

TECHNICAL NOTE

Lower Thames Crossing Development Consent Order
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Note No:

Date: Written Representation Deadline 4 by Stantec for Uniper

Prepared By: YA

Subject: **Stantec Response to Examining Authority's Written Question Q4.2.7 - Deadline 4**

1. Introduction

- 1.1. Uniper has retained Stantec to respond to the Examining Authority's (ExA's) first written questions - Question 4.2.7 of the ExA's written questions and requests for information (ExQ1). The ExA issued written questions on 15th August 2023 regarding National Highways (NH) application for LTC.
- 1.2. This submission is for Deadline 4 on Tuesday 19th September 2023.
- 1.3. Question 4.2.7 is directed towards Local Authorities and pertains to mitigation measures. We are addressing this question because we believe that it is not appropriate to include M2 Junction 1 in a reactive monitoring strategy. The wording of Q 4.2.7 is provided below for ease of reference:

“Wider Network Monitoring Approach

It has been suggested that the Applicant's approach to monitoring wider impacts contained in the WNIMMP is not compliant with the NPSNN. However, it appears established practice for made DCO's to include provision for wider network monitoring along similar lines as proposed here. Accordingly, please explain why such an approach would be unacceptable in this instance?”

- 1.4. The Note has been prepared to respond the above question. It examines the adoption of a monitoring and management strategy in the Silvertown tunnel DCO. It explains why such an approach may not be suitable for M2 Junction1. The note also reviews the NPSNN and highlights that it advocates a proactive approach to identifying and addressing issues on the network.
- 1.5. This response is made on behalf of Uniper regarding the MedwayOne (formerly Kingsnorth Power Station) development planning application with planning reference MC/21/0979. The application is subject to restrictions on development-related traffic at M2 Junction 1, among the junctions proposed for monitoring as part of the WNIMMP. This note provides further information to be read in conjunction with written representations – Examination submission ID 18925.

2. LTC Impacts

- 2.1. In responding to Q4.2.7, it is relevant to first point out the impact of the LTC on its modelled network from the Lower Thames Area Model (LTAM). The Transport Assessment work carried out by the Applicant has demonstrated differing scales of impacts across the modelled network.
- 2.2. The LTC Wider Network Impacts Management and Monitoring Plan 7.12 document¹ acknowledges the adverse impact in paragraph 4.2.10 where it says that ‘*South of the River Thames, the main adverse impacts would be at junctions, such as M2 junctions 1,2 and 3 and M20 junction 6...*’.
- 2.3. The identified adversely impacted junctions are confirmed by strategic modelling outputs.

¹ [Application Document Ref: TR010032/APP/7.12](#)

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- 2.4. The impact at M2 Junction 1 is confirmed by the Applicant's Transport Assessment and separate work related to the Medway One development. The Applicants Transport Assessment confirms:
- There will be a peak hour change in vehicle flows of between 500 to 1000 vehicles in 2030 and 2045.
 - There will be a change in traffic volume to junction capacity of up to 75% to 95% in 2030 and 2045.
- 2.5. It has been confirmed that M2 J1 and other affected junctions will face significant delays in the coming years. This prediction for M2 J1 is not unexpected since the MedwayOne (planning reference: MC/21/0979) TA Addendum had already pointed out that the current junction design is insufficient to handle existing traffic. See Examination Submission ID:18925 This view was also supported by the Applicant, who has suggested monitoring the traffic situation at this location as a precautionary measure.

3. Development in the Context of the National Policy Statement for National Networks (NPSNN)

- 3.1. The current form of WNIMMP does not address existing issues and, therefore, does not comply with NPSNN.
- 3.2. The current NPSNN was published in 2014 by the government. Paragraph 2.20 highlights the impact of insufficient capacity:
- “Increased traffic without sufficient capacity will result in more congestion, greater delays and more unpredictable journeys”.*
- 3.3. At para 3.3 it mentions the need for mitigation:
- “In delivering new schemes, the Government **expects applicants to avoid and mitigate environmental and social impacts** in line with the principles set out in the NPPF and the Government’s planning guidance. Applicants should also provide evidence that they have considered reasonable opportunities to deliver environmental and social benefits as part of schemes.*
- 3.4. The Draft NPSNN March 2023 has recently been made public and available for consultation. It includes renewed commitments to ensuring development impacts are mitigated.
- 3.5. At para 4.3 it mentions that:
- “In considering any proposed development, and in particular, when weighing its adverse impacts against its benefits, the Examining Authority **and the Secretary of State should take into account:***
- its potential adverse impacts, including any longer-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts.”***
- 3.6. The NPSNN therefore requires that development must consider adverse impacts and mitigation measures.
- 3.7. At 5.273 to 5.274 the draft NPSNN mentions:
- “Where development would worsen accessibility, there is a strong expectation that such impacts should be mitigated. Where impacts cannot be mitigated, the applicant is required to provide reasoning as to why impacts cannot be mitigated.*
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The applicant should provide evidence that the development improves the operation of the network and assists with capacity issues.”

3.8. Assessments undertaken so far have identified a worsening of accessibility due to increased congestion and a lack of alternative travel methods.

3.9. At 5.275 it clarifies that:

“Mitigation measures may relate to the design, layout or operation of the scheme, or any support or funding to the immediate surrounding area of the scheme.”

3.10. There is a requirement to identify and mitigate adverse impacts on the SRN arising from development. It describes 'monitor and manage' as a planning approach that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes.

3.11. A monitor and manage strategy should have a package of measures that can be implemented to realise a long-term reduction in traffic and shift away from car use.

3.12. Should the Examining Authority consider that a monitor and manage approach is appropriate for dealing with the wider impacts of the LTC, then it should also be equally applicable to the proposals of other smaller developers whose proposals have forecast impacts at the same locations.

4. Silvertown Tunnel

4.1. The Silvertown Tunnel has been suggested as a model for the monitor and manage approach to wider impacts. TfL's document 8.84 Monitoring and Mitigation Strategy reference TR010021 contains the details.

4.2. The Silvertown Tunnel is in an appropriate location and makes proper provision for mitigation works through baseline assessment and pre-opening mitigation works. The differences between the two strategies are discussed in this Section.

Route Choice

4.3. Effective network management relies on route choice to alleviate congestion on existing routes, directing drivers to less congested ones.

4.4. At M2 Junction 1 few local roads exist, and any diversion would significantly increase journey times.

4.5. In the vicinity of the Silvertown Tunnel drivers can avoid the affected areas on the local network by using alternative routes.

4.6. At M2 J1, the capacity issues are known, and opportunities to use other routes are limited and impractical.

Mode choice

4.7. A monitoring strategy helps to assess the impact of development and delay the need for mitigation. Travel behaviour changes drive this delay by reducing predicted traffic and congestion levels.

4.8. Traffic congestion can prompt people to seek alternate transportation, but options are limited in strategic locations like M2 J1. Since the strategic road network is intended for long-distance travel, most peak-hour traffic on M2 J1 is expected to continue using this route, making it unlikely that walking or cycling would reduce vehicle trips.

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Silvertown – Approach to Monitor and Manage and Implementation and Mitigation

- 4.9. The Silvertown Tunnel strategy takes a comprehensive approach to address pre-opening issues and forecast impacts.
- 4.10. Referring to document TR010021, the Silvertown Tunnel Monitoring and Mitigation Strategy created in April 2017 outlines the agreed monitoring and management strategy for the tunnel. The differences between LTC's mitigation strategy and the Silvertown Tunnel strategy are discussed below.

Mitigating Impacts

- 4.11. The responsibility for mitigation of the Silvertown tunnel lies with Transport for London (TfL), the developers, as indicated in para 1.2.2 of the strategy, which says:
- 'in respect of monitoring the impacts of the Scheme and bringing forward any mitigation to address adverse Scheme impacts that are identified'.***
- 4.12. In the LTC example, the Applicant's transport assessment has identified adverse impacts at several junctions, including M2 J1. However, the Applicant has no proposals to address these impacts through design or modal shift, even when adverse impacts are identified, and the mitigation strategy does not address pre-opening issues.
- 4.13. Furthermore, para 1.2.4 of the Silvertown Tunnel strategy mentions that a monitor and manage strategy should set out ***'the scope of monitoring of Scheme impacts that TfL will undertake and the processes for determining and implementing appropriate mitigation for any localised traffic and traffic-related impacts'***.
- 4.14. The WNIMMP does not outline the process for determining and implementing mitigation for localised impacts.
- 4.15. In addition, the WNIMMP does not include pre- and post-opening strategies to address baseline and forecast issues. The Silvertown tunnel report shows how this is done:
1. Pre-scheme Opening - ***Monitor the baseline and develop and implement localised mitigation.***
 2. Post-scheme Opening - ***Monitor scheme impacts and develop and implement localised mitigation.***
- 4.16. Acknowledging that any negative impacts preceding the scheme must be identified and resolved is imperative. The Applicant has already recognised the adverse effects of the LTC at M2 J1 and other junctions.
- 4.17. Confirmation of existing capacity issues on the modelled network is in Paragraph 2.3.1 of the WNIMMP, which mentions that ***'Findings from the traffic modelling presented within the Transport Assessment (Application Document 7.9) have identified a number of areas (some of which are already subject to congestion or operating near capacity) where the forecast changes in traffic flows create conditions that could cause performance effects on the wider road network.'***
- 4.18. Before the opening of LTC, it would be appropriate for the Applicant to commit to an additional baseline assessment and a corresponding set of mitigation measures.

Modelling

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- 4.19. Paragraphs 2.1.1 and 2.1.2 of the Silvertown Tunnel strategy propose mitigation measures before opening. TfL must update its impact assessment model and re-run the transport model to define local mitigation for residual effects.

Baseline Re-Assessment

- 4.20. For LTC, The Applicant is not proposing to re-run the Lower Thames Area Model (LTAM) to verify the baseline impacts before its opening. This means there is no chance to reduce adverse effects before further development, potentially exacerbating the situation at negatively affected locations.
- 4.21. To ensure effective mitigation measures, it is important to re-run the LTAM for the baseline scenario before opening. This will provide an opportunity to correct the modelling include consented developments such as MedwayOne, which have been excluded from the LTAM modelling. As mentioned in the Silvertown Tunnel strategy paragraphs 2.1.5 and 2.1.6, this approach considers potential changes in traffic patterns due to local growth and provides up-to-date information.
- 4.22. The LTC WNIMMP only uses previous LTC Transport Assessment modelling and doesn't account for possible changes or growth. If The Applicant does not carry out additional modelling, there will be no opportunities to determine the requirements for baseline mitigation.
- 4.23. The new assessment won't replace the original traffic impact forecast. However, it will identify the need for immediate mitigation with the latest information available.
- 4.24. Significantly, the Silvertown Tunnel monitor and management strategy commits to delivering the required mitigation works before the scheme's opening for public use. The same would be appropriate concerning LTC at M2 J1, where impacts are known and would be confirmed by a baseline assessment.
- 4.25. Based on all the assessments conducted, it has been identified that there are capacity and congestion problems at M2 Junction 1. The updated assessment approach will enable the use of current information to verify these issues and implement an appropriate scheme before the opening of LTC.

Localised Modelling

- 4.26. Localised modelling is essential to identify impacts and design effective mitigation measures. However, the WNIMMP does not mention the role of localised modelling. In contrast, the Silvertown Tunnel strategy proposes a detailed localised modelling process to inform mitigation works. The outputs from local and network assessments can be optimised.
- 4.27. The monitoring strategy for the Silvertown Tunnel relies on the updated baseline network and localised modelling assessment to determine if any pre-opening mitigation is required and to design and implement an appropriate program in consultation with the local highway authority. This approach is the most practical way to assess mitigation measures for the LTC at M2 J1.

Funding

- 4.28. TfL took on all the responsibility for the expenses incurred in implementing the necessary measures to alleviate issues before the opening of the Silvertown Tunnel, however as things stand, the WNIMMP does not require the Applicant to develop or implement mitigating measures. Instead, funding from other national and local sources would need to be arranged.

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5. Summary and Conclusion

- 5.1. Stantec (on behalf of Uniper) responds to Examining Authority's Question Q4.2.7 re: Lower Thames Crossing DCO. The query concerns WNIMMP's monitoring approach for network impacts and compliance with NPSNN.
- 5.2. This response pertains to Q4.2.7 of Deadline 4 and evaluates the proposed "monitor and manage" approach for the Lower Thames Crossing (LTC) project, with a specific focus on Junction 1 of the M2 (M2 J1). It emphasises the significant impact of LTC on this junction. It stresses the urgency of implementing mitigation measures rather than relying solely on monitoring.
- 5.3. The response examines NPSNN's requirements for identifying and mitigating adverse impacts before and after project opening. Silvertown Tunnel's approach to monitoring and mitigation is compared to LTC's strategy, revealing WNIMMP's inadequacy in addressing:
 - **The lack of route and mode choice at adversely impacted junctions such as M2 J1.** This would suggest expected issues are likely to materialise as drivers would find it difficult to choose not to drive or take an alternative route to avoid congestion.
 - **Baseline traffic conditions to assess mitigation with up-to-date information,**
 - **localised modelling to assess junctions the LTAM has identified as being adversely affected,**
 - **Funding for pre-opening mitigation measures.**
- 5.4. The current strategy does not endorse the NPSNN's vision of mitigating identified impacts. This report recommends a more proactive approach for LTC in dealing with known adverse impacts and congestion issues, in line with the NPSNN. This includes pre- and post-opening mitigation measures, localised modelling, and effective allocation of funds to address these issues as part of any monitor and manage strategy.