



TONBRIDGE & MALLING BOROUGH COUNCIL
LOWER THAMES CROSSING LOCAL IMPACT REPORT

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2 EXECUTIVE SUMMARY

- 2.1** Tonbridge & Malling Borough Council (TMBC) supports the Lower Thames Crossing (LTC) project, as we recognise that the existing Dartford Crossing is operating over capacity and there are limited alternative options to cross the River Thames. It is a much-needed nationally significant infrastructure project that will help to improve the resilience of the strategic road network, as well as offer the potential for positive local and regional economic benefits.
- 2.2** We however remain concerned about the potential negative impacts of the project upon the wider Kent strategic and local road networks and consider that without mitigating these, the LTC will not fully achieve its intended benefits, due to inadequacies in the affected local roads. It is essential that investment, planning, and construction of road infrastructure improvements in Kent & Medway should be made concurrently with the LTC scheme, rather than at a later period.
- 2.3** This Local Impact Report (LIR) sets out the issues that are of concern to TMBC and is a progression of the matters that are not agreed or under discussion at this time with National Highways, as outlined in our published Statement of Common Ground and Relevant Representations. Impacts regarding noise has also been included as these have been a feature of recent discussion between National Highways and TMBC since the DCO was submitted for Examination.
- 2.4** These include the following:
- Lower Thames Area Model (LTAM) - TMBC has concern that the growth associated with the government's standard method for assessing housing need (15,941 dwellings in Tonbridge & Malling 2021-2040) is taken into account by the Lower Thames Area Model core scenario. The modelling undertaken does not give sufficient consideration to anticipated future growth, especially within the 'Medway Gap' area.
 - Wider Highway Network Impacts - TMBC has concern regarding the impact of increased traffic on local roads as a consequence of LTC and requests funding to provide mitigation. The new crossing will have

implications on the M2 Junction 3, the A229 Bluebell Hill, M20 Junction 4, the A228, A20 and other local roads within Tonbridge and Malling borough.

- The A229 at Bluebell Hill which connects M2 Junction 3 with M20 Junction 6 needs improving to accommodate the additional LTC traffic alongside Local Plan growth and is the subject of a Large Local Major scheme bid to the Department of Transport, which TMBC supports. This project has not yet secured funding.
- Noise – TMBC has concern regarding the potential additional noise impact of traffic on local roads. However, due to concerns we set out regarding the assessment undertaken, it is currently difficult define these impacts.
- Air Quality and Emissions - TMBC has concern regarding the operational air quality implications of increasing traffic within the M20 Air Quality Management Area and on the A228 and A229 between the M2 and M20, in particular the impact of nitrogen oxides upon local air quality. TMBC has declared a climate emergency and is aiming for our borough to become carbon neutral, we are therefore also concerned about increasing carbon emissions from vehicular traffic on affected local roads.
- Nitrogen Deposition - The requirement for nitrogen deposition compensation land is a concern given the ecology impact of LTC on the Kent Downs Area of Outstanding Natural Beauty (AONB), particularly areas in close proximity to the M2 and A299, and the sensitive habitats of the Wouldham to Detling Escarpment Site of Special Scientific Interest (SSSI) and North Downs Woodlands Special Area of Conservation (SAC). Notwithstanding our concern, TMBC welcomes the compensatory habitats, well managed compensatory tree planting is a good option to capture nitrogen, mitigate noise and store carbon.

3 INTRODUCTION

- 3.1** A Local Impact Report (LIR) is defined in the Planning Act 2008 Section 60(3) as ‘a report in writing giving details of the likely impact of the proposed development on the authority’s area (or any part of that area)’, drawing upon local knowledge and experience to inform the Examining Authority (ExA).
- 3.2** The ExA and the Secretary of State (SoS) must have regard to LIRs in the Examination process and in the decision to grant a Development Consent Order (DCO).
- 3.3** This LIR is distinct from any other representation made by TMBC during the Examination; it does not consider the merits of the LTC project or provide the Council’s detailed views. It sets out the potential impacts of the project on the authority’s area including highways infrastructure. These have been identified through engagement with the applicant, partners including KCC Highways and a review of the DCO application itself.
- 3.4** In accordance with the PINS LIR guidance the report seeks to identify if local impacts are positive, neutral, or negative, but it does not contain a balancing exercise as this will be undertaken by the ExA. It does contain a commentary on local planning and transport policy.
- 3.5** TMBC is a host authority in respect of the application and as such is a category ‘A’ local authority under section 43(1) of the Planning Act 2008. As a host authority we have prepared this LIR to provide details of the likely impact of the LTC upon our area. This is aligned to our published statement of common ground with National Highways and relevant representations.
- 3.6** The issues covered in this LIR are a progression of those outlined in our published Relevant Representations (published March 2023) and Statement of Common Ground (published November 2022), that are not agreed or under discussion at this time with National Highways.

4 TONBRIDGE & MALLING AUTHORITY AREA

- 4.1** The Borough of Tonbridge and Malling, covers an area of 24,013 hectares and has a population of 132,400 (ONS mid-year estimate, July 2021) and is located in West Kent. The Borough does not have a single urban focus but comprises of several diverse, contrasting settlements and neighbourhoods.
- 4.2** It stretches north, beyond the M2 motorway, encompassing Blue Bell Hill village and parts of Walderslade on top of the North Downs. To the south of the M2 is an area of the Borough known locally as the ‘Medway Gap’ where the River Medway cuts through the North Downs. This area includes several villages on the east and west banks of the River Medway, and the town of Snodland. The urban area immediately to the south, which has resulted from the amalgamation of a series of former villages, comprises the parishes of Leybourne, East Malling and Larkfield, Ditton and Aylesford.

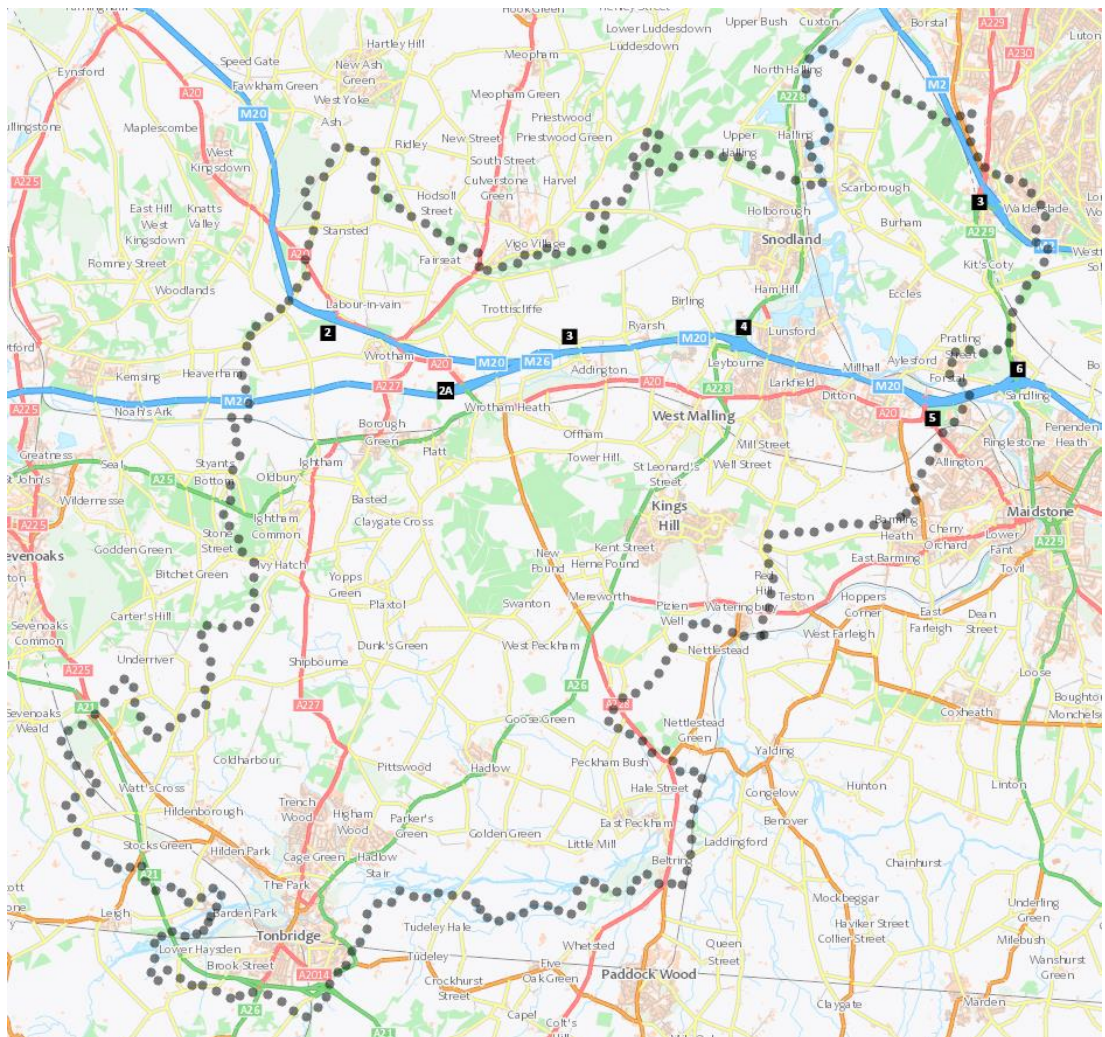


Figure 1 - Map showing borough boundary and relationship of strategic and local roads.

- 4.3** It is a place where businesses have thrived in recent years. The number of recorded enterprises in the Borough stood at 6,140 in 2021, having increased by 33.7% since 2011 (ONS 2020). Recent and forthcoming residential and employment growth within and adjacent to the settlements within the 'Medway Gap' area of the borough is significant. With sites comprising circa 4000 new homes and 164,000sqm of employment floorspace anticipated to be delivered by 2032, due to the proximity of rail connections and the strategic road network. This has consequences for highway capacity especially on local roads.
- 4.4** Tonbridge & Malling's location bordering the authorities of Medway and Gravesham to the north, including its relationship to the M20 and M2 and interconnecting roads including the A229 and A228, gives rise to additional challenges associated with wider growth and the LTC project. This includes the impact of redistributed existing cross-Thames vehicular traffic, as well as additional traffic demand upon local roads, that will arise as a consequence of LTC once operational.

5 LOCAL PLAN AND TRANSPORT MODELLING

- 5.1** TMBC are currently preparing a new Local Plan which will shape growth within our borough until to 2040. This is a key document that seeks to guide our borough's future and identifies how we can provide housing, employment, other uses and infrastructure. The regulation 18 draft was published for consultation in autumn 2022.
- 5.2** The draft Local Plan confirmed that the Council was seeking to meet its objectively assessed housing need of 15,941 new homes over the plan period, this resulting in an annual requirement of 839 homes each year. In addition to a provisional requirement for 296,260 m² (69.8ha) additional employment floorspace across the Plan period.
- 5.3** Tonbridge and Malling borough faces significant transport challenges, particularly in terms of managing congestion on local roads, providing new transport infrastructure to support future growth, as well as needing to respond to the impacts of poor air quality and climate change. The Council has declared six air quality management areas due to excess nitrogen dioxide emissions, including on the M20 between New Hythe Lane, Larkfield and Hall Road, Aylesford. Both KCC and TMBC have declared a climate emergency and have set ambitions to reduce carbon emissions in the coming years.
- 5.4** In the north of the borough capacity issues on the road network are closely tied to growth and travel demand arising from Maidstone, the county town. Congestion occurs on the A20, and the A228 and A229 corridors. If approved the delivery of the LTC project will consume remaining capacity on key routes linking the M20 and M2, requiring mitigation including junction improvements at M2 jn3 and elsewhere which are not currently funded. The presence of strategic roads in the borough does bring pressure for additional lorry parking too. Currently lay-bys and wide slip lanes are used by hauliers, which is not always appropriate, this is likely to worsen without the provision of additional facilities for drivers and their vehicles.
- 5.5** The Council has commissioned consultants Jacobs to undertake Visum modelling to support the development of the Local Plan, using the Kent Model. This will include future growth scenarios up to 2040/41 as well as an

LTC sensitivity test, which will provide an understanding of the combined impacts upon local roads. Unfortunately, at the time of writing report, this work had not been completed due to the current stage of the Local Plan. Once available we will wish to make the ExA aware of this work as soon as possible during the Examination.

6 LOWER THAMES AREA MODEL

- 6.1** The Lower Thames Area Transport Model (LTAM) was built to inform the LTC project, following the principles and processes set out in the Department for Transport's (DfT) Transport Analysis Guidance. Growth within the transport model is capped in line with DfT traffic forecasts (TEMPro) and adjusted locally to account for developments close to the project that are under construction, have a live planning application or planning permission (as of 30 September 2021). This comprises the LTAM core scenario, however, the council considers that this is unlikely to reflect accurately the future spatial distribution of local growth, given that TEMPro housing growth assumptions are understood to be lower than those derived from the standard method used for planning policy purposes. TMBC understand that the LTC 2030 opening year assumptions are being rolled forward to 2032, given the announced ministerial delay to the project.
- 6.2** The DfT traffic forecasts do not reflect the full scale of Tonbridge & Malling's and neighbouring authorities' objectively assessed housing and employment needs. Their use presents a challenge in terms of the highway assumptions which have informed the project, and for Local Plan making too, requiring additional scenario/sensitivity testing to fully understand combined impacts of the project and future local growth.
- 6.3** As set out in 'Appendix C – Transport Forecasting' of document 7.7 Combined Modelling and Appraisal report, the core scenario forms the primary evidence for the appraisal of the project. Alternative low and high growth scenarios have been considered, these consist of growth increments applied within the model which only takes account of 'near certain and more than likely developments' (Table 4.2) as at the September 2021. This involves adding/subtracting a proportion of the base year traffic to/from the demand from the core scenario.
- 6.4** Plate 4.4 shows developments in the LTAM study area that have been identified within Maidstone, Medway and Tonbridge and Malling. It is clear that a significant number of major development sites are absent, which comprise the circa 4000 new homes and 164,000sqm of employment floorspace that TMBC expect to be delivered by 2032 within the Medway

Gap area of the borough. The application of the high growth increment is generically applied and therefore problematic, as it does not take account of the expected spatial distribution of development within Tonbridge & Malling borough over the next 8+ years, this being predominantly with the Medway Gap area.

- 6.5** Local authorities are best placed to advising National Highways on the location and scale of growth in their area which has a good degree of certainty in terms of delivery by 2030/32, the anticipated LTC opening year. This can sometimes be a complex matter, especially where a local authority does not have an up-to-date Local Plan or a full 5-year housing land supply in place, as is the case for TMBC currently. As such, we remain concerned that the LTAM core scenario, which is used to inform all assessments within the DCO, under represents the extent and severity of the combined impacts of local growth and an operational LTC upon local roads.
- 6.6** We understand that all host and neighbouring lower tier authorities in Kent (for the purposes of the LTC DCO) currently intend to meet in full their objectively assessed housing and employment needs. We appreciate that local planning authorities are all at different stages in their plan making, and as such may not have been able to provide information regarding up-to-date future growth requirements including spatial strategies and strategic site allocations, during the period prior to the submission of the DCO to inform modelling work undertaken by National Highways. This has been the case for TMBC, we undertook our regulation 18 Local Plan consultation in late 2022 and have yet to publish a preferred spatial strategy and site allocations.
- 6.7** Discussion was had with National Highways before the DCO application was submitted to the SofS, regarding the potential for National Highways to commission additional LTAM modelling scenarios which don't rely upon TEMPro growth, but adopted and emerging spatial strategies and site allocations, this was never progressed. We understand that concern regarding local modelling is a matter of live discussion for most local authorities engaged in the DCO Examination.
- 6.8** Subsequently, we are pleased that National Highways has agreed to fund additional evidence work which is being progressed by Local Authorities to

fully understand the potential local highway impacts outside of the DCO boundaries. This includes work referenced in preparing this report, as well as a Local Plan LTC sensitivity test to inform the emerging Tonbridge & Malling Local Plan. TMBC has not however been able to complete this work in time to inform this report.

7 WIDER NETWORK IMPACTS

- 7.1** KCC is the Local Highway Authority for Kent and is responsible for the management and maintenance of all adopted roads in the County, other than motorways which are the responsibility of National Highways.
- 7.2** KCC is in the process of preparing a new Local Transport Plan (LTP) 5 for Kent. A consultation on the draft ‘Turning the curve towards net zero’ commenced in June 2023, this acknowledges the challenges of growth and climate change, and seeks to do more to address these. KCC identify that the implications of international gateways require government support and leadership to resolve, this includes the impact of Lower Thames Crossing upon the local road network.
- 7.3** At the time of drafting this report TMBC had not undertaken its Local Plan transport modelling future forecast scenario testing, including LTC sensitivity test. Due to current progress on the Local Plan, it has not been possible to align the preparation of this evidence with the Lower Thames Crossing DCO Examination. As such TMBC is reliant upon evidence provided by KCC Highways and neighbouring Medway Council to inform this report currently, as well as the experience and local knowledge of contributing officers.
- The evidence shared with TMBC includes.
- Kent County Council - Lower Thames Crossing Wider Network Impacts (July 2023) WSP – ANNEX 1
 - Medway - Lower Thames Crossing Impact Assessment (June 2023) Systra – ANNEX 2
- 7.4** LTC DCO document 7.9 Transport Assessment, section 7.5, Traffic forecasts for the wider road network, identifies traffic impacts of the LTC. In conformity with the views of Kent County Council, TMBC consider that the negative traffic impacts of the LTC tend to occur to the east of the LTC junction with the A2, as the LTC would cater for traffic travelling between north of the Thames, east and mid Kent as well as the channel ports once operational.
- 7.5** There are likely to be positive traffic impacts of LTC but with the exception for flows west of junction 4 M20, most of these are identified in other

boroughs. Key negative highway impacts for Tonbridge & Malling include those affecting the A20 London Road and A227 Gravesend Road at Wrotham, the A228 between M20 Jn4 and M2 Jn2, and the A229 Blue Bell Hill between M20 Jn6 and M2 Jn3.

- 7.6** Kent Transport Model (KTM) testing undertaken by KCC identifies the following negative impacts of LTC upon key motorway junctions within and adjacent to Tonbridge & Malling's boundary.
- M2 J3 (A229) is forecast to approach capacity in Opening Year 2030 PM Peak, with the volume to capacity (V/C) ratio for the M2 southbound off-slip increasing from 78% without LTC to 93% with LTC. This movement exceeds capacity with LTC in the Design Year 2045 PM Peak. Similarly, the A229 northbound off-slip approaches capacity in Opening Year 2030 PM Peak, with the V/C ratio increasing from 90% to 96% with LTC; the movement then exceeding capacity with LTC in the Design Year 2045 PM Peak.
 - M20 J6 (A229) is forecast to exceed capacity in 2030 and 2045, with the V/C ratio for the M20 westbound off-slip increasing on LTC implementation to values between 114% and 141%.
- 7.7** Transport Assessment Appendix B Journey Time Changes 2030, and Appendix C Journey Time Changes 2045 indicate an impact of LTC implementation on journey times on the section of the M2 between Junction 1 (A289) and Junction 4 (A278) in both Opening Year 2030 and Design Year 2045. These increased journey times may lead to a negative impact of encouraging traffic to find alternative routes (rat runs) on unsuitable local roads e.g. A227, especially so if preferred options are blocked.
- 7.8** Negative traffic impacts of the LTC on the local road network have been identified by KCC. It was agreed between National Highways and KCC to review these impacts together in more detail, and to develop mitigations to the level of pre-Strategic Outline Business Case (SOBC) in the Wider Network Impacts (WNI) study.
- 7.9** The WNI study has confirmed the following key corridors of negative impacts of the LTC project that directly affect Tonbridge & Malling.

- 7.10 A227** – The A227 between the A2 and the M20: Implementation of the LTC leads to significant increases in heavy goods vehicle (HGV) traffic on alternative routes between the A227 / Green Lane and A2 to access the LTC, with implications for communities in the north of Tonbridge & Malling, including the villages of Wrotham, Fairseat and Stansted.
- 7.11 A228** – The A228 between the M2 and the M20: Table 7.4 in the KCC study (Annex 1) outlines the corridor impacts for the A228 between M2 and M20 junctions. Within Tonbridge and Malling, the A228/Malling Road junction is forecast to experience an increase in HGV traffic for all four scenarios. 2030 AM shows an increase from 187 Do Nothing (DN) to 332 Do Something (DS), 2030 PM from 140 (DN) to 258 (DS), 2045 AM from 332 (DN) to 367 (DS), and 2045 PM from 258 (DN) to 282 (DS). Junctions north of Malling Road along the A228 are forecast to see significant increases in traffic too in the with-LTC scenario; particularly HGV traffic flows along the A228 increasing by up to 160 vehicles per hour.
- 7.12** These and other results outlined for the corridor, validate concerns shared with KCC regarding rat running of HGVs as well as other traffic between the A229, A228 and A227 to connect between the M2/A2 corridor and the M20/A20 corridor. Many of these roads are unsuitable to accommodate HGV traffic due to their narrow width, tight bends and routes through village centres and will be negatively impacted. The roads that see an increase in vehicles or HGVs between the DS and DN include Village Road, Birling Road and Rochester Road. This will impact negatively upon communities in the Medway Valley, including Snodland, Wouldham and Aylesford.
- 7.13** Additional traffic movements associated with LTC will have a significant negative detrimental impact on the A228 corridor with a forecast increase in traffic congestion at a number of junctions and significant increases in HGV traffic. This will impact upon all road users, leading to a deterioration in air quality and increased road safety risks for residents too, which may increase KSI incidents.
- 7.14** Journey times and the reliability of bus services 151 and 71 which operate on the A228 north of M20 Jn4 are likely to be negatively impacted by an increase in traffic. The study recommends that the mitigation for the A228

should focus on reducing HGV traffic flows, whilst not displacing this on to the A227. At this time no mitigation for the negative impacts from the LTC is proposed or funded for the A228.

- 7.15 A229** – The A229 Blue Bell Hill is a strategically important link providing the shortest and most direct route between the M2 and M20, critical for interchange between the motorways, for accessing and serving the Channel ports, and for connecting the County town of Maidstone, conurbation of Medway and settlements in Tonbridge & Malling, including Walderslade and Blue Bell Hill.
- 7.16** One of the most negative traffic impacts of the LTC on the local / major road network in Kent is that on the A229 Blue Bell Hill (including M20 J6 and M2 J3), as identified in the Applicant's DCO documents as well as in KCC analysis of the LTAM and KTM models. This impact has been identified and re-iterated in KCC's and TMBC's previous consultation responses. Both authorities have requested at every opportunity, that mitigation measures for the impacts on A229 Blue Bell Hill are included in the Project or otherwise funded separately by the DfT.
- 7.17** A229 Blue Bell Hill was excluded from the WNI study (Impact B) as it is subject to separate Strategic Outline Business Case (SOBC) development as part of the Department for Transport's (DfT) Large Local Majors (LLM) funding programme. The DfT is still to make a decision as to whether it proceeds to the next stage in the funding application process (anticipated summer 2023). It is only after completion of OBC that a decision will be made by DfT on funding or scheme delivery and even if successful, funding from LLM is only for 85% of the scheme costs, this would leave a funding deficit that would need to be addressed. Therefore, at this time it must be assumed that no improvement scheme is committed and that there will be no mitigation for the negative impacts from the LTC.
- 7.18** Existing traffic conditions at M2 Junction 3 and M20 Junction 6 are poor at peak times with queues and delays experienced by all road users. Traffic on the A229 is forecast to increase significantly from the 2019 DfT manual count of 69,336 annual average daily traffic (AADT) with local growth and once the Lower Thames Crossing is opened.

7.19 KCC's comparison of the with-LTC and without-LTC traffic model scenarios indicates that the LTC has a significant impact on A229 Blue Bell Hill and its motorway junctions. The DCO documents indicate the following negative impacts of the LTC on the A229 Blue Bell Hill:

- Changes in traffic volumes: Transport Assessment (APP-529) Plates 6.2 to 6.4 show that the A229 Blue Bell Hill already takes as much traffic as parts of the M2 and M20. Plate 7.10 indicates a forecast increase in AM Peak traffic volumes of between 501 and 1,000 vehicles northbound on the A229 with LTC in Design Year 2045; and between 101 and 250 southbound. Plate 7.14 indicates a forecast increase in PM Peak traffic volumes of between 251 and 500 vehicles northbound and between 101 and 250 southbound.
- Scale of impacts: Plate 7.28 indicates adverse impacts of the LTC in the AM Peak of Opening Year 2030 according to the Applicant's scoring system based on V/C ratio changes with and without LTC. The figure indicates major adverse impacts of the LTC at the A229 intersections with the M2 and M20. Plate 7.29 indicates minor and moderate adverse impacts of the LTC at these intersections in the inter-peak. Plate 7.30 indicates a large number of minor and moderate adverse impacts of the LTC along the A229; together with one major adverse impact at the A229 intersection with the M2 in the PM Peak.
- Changes in traffic journey times: Table 7.11 indicates the A229 journey times between the M2 and M20 would increase by 1.6 minutes (+26.8%) northbound and 1.4 minutes (+13.2%) southbound in the AM Peak Opening Year 2030. A slightly reduced journey time is forecast for the PM Peak core growth, yet both the High and Low growth complementary scenarios show increases in journey times.
- Impacts on public transport: Table 7.14, Bus journey time impacts, does not cover bus routes 101 (Maidstone – Gillingham), which is expected to be adversely impacted by increased traffic and delay on the A229 on implementation of the LTC. Plate 7.38, Bus/coach routes considered in analysis, indicates the A229 lies just outside the scope of the analysis.

- 7.20** KCC has informed that the following additional negative impacts of the LTC on the A229 Blue Bell Hill are apparent from the LTAM model shapefiles:
- Changes in HGV volumes: LTAM HGV flow plots indicate increases on northern sections of the A229 of approximately 100 HGVs with LTC in the AM and PM Peaks, although in the AM Peak the model appears to assign significant HGV traffic (100) to Warren Road. This route is a narrow, steep single carriageway which is signed as unsuitable for HGVs. It is therefore expected that the HGVs assigned to this road in the model would use A229 Blue Bell Hill given that they are parallel routes. This is therefore, giving an increase in HGV traffic on A229 of approximately 200 in the AM peak.
 - Changes in traffic volume to capacity ratios at intersections: LTAM V/C ratio plots at Taddington intersection (M2/A229) indicate both northbound and westbound approaches to the roundabout are taken over capacity in the PM Peak with-LTC scenario. Similar impacts are shown for Running Horse intersection (M20/A229) for the eastbound M20 on-slip; the westbound M20 off-slip; and the northbound connector between the two roundabouts.
- 7.21** TMBC has yet to fully understand the impacts of LTC upon the local road network south of the M20, and hope that the Tonbridge & Malling Local Plan scenario and sensitivity testing provides further clarity on this. TMBC is concerned about the potential for additional traffic on the A228 between the junctions of the B2015 and A228 (Seven Mile Lane), and junction 4 M20 as cross-Thames traffic is redistributed away from the A21, M25 and Dartford Crossing, as a consequence of the option to use LTC. The known pinch-points at A228 Malling Road and A26 Mereworth, are likely to require widening and junction improvements.
- 7.22** Medway Council has shared their Lower Thames Crossing Impact Assessment with TMBC. This is based upon the Lower Thames Area Model (LTAM) and the Medway Aimsun Model (MAM). The overall network in MAM is organised into subnetworks to cover areas in Medway that are expected to come under pressure from traffic growth. Subnetworks 1 to 8 were previously

contained in the model, SYSTRA developed a new subnetwork 9 as a part of the LTC assessment.

- 7.23** The study concludes that *“Subnetwork 9 was developed to include a stretch of A228 on the western edge of Medway from Cuxton in the north to Snodland in the south, as the Council expects adverse impacts associated with traffic generated by the LTC on this section of the A228”* (paragraph 2.2.3).
- 7.24** The following junctions were analysed from the MAM interrogations undertaken by Systra and are of relevance to Tonbridge & Malling, these have been given level of service scores (LoS) between A-F based upon their performance under a range of scenarios with and without Lower Thames Crossing. **A=Free flow** and **F=Forced flow (congested and queues fail to clear)**. Negative impacts upon these junctions have been identified.
- 7.25** Subnetwork 5 – M2 junctions 2 to 4
- SN5-J1 – Bridgewood Roundabout (situated in Tonbridge & Malling). With Local Plan growth and LTC the junction level of service is **E (am) and F (pm) – Forced flow (congested and queues fail to clear) at 2030.**
 - SN5-J2 – Lord Lees Roundabout (situated in Tonbridge & Malling). With Local Plan growth and LTC the junction level of service is **E (am) and F (pm) – Forced flow (congested and queues fail to clear) at 2030.**
 - SN5-J5 – Taddington Roundabout (situated in Tonbridge & Malling). With Local Plan growth and LTC the junction level of service is **D (am and pm) – Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding).**
- 7.26** Subnetwork 9 – A228 Cuxton & Halling
- SN9-J3 – Peters Bridge Roundabout (situated on the boundary of Tonbridge & Malling, on the A228). With Local Plan growth and LTC the junction level of service is **F (am and pm) – Forced flow (congested and queues fail to clear) at 2030.**
- 7.27** The study concludes that the ‘Local Plan growth with LTC’ and ‘core growth with LTC’ scenarios show the most adverse impacts in most of the subnetworks. At the present time Medway Council and its neighbouring

authorities are committed to meeting objectively assessed housing growth in full, as such the Local Plan with LTC is the most relevant scenario in terms of identifying future impacts upon the local road network. In the 'core growth with LTC' scenario the modelled A229 junctions continue to perform poorly, the exception being the Peters Bridge roundabout which has an LoS of **A (free flow)**, under this scenario. We maintain that the core scenario does not adequately reflect the location of committed and expected local growth up to and beyond the LTC opening year.

- 7.28** The Systra work stops short of recommending road and junction improvements for all of the above junctions but does suggest improvements at Bridgewood roundabout to change lane markings at southern and western arms to allow entrance onto the roundabout from 3 lanes instead of 2. This work does not take account of the LLM scheme proposals which have been progressed by KCC for Blue Bell Hill related junctions.
- 7.29** With the exception of traffic signals recommend for the junction of the A228 and Bush Road, Cuxton, which could slow the flow of traffic towards the Peters Bridge Junction, the proposed mitigations have no positive benefit upon the modelled junctions of the A229 within Tonbridge & Malling. A worsening of the junction LoS at Taddington Roundabout under the 'core growth with LTC + Mitigation' scenario to **E (Unstable flow)** is suggested and at Bridgewood Roundabout the LoS is identified to worsen from **E to F (Forced flow)**.
- 7.30** The study makes no further recommendations for junctions associated with the A229 at Blue Bell Hill in Tonbridge & Malling. The Systra evidence further indicates that LTC has significant negative implications for the junctions, this further supports the case to approve the Strategic Outline Business Case for the improvement of the A229 and related junctions between M20 Jn6 and M2 Jn3, that KCC has submitted to the DfT. Further funding is also required for local highways mitigation on the A228.

8 NOISE

- 8.1** The EIA Methodology is based upon the LTAM core scenario, as such our concerns regarding the combined impact of local growth and LTC once operational, are of relevance to our concerns regarding traffic related noise and air quality impacts. As such our review of the DCO documents in this regard leaves uncertainty regarding the assessments undertaken.
- 8.2** At Para 12.4.55 of Chapter 12: Noise & Vibration (which is part of the section looking at existing noise levels in affected unaltered traffic links outside of bypassed area) states that no surveys have been undertaken in the TMBC area. Assessment of noise has presumably relied solely upon calculation of existing and future noise levels. This is not ideal as real-world levels may differ significantly and result in unidentified negative impacts.
- 8.3** At Para 12.6.174 (which looks at noise along the A2 east of the M2/A2/Lower Thames Crossing junction incorporating the M2 and the A228) it lists roads that are predicted to be impacted in the do something opening year scenario. Unhelpfully, these are listed alphabetically with no indication as to which area/locality they're in (e.g., Halling, Snodland, Cuxton, etc).
- 8.4** More specifically at Para 12.6.175, b, i – is a list of roads that are predicted to experience a short-term minor adverse impact due to road traffic noise in the do something scenario. The roads listed are from letters A-H, with none beyond that point of the alphabet. The full negative impacts on roads within TMBC are therefore hard to gauge.
- 8.5** At the same Para, roads further away from the A228 within TMBC (i.e., Covey Hall Road) are listed as having negative effects, whilst closer roads are not. They are not included in the later sub-sections that refer to moderate or major adverse impact either.
- 8.6** At Para 12.6.192 the reports states that the A229 has speed limit of <75kmh. This is incorrect as the stretch between the M20 and the Common Road overbridge has a national speed limit. If this incorrect speed limit has been entered on the noise modelling program, there may be further negative impacts arising from those given due to real world increased speeds on that road. The same para says that noise barriers would not be suitable due to

countryside views. However, these are already in use along a section of the A229.

- 8.7** In the drawings for noise in Section 6.2, Figure 12.3 shows the roads predicted to have a negative impact and experience an increase in noise >1dB. This highlights Rochester Road, Station Road and Hall Road, but doesn't include all of A229 between the M20 and M2. Whilst there is a significant throughput of vehicles on the A229, and raising noise levels by 1dB would take quite a number of additional vehicles, there is no clear justification as to why all of the A229 between Blue Bell Hill village and the M20 isn't listed as showing the same >1dB negative impact. On a positive note, the predicted effects on Warren Road are unlikely to materialise, as Warren Road is a narrow steep single carriage way unsuitable for HGVs and is likely to have been assigned in error, where the A229 would be the most appropriate road.
- 8.8** Section 6.2, Figure 12.8 (DSFY minus DMOY) also fails to recognise the negative impacts by changing the scale for the noise contours, presenting the impression that there is zero negative noise impact predicted within the Borough.

9 AIR QUALITY AND EMISSIONS

- 9.1 Nitrogen** – Para 5.4.42 of Chapter 5: Air Quality, suggests that parts of the A228 (between M20 Junction 4 and M2 Junction 2) are already above the Nitrogen Dioxide (NO₂) annual limit of 40µg/m³. This includes areas within TMBC's jurisdiction such as at residential receptors on Castle Way just north of M20 Junction 4. Furthermore, the EIA states that this area will see a small decrease in NO₂ levels between the do minimum and do something 2030 opening year scenarios. This is supposedly due to the rerouting of HGV's heading towards LTC turning northbound from Leybourne Way (para 5.6.47). TMBC have begun direct NO₂ monitoring at the residential receptors in this area, and to date there is no indication that the area currently exceeds the annual NO₂ limits such that an Air Quality Management Area (AQMA) need be declared.
- 9.2** Whilst this may be seen as a positive, as mentioned earlier in this document (para 7.21) TMBC is yet to fully understand the impact of LTC on the local road network south of the M20. A portion of any additional flow will use the A228, therefore, whilst monitoring indicates annual NO₂ levels are unlikely to be exceeded there may still be negative impacts due to the questions which remain over accurate traffic modelling.
- 9.3** Negative impacts on air quality at Blue Bell Hill village just off the A229/M2 Jn3 interchange are also a concern. Table 5.23 (6.1 Environmental Statement Chapter 5: Air Quality), already predicts a negative impact where increases in NO₂ levels of more than 2µg/m³ are predicted between the do minimum and do something opening year scenarios at Maidstone Road, close to M2 Jn3 (although the exact receptor location could not be determined as no supporting maps could be found). This would bring the receptor to almost within 10% of the annual objective level for NO₂. As evidence supplied by Medway Council (referred to in Section 7 of this document and supplied in full at Annex 2) suggests, the level of service on the road network around M2 Junction 3/A229 interchange varies between E and F (where F = Forced Flow congested, and queues fail to clear) for AM/PM in the do something opening year scenario.

- 9.4** As road speed is a key input point for the Emission Factor Toolkit which informs the air quality modelling, accurate input is important. It is unclear whether the significance of this queuing traffic (which creates more pollution than vehicles moving at a steady speed) has been considered in the LTC modelling. With the margin of predicted NO₂ levels for the do something opening year scenario being so close to the NO₂ annual objective level and given the proximity of properties close to this interchange, particularly those just off Common Road, 456-462 Maidstone Road and Toddington Crescent, it is critical that all transport data is fully considered to properly inform the air quality model.
- 9.5** **Carbon** – As set out previously both TMBC and KCC have declared a climate emergency and are working to help reduce carbon emissions locally. Whilst supportive of LTC, we are concerned about the impact of the project in terms of negatively increasing carbon emissions from vehicular traffic locally. We note that paragraph 5.17 of the National Policy Statement for National Networks (DfT 2014), requires that applicants provide evidence of the carbon impacts of their projects and assessment against the Government’s carbon budgets. However, this also states that *“it is very unlikely that the impact of a road project will, in isolation, affect the ability of the government to meet its carbon reduction plans”*. Furthermore, we understand that there is no set significance threshold for carbon emissions set by the DfT.
- 9.6** Whilst we appreciate the actions that National Highways are seeking to take to contribute towards next zero road user emissions by 2050 (para 15.2.26 6.1 Environmental Statement Chapter 5: Air Quality), the Government will need to take progressive steps at a national level in the coming years to reduce the carbon output from vehicle-based emissions, through incentivising use of ultra-low emission vehicles and sustainable transport modes, if it is meet the carbon budgets set out at Table 15.5 (6.1 Environmental Statement Chapter 15 – Climate), this being 57% below 1990 levels by 2030.

10 NITROGEN DEPOSITION MITIGATION

- 10.1** Our concerns regarding the use of the core scenario to identify the impacts of the LTC at 2030 and 2045 within the DCO documents also applies to nitrogen deposition and proposed mitigation. The potential for increased nitrogen deposition associated with LTC could have potential negative impacts on the ecology of sensitive habitats including the Wouldham to Detling Escarpment SSSI, some parts of which are already in unfavourable condition, and the North Downs Woodlands SAC particularly areas in close proximity to the M2, A299 and A228. There is also the potential to negatively impact on the wider habitats within Kent Downs AONB. This chalk escarpment landscape has varied broadleaved, mixed and yew woodland, and calcareous grassland, and is home to rare species including the meadow clary. Proposals for compensation land within the scope of the DCO are however welcomed to create additional habitats.
- 10.2** The Outline Landscape and Ecology Management Plan (oLEMP) application document 6.7, identifies the proposed areas of management south of the M2 in Tonbridge and Malling, comprising two areas of woodland at Blue Bell Hill (72.2ha) and Burham (9.7ha). TMBC has previously questioned the rationale for selecting the Burham site, as we don't consider it to be adjacent to affected local roads and junctions.
- 10.3** TMBC responded to the minor refinement consultation undertaken by National Highways in May 2023, to support the removal of the proposed Burham site from nitrogen deposition proposals. We consider that the site would provide less ecological benefit given the existing stewardship arrangement here, as well as the proximity of the site to surrounding woodland and the M2. This being approximately 1.5km away in comparison to the Blue Bell Hill site which is situated approximately 100m from the M2. The potential adverse effects of tree planting upon Great Culand make this site less suitable too.
- 10.4** The reduction in the proposed nitrogen deposition mitigation site at Blue Bell Hill to 43ha would still provide a strengthened woodland belt adjacent to the M2, enhancing ecological connectivity in this part of the Kent Downs AONB.

We assume that National Highways will be updating the DCO documents accordingly to reflect the proposed minor refinements.

- 10.5** Given existing land uses and the varied ownership and management of sites in the vicinity of the M2 and A229 at Blue Bell Hill, we appreciate that opportunities to secure nitrogen deposition mitigation sites may be limited. Sites in single ownership are less complex to secure through the DCO process vs sites in multiple ownership.
- 10.6** If further nitrogen deposition sites are required as a consequence of updated transport modelling evidence and related assumptions regarding nitrogen emissions, these should be aligned to existing habitats in close proximity to the A229 between the M20 and M2.

11 CONCLUSIONS

- 11.1** TMBC supports the LTC project, we recognise that the existing Dartford Crossing is operating over capacity and there are limited alternative options to cross the River Thames. We however remain concerned about the LTAM transport modelling assumptions which underestimate local growth within the Medway Valley in Tonbridge & Malling, and elsewhere, which has informed the related assessment of impacts in the DCO documents.
- 11.2** As evidence prepared by KCC and Medway Council demonstrates, there are significant negative impacts arising from LTC once operational, for the local highway network in particular. We consider that without mitigating these impacts, the LTC will not fully achieve its intended benefits, due to inadequacies in the affected local roads.
- 11.3** TMBC recognises that the project itself is mitigation for the Dartford Crossing and that the DCO is being assessed against the current National Policy Statement for National Networks, which does not require that local impacts of DCO projects are mitigated. The consultation on the revised NNNPS closed on 6 June 2023 and would change this position, the outcome of this is awaited. We would like the updated NNNPS to be taken into consideration by the ExA if published before the end of the Examination.
- 11.4** TMBC requests that additional funding is made available by Government, so that local authorities can work with National Highways in a timely manner, to ensure that local highway and other mitigation is delivered. This is required to unlock the full potential of the project and minimise negative impacts for local residents and businesses.