Response to the Examining Authority's Further Written Question QE.2.5

on Behalf of the

Neighbours and Users of Queen Elizabeth Park

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Interested Party reference no: **20022545**

1. Response to ExA's FWQ QE.2.5

1.1. ExA's Question

'Provide a response to the Applicant's comments made at Action Point 15 [REP3-013].'

[Note: Action Point 15 asked Esso to assess whether trenchless installation could be used to install a section of pipeline from the Queen Elizabeth Park Play Area to Farnborough Hill School grounds, going under most of the park and the A325.]

1.2. Response

The two HDD options presented by Esso show that a single bore beneath Queen Elizabeth Park and the A325 is possible.

We believe that the drawbacks discussed in Esso's response can be overcome and that with further refinement, a workable HDD route can be found.

1.2.1. Duration of Work

Esso's comment: *'The default method for installing the pipe is using open trench because this is the quickest method'*

Using HDD means that the following activities would not be necessary, reducing the time spent in the park by a considerable amount:

1. Clearance of the trench area and auger bore compound area
2. Auger bore compound construction
3. Auger bore reception pit construction
4. Removal of the auger bore compound and subsequent reinstatement works.
5. Trenched installation throughout the park
6. Reinstatement of the trench area.

On the subject of the HDD operation itself, we have consulted an expert and understand that once the HDD compound is established, boring and reaming operations could be completed in a matter of weeks. The pipe pulling should take a day, assuming it is done in a single pull. Assembly by welding of the pipestring is likely to be the most time consuming occupation but this would happen in parallel with the boring operation (and would be outside the park). Pipes which are installed in trenches still need to be welded together taking about the same amount of time as constructing a string.

1.2.2. Tree Removal to Make Space for Stringing Out the Stake Lane Pipe

Esso's comment: *'The HDD from Stake's Lane would still need to be strung out through QEP and this would involve some tree removal and disturbance to park users.'*

In Section 4.6 of our *Comments on Responses Submitted for Deadline 3* document we suggest that the Stake Lane HDD run is revised to avoid the need to string out in the park. The simplest way to do this is to shorten the bore length and locate the reception pit in the allotments.

1.2.3. Launch Pit: Duration of Work

Esso's comment: *'Using the same location for an HDD to Farnborough Hill School would require the drilling area and compound in QEP to be present for a greater period of time'*

With the work items listed in section 1.2.1 no longer being necessary, we actually expect the construction compound to be required for a shorter length of time.

Esso have stated that the compound may be in the park for up to two years, which is the maximum period permitted by the DCO. Therefore the duration in the worst case scenario is unaffected.

1.2.4. Launch Pit: Size

Esso's comment: *'In addition, for a HDD installation the compound area within QEP would need to be increased in size to accommodate all of the equipment associated with a HDD drill pit.'*

The size of the launch pit seems to be unnecessarily large when taking into account the size of the one in Stake Lane. The activities in both sites will be the same so we would expect them to be accommodated in the same footprint. We note that the Examining Authority have raised this point in their FWQ QE.2.3.

A smaller launch pit area would address Esso's claim of potentially increased tree loss in that area. In any case, there should be enough space in the area occupied by the Cabrol Road car park and play area to site all the facilities required by Esso without the need to remove any trees at all.

Esso's Figure 1.3 shows a drive compound containing various items of equipment but they are not labelled. It also covers the area which was allocated to the Cabrol Road construction compound, yet no mention is made of why the construction compound is no longer needed. The enlargement of the drive compound and the absence of the proposed construction compound should be justified by Esso.

1.2.5. Launch Pit: Noise

Esso's comment: '*It also changes the nature of the work from an HDD receiving pit to a drive pit which will result in more noise, larger plant and greater disturbance.'*

We note that noise and disturbance caused by drilling does not seem to have been a limiting consideration in other areas along the route. For example, the drilling compound in Stake Lane is directly adjacent to house number 1. Esso intend to use this compound for TC017, then rotate their machinery 180º and drill TC018. The total length to be drilled

from this location is 737 metres, far longer than the proposed bore beneath the park (TC017: 294 metres, TC018: 443 metres).

Any disturbance from drilling activities in the park, although disruptive, will not be on the scale of that endured by the Stake Lane residents, who live closer to the work site and will suffer a greater duration of work.

1.2.6. Farnborough Hill: Conservation Area

Esso's comment: *'Unlike QEP, Farnborough Hill school is within the Farnborough Hill Conservation Area and accounts for approximately 50% of its area. […] Rushmoor Borough Council has previously advised the Applicant of concerns about its impacts on the Conservation Area.'*

Queen Elizabeth Park borders the Farnborough Hill Conservation Area and therefore constitutes part of its setting. Removal of trees from the eastern areas in the park, particularly those near the A325, as proposed for the auger boring activities, would have a greater impact on the setting of the Conservation Area than stringing out within the school's grounds because the damage to the setting would be long-term.

We await Rushmoor Borough Council's opinion on the stringing out activities in the Conservation Area of Farnborough Hill School but are confident that they will favour the temporarily-visible stringing works over long term damage to the park and the setting of Farnborough Hill.

1.2.7. Farnborough Hill: Grade I Listing

Esso's comment: *'Farnborough Hill school is a grade 1 listed building and the school grounds are included within this listing'*

We can find no evidence that the grounds of the school are listed. Historic England's listing only mentions the main house which was originally built by Henry Edward Kendall Junior[1]. Rushmoor Borough Council's map of the Farnborough Hill Conservation Area[2] also shows that only the building itself is listed. If Esso can show that the grounds are also listed, we would be interested to see this.

Esso's comment: *'the Applicant has looked to reduce the impacts on the building and its setting by aligning the open trench works around the perimeter of the grounds in a committed narrow working area, while also avoiding the band of notable trees. The stringing out area is unlikely to be able to take a similar alignment.'*

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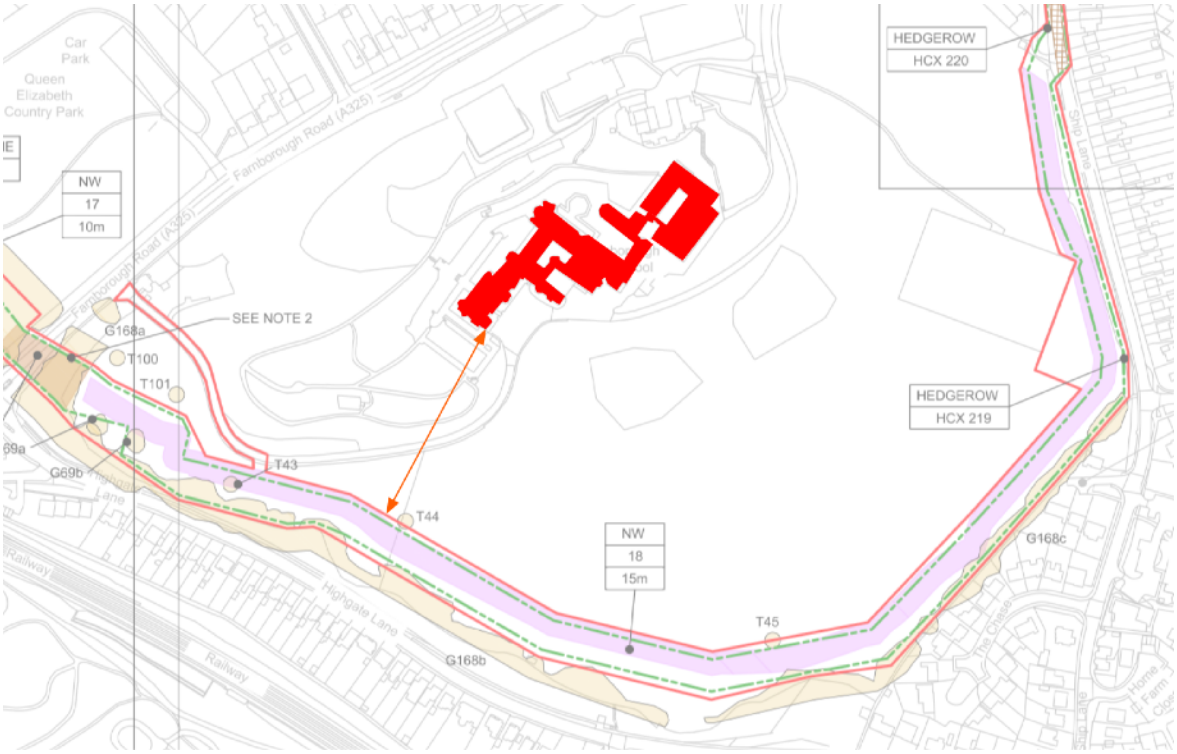
[1] Historic England's listing of Farnborough Hill Convent (https://historicengland.org.uk/listing/the-list/list-entry/1303116)

[2] Rushmoor Borough Council's map of Farnborough Hill Conservation Area (https://www.rushmoor.gov.uk/CHttpHandler.ashx?id=4103&p=0)

Esso's diagrams actually show two possible stringing areas which are mainly in, or very close to the Order Limits. Slight adjustment of the orientation of the reception pit could allow even better alignment of the stringing area substantially within the Order Limits.

We estimate that the smallest distance between the listed building and the Order Limits is about 140 metres. The works will be screened from view by trees and gradient changes. Threats to the structure are minimal and the risk of permanent damage to the setting is unlikely if the stringing area is carefully aligned.



(Farnborough Hill School, listed building shown in red, 140 metre distance to the Order Limits indicated with orange arrow)

1.2.8. Farnborough Hill: Impact of Stringing Out

Esso's comment: *'Stringing out is not required for the currently proposed auger bore technique under the A325 and therefore would not impact the school's main playing fields.'*

Aerial photography in Google Maps shows that only one sports facility would be affected by the works: an athletics field bounded by an oval 400 metre running track. Neither of the two stringing areas (option 1 or 2) encroach much further onto the grounds. This field would also be affected by the trenched installation, so we conclude that the stringing area does not put any additional facilities out of use.

1.2.9. Deeper Installation Depth

We note that the depth of the bore between the bungalow and the railway embankment on the Stake Lane HDD run is 8 metres (Crossing Drawings[3], TC018, section B-B). We assume that the same depth or greater is also possible under the park.

A depth of 8 metres would be sufficient to avoid any significant root damage to all trees in the park, meaning that the Notable and Veteran Trees do not impose any restrictions on the route of the bore.

It would be useful if Esso could produce a sectional drawing of a technically feasible HDD bore which avoids tree root damage.

1.2.10. Easement

Both HDD options go directly under the Fairy Tree (T42) and are highly likely to pass under other Notable Trees.

As already stated, we assume that the bore will be deep enough to avoid the roots, but we would also like to be assured that no trees in the park will need to be removed as a consequence of the easement.

We note that large trees exist within the easements of the current pipelines.

1.2.11. Comments on HDD Options

Option 1: The position of the reception pit puts Veteran and Notable trees in Farnborough Hill at risk. We have no desire to trade retention of trees in Queen Elizabeth Park for loss of trees elsewhere. We do not think it would be desirable to move the HDD start point further into the park to reduce the stringing length if this would require the removal of trees in the park.

Option 2: We approve of the refinement to the reception pit position to avoid the potential Veteran and Notable trees, however, as Esso point out, the resulting stringing area runs along the School's southern boundary, which has tree cover along its entire length. Some tree loss in this area seems likely. We welcome the information that the string pulling could be split into two operations.

Possible hybrid solution: There appears to be scope for a further refinement which combines the benefits of the stringing area of HDD Option 1 with the tree avoidance in the reception pit area of HDD Option 2. The string is long, so a very small change in the orientation of the bore at the reception pit will result in a major change in the path of the pipe string. It seems feasible, within the permissible bend radius, to direct the end of the bore slightly more northwards. This will allow the pipe string to avoid the trees on the school's southern boundary and stay substantially within the Order Limits.

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[3] Crossing Drawings, Application Document: 8.31, Revision No. 1.0 December 2019 (https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070005/EN070005-001014-8.31%20Crossing%20Drawings.pdf)

We are informed by the HDD expert whom we consulted that splitting the string into 2 or 3 is commonly done in directional drilling.

1.2.12. Summary

We think that a refinement based on the two options presented would result in a viable HDD route. Such a plan has a very good chance of being acceptable to us on these conditions:

1. No tree clearance is needed above the HDD bore within the Queen Elizabeth Park. We need confirmation that the easement requirements permit this.
2. The bore is deep enough not to interfere with the roots of any trees beneath which it passes.
3. No Notable or Veteran or other mature trees are removed from within Queen Elizabeth Park or Farnborough Hill grounds.
4. The stringing area for the Stake Lane HDD bore is reduced so that it does not affect any trees in the park.