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Item No. **Report of the Interim Director of Planning, Regeneration & Public Realm**

Address LAND AT HARVIL ROAD HAREFIELD

Development: HS2 request for approval of Plans and Specifications under condition imposed by Schedule 17 to the High Speed Rail (London - West Midlands) Act 2017, relating to the Harvil Road Realignment Works, covering a site area of 46,528.5m2, including the Harvil Road Stream Underbridge (comprising wingwalls, parapets, box culvert and mammal ledge); earthworks associated with the highway embankments, access roads to the realigned Harvil Road, and the location of vehicle restraint systems and fencing; building works associated with the concrete weir and non-woven geotextile bags at the attenuation pond; earthworks associated with the attenuation pond area comprising swales, gabion baskets, access road; pedestrian access track; an attenuation pond and the location of fencing.

LBH Ref Nos: 76459/APP/2022/3167

Drawing Nos: LBH.PS.10008 PROFORMA
1MC04-SCJ_SDH-IN-STA-SS05_SL08-000002 WRITTEN STATEMENT
1MC04-SCJ_SDH-LS-DSH-SS05_SL08-746101 P04 PLANTING SCHEDULE
1MC04-SCJ_SDH-LS-DSH-SS05_SL08-746104 P05 PLANTING SCHEDULE
LETTER DATED 8th March 2023
1MC04-SCJ_SDH-AR-DEL-SS05_SL08-853001 P04 Harvil Road Underbridge Details
1MC04-SCJ_SDH-LS-DDE-SS05_SL08-744003 P01 Typical weir detail
1MC04-SCJ_SDH-LS-DGA-SS05_SL08-741111 P07GA Hard Landscape and Earthworks Plan 1 of 4
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Date Plans Recieved: 14/10/2022 **Date(s) of Amendment(s):**

Date Application Valid: 18/10/2022

1. SUMMARY

This application comprises a Plans and Specifications submission under Schedule 17 of the High Speed Rail (London-West Midlands) Act 2017 (The Act), in relation to the proposed Harvil Road attenuation pond which was the subject of a second phase of approval 76459/APP/2021/2049, for the realignment of Harvil Road, including the Harvil Road Stream Underbridge (comprising wingwalls, parapets, box culvert and mammal ledge); earthworks associated with the highway embankments and access roads associated with the realigned Harvil Road, swales and attenuation pond; and the location of vehicle restraint systems and fencing.

The application is the latest in a series of HS2 Schedule 17 planning submissions that have been deposited with the Council. These Schedule 17 planning submissions can best be likened to the submission of reserved matters, where outline planning consent, has already been granted. This includes the principle of the Harvil Road realignment. The role of the Planning, Authority is therefore heavily restricted as to what can and cannot form the
basis of a decision.

The attenuation pond designs were omitted from approval 76459/APP/2021/2049 as they were not considered to be suitable or consistent with intentions for a softer landscape and aligned with further restoration of the area following completion of the HS2 project. The original design including hard engineered areas surrounding the pond to allow for infrequent maintenance resulting in a pond that was predominantly functional as a surface water solution. The latest proposals were developed on the back of lengthy discussions with the Council. An access road is still required but this tarmacked surface ceases at the north eastern part of the pond. Softer access tracks allow for maintenance around the pond and the banks have a more natural gradient which removed the original hard engineered edging that posed a barrier to wildlife. The pond is now considered to be more of a natural design which will provide a an all year round wetland habitat that will complement the restoration of the land around the viaduct to the south. The design changes have retained the engineered functionality but introduced a greater degree of ecological and wildlife benefits.

Schedule 17 elements approved under 76459/APP/2021/2049 include:
· Building works associated with the Harvil Road Stream Underbridge (comprising wingwalls, parapets, box culvert and mammal ledge); earthworks associated with the highway embankments, access roads to the realigned Harvil Road, and the location of vehicle restraint systems and fencing.

Remaining Schedule 17 elements for approval (subject to this application) are as follows:
· Building works associated with the concrete weir and non-woven geotextile bags at the attenuation pond.
· Earthworks associated with the attenuation pond area comprising swales, gabion baskets, access road, pedestrian access track, an attenuation pond; and the location of fencing.

All elements relating to the approved 76459/APP/2021/2049 application remain as approved within updated submission documents and drawings.

There is no statutory obligation to consult with neighbours. However, Natural England, the Environment Agency and Historic England (including GLAAS) are statutory consultees for this proposal and have raised no objections. GLAAS has agreed that the design or external appearance of the proposed attenuation pond does not require modification in order to preserve a site of archaeological or historical interest. subject to the applicant adhering to an agreed programme of archaeological works and Construction Integration Recording (CIR) which will be undertaken concurrently with the attenuation pond groundworks and excavation.

No objections are raised to the proposed fencing.

Officers are of the opinion that the proposals would not have a detrimental impact on a site of ecological value (i.e. a designated site) or an archaeological area of importance.

It is considered that there are no reasonably practicable measures which need to be taken for the purpose of mitigating the effect of the work or its operation in terms of its impact on the local environment / local amenity, in accordance with Paragraph 9 sub section (4)(a) of Schedule 17 of the Act.

2. RECOMMENDATION

APPROVAL subject to the following:

INFORMATIVES

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The final planting and restoration will be subject to additional consents. The final planting mix will therefore respond to the concerns raised by the Colne Regional Park and will ensure a suitable native species mix of planting that is consistent with the agreed planting to the area restored to the south.

3. CONSIDERATIONS

3.1 Site and Locality

The application site (hereafter known as 'the site') is located to the east of the existing Harvil Road and crossing over the existing Chiltern Line railway, the proposed HS2 line railway and a main river Newyears Green Bourne. The existing use of the site is open field, consisting of predominantly grassland and tree planting.

The site is located to the north of the Borough, between the A40 and South Harefield. In

the wider area, there are significant areas of green space that include Ruislip Woods, Bayhurst Wood, Uxbridge Golf Course, Ruislip Golf Course, and the Colne Valley Regional Park.

3.2 Proposed Scheme

The relevant scheduled works as set out under Schedule 1 of the Act to which this Schedule 17 submission relates are:
· Work No. 1/76 - A realignment (part) of Harvil Road commencing at a point 230 metres south-east of the junction of that road with Skip Lane and terminating at a point 223 metres north of that junction. Work No. 1/76 includes a bridge over the Aylesbury to Marylebone Line.

This application is a request for the approval of plans and specifications for the Harvil Road attenuation pond under Schedule 17 to the High Speed Rail (London - West Midlands) Act 2017. The proposed Harvil Road attenuation pond was the subject of a second phase of approval under application ref: 76459/APP/2021/2049. Schedule 17 elements approved under 76459/APP/2021/2049 include:
· Building works associated with the Harvil Road Stream Underbridge
(comprising wingwalls, parapets, box culvert and mammal ledge); earthworks associated with the highway embankments, access roads to the realigned Harvil Road, and the location of vehicle restraint systems and fencing.

Remaining Schedule 17 elements for approval are as follows:
· Building works associated with the concrete weir and non-woven geotextile bags at the attenuation pond.
· Earthworks associated with the attenuation pond area comprising swales, gabion baskets, access road pedestrian access track, an attenuation pond; and the location of fencing.

Buildings

Building works for approval comprise the elements associated with the development of the Harvil Road Stream Underbridge. The structure is formed of several elements which include a box culvert, concrete mammal ledge, post-and-rail parapet (fixed atop the wingwalls) and reinforced concrete wingwalls. The box culvert if not for approval under Schedule 17 as it is not an external element, the concrete mammal ledge and post and rail parapet are for approval under building works and the reinforce concrete wingwalls are for approval under earthworks.
These elements have already been approved under 76459/APP/2021/2049.

At the attenuation pond, building works approval is required for a 2m wide and 0.85m high concrete weir with a non-woven geotextile bag facing. The concrete weir will be located between the attenuation pond and the Newyears Green Bourne wit a purpose of controlling the flow of water from the attenuation pond into a drainage swale which will then discharge to the Newyears Green Bourne. The concrete weir will have a variable discharge rate of up to 200 l/s. The concrete weir will be faced and integrated into the embankment with non-woven geotextile bags which are required primarily to provide sliding resistance but will also provide a vegetated facing to the concrete weir to reduce the visual impact of the concrete weir and enhance biodiversity.

Earthworks

Earthworks for approval comprise embankments to support the realigned Harvil Road and associated access roads; drainage swales; an attenuation pond; wingwalls and the reinstatement of Newyears Green Bourne following completion of construction works.

Most of these elements have already been approved under 76459/APP/2021/2049.

Drainage swales are proposed along the embankments to the east and west of the realigned Harvil Road, The dimensions of the swale channel beds are approximately 1m with variable slope steepness from approximately 1:3 to 1:5. The minimum depth of the swales varies from 0.2 - 0.3m. There are two swales located to the south of Newyears Green Bourne; the swale to the west is entirely north of the proposed HS2 lines, and the swale to the east is predominantly north of the proposed HS2 lines with a small section falling to the south. The purpose of these swales is to convey surface water runoff from the highway embankments northwards to discharge into Newyears Green Bourne. There are also two swales located to the north of Newyears Green Bourne; the swale to the west is to the south of the attenuation pond access road and connects to the New Years Green Bourne, and the swale to the east connects with the existing Harvil Road highway drainage network. The purpose of these swales is to convey surface water runoff from the highway embankments and drainage southwards to ultimately discharge into Newyears Green Bourne. Discharge of swales into the Newyears Green Bourne have been consented by the Environment Agency under Schedule 33 Part 5 of the HS2 Act.

An attenuation pond will be located to the west of Harvil Road and to the north of the Newyears Green Bourne. The purpose of the attenuation pond is to capture Harvil Road highway drainage, distil some sediment, and discharge the water into the Newyears Green Bourne to the south. The attenuation pond will be approximately 1,760sqm in total and formed of two inverted areas, the first area (the sedimentation bay) will have a depth of 2.2m and the second area (the infiltration basin) will have a depth of 1.7m. The sedimentation bay acts as a silt trap, allowing some sediments to settle before discharging to the Newyears Green Bourne via the infiltration basin. The invert of the sedimentation bay is 0.5m lower than the infiltration basin meaning that water will migrate into the infiltration basin by overtopping of the embankment between the two inverts.

Earthworks between these are to be retained in situ by gabion baskets. The sedimentation bay surface finish will be topsoil with a geotextile membrane and a layer of puddle clay beneath to contain the water and sediment within the bay. The infiltration basin surface finish will be topsoil with a geotextile membrane to allow for some infiltration of water before discharge to the Newyears Green Bourne. Additionally, scour protection is provided at the inlet and outfall to provide soil and river channel protection.

Gabion baskets will be located between the two pond areas, the purpose of which are to provide a retaining function to the earthworks between the sedimentation bay and infiltration basin. The gabion baskets will be manufactured from a hard drawn steel wire formed into a bi-axial mesh grid. The gabion basket fill will be hard and durable and non-frost susceptible (rock or stone type) having a minimum dimension not less than the mesh opening and a maximum dimension of 200mm.

A 1.5m wide topsoil grass seeded pedestrian access road will be located around the southeast perimeter of the attenuation pond to provide access for maintenance personnel for inspection. Adjacent to the west of the access road will be a 3m wide topsoil grass seeded strip with no pavement subbase to allow a 4x4 vehicle to access the weir for sporadic inspection.

Security and boundary fencing (location for approval) will be provided around the attenuation pond and is included in the 'area subject to second phase of approval'. The purpose of this fencing is to keep intruders out of the attenuation pond. This fencing will consist of security fencing to the south west of the attenuation pond and access road, and boundary fencing around the remainder of the safety fencing encircling the attenuation pond.

Other works

In addition to the works outlined above (including the 'area subject to this second phase of approval'), there are some other elements associated with the realignment of Harvil Road that are subject to separate Schedule 17 Plans & Specifications applications, these include:
· Harvil Road Overbridge (over Chiltern Lines) (approved July 2021);
· The Harvil Road Bridge (over HS2 lines) (approved December 2021); and
· Newyears Green Bourne Flood Compensation Area (approved December 2021).

The existing section of Harvil Road that will be permanently stopped up will be removed and the existing Chiltern Line bridge will be demolished. The area will be returned to a landscape / agricultural use and railway cutting. These works will be subject to a separate Schedule 17 Site Restoration application.

A Schedule 17 Bringing Into Use application will be submitted to include details of the proposed indicative mitigation and planting, however details of this have been included for information as part of a consultation submitted concurrently with this Plans & Specifications submission.

3.3 Relevant Planning History

Comment on Relevant Planning History

The High Speed Rail (London - West Midlands) Act 2017 ('the Act') provides powers for the construction and operation of Phase 1 of High Speed Two. HS2 Ltd is the nominated undertaker in relation to the works subject to this Plans and Specifications submission.

Section 20 to the Act grants deemed planning permission for the works authorised by it, subject to the conditions set out in Schedule 17. Schedule 17 includes conditions requiring the following matters to be approved or agreed by the relevant LPA.
· Construction arrangements (including large goods vehicle routes);
· Plans and specifications;
· Bringing into use requests; and
· Site restoration schemes.

This is therefore a different planning regime to that which usually applies in England (i.e. the 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.

Schedule 17 of the Act sets out the grounds on which the LPA may impose conditions on approvals, or refuse requests for approval.

HS2 Ltd as the nominated undertaker is contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMRs). HS2 Ltd as the nominated undertaker is contractually bound to comply with the controls set out in the Environmental Minimum Requirements (EMRs). The EMRs comprise the following suite of documents:
· Code of Construction Practice (CoCP)
· Planning Memorandum
· Heritage Memorandum
· Environmental Memorandum
· Undertakings and Assurances

These controls along with the powers contained in the High Speed Rail (London - West Midlands) Act and the Undertakings and Assurances are designed to ensure that impacts which have been assessed in the Environmental Statement (ES) will not be exceeded. The Environmental Statement (ES) is an assessment of the likely significant

environmental effects of the proposed HS2 railway and the proposals to avoid, reduce or remedy these likely significant environmental effects.

SITE SPECIFIC HISTORY

Following extensive engagement with the applicant, it was agreed in early 2021 that further design development would be undertaken for the attenuation pond area located to the west of the proposed re-aligned Harvil Road and north of the Newyears Green Bourne. It was agreed that the attenuation pond area of the Schedule 17 application would be deferred for approval at a later stage; this area was demarcated as 'area subject to second phase of approval'. As such, all elements of the Harvil Road Highway Works Schedule 17 submission, apart from the attenuation pond area, were approved in November 2021 (application ref: 76459/APP/2021/2049).

Elements approved under 76459/APP/2021/2049 (realignment of Harvil Road) include:
- Building works associated with the Harvil Road Stream Underbridge (comprising wingwalls, parapets, box culvert and mammal ledge); earthworks associated with the highway embankments, access roads to the realigned Harvil Road, and the location of vehicle restraint systems and fencing.

This application relates to the attenuation pond area. Elements requiring approval:
- Building works associated with the concrete weir and non-woven geotextile bags at the attenuation pond. Earthworks associated with the attenuation pond area comprising swales, gabion baskets, access road, pedestrian access track, an attenuation pond; and the location of fencing.

All elements relating to the approved 76459/APP/2021/2049 application remain as approved within updated submission documents and drawings.

Local Plan Designation and London Plan

The following Local Plan Policies are considered relevant to the application:-

Part 1 Policies:

PT1.EM2	(2012) Green Belt, Metropolitan Open Land and Green Chains
PT1.EM3	(2012) Blue Ribbon Network
PT1.EM6	(2012) Flood Risk Management
PT1.EM7	(2012) Biodiversity and Geological Conservation
PT1.EM8	(2012) Land, Water, Air and Noise
PT1.HE1	(2012) Heritage

Part 2 Policies:

DMEI 10	Water Management, Efficiency and Quality
DMEI 11	Protection of Ground Water Resources
DMEI 7	Biodiversity Protection and Enhancement
DMEI 9	Management of Flood Risk
DMHB 1	Heritage Assets
DMHB 14	Trees and Landscaping
DMT 2	Highways Impacts

DMEI 4	Development on the Green Belt or Metropolitan Open Land
LPP G2	(2021) London's Green Belt
LPP G6	(2021) Biodiversity and access to nature
LPP G7	(2021) Trees and woodlands
LPP G9	(2021) Geodiversity
LPP HC1	(2021) Heritage conservation and growth
LPP SI12	(2021) Flood risk management
LPP SI17	(2021) Protecting and enhancing London's waterways
LPP SI5	(2021) Water infrastructure
NPPF13	NPPF 2021 - Protecting Green Belt Land
NPPF14	NPPF 2021 - Meeting the challenge of climate change flooding
NPPF15	NPPF 2021 - Conserving and enhancing the natural environment
NPPF16	NPPF 2021 - Conserving & enhancing the historic environment

5. Advertisement and Site Notice

5.1 Advertisement Expiry Date:- Not applicable

5.2 Site Notice Expiry Date:- Not applicable

6. Consultations

External Consultees

NATURAL ENGLAND

SUMMARY OF NATURAL ENGLAND'S ADVICE
Natural England has welcomed the early engagement and pre-application meetings held on 25th February 2021 and 16th February 2022.
Natural England further welcomes the overall mitigation planting which includes the habitat creation and restoration designed to complement the open water and wooded habitats associated with the Mid Colne Valley Site of Special Scientific Interest (SSSI).
Natural England also supports the use of grazing animals (Where possible) as part of the future ongoing sustainable management of the restored habitats.

Schedule 17 for HS2
This planning proposal is for a development scheme or works scheduled under the provisions of the High Speed Rail (London-West Midlands) Act (2017) which form part of the High Speed Two scheme within your area. It should therefore be determined using the planning regime established by that legislation. The Act grants the work deemed planning permission, subject to certain matters and details of the deemed consent being reserved for subsequent local planning authority approval under Schedule 17.

We advise that, in determining the consultation, the planning authority should have regard to the permissions already granted under The Act, and to any relevant supporting documents to The Act.

HISTORIC ENGLAND (GLAAS)

I recommend that HS2 is is requested to provide further information in the form of a field evaluation of the attenuation pond site prior to the determination of this application. This evaluation should be planned and interpreted with the Area Central mitigation, west of Harvil Road.

Colne Valley Regional Park

In the species lists for tree planting are Sycamore and Sweet Chestnut which I don't think is appropriate as non-natives and have commented accordingly, but more worrying is the inclusion of Scotch Elm (Ulmus glabra). This is the North American nomenclature for Wych Elm and infers that the stock is sourced from this region. It goes on. In the grasses, Kentucky Blue-grass and Cat-grass are listed for Smooth Meadow-grass and Cock's-foot. Similarly Bird Vetch is listed instead of Tufted Vetch. I am really worried that stock is being sourced from North America for these planting schemes, the implications of which are significant on a number of levels.

Objection:

Inappropriate species and provenance. Remove Sycamore and Sweet Chestnut from the tree planting list. These are not native and not appropriate to plant. The grass list refers to Kentucky Bluegrass and Cat Grass. These are not the English names for these species and infer that the provenance of the grass mix is not from the UK. All species mixes must be from the UK. The wildflower species mix refers to Bird Vetch. This is not the English name which is Tufted Vetch. This also infers that the wildflower mix is not sourced from the UK. This must not be permitted! Remove Hogweed from the wildflower mix. This is not a component part of this community and will compromise the planting with rapid colonisation to the detriment of the other species. Once these changes have been made the objection will be removed.

(Officer Note: The existing section of Harvil Road that will be permanently stopped up, will be removed and the existing Chiltern Line bridge will be demolished. The area will be returned to a landscape / agricultural use and railway cutting. These works will be subject to a separate Schedule 17 Site Restoration application. In addition, a Schedule 17 Bringing Into Use application will be submitted to include details of the proposed indicative mitigation and planting, Appropriate species will be agreed at that time).

Internal Consultees

7. MAIN PLANNING ISSUES

7.1 Planning Issues

BUILDING WOKS

The development consists of the following operations or works for approval, which are not of a temporary nature, in accordance with Paragraphs 2 and 3 of Schedule 17:
- Building works associated with the concrete weir and non-woven geotextile bags at the attenuation pond.

The erection, construction, alteration or extension of any building In accordance with Schedule 17 of the Act, the relevant planning authority may only refuse to approve plans or specifications on defined grounds. Paragraph 2 of Schedule 17 outlines the grounds for determination for 'building works', which in this submission include the concrete weir and non-woven geotextile bags at the attenuation pond.

The grounds for determination under Paragraph 2 of Schedule 17 are as follows:
(a) the design or external appearance of the building works ought to be modified
(i) to preserve the local environment or local amenity,
(ii) to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or
(iii) to preserve a site of archaeological or historic interest or nature conservation value, and is reasonably capable of being so modified, or
(b) the development ought to, and could reasonably, be carried out elsewhere within the

development's permitted limits.

The previously submitted proposal for discharge between the attenuation pond and Newyears Green Bourne followed HS2 standard detail for the pond design which included a culverted pipe outfall to act as a hydrobrake restricting discharge to the equivalent existing run-off rates. During the engagement with the applicant in November 2021, it was established that officers would support an alternative to a culverted pipe outfall, due to concerns with the potential for blockages to occur. In response to these concerns, a weir option was proposed, increasing the discharge to up to 200l/s (from 59l/s), and was agreed during subsequent engagement and developed into the current proposal. The weir provides a variable (and increased discharge) to New Years Green Bourne and removes a significant length of buried pipework from the pond design.

The outfall to the Newyears Green Bourne will be via a rectangular concrete weir, referred to above, which willl allow a variable discharge depending on water level in the pond, up to a maximum of 200l/s. To soften the aesthetic of the concrete weir, it is proposed that a vegetated wall will face the concrete. Downstream of the weir, scour protection in the form of rock mattresses are proposed, before a swale conveys the flow to the Newyears Green Bourne.

Details of the indicative mitigation have been submitted for consultation in accordance with paragraph 7.5.2 of the Planning Memorandum are the subject of a separate consultation.

GLAAS considers that the proposal will not have a significant effect on heritage assets of archaeological interest and is satisfied that subject to a Programme Plan detailed below, the question of amending the design to preserve an archaeological site does not arise.

In terms of ecology, Natural England raises no objections to the proposed building works. The development site is not a site of nature conservation value and therefore the design and external appearance does not need to be modified in accordance with the Act. The Council will continue to work with HS2 Ltd on the landscaping approach a cross the route and will expect an appropriate design in and around the proposed development. This will be dealt with outside of this Schedule17 submission.

EARTHWORKS

Earthworks for approval comprise earthworks associated with the attenuation pond area comprising swales, gabion baskets, access road, pedestrian access track, an attenuation pond.

Possible grounds for refusal of approval

That the design or external appearance of the works ought to, and could reasonably, be modified
(a) to preserve the local environment or local amenity,
(b) to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local
area, or
(c) to preserve a site of archaeological or historic interest or nature conservation value.

If the development does not form part of a scheduled work, that the development ought to, and could reasonably, be carried out elsewhere within the development's permitted

limits.

Appraisal

There are two stages to the determination of schedule 17s,
(1) is there sufficient evidence that the proposals would likely have an impact (relative to the considerations set out in the Act) and
(2) whether the proposals and could and should be modified to avoid the harm.

With regards to the earthworks, the matters for consideration are:
(1) the impacts on the local environment and local amenity,
(2) matters relating traffic and
(3) impacts on sites of archaeological or nature conservation value.

If it finds that there are adverse concerns, then the Council needs to be able to demonstrate that the earthworks can be reasonably modified.

Local Environment and Local Amenity:

The design of the attenuation pond has been led through regular engagement with the applicant. Of particular relevance was officers' design steer for a softer engineered and more natural environment within the attenuation pond and surrounding area. The function of the attenuation pond is to capture highways drainage from the realigned Harvil Road and to attenuate this before discharging to Newyears Green Bourne. The attenuation pond is required as a result of the realignment of Harvil Road, as the area of impermeable surface is increased to 0.98ha as compared to 0.41ha with the existing road. The increase in impermeable surfaces is as a result of the inclusion of footways along both sides of the realigned road, new junctions with access roads and a slightly wider carriageway at some points.

Increased impermeable surfaces results in increased surface water runoff, hence requiring attenuation prior to
discharge to Newyears Green Bourne. Additionally, the pond provides water quality benefits by removing some of the debris and suspended solids through filtration and sedimentation, prior to discharging into Newyears Green Bourne.

The attenuation pond basin will be formed of a sedimentation bay and infiltration basin separated by a gabion basket wall, with a culverted inlet pipe and a rectangular notched weir at the outfall. The side slopes of the pond will be topsoil and planted and the planting will transition to wet grassland at the edge of the pond basin to submerged planting beneath the water level. The sedimentation bay has a gravel bed which provides scour protection for the incoming surface water flow. Defined wet and dry pond shelves have been formed by varying the side slopes of the pond at different levels to enhance ecology by providing variation in the habitat types.

Additional ecological enhancement measures have been incorporated into the area between the attenuation pond and Newyears Green Bourne including grassland planting, scrubland planting, woodland planting and tree planting to reduce the visual impact of the pond within the rural context and help to enhance biodiversity. The vehicle access and pedestrian maintenance path around the perimeter of the attenuation pond will be grass seeded to also help enhance biodiversity.

The Written Statement notes that a ground water risk assessment was undertaken for the attenuation pond area and a protected chalk aquifer was identified beneath the proposed

attenuation pond. This presented a design constraint in how deep the attenuation pond could be designed without compromising the chalk aquifer beneath. The design of the attenuation pond has responded to this constraint by proposing a maximum invert depth of 2.2m which will not compromise or contaminate the chalk aquifer.

The original location of the attenuation pond, as set out in the environmental statement, was located to the north of the HS2 alignment, west of the realigned Harvil Road and south of the Newyears Green Bourne. However, due to Harvil Road being an important north-south route through the Borough, the road will be required to remain open in some form throughout the duration of the construction works. This consideration resulted in the relocation of the attenuation pond from its previously proposed location on the south of Newyears Green Bourne to a location on the north side of Newyears Green Bourne. This was due to the complexity of needing to retain the section of the existing Harvil Road in this location as a temporary route through during construction for as long as possible. The chosen relocation was considered the best design option for the attenuation pond as it still falls within the LLAU and continues to allow the attenuation pond to serve its primary function of attenuating highway drainage from the realigned Harvil Road and discharging to the Newyears Green Bourne.

Additionally, officers requested that the access road be significantly reduced, and the material be naturalised further. In response, the design of the attenuation pond has resulted in the extent of the access provision to be significantly reduced, with the access road being truncated in the northeast corner of the pond, rather than extending west along its length. A 3m wide grassed strip with no subbase is to be maintained to the west of the access road to allow 4X4 vehicle access to the weir for inspection purposes. The material of the access road has also changed from gravel to grass seeding and reduced in width by 1m to reduce the extent of impermeable and hard engineered surfaces

With regard to design, officers are of the opinion that the earthworks would have a detrimental impact on the local environment and local amenity, principally through the visual intrusion. However, as set out above, these earthworks have been approved in principle in this general location and are necessary to facilitate the construction of HS2. Consequently, earthworks will be necessary to achieve this approved part of the scheme. The applicant submits that the earthworks has been reduced by the careful design of materials, locations and screening to maximise the integration of the works into the local environment.

Officers cannot see any other reasonable modifications that would reduce or remove the harm on the local environment, whilst still facilitating the delivery of the approved scheme. Therefore, it is not considered that the design or external appearance of the work sought to be modified to preserve local environment or amenity.

Ecology

In terms of ecology, Natural England raises no objections to the proposed works. It is not therefore considered that the design or external appearance of the works ought to, and could reasonably, be modified to preserve a site of nature conservation value.

The site does not fall within, and is not in close proximity to, any statutory ecological designations. It has been assessed that the proposed works will have no adverse impacts on any statutory ecological designations and therefore no specific mitigation measures are required.

Heritage and Archaeology

The proposed attenuation pond is to be located west of Harvil Road and north of the New Years Green Bourne stream. Recent HS2 discoveries west of the application site have shown Mesolithic and other later prehistoric / Roman remains alongside the stream extending further upstream than had previously been recognized. The Greater London Archaeological Advisory Service (GLAAS) requested the provision of further information in the form of archaeological field evaluation in the area of the pond prior to determination of this application.

The approval request for the proposed attenuation pond is under Schedule 17 (3) earthworks. The possible ground for refusal under Schedule 17 (6) inter alia states:
'That the design or external appearance of the works ought to, and could reasonably, be modified
(c) to preserve a site of archaeological or historic interest or nature conservation value.'

The applicant has responded to the GLAAS request via 2 no. meetings held on the 12/01/2023 and 16/02/2023. The first meeting aimed to clarify the relationship between the three phases of investigation i.e., previous evaluation excavations in 2018, in 2019 and a more recent report on archaeological excavation west of the site. All three phases of investigation determined the presence of significant Mesolithic artefact scatters approximately 150m to the west. The applicant states that Having reviewed the scope and results of these recent investigations, at the second meeting it was agreed with GLAAS that the design or external appearance of the proposed attenuation pond does not require modification in order to preserve a site of archaeological or historical interest. However, the applicant will be required to adhere to an agreed programme of archaeological works and Construction Integration Recording (CIR) which will be undertaken concurrently with the attenuation pond groundworks and excavation.

The programme of archaeological works will be in compliance with the EMR's, the Heritage Memorandum and the process and procedure determined by GWSI-HERDS (the lead document for all historic environment works as set out in the Heritage Statement) and consist of a limited programme of trial pitting (controlled by a geoarchaeologist) to establish the presence of deposits found to the west and determine the overall potential of the site to encounter significant, Mesolithic deposits. If and where available, existing GI will also be used to support this work. This will be followed by construction integrated recording on design elements which have the potential to negatively impact deposits which may contain archaeological features/artefacts. A Project Plan will be submitted to GLAAS outlining the nature of these works for review and comment.

In terms of the scope of Schedule 17, the Council has powers to seek modifications to the design of the works if there are adverse impacts to archaeological features. In this instance, those concerns have been addressed by a proposed programme of archaeological works and Construction Integration Recording (CIR) method statement, which include a Project Plan to be submitted to GLAAS, outlining the nature of these works for review and comment. This programme of archaeological works and Construction Integration Recording is therefore necessary to provide comfort to the planning authority that the archaeological features are protected in accordance with the grounds of Schedule 17.

The Council is only required to consider the design and external appearance of the works. Normal approaches regarding the methodology for construction are outside of the remit set by Schedule 17 of the HS2 Act. The above construction of the earthworks would be monitored in consultation with the applicant and GLAAS to ensure the relevant programme has been adhered to.

Flood Risk

The works form part of a wider body of construction activity that ideally should not be considered in isolation at a strategic level. However, as with most of the HS2 works, that is exactly what the Local Planning Authority is required to do. This is a complex engineering project that is a series of smaller projects amassing to one major piece of infrastructure. Invariably pieces of this project will come forward at various times and it would be impractical for all consents and designs to be undertaken upfront. Consequently, isolated parts of the projects will come forward even if they rely on mitigation to be delivered within a later part of the project.

This development illustrates this point clearly. The realignment of Harvil Road will pass over the New Years Green Bourne. This watercourse will be impacted by works east and west of Harvil Road and subject to different submissions. In addition, the New Years Green Bourne will be subject to realignment by a different contractor to
Harvil Road contractor. It is not possible or feasible to await the design of every element of work that impacts the New Years Green Bourne, either directly or through additional drainage to it. However, the Council needs to fully understand at a strategic level, what the 'plan' is for ensuring that all the pieces align.

In this instance, drainage from the Harvil Road realignment and other works on the New Years Green Bourne will require flood compensation areas and drainage ponds. Some of the detailed designs of these form part of other proposals, so at this stage the key is to ensure we know that a) this development has appropriate connection routes and drainage arrangements and b) that the broad location and capacity of these holding ponds and compensation areas are known.

There are several Schedule 33(5) applications associated with the realignment of Harvil Road.mm Both the creation of a new culvert structure (Harvil Road Stream Underbridge) over Newyears Green Bourne and new
discharges to Newyears Green Bourne require Schedule 33(5) consent approval from the Environment Agency (EA). The EA is the consent granting body as the works in question relate to a Main River.

In addition, another Schedule 33(5) consent is required for alterations to highway ditches adjacent to Skip Lane. As these ditches are classified as Ordinary Watercourses, the consent granting body is the Lead Local Flood Authority (LLFA), which in this instance is LB Hillingdon.

All of these Schedule 33(5) applications have been approved by the relevant consent granting bodies and. the Environment Agency has raised no objection.

Officers consider that there is no need for a condition for this approval, but the Council will scrutinise the emerging plans on the compensation areas to ensure they align with these proposals. To provide further comfort and control, these proposals would be subject to a 'bringing into use' application under Schedule 17. The Council will not consent to this until the suite of detailed works demonstrate that there will not be an increase risk in flooding to people and property and that drainage is managed appropriately.

Highway Works

The Harvil Road General Highway Works also require consent under Schedule 4 of the HS2 Act, specifically for the following:
· Alteration of a highway: realigned Harvil Road highway design (including details on road

layout/section, earthworks, VRS, drainage, pavements, kerbs, footways, paved areas, road marking, traffic signs, landscaping)
· Interference with a highway: stopping up section of existing Harvil Road
· Creation of new permanent accesses

The Harvil Road Highway Works Schedule 4 application was submitted to the Council in February 2022 and approved May 2022.

FENCES AND WALLS (except for sight, noise and dust screens)

Possible grounds for refusal of approval -
That the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.

The works have been located in accordance with the route alignment of the HS2 rail scheme, as contained within the Act and the accompanying parliamentary plans, and the associated technical requirements arising from the operation of the railway. Therefore, it is not considered that the works ought to or could reasonably be located elsewhere within the development's permitted limits.

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