

# **Lower Thames Crossing**

*Deadline 3 Update on technical matters relating to  
Traffic Impact on behalf of DPWLG*

# Lower Thames Crossing

*Prepared by:*

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**DPWLG**

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### 1.0 Introduction and Context

1.1 The written representations prepared on behalf of London Gateway Port Limited, LG Park Freehold Limited and LG Park Leasehold Limited (collectively hereinafter referred to as DPWLG) included a detailed technical assessment of the unassessed (and therefore unmitigated) transport impacts of the Lower Thames Crossing (LTC) scheme. These are set out REP1-333 and in particular Annex A.

1.2 That report expanded on the concerns raised in the Relevant Representations as follows:

- i) Limited and wholly insufficient information has been submitted to show that the impact at the A13/A128 Orsett Cock junction and the A13/A1014 Manorway junction (the Junctions) have been adequately assessed. Both are located along a critical route to the Port and Logistics Park and indeed the A13/A1014 provides the only HGV access route to the port from the SRN.
- ii) The application, therefore, fails to adequately assess congestion and capacity issues at these Junctions or consider whether and to what extent these impacts need to be mitigated. This is a specific requirement of the NPS for National Networks Paragraph 5.216 – 5.217.
- iii) Congestion on the local highway network, due to the proposed LTC development, will create significant adverse impacts at the Junctions which in turn would cause delay to vehicles accessing the Port and Logistics Park. The application does not adequately consider the potential economic impact on the Port and Logistics Park, and their essential contribution to the regional and national economy.

1.3 It confirmed that there were various areas of additional work required to allow the impacts of the Proposed LTC to be adequately considered. In summary, the approach taken by the Applicant fails to properly assess the impacts of the LTC on the Port and Logistics Park and in particular:



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- i) The use of the Lower Thames Area Model (LTAM) is insufficiently detailed to suitably assess the impact of the LTC on the key highway links to the A13 at Orsett Cock and The Manorway junctions which play a critical role in the highway accessibility of the Port and Logistics Park. It does, however, clearly show a significant increase in traffic flows and congestion on the A13 generally in the vicinity of the Port and Logistics Park.
  - ii) More detailed modelling of these junctions was provided to Thurrock Council (TC) by the LTC team and these were provided to DPWLG by TC on 19<sup>th</sup> June 2023 - HE540039-LTC-TTM-GEN-REP-DCO-00001 (August 2022 – ‘The NH Orsett Cock Modelling Report’) and NH Document Ref: HE540039-LTC-TTM-GEN-REP-DCO-00002, (September 2022 ‘The NH Manorway Modelling Report’ – Collectively ‘The NH Local Junction modelling’). The NH Local Junction modelling identifies significant additional congestion at the A13/A128 (Orsett Cock) roundabout junction as a direct result of LTC.
  - iii) My own assessment confirmed that such congestion will likely cause traffic to re-route via the A13/A1014 (Manorway Interchange) roundabout junction. This is because the NH modelling of Orsett Cock demonstrates long queues on the westbound approach (from LTC) and the Southbound Approach (the A127).
  - iv) In response to this, The NH modelling shows a large degree of ‘latent demand’ (vehicles which cannot physically get onto or through the Orsett Cock junction). The implication of this is that these vehicles will need to choose another route to get to the A13 (or LTC) and that is likely to mean they will divert to Manorway in two ways, either as a u-turn from the A13 or using the B1007 in preference to the A128 from the north.
  - v) The NH Local Junction modelling had not (at D1) been submitted as part of the application documentation, and it clearly and demonstrably conflicts with the suggested output of the LTAM model.



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- vi) It is clear that the effect of additional traffic utilising The Manorway Junction will have material adverse impacts on the operation of that junction, resulting in significant detrimental impacts in terms of journey time and congestion on the accessibility of the Port and Logistics Park (noting this junction is the Port and Logistics Parks sole point of access for freight movements), particularly given the sensitivity of the junction to the type of additional traffic movements likely to occur (as discussed further in Section 2.3 herein).
- vii) Further, the DCO submission does not consider the effects of the proposals in circumstances where the Dartford Crossing (QE2 Bridge) is suffering significant congestion or is closed to traffic (for example as a result of high winds). This is a frequent event (see Plate 4.8 of Report 7.1 – Need for the Project). These events resulted in an impact on traffic flows for an average of 1.5 hours per day in 2019.
- viii) One of the purported benefits of the scheme is to provide an alternative route in such scenarios and therefore the level of traffic re-routing to the above key junctions would be likely to be significant. This has not been assessed in the application.
- ix) The DCO submission therefore fails suitably to assess the impact of the proposed scheme on the Orsett Cock and subsequently the Manorway junctions and, in doing so, fails to take full account of the potential impacts of the proposed LTC on the operational efficiency and resilience of the Port and the Logistics Park.
- x) To rectify the failure, more modelling is required by the applicant. In the context of impacts of Orsett Cock, this will require:

Either:

A re-run the LTAM model using the known capacity constraints at Orsett Cock so that the model properly reflects the known throughput of the junction. This



would allow the displacement effect of that capacity constraint to be re-assigned to other routes. The individual junctions should be then re-assessed using the individual junctions using local modelling tools to consider the impacts and potential mitigation. It may then be necessary to undertake a further run of the LTAM to consider the wider impacts of the mitigation proposed.

Or

The design of mitigation to address the issues raised in the NH Local Junction Modelling. The designed mitigation scheme should then be considered using the NH Local Junction modelling to confirm that the traffic flows currently assumed by the LTAM are appropriate and reasonable.

- xi) Until this information is made available and the real impact on port cannot be known with any reasonable degree of certainty. It is therefore clear that the currently proposed mitigation in the form of ongoing monitoring of this critical route are insufficient to provide (or ensure delivery of) suitable mitigation in a timely manner or at all.

1.4 Further information has been provided by the applicant in specific respect to these issues as follows:

- Report Reference 9.15 "Localised Traffic Modelling. Of relevance to this review the report includes (as confirmed at Table 3.1) the results of NH microsimulation modelling at the A13 Orsett Cock, the A13 Manorway Junctions.
- Separately the model files for these assessments has been provided to DPWLG.
- In addition, NH Report 9.53 (Appendix E), issued at Deadline 2, provides comments on the Written Representations of Ports.

1.5 This update report therefore considers the position of DPLWG in light of the new information provided.



**2.0 Orsett Cock**

**2.1 Orsett Cock Forecasting Report (Document 9.15 Appendix C – REP1-191)**

2.1.1 Document 9.15 Appendix C sets out the approach that NH have taken in forecasting traffic flows at Orsett Cock for use in the microsimulation modelling. This confirms that flows have been extracted from the LTAM model (as a cordon) and then applied to the micro-simulation model. This is considered reasonable and appropriate.

2.1.2 However there appear to be differences in the version of LTAM adopted in the modelling. The original August 2022 – ‘The NH Orsett Cock Modelling Report’ was based on versions CM45 for the Do-minimum and CS67 for the Do-something assessments. The latest modelling (Rep1-191) is based on version CM49 for the Do-minimum and CS72 for the Do-something.

2.1.3 The reasons for (and implications of) this change is not clear from the NH reporting. That said, the flows reported in the 9.15 modelling are similar to those previously assessed.

2.1.4 The modelling provided in REP1-191 still shows flows using the A13 Eastbound Approach to Orsett Cock junction as follows:

**Table 1** – Flow changes from A13 Eastbound Approach 2030 DM vs DS

From A13 Eastbound to	0700-0800	0800-0900	1700-1800
A128 Northbound	184	186	72
A13 Eastbound	0	0	0
A1013 Eastbound	235	251	480
Brentwood Rd Southbound	208	217	478
A1013 Westbound	135	144	156
A13 Westbound	242	255	267
	1004	1053	1453

2.1.5 With reference to my written representation (REP1-333 particularly Annex A para 2.2.8) the changes in flows are of the same order in the AM peak (c1,000 vehicles)





and slightly higher in the PM peak (1,453 vs c1,300 assumed in my original assessment).

2.1.6 The significant change is the distribution of the additional traffic through the junction. The movement previously assumed to be a u-turn (to access the Tilbury area) from the A13 Eastbound to the A13 Westbound, is significantly lower (circa 250 vehicles vs my assumption that all additional movement were u-turners).

2.1.7 The impact of the change in terms of the microsimulation modelling however appears to be similar. These are reported in Tables 4.1, 4.2 and 4.3 of 9.15 Appendix C. These show significant impacts on various arms of the junctions throughout the assessment periods including (for 2030):

AM Peak 0800-0900 – increase in delay for A128 Southbound vehicles of 150 seconds per vehicle with an attendant increase in queuing of over 200m

PM Peak 1700-1800 - – increase in delay for A13 Eastbound vehicles of over 5 minutes per vehicle and an increase in the queue length on A13 Westbound vehicles of over 650m. This latter impact takes the queue beyond the end of the slip road (which is only 400m long) and which will likely have a material impact on A13 mainline westbound traffic.

2.1.8 By 2045 the impacts in the PM peak, in particular, are significantly worsened. The queuing on the A128 southbound in 0800-0900 increases to nearly 800m and the queue on the A13 Eastbound approach increases to over **1,700m**.

2.1.9 No significant mitigation is proposed to deal with this. Section 3.9 of REP1-191 simply notes the following which is clearly inadequate:

3.9.1 The changes described below have been implemented into the DS network in VISSIM as a provisional improvement. These are currently limited to changes on the slip roads connecting the Project to the A13 (W), and minor changes to the lane markings at the Orsett Cock junction.

3.9.2 The changes described below can be accommodated using the flexibility available within the draft DCO. Requirements for further improvements at the



Orsett Cock junction would be determined following detailed design, stakeholder engagement and using the flexibility available within the draft DCO.

- 2.1.10 Section 4.3 of REP1-191 sets out the assessed changes in Journey times through the junction as a result of the LTC. Table 4.7 of REP1-191 provides the details for the 0800-0900 period and suggests changes in journey times for the movement from the A13 Eastbound (which is most affected by LTC) increase in the order of 40 – 103 seconds. This clearly conflicts with the findings of Table 4.3 of the same report (REP1-191) which suggest the increase in delay for A13 Eastbound approach would be closer to 500 seconds for each vehicle.
- 2.1.11 These issues are not reported in the LTAM outputs. As noted previously the Plates 7.27 – 7.29 of the applicants Transport Assessment suggests no significant impact at Orsett Cock, with a minor adverse impact in the AM Peak (2030) and a moderate adverse impact in the PM Peak.
- 2.1.12 This anomaly needs explanation, not least because it has implications for the comparison between the micro-simulation modelling and the LTAM outcomes as discussed in Section 2.2 below.
- 2.1.13 In stark contrast to previous reporting the Modelling Forecast Report does not report Latent Demand. Review of the model file confirms there remains significant level of latent demand (i.e traffic which cannot enter the modelled area). The revised modelling shows similar levels of latent demand to that in the previous modelling as follows:

**Table 2** – Latent demand from 9.15 Appendix C model

	AM 7-8	AM 8-9	PM 17-18
2030 DM	81	225	1
2030 DS	426	649	66
2045 DM	342	785	57
2045 DS	936	1545	557



- 2.1.14 There is less latent demand in the PM peak than previously forecast. However, in all scenarios, due to the limitations of the modelling, the latent demand is likely to be related to traffic approaching the junction from the local roads and these are the trips that are most likely to divert elsewhere (i.e., to Manorway Interchange).
- 2.1.15 In conclusion, the concerns raised in our Written Representations about the adequacy of Orsett Cock to accommodate demand created by LTC remain unresolved and mitigation is demonstrably required at this location.
- 2.1.16 The updated NH modelling is based on different flows than I had assumed for my own assessment and therefore the detail of the modelled outcomes will clearly change if those were revisited. However, this is not critical to the overall conclusions (and concerns arising from them because the NH assessment reaches the same overall conclusions in terms of junction capacity and therefore it is not considered necessary to revisit the work at this stage.
- 2.1.17 The updated modelling confirms and supports the concerns raised in respect of the likely diversionary or reassignment effect of this constraint and no further information or justification has been provided by the applicant to address this.

## 2.2 Document 9.15 Localised Traffic Modelling (REP1-187)

- 2.2.1 This report purports to compare the outcomes of the LATM model in terms of journey times through Orsett Cock with the microsimulation modelling. This is an attempt to address the issues 1.3 v above.
- 2.2.2 The comparison of journey times is provided at Tables 4.5 (0700-0800) and 4.6 (1700-1800). There is no comparison of the 0800-0900 period because that is not assessed in LTAM.
- 2.2.3 The conclusions of that assessment suggest that they demonstrate similar levels of delay and thus that the models support each other. There are, however, several significant anomalies in the outputs.



2.2.4 In particular the main increases in movements from the A13 Eastbound through Orsett Cock are not, apparently, reflected in the comparison. With reference to Table 1 above, flows are expected to increase by over 1,000 vehicles on this arm

**Table 3** – Total Flows reported in Tables 4.5 and 4.6

From A13 Eastbound to	0700-0800	1700-1800
A128 Northbound	308	506
A13 Eastbound	0	0
A1013 Eastbound	85	137
Brentwood Rd Southbound	16	69
A1013 Westbound	16	11
A13 Westbound	0	0

2.2.5 None of the results reflect the flows input to the Vissim model, and of particular concern is those figures highlighted in red which show very little or zero traffic using the A13 Westbound to turn at Orsett Cock to Tilbury.

2.2.6 It may be that this is a reporting error but as drafted this clearly conflicts with the outputs of the Vissim model as reported at Appendix C.

2.2.7 This needs clarification from the Applicant (which has been sought) and will require re-assessment when the corrected data is provided. Furthermore, the comparison makes no reference to the issue of Latent Demand. Vissim is clearly under reporting delay because of the significant level of latent demand.

2.2.8 To reflect this, the assessment needs to include a re-run of an updated Vissim model which is sufficiently expanded in scope to remove the latent demand.

2.2.9 At present no weight can be provided to conclusions reported in Paragraphs 4.2.4 – 4.2.6 of the report.

2.2.10 On that basis the concerns set out in Para 1.3 v remain outstanding.



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### 3.0 Manorway Interchange Forecasting Report (REP1-190 - 9.15 Appendix D)

#### 3.1 Forecasting Report (Document 9.15 Appendix D)

- 3.1.1 The modelled outputs in REP1-190 are the same as those previously presented to DPWLG. Based on the flows input to the Vissim model (which are in dispute) it is agreed that the LTC would have limited impact on the junction in terms of journey times to access the port.
- 3.1.2 However, the concerns about the sensitivity of the junction to changes in flow as described in Paragraphs 2.3.11 – 2.3.21 of REP1-333 Annex A remain unanswered and unresolved.
- 3.1.3 The Manorway Interchange is clearly highly sensitive to very minor changes in flows. Even a modest change in order of 200 vph will clearly have a material impact on journey times for access to and from the port (as described at Table 4 of REP1-333 Annex A).
- 3.1.4 There is a continued lack of any proper assessment by the Applicant of the potential diversionary effect of the LTC as a result of capacity constraints at Orsett Cock and / or incidents on the Dartford Crossing. This assessment as described in 1.3 x) above is essential to allow this impact to be properly considered.



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### 3.2 Localised Traffic Modelling (REP1-187)

3.2.1 This report purports to compare the outcomes of the LATM model in terms of journey times through Manorway Interchange with the microsimulation modelling. This is an attempt to address the issues 1.3 (v) above.

3.2.2 Notwithstanding this, the broad conclusions reached by the applicant in terms of the comparison provided at Tables 4.1 – 4.4 are that:

4.2.2 In all time periods the total weighted time for the section of the trips that pass through the junction is higher in the SATURN model, even after excluding the trips on the mainline (routes 1 and 2) where the SATURN times and distances for the modelled section of the A13 are longer than in the VISSIM model. Overall, the journey times and the changes in journey times are similar in the two modelling approaches.

4.2.3 There would be no noticeable difference in the benefit cost ratio of the Project even if it were possible to substitute the change in journey times from the VISSIM model into the calculations in place of the SATURN time. In fact, the SATURN model presents a conservative disbenefit, for example in the evening peak hour in 2045 journeys times at Manorway Junction are longer in the SATURN model than in the VISSIM model.

3.2.3 Notwithstanding this, and in contrast to the Orsett Cock modelling, there is a clear acceptance by the applicant in 9.15 Appendix D that there are significant differences between the outcome of the LTAM model and the Vissim model. This is because the LTAM modelling is highlighting capacity constraints on the A13 on-slips which are not represented in the Vissim modelling.

3.2.4 As noted previously the Plates 7.27 – 7.29 of the applicants Transport Assessment suggests moderate adverse impacts at Manorway Interchange and / or its surroundings in the AM peak and Major adverse impacts in the PM Peak.

3.2.5 Clearly therefore direct comparison of the two modelling approaches shows a conflict of conclusions. The approach to address and consider this in 9.15 Appendix D (Section 5) highlights that concern that there is a sensitivity at the junction to changes in flows.



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- 3.2.6 On this basis the data provided by the Applicant is clearly conflicted and little weight can be given to the conclusions of 9.15 in relation to the claim by the applicant that it validates the assumptions made within the LTAM modelling.



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### 4.0 Comments on WRs Appendix E – Ports (REP2-050)

- 4.1 At present no response has been provided by the applicant in relation to the concerns raised by DPLWG in respect of the diversion / reassignment effect of (agreed) capacity constraints at Orsett Cock. It further makes no reference or response to the concerns relating to incidents at Dartford Crossing.
- 4.2 These remain significant and important omissions in the assessment for the reasons previously described.
- 4.3 Appendix E Annex A of REP2-050 does seek to provide some further clarification on flows through Orsett Cock and the Manorway Interchange. Whilst these points are noted they do not address the substance of the objections raised in relation to the modelling approach.
- 4.4 Para A1.7 confirms (for the first time) the level of U-turning traffic that LTC will generate at Manorway. This is recorded in Table 1 as 40 in the AM peak and 29 in the PM Peak. These are confirmed to be vehicles that are “joining the highway network from the A128 Brentwood Road at the Orsett Cock Junction and wish to use Lower Thames Crossing”.
- 4.5 As set out in our Original Written Representation, any modest increase or change in flows at the junction will clearly have a material impact on junction operation. A clear and validated assessment of the impact on congestion at Orsett Cock on wider dispersion of traffic is essential.
- 4.6 Paragraphs A1.8 – A1.17 seek to confirm the proportion of traffic wishing to use the A1089 (and hence need to U-turn at Orsett Cock). It confirms that around 230 – 250 vehicles will make the U-turn. This is consistent with Table 1 above and is noted.
- 4.7 However as highlighted in Table 1 there are significant increases in traffic approaching Orsett Cock from the west to other destinations which all combine to





impact on the junction. The details of how those other movements are derived (and what the demand for them is) is not provided.

- 4.8 My original Assessment (As reported at Para 2.2.11 of REP1-333 Annex A) assumed all additional LTC traffic was undertaking the u-turn. Full details of the change in turning movements at the junction have been requested from NH and will be reviewed when received. At this stage it is considered that the level of traffic representing new movements needing to use Orsett Cock to reach the Tilbury area is under represented in the modelling work.
- 4.9 However, the issues and impacts remain the same, regardless of whether the additional movements are seeking to access the A1089 or (as shown in Table 1) other southern arms of the roundabout.
- 4.10 Either way, a significant increase in traffic right turning at Orsett Cock is forecast and that causes an impact because the queues on both the A13 Eastbound Approach and the A128 Southbound approach are unmitigated and significantly over capacity. This is conclusion of the applicants 9.15 report and I agree with that.
- 4.11 All or any of those other movements might well divert to Manorway as a result of congestion at Orsett Cock. For example, Table 1 confirms LTC will increase the number of vehicles using the A1013 Brentwood Road (towards Sanford le Hope) by a more significant proportion - up to nearly 500 vehicles in the PM Peak. Given that the Brentford Road provides a direct link from Orsett Cock to Manorway there is a heightened risk that those movements would divert to Manorway Interchange.
- 4.12 Previously my report (Para 2.2.24) had assumed that the diversion / reassignment effect of capacity constraints at Orsett Cock would mean more traffic from LTC and / or trying to reach LTC from the north (A127).
- 4.13 The further clarification provided by the Applicant at Annex A of the likely outcomes (which have not been assessed) are as follows:



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- i) Those vehicles travelling from the A127 to the A13 will chose to avoid congestion at Orsett Cock and use Manorway Interchange;
  - ii) Those vehicles travelling from the LTC to Tilbury will see the existence of a lengthy queue on the approach to Orsett Cock (the junction itself will not be visible from the tail of the queue) and chose then to avoid the queue and instead U-turn at Manorway Interchange.
  - iii) Those vehicles travelling from the LTC to the A1013 and Stanford le Hope will see the existence of a lengthy queue on the approach to Orsett Cock (the junction itself will not be visible from the tail of the queue) and chose then to avoid the queue and instead exit at Manorway Interchange and use the A1013 from there. This represents up to 500 vehicles.

4.14 This therefore confirms and emphasises the need for proper assessment of the impacts.



## 5.0 Summary and Conclusions

- 5.1 In summary therefore, the approach taken in the application fails to properly assess the impacts of the LTC on key local junctions on the A13 Corridor which in turn impact on the Port and Logistics Park.
- 5.2 The additional information provided by the applicant provides some welcome clarification on minor matters but has not addressed the key issues of concern. For completeness Table 4 below summarises the original concerns and the extent to which they have been addressed:

REP1-333 Annex A Position	Updated View D3
The use of the Lower Thames Area Model (LTAM) is insufficiently detailed to suitably assess the impact of the LTC on the key highway links to the A13 at Orsett Cock and The Manorway junctions which play a critical role in the highway accessibility of the Port and Logistics Park. It does, however, clearly show a significant increase in traffic flows and congestion on the A13 generally in the vicinity of the Port and Logistics Park.	This concern has not been addressed. The information provided within Report 9.15 and Annex C and D further highlight the inadequacies of LTAM to properly assess the impact of the scheme on individual junctions.
More detailed modelling of these junctions was provided to Thurrock Council (TC) by the LTC team and these were provided to DPWLG by TC on 19 <sup>th</sup> June 2023 - HE540039-LTC-TTM-GEN-REP-DCO-00001 (August 2022 – ‘The NH Orsett Cock Modelling Report’) and NH Document Ref: HE540039-LTC-TTM-GEN-REP-DCO-00002, dated September 2022 ‘The NH Manorway Modelling Report’ – Collectively ‘The NH Local Junction modelling’. The NH modelling identifies significant additional congestion at the A13/A128 (Orsett Cock) roundabout junction as a direct result of LTC.	This information has now been formally submitted (9.15 Appendix C and D). Whilst based on slightly different information those formally submitted models support and confirm the concerns raised in REP1-333 and in particular Annex A.
My own assessment confirmed that such congestion will likely cause traffic to re-route via the A13/A1014 (Manorway Interchange) roundabout junction. This is because the NH modelling of Orsett Cock demonstrates long queues on the	This issue is formally confirmed by the applicants assessment and no mitigation is proposed to deal with these impacts.

## Lower Thames Crossing


Deadline 3 Representation on Behalf of DPWLG



<p>westbound approach (from LTC) and the Southbound Approach (the A127).</p>	
<p>In response to this, The NH modelling shows a large degree of 'latent demand' (vehicles which cannot physically get onto or through the Orsett Cock junction). The implication of this is that these vehicles will need to choose another route to get to the A13 (or LTC) and that is likely to mean they will divert to Manorway in two ways, either as a u-turn from the A13 or using the B1007 in preference to the A128 from the north.</p>	<p>The concern here has evolved. Having seen the turning data provided in the modelling and the clarification of U-turning levels at Orsett Cock (Annex A of 9.53), I am now of the view that risk of diversion or reassignment of traffic to Manorway Interchange is increased by virtue of it also providing a quicker alternative route for the significant level of additional traffic forecasts to be using the A1013.</p>
<p>The NH modelling had not (at D1) been submitted as part of the application documentation, and it clearly and demonstrably conflicts with the suggested output of the LTAM model.</p>	<p>Document 9.15 purports to demonstrate that the micro-simulation modelling is consistent with LTAM in terms of journey times. For the reasons set out above it demonstrably does not support that conclusions and significant differences remain between the two approaches. Little weight can be placed on the outcomes of the LTAM modelling until that is resolved.</p>
<p>It is clear that the effect of additional traffic utilising The Manorway Junction will have material adverse impacts on the operation of that junction, resulting in significant detrimental impacts in terms of journey time and congestion on the accessibility of the Port and Logistics Park (noting this junction is the Port and Logistics Parks sole point of access for freight movements), particularly given the sensitivity of the junction to the type of additional traffic movements likely to occur.</p>	<p>There is no additional information or assessment from the applicant in this regard and the issue remains outstanding.</p>
<p>Further, the DCO submission does not consider the effects of the proposals in circumstances where the Dartford Crossing (QE2 Bridge) is suffering significant congestion or is closed to traffic (for example as a result of high winds). This is a frequent event (see Plate 4.8 of Report 7.1 – Need for the Project). These events resulted in an impact on traffic flows for an average of 1.5 hours <u>per day</u> in 2019.</p>	<p>There is no additional information or assessment from the applicant in this regard and the issue remains outstanding.</p>
<p>One of the purported benefits of the scheme is to provide an alternative route in such scenarios and therefore the level of</p>	<p>There is no additional information or assessment from the applicant in this regard and the issue remains outstanding.</p>



<p>traffic re-routing to the above key junctions would be likely to be significant. This has not been assessed in the application.</p>	
<p>The DCO submission therefore fails suitably to assess the impact of the proposed scheme on the Orsett Cock and subsequently the Manorway junctions and, in doing so, fails to take full account of the potential impacts of the proposed LTC on the operational efficiency and resilience of the Port and the Logistics Park.</p>	<p>This remains the case.</p>
<p>To rectify the failure, more modelling is required by the applicant. In the context of impacts of Orsett Cock, this will require: Either: A re-run the LTAM model using the known capacity constraints at Orsett Cock so that the model properly reflects the known throughput of the junction. This would allow the displacement effect of that capacity constraint to be re-assigned to other routes. The individual junctions should be then re-assessed using the individual junctions using local modelling tools to consider the impacts and potential mitigation. It may then be necessary to undertake a further run of the LTAM to consider the wider impacts of the mitigation proposed. Or The design of mitigation to address the issues raised in the NH Local Junction Modelling. The designed mitigation scheme should then be considered using the NH Local Junction modelling to confirm that the traffic flows currently assumed by the LTAM are appropriate and reasonable.</p>	<p>There is no additional information or assessment from the applicant in this regard and the issue remains outstanding.</p>
<p>Until this information is made available and the real impact on port cannot be known with any reasonable degree of certainty. It is therefore clear that the currently proposed mitigation in the form of ongoing monitoring of this critical route are insufficient to provide (or ensure delivery of) suitable mitigation in a timely manner or at all.</p>	<p>This remains the case.</p>



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