne tipper lorries. Similarly, adjacent to the proposed test pile 2 site, the aggregate processing facility receives unwashed and exports unwashed aggregate from the site. Additionally, the civic amenity site on Harvil Road receives less frequent HGV movements to transport recycled and landfill waste to relevant processing facilities.
- 6.1.4 None of the proposed routes are subject to a lorry weight or other restrictions.

Highway Safety

- 6.1.5 The lorry access in to the worksites 1 and 2 is at a point where the road speed is 50 mile per hour and 40 mile per hour (albeit in proximity to a speed limit of 60 mile per hour and only recently reduced from a 60-40 mile per hour limit) respectively. Due to the short duration of the peak intensity of movements, it is preferential to utilise a left-in and leftout solution rather than to operate two way in and out solution at the worksite entrance. This will reduce delays to other road users and is a safer means of operating the worksite access. A site traffic marshal will be present at the worksite entrance to ensure vehicles associated with test piling at both the worksites egress and access the worksite in the correct manner during the intense period.
- 6.1.6 Following the intense period of the importation of fill, test pile worksite 2 is expected to not exceed 12 HGV deliveries (24 movements) per day. However, it is assumed, except in exceptional circumstances (unplanned road closures or diversions), that HGVs will follow the applied for route.
- 6.1.7 For worksite 1, due to the presence of the other works, it has been assumed that all test pile HGVs will turn left out of the worksite. However, works associated with Cadent Gas diversion and the Thames Water sewer survey may wish to turn right. This has been

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assumed in the figures reported in Table 4. However, during the peak period of movements, all vehicles will turn left.

- 6.1.8 The routes, notwithstanding the proposed improvements to Swakeleys roundabout and the existing improvements which are almost complete on the A412 junctions pursuant to assurance number 843/844, are safe. This has been further managed by:
 - Staggering the peak period of import movements during the programme so that worksites 1 and 2 do not have a peak at the same time. It will also substantially reduce the likelihood of two HGVs meeting through the centre of South Harefield and the other urban locations along the lorry route.
 - Ensuring the peak movement for worksite 3 and 2 are also staggered, to reduce the likelihood of two vehicles meeting at the A412 Chiltern Line underbridge.

Free flow of traffic

- 6.1.9 The routes to the worksites 1 and 2 have been balanced to avoid conflicts of turning vehicles with other road users and to remove overly dominant flows on one arm at key junctions.
- 6.1.10 The vehicle numbers for importation over a working day (08:00-18:00) would also not exceed 8 HGVs per hour for all but the southbound leg between the Moorhall Road/A412 North Orbital Road junction to the A40/M40 junction 1 interchange and this is considered acceptable given the short duration that this peak would last.
- 6.1.11 It is expected that during the peak movements, these would occur throughout the day. This is because it is extremely unlikely that the supply site would be able to provide the quantity of material over any shorter period. It is also beneficial to spread such movements over a longer working day, utilising the shoulder hour either side of the working hours to lower the average hourly peak, rather than to condense it to off-peak periods.
- 6.1.12 The other activity on site that may derive a higher lorry number on an individual day is concrete delivery once piles have been drilled. A maximum number during a peak pour may be up to 12 vehicles in one day. However, this would be infrequent throughout the period.
- 6.1.13 Following the HS2 Environment Statement Scope and Methodology Report (Addendum 1) Appendix I (Nov 2013)⁵, the short duration of the peak movements on the lorry

⁵

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260153/Vol5_Scope_and_methodology_report_addendum_CT-001-000.2.pdf

routes for both worksites 1 and 2 are not expected to generate significant effects over and above those reported in the ES.

Other vehicle movements

- 6.1.14 The Local Traffic Management Plan identifies the other vehicle movements likely to be associated with these test pile works. However, in general workers are expected to arrive at the sites prior to the AM peak and leave between 17:30 and 19:00. The workforce at each worksite is expected to be 10-20 personnel and generate a similar number of car and LGV trips on the local road network.
- 6.1.15 Abnormal sized deliveries may be required for the test pile equipment and/or lifting equipment. These will be arranged well in advance utilising the abnormal load system and in accordance with the HS2 Ltd Route wide Traffic Management Plan.

Delivery timing, Monitoring and Traffic Management at worksite

6.1.16 Please see the Local Traffic Management Plan (1MC05-ALJ-CL-PLN-C001-000006) for further details.

7 Lorry Route Signing and Programme

7.1 Signing strategy and locations

7.1.1 Due to the short duration of these works, it is not proposed to specifically signpost access on a permanent basis to these worksites, other than for site signage in immediate proximity to the site entrance.

7.2 **Programme for Test Piles**

- 7.2.1 These works are a bespoke piece of early works that will be completed before the main works are undertaken. An indicative programme is shown below for each of the two worksites:
 - January 2019 Site mobilisation and access improvements
 - February 2019 Import of fill to create working platform. Establish test pile compound and continue access improvements.
 - March 2019 completion of compound and commencement of test piling.
 - April 2019-June 2019 continuation of test piling and load testing of piles.
 - June 2019 July 2019 Removal of compound and demobilisation of site.

7.3 Other works ongoing at the time of Test Piling

- 7.3.1 The following activities will also be ongoing in the vicinity of Worksite 1. Those that have been incorporated in to the numbers presented in the tables above have been underlined:
 - Ongoing July 2019 HP07 Cadent Gas realignment works.
 - January 2019 April 2019 Thames Water survey of sewer on land near HOAC and the Newyears Green Bourne.
 - Ongoing Mid 2019 HP06 Cadent Gas realignment works.
- 7.3.2 Whilst these works are ongoing the other following activities are likely to be taking place at the Worksite 1 and 2 location, or in the vicinity of it, albeit these are not expected to significantly add to the numbers shown below and therefore have not been included. In any case they are also not likely to visit either of the worksites.
 - Continuation of ground investigation through the Colne Valley, expected to commence from January 2019 to August 2019
 - Further non-intrusive ecology, topographic and archaeology survey.
 - Baseline monitoring.

8 Other consents associated with approval

8.1.1 The main consents to be submitted to the highway authority for test pile site 3 are shown below.

Consent	For	Planned Submission
Schedule 4 – Part 1 Access	Improved access in to the worksite utilising existing private access to the north of Moorhall Road. (Note for the site at Harvil Road, Cadent Gas are preparing respective consents)	November 2018
Schedule 4 – Part 2 – temporary Interference	Traffic Management to undertake tie in work of improved access at Moorhall Road. (Note for the site at Harvil Road, Cadent Gas are preparing respective consents)	December 2018
Schedule 4 – Part 2 – temporary Interference	Traffic Management to signpost the site entrances and manage traffic during the works.	November 2018

Table 7: Other consents to be submitted to the Highway Authority

8.1.2 Other consents associated with the work, but for determination by other statutory bodies, are also required and are shown in Table 8 below.

Table 8: Other statutory consents required

Consent	For	Planned Submission
Section 61 – Control of Pollution Act	Extended hour working, if required	January 2018
Schedule 33 – HS2 Act	Undertaking specified works set out in Schedule 33, part 5 to the HS2 Act.	November 2018
SSSI Notification to Natural England	Undertaking works within the mid-colne valley SSSI	November 2018