

Lower Thames Crossing

9.152 Responses to the Examining Authority's ExQ2 Appendix C – 5. Air Quality

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9.152 Responses to the Examining Authority's ExQ2

Appendix C – 5. Air Quality

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1 Introduction

1.1 Introduction

- 1.1.1 This document has been prepared by the Applicant to set out its responses to the ExQ2 - Examining Authority's (ExA's) written questions and requests for information (ExQ2) [[PD-040](#)].
- 1.1.2 These can be found in Tables set out under the following headings:
- a. Climate Change and carbon emissions (Found in Appendix A)
 - b. Traffic and transportation (Found in Appendix B)
 - c. Air quality (Found in Appendix C)
 - d. Geology and soils (Found in Appendix D)
 - e. Tunnelling considerations (Found in Appendix D)
 - f. Waste and materials (Found in Appendix D)
 - g. Noise and vibration (Found in Appendix E)
 - h. Road Drainage, water environment and flooding (Found in Appendix F)
 - i. Biodiversity (Found in Appendix G)
 - j. Physical effects of development and operation (Found in Appendix H)
 - k. Social, economic and land-use considerations (Found in Appendix I)
 - l. The acquisition and temporary possession of land and rights (Found in Appendix J)
 - m. General overarching questions (Found in Appendix J)

2 Responses to the Examining Authority's ExQ2 5

PINS ID	Question to:	Question / Response
ExQ2_Q5.1.1	Applicant	<p>Delay to proposed ban on the sale of new petrol and diesel cars</p> <p>The ExA is unclear on what estimates have been used by the Applicant on the proportion of vehicle fleet that will be electric after 2030 and how those estimates may have been used in the air quality modelling.</p> <ul style="list-style-type: none"> • Can the Applicant provide this information and explain if there are any significant implications for the air quality modelling and assessment that arise from the UK Government's recent announcement of a delay to the ban on the sale of new petrol and diesel cars from 2030 to 2035? • If the delay to the ban appears likely to give rise to a significant increase in the duration and/or extent of adverse air quality effects: <ul style="list-style-type: none"> – Can the Applicant please identify whether any additional air quality monitoring would be required as a consequence of the change to the ban; and – Can the Applicant please identify whether any changes to the design, extent and/or duration of mitigation measures would be required? <p>If changes to mitigation measures are proposed, the Applicant is asked to set the changes out in a summary table, describing the location and nature of the additional measures.</p> <p>Response:</p> <p>The Applicant can confirm that the announcement of a delay of five years from 2030 to 2035 for the ban on the sale of new petrol and diesel cars:</p> <ul style="list-style-type: none"> • has no significant implications for the air quality modelling and assessment • does not give rise to a significant increase in the duration and/or extent of adverse air quality effects • does not require any additional air quality monitoring • does not require any changes to the design, extent and/or duration of mitigation or compensation that would be required <p>The Applicant's air quality assessment and assessment of road user carbon emissions associated with the forecasts of future vehicle fleet are based on the assumptions within the Defra issued Emissions Factors</p>

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		<p>Toolkit Version 11 (EFTv11) released in November 2021¹. This version of the toolkit remains the current version issued by Defra.</p> <p>The fleet mix assumptions within EFTv11 are based on the Department for Transport's TAG Data Book sheet A1.3.9 version 1.17. The TAG Data Book sheet A1.3.9 and EFTv11 does not take account of the government's previous policy of ending the sale of petrol and diesel cars by 2030 and therefore the Applicant's air quality assessment presented in ES Chapter 5 [APP-143] is not impacted by the recent policy change, delaying the phase out date to 2035.</p> <p>The Applicant has provided a full explanation as to how it has determined the above position in its answer to ExQ2 Q2.1.2. The Applicant has also provided details on the proportion of the vehicle fleet that will be electric after 2030 as used in the assessments.</p> <p>The Applicant notes that the ExA has asked questions on a similar topic to this within ExQ2 Q.5.2.1 and Q15.1.1 and the Applicant has provided answers to those questions there.</p>
ExQ2_Q5.1.2	Applicant	<p>Methodology: air quality and junctions</p> <p>In response to ExQ1 Q5.1.4, which related to speed banding assessments around junctions, the Applicant advised as follows:</p> <p>“In accordance with DMRB, a review was undertaken of the predicted annual mean nitrogen dioxide (NO₂) concentrations at human health and compliance risk receptors in the opening year Do-Minimum and Do-Something scenarios to determine if there were any locations close to junctions that were above 36µg/m³ and therefore close to exceeding the annual mean Air Quality Strategy (AQS) objective/Limit Value (40µg/m³). The review indicated that there were receptors close to junctions that met these criteria and in these instances the speed bands were reviewed to ensure that they were consistent with the advice in DMRB. It should be noted that the receptors were selected at worst-case locations where total pollutant concentrations were expected to be greatest, which included the closest locations to junctions where the annual mean AQS objective and Limit Values would apply. The speed banding process has been undertaken in line with the advice of DMRB LA 105 ...”</p> <p>Can the Applicant please identify the location of the receptors in question in list and map form?</p>

¹ Department for Environment, Food & Rural Affairs (Defra) (2021). Emissions Factors Toolkit version 11.

PINS ID	Question to:	Question / Response
		<p>Response:</p> <p>The receptors located close to junctions which had nitrogen dioxide (NO₂) concentrations above 36µg/m³ in either the opening year (2030) Do Minimum or Do Something scenarios are shown in Table 1 for human receptors (locations modelled for comparison against Air Quality Strategy (AQS) objectives) and Table 2 for Pollution Climate Mapping (PCM) receptors (locations modelled for compliance against Limit Values). These receptors are also shown in map form in Section 3 of this document, the maps are entitled 'ExQ2 Q5.1.2 Air Quality Receptors'.</p> <p>The advice in paragraph 2.36 of Design Manual for Roads and Bridge (DMRB) LA 105² is that '<i>only areas around junctions identified as sensitive to changes in air quality that can result in exceedances of air quality thresholds shall be assessed in greater detail</i>'. The receptors and speed bands were reviewed to determine whether congestion was being represented close to junctions from the outputs of the traffic model. As shown in Table 1 (below) and in the maps presented in Section 3 (entitled 'ExQ2 Q5.1.2 Air Quality Receptors'), the only human receptors located close to a junction which experienced a Project increase in NO₂ were located on the A2 London Road (except for LTC181_D, a receptor on A1013 Stanford Road which will be demolished prior to operation). Speed bands on the roads around these A2 London Road receptors were reviewed and were considered to adequately reflect congestion in this area, and so were considered appropriate. All other human receptors which met the criteria for consideration were associated with either no change or a decrease in NO₂ due to the Project. As shown in Table 2 (below), the only PCM receptor which met the criteria was PCM_2 (adjacent to A102, Greenwich), and this receptor was associated with an imperceptible decrease in NO₂. In nearly all cases, the roads associated with junctions close to these human and PCM receptors (with beneficial changes) were already represented by light or heavy congestion. In the few instances where this was not the case, it was not considered proportionate to change the speed bands to a heavy or light congestion speed band as there would still be a beneficial effect, and it would not change the outcome of the assessment in terms of the assessment of the significance of effects.</p>

² Highways England (2019). Design Manual for Roads and Bridges, LA 105 Air Quality. <https://www.standardsforhighways.co.uk/search/10191621-07df-44a3-892e-c1d5c7a28d90>

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		LTC123	535361	199993	8	36.1	35.6	-0.5																	
		LTC124	558482	174679	3	36.6	35.9	-0.7																	
		LTC101	558908	172744	3	36.4	35.5	-0.9																	
		LTC108_H	557560	177743	4	36.8	35.9	-0.9																	
		LTC111	569226	159780	1	44.3	43.2	-1.1																	
		LTC151_D	558618	172777	3	54.7	53.6	-1.1																	
		LTC443	569228	159793	1	43.8	42.7	-1.1																	
		LTC834	555606	173391	3	39.4	38.3	-1.1																	
		LTC289_H	557310	178758	4	43.7	42.5	-1.2																	
		LTC444	569230	159799	1	43.9	42.7	-1.2																	
		LTC445	569232	159809	1	44.0	42.8	-1.2																	
		LTC833	555612	173391	3	40.1	38.9	-1.2																	
		LTC446	569234	159816	1	44.2	42.9	-1.3																	
		LTC554	555619	173392	3	41.2	39.9	-1.3																	
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ExQ2_Q5.1.3	Applicant	<p>Clarity on PM2.5 monitoring stations</p> <p>In response to ExQ1 Q5.1.6, which related to the new interim target of PM2.5 not exceeding 12 µg/m³ by 31 January 2028, the Applicant advised that there are no relevant monitoring stations within 200m of the Affected Road Network (ARN) of the construction phase and the only relevant monitoring station within 200m of the ARN for the operational phase is Thurrock (Station ID: UKA00272), which started to monitor PM2.5 since January 2023.</p> <p>However, Paragraph 5.4.20 of the Air Quality Assessment [APP-143] advises that there are two continuous monitoring stations within the assessment study area which monitor PM2.5 – Havering HV1 and Greenwich GR8.</p> <p>For the avoidance of doubt, can the Applicant clarify that the Thurrock Station is the only relevant monitoring station for the new PM2.5 Regulation?</p> <p>Response:</p> <p>The Applicant’s interpretation of The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (January 2023) is that the PM_{2.5} target will apply at those qualifying automatic PM_{2.5} monitoring sites which are part of the Department for Environment, Food and Rural Affairs’ (Defra’s) Automatic Urban and Rural Network (AURN).</p> <p>The AURN is displayed on the Defra website³; this shows all Defra AURN managed sites. It also shows other networks such as ‘locally managed sites’ (i.e. managed by local authorities). Where a Defra AURN site measures PM_{2.5} the ‘site information’ states:</p> <p><i>‘PM2.5 Targets This site is used in the assessment of the Annual Mean Concentration Target (AMCT) under the Environmental Target (Fine Particulate Matter) (England) Regulations 2023, subject to meeting the inclusion criteria on an annual basis. It is not used in the assessment of the Population Exposure Reduction Target (PERT). To find out more about how measurements are used to calculate progress towards the targets and which sites have met the inclusion criteria in different years, please see the PM2.5 target calculation page⁴.’</i></p>

³ Defra (n.d.). Interactive monitoring networks map. <https://uk-air.defra.gov.uk/interactive-map?network=aurm>

⁴ <https://uk-air.defra.gov.uk/pm25targets/calculation>

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		<p>Havering's (HV1) and Greenwich's (GR8) sites are also shown on the Defra website as 'locally managed sites', however under 'site information' there is no reference that the site will be used in the assessment of the PM_{2.5} targets.</p> <p>Therefore, it is the Applicant's understanding that the locally managed monitoring stations will not be used in the assessment of compliance against the PM_{2.5} targets.</p> <p>The Applicant can therefore confirm that the Thurrock AURN Monitoring Station is the only relevant monitoring station within 200m of the Affected Road Network (ARN) with regards to monitoring compliance against the new targets set out in the 2023 PM_{2.5} Regulations.</p> <p>However, if locally managed sites such as HV1 and GR8 sites did become part of the AURN network to monitor compliance with the PM_{2.5} targets in the future, the annual mean PM_{2.5} concentrations at these stations are unlikely to be affected by the Project as the Project is predicted to lead to imperceptible decreases or no change in PM_{2.5} at representative modelled receptors located close to the aforementioned monitoring sites (in the 2030 operational scenario).</p> <p>Table 3 also presents the annual mean PM_{2.5} concentrations monitored at the GR8 and HV1 sites between 2019 and 2023. The monitoring data demonstrates that the 2028 interim target of 12µg/m³ is already being met at both monitoring stations, and the 2040 target of 10µg/m³ has been met at HV1 since 2020.</p> <p>Table 3 Annual Mean PM_{2.5} Concentrations measured at Greenwich GR8 and Havering HV1 automatic monitoring stations (2019–2023)</p> <table border="1" data-bbox="622 959 2022 1217"> <thead> <tr> <th data-bbox="622 959 1093 1007" rowspan="2">Year</th> <th colspan="2" data-bbox="1093 959 2022 1007">Annual Mean PM_{2.5} Concentration (µg/m³)</th> </tr> <tr> <th data-bbox="1093 1007 1561 1054">Greenwich GR8</th> <th data-bbox="1561 1007 2022 1054">Havering HV1</th> </tr> </thead> <tbody> <tr> <td data-bbox="622 1054 1093 1086">2019</td> <td data-bbox="1093 1054 1561 1086">11</td> <td data-bbox="1561 1054 2022 1086">11</td> </tr> <tr> <td data-bbox="622 1086 1093 1118">2020</td> <td data-bbox="1093 1086 1561 1118">10</td> <td data-bbox="1561 1086 2022 1118">9</td> </tr> <tr> <td data-bbox="622 1118 1093 1150">2021</td> <td data-bbox="1093 1118 1561 1150">12</td> <td data-bbox="1561 1118 2022 1150">9</td> </tr> <tr> <td data-bbox="622 1150 1093 1182">2022</td> <td data-bbox="1093 1150 1561 1182">No data</td> <td data-bbox="1561 1150 2022 1182">10</td> </tr> <tr> <td data-bbox="622 1182 1093 1214">2023 (year to date: 16/10/2023)</td> <td data-bbox="1093 1182 1561 1214">No data</td> <td data-bbox="1561 1182 2022 1214">8</td> </tr> </tbody> </table>	Year	Annual Mean PM _{2.5} Concentration (µg/m ³)		Greenwich GR8	Havering HV1	2019	11	11	2020	10	9	2021	12	9	2022	No data	10	2023 (year to date: 16/10/2023)	No data	8
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2023 (year to date: 16/10/2023)	No data	8																				

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ExQ2_Q5.1.4	Applicant	<p>Air Quality Strategy 2007</p> <p>Can the Applicant confirm its position on the relevance of the Air Quality Strategy 2007 in its Air Quality assessment in ES Chapter 5 [APP-143], in light of its replacement by Air Quality Strategy 2023? The Department for Environment, Food and Rural Affairs states that the revised 2023 Strategy supersedes the Air Quality Strategy 2007 in England, so the ExA would like to understand whether any parts of ES Chapter 5 (and its associated appendices) require updating in light of the fact that the Air Quality Strategy 2007 'Objective' for PM_{2.5} of 25µg/m³ is no longer applicable?</p> <p>Response:</p> <p>The Applicant can confirm that the Air Quality Strategy (AQS) (2023) which supersedes the AQS 2007 has no material effect on ES Chapter 5 [APP-143]. The reasons for this are outlined in detail in the following text which includes a commentary of the history in relation to the PM_{2.5} air quality thresholds set in the strategies, and where they are contained in the various statutory instruments.</p> <p>The Air Quality Strategy 2007⁵ described the overarching strategy for the implementation of the National Air Quality Strategy (AQS) objectives at that time. The AQS included setting objectives for a range of pollutants including <i>[but not limited to]</i> nitrogen dioxide (NO₂) and particulate matter where particles are less than 10 microns in diameter (PM₁₀).</p> <p>The Air Quality (England) Regulations 2000 and subsequent amendment in 2002, sets out thresholds and averaging periods for the AQS pollutants. Particulate matter where particles are less than 2.5 microns in diameter (PM_{2.5}) was not included in the Air Quality (England) Regulations 2000 or subsequent 2002 amendments. The Air Quality Strategy 2007 did make reference to an annual mean threshold for PM_{2.5} of 25µg/m³. This mirrored the PM_{2.5} Limit Values (as set out in the EU Directive 2008/50/EC and later transposed into UK law through the Air Quality Standards Regulations 2010). However, whilst the Air Quality Strategy 2007 made reference to PM_{2.5} for the first time, there was no legal duty imposed on local authorities to assess PM_{2.5} as part of their air quality management duties, i.e. there was no requirement to designate Air Quality Management Areas for exceedances of the annual mean threshold for PM_{2.5}. This is due to the fact that PM_{2.5} is a regional pollutant and is difficult to manage at a local level.</p>

⁵ Department for Environment, Food and Rural Affairs (Defra) (2007). The Air Quality Strategy for England, Scotland, Wales and Northern Ireland.

PINS ID	Question to:	Question / Response
		<p>The Air Quality Strategy 2023⁶ and supporting advice in Local Air Quality Management Policy Guidance (2022)⁷ reiterate that whilst the responsibility for meeting the PM_{2.5} target sits with national government, local authorities have a role to play in delivering reductions in PM_{2.5}. Local authorities therefore report actions to reduce PM_{2.5} as part of their annual status reports.</p> <p>Current Thresholds for PM_{2.5}</p> <p>The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020 amended the PM_{2.5} limit value from 25µg/m³ (within the Air Quality Standards Regulations 2010) to 20µg/m³ in line with the requirement of the EU Directive (2008/50/EC) during the transition of the UK's withdrawal from the European Union. The assessment of the annual mean 20µg/m³ PM_{2.5} Limit Value is presented in ES Chapter 5 [APP-143], paragraphs 5.6.123 to 5.6.124.</p> <p>More recently the Environment Act 2021 required new thresholds for PM_{2.5} to be set, which were laid down in the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (Jan 2023):</p> <ul style="list-style-type: none"> • Annual Mean Concentration Target ('concentration target') – a maximum concentration of 10µg/m³ to be met across England by 2040 • Population Exposure Reduction Target ('exposure target') – a 35% reduction in population exposure by 2040 (compared to a base year of 2018) <p>In summary, there are currently three different thresholds for PM_{2.5}, covered by two sets of legislation as set out below;</p> <ul style="list-style-type: none"> • The 20µg/m³ Limit Value (The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020) • Annual Mean Concentration Target of 10µg/m³ (Environmental Targets (Fine Particulate Matter) (England) Regulations 2023) • Population Exposure Reduction Target – a 35% reduction in population exposure by 2040 (compared to a base year of 2018) (Environmental Targets (Fine Particulate Matter) (England) Regulations 2023) <p>Whilst the Applicant could remove references to the PM_{2.5} annual mean 25µg/m³ objective referred to in the Air Quality Strategy 2007 from the Environmental Statement (ES), it is not considered it would materially affect the information reported in ES Chapter 5: Air Quality [APP-143]. This is due to the fact that we have</p>

⁶ Defra (2023). Air quality strategy: framework for local authority delivery.

⁷ Defra (2022). Local air quality management policy guidance.

PINS ID	Question to:	Question / Response
		<p>demonstrated that there wouldn't be any exceedances of this threshold regardless of it now being superseded by thresholds that have been laid down in legislation post submission of the ES.</p> <p>The Applicant's view on the effect of the Project on compliance with the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 has been provided in Responses to the Examining Authority's ExQ1 Appx C: 5. Air Quality [REP4-190], and given that the Project is not expected to impact on the achievement of the targets it is not considered necessary to update ES Chapter 5.</p>
ExQ2_Q5.1.5	Applicant	<p>Draft National Policy Statement National Networks (dNPSNN): Paragraph 5.18 – Air Quality</p> <p>dNPSNN Paragraph 5.18 – Air Quality states:</p> <p>“The Secretary of State should give air quality considerations substantial weight where a project would lead to a deterioration in air quality in an area or leads to a new area where air quality breaches any national air quality limits or statutory air quality objectives. However, air quality considerations will also be important where substantial changes in air quality levels are expected, even if this does not lead to any breaches of national air quality limits or statutory air quality objectives.” [Underlining is ExA emphasis]</p> <p>The ExA acknowledges that the Applicant has provided a Policy Accordance Assessment of the Project against the dNPSNN [REP4-209], however, the Applicant has sought to rely upon the response it gave to Paragraph 5.12 of the existing NPSNN (2014) in [APP-496]. Given that Paragraph 5.12 of the existing NPSNN (2014) has been re-drafted and expanded with the underlined text above to give more importance to changes in air quality where legal limits are not exceeded, a more pertinent and detailed response from the Applicant is required. While the ExA notes that the dNPSNN does not suggest the Secretary of State should refuse consent where there is any deterioration in air quality, it does state at Paragraph 5.21 that “...any deterioration in air quality should be given appropriate weight in coming to the decision.” For this purpose, the ExA needs to understand how deterioration has been taken into account and what steps have been taken to confine its extent, duration or both.</p>

PINS ID	Question to:	Question / Response
		<p>Response:</p> <p>The Air Quality Assessment has been undertaken in accordance with the Design Manual for Roads and Bridges (DMRB) LA 105 Air Quality standard⁸. This provides the approach to determining compliance against the 2014 National Policy Statement for National Networks (NPSNN)⁹ against which the Project is being assessed.</p> <p>As a preliminary point it is therefore important to emphasise that the transitional arrangements detailed in paragraphs 1.16 and 1.17 of the draft NPSNN¹⁰ clearly state that applications accepted for examination before the draft NPSNN is designated (which includes the Project) should be considered in accordance with the terms of the 2014 designated NPSNN. This means that the 2014 NPSNN will apply to the decision on the Lower Thames Crossing application, notwithstanding the draft NPSNN may be designated before the decision is taken.</p> <p>To determine significance under the (DMRB) LA 105 Air Quality standard, the assessment is therefore based on changes in pollutant concentrations against the legal thresholds. The duration aspect (in relation to the assessment of human health impacts) is not explicitly considered other than greater weight is given in relation to determining significance where the Project results in larger changes in pollutant concentrations above the legal thresholds. Larger changes in pollutant concentrations will generally take longer to revert to the concentrations that there would have been without the Project.</p> <p>The Applicant recognises that the draft NPSNN is capable, at the judgment of the Secretary of State, of being an ‘important and relevant consideration’ under section 104(2)(d) of the Planning Act 2008. The draft NPSNN has been out for consultation and is subject to change which may, or may not, include modifications to the text in paragraphs 5.18 and 5.21 of the current draft. This has a material bearing upon the weight that the Applicant considers should be attached in the decision-making process to the current draft.</p> <p>Once the draft NPSNN has been finalised, DMRB LA 105 would need to be updated to ensure that the air quality assessment approach for road projects reflects the revised NPSNN.</p> <p>Notwithstanding the above, the Applicant has undertaken a voluntary Air Quality Quantitative Health Impact Assessment (AQQHIA) [REP3-141] to address stakeholder concerns around existing legal pollutant</p>

⁸ Highways England (2019). LA 105 – Air quality. <https://www.standardsforhighways.co.uk/search/10191621-07df-44a3-892e-c1d5c7a28d90>

⁹ Department for Transport (2014). National Policy Statement for National Networks.

¹⁰ Department for Transport (2023). Draft National Policy Statement for National Networks.

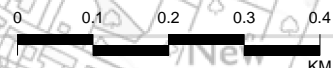
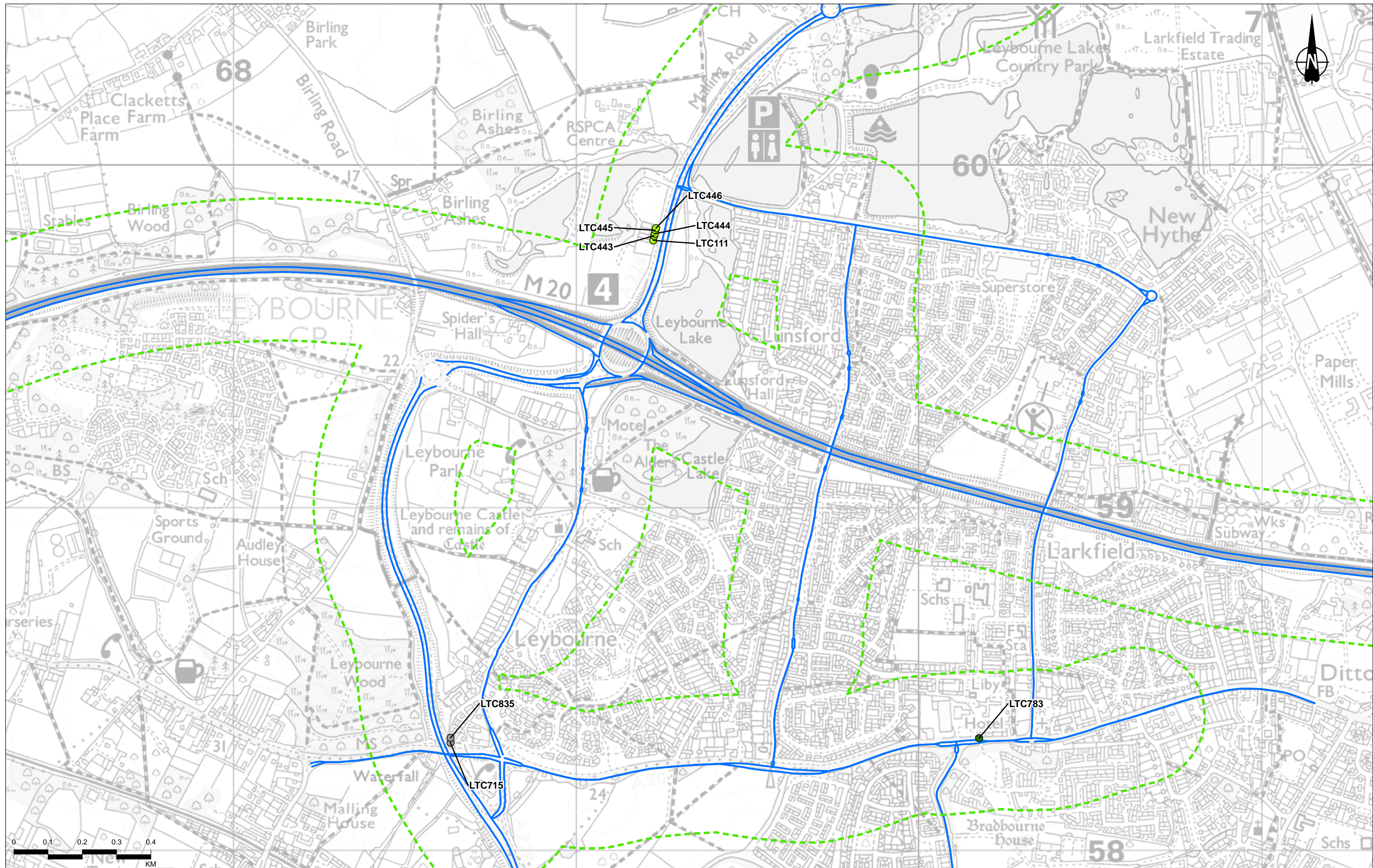
PINS ID	Question to:	Question / Response
		<p>thresholds, as well as health directly. This assessment quantified the impact of changes in pollutant concentrations as a result of the Project on human health, regardless of whether receptor concentrations in the 2030 opening year scenarios concentrations are above or below the legal thresholds (therefore it considers any change in NO₂ and PM_{2.5} regardless of magnitude).</p> <p>The conclusion of the AQQHIA was that the potential air quality impacts of the Project on mortality, and respiratory and cardiovascular hospital admissions are neither measurable nor material in the context of public health.</p> <p>Accordingly, the Applicant's approach accords with the requirements of both the adopted NPSNN and, in so far as it may be an important and relevant matter under the provisions of paragraph 104(2)(d) of the Planning Act 2008, the draft NPSNN. The AQQHIA should provide assurance that, given any deteriorations in air quality would not be measurable on public health, this should not be afforded any substantial weight in the decision-making process, given the evidence provided above and noting the transitional arrangements in the draft NPSNN.</p>
ExQ2_Q5.2.1	Applicant	<p>Delay to proposed ban on the sale of new petrol and diesel cars</p> <p>Further to question 5.1.1 on this matter in relation to human receptors, air emissions and change in assumptions about the timing of the proposed ban on the sale of new petrol and diesel cars are relevant to consideration of effects on ecological receptors and designated habitats.</p> <ul style="list-style-type: none"> • Can the Applicant explain if there are any significant implications for the air quality modelling and assessment that arise from the UK Government's recent announcement of a delay to the ban on the sale of new petrol and diesel cars from 2030 to 2035? • If the delay to the ban appears likely to give rise to a significant increase in the duration and/or extent of adverse air quality effects: <ul style="list-style-type: none"> – Can the Applicant please identify whether any additional air quality monitoring would be required as a consequence of the change to the ban; and – Can the Applicant please identify whether any changes to the design, extent and/or duration of mitigation or compensation measures would be required? <p>If changes to mitigation measures are proposed, the Applicant is asked to set the changes out in a summary table, describing the location and nature of the additional measures.</p>

PINS ID	Question to:	Question / Response
		<p>Response:</p> <p>The Applicant can confirm that the announcement of a delay of five years from 2030 to 2035 for the ban on the sale of new petrol and diesel cars:</p> <ul style="list-style-type: none"> • has no significant implications for the air quality modelling and assessment of likely significant effects on human health, ecological receptors and designated sites • does not give rise to a significant increase in the duration and/or extent of adverse air quality effects • does not require any additional air quality monitoring • does not require any changes to the design, extent and/or duration of mitigation or compensation that would be required <p>As set out in the Applicant’s responses to ExQ2 Q2.1.2 and Q5.1.1, the Applicant’s assessment of road user carbon emissions and air quality assessment are based on the forecasts of future vehicle fleet within the Defra issued Emissions Factors Toolkit Version 11 (EFTv11) released in November 2021¹¹. This version of the toolkit remains the current version issued by Defra.</p> <p>The fleet mix assumptions within EFTv11 are based on the Department for Transport’s TAG Data Book sheet A1.3.9 version 1.17. The TAG Data Book sheet A1.3.9 and EFTv11 does not take account of the government’s previous policy of ending the sale of petrol and diesel cars by 2030 and therefore the Applicant’s air quality assessment presented in ES Chapter 5 [APP-143] is not impacted by the recent policy change, delaying the phase out date to 2035.</p> <p>The Applicant notes that, in addition to ExQ2.1.2 and Q5.1.1 mentioned above, the ExA has asked questions on a similar topic to this within ExQ2 Q15.1.1 and the Applicant has provided answers to that question there.</p>

PINS ID	Question to:	Question / Response
ExQ2_Q5.2.2	Applicant	<p>Reduction in the extent of nitrogen deposition sites: Kent Downs AONB</p> <p>The ExA remains unclear about the effects of the reduction in the extent of the land proposed to be acquired and managed to address the effects of nitrogen deposition on the Kent AONB. Please explain the assessment of the change for this designated area, specifically addressing the mitigation provided for effects of nitrogen deposition on habitat quality.</p> <p>Response:</p> <p>The proposed nitrogen deposition compensation is to compensate for significant effects of reduced habitat quality on ecologically designated sites and habitats, including those that lie within the Area of Outstanding Natural Beauty (AONB). The reduction in the area of compensation proposed at the Blue Bell Hill site would not prevent the achievement of the twin objectives for the compensation of additional connectivity within the ecological network and comparable area of compensation to significantly affected habitat overall. Therefore, the reduction of area would still achieve the objectives of compensating for the reduction in habitat quality within ecological sites and habitats within the AONB.</p> <p>The anticipated consequences of the reduction in the extent of nitrogen deposition sites on Kent Downs AONB, is set out in the Additional Submissions - 10.4 Change Application (August 2023) [CR1-002]. In summary, significant beneficial visual and landscape effects are reported in the Environmental Statement from the Blue Bell Hill site, but no significant effects from the Burham site.</p> <p>No new or different likely significant adverse effects are anticipated in relation to both sites during construction or operation due to the proposed reduction in the areas. There would still be a beneficial visual effect, though no longer considered significant, and the significant beneficial landscape effect would remain.</p>

¹¹ Department for Environment, Food & Rural Affairs (Defra) (2021). Emissions Factors Toolkit version 11.

3 ExQ2_Q5.1.2 figure



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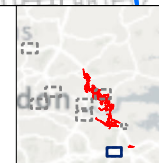
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- Route alignment
 - Order Limits
 - District/Borough/Unitary Authority boundary
 - Study area
 - Operational modelled road

- Human Receptors**
- Project change in annual mean NO₂ at human receptors
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 - Perceptible decrease

- Perceptible decrease > AQS objective
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- Perceptible increase > AQS objective

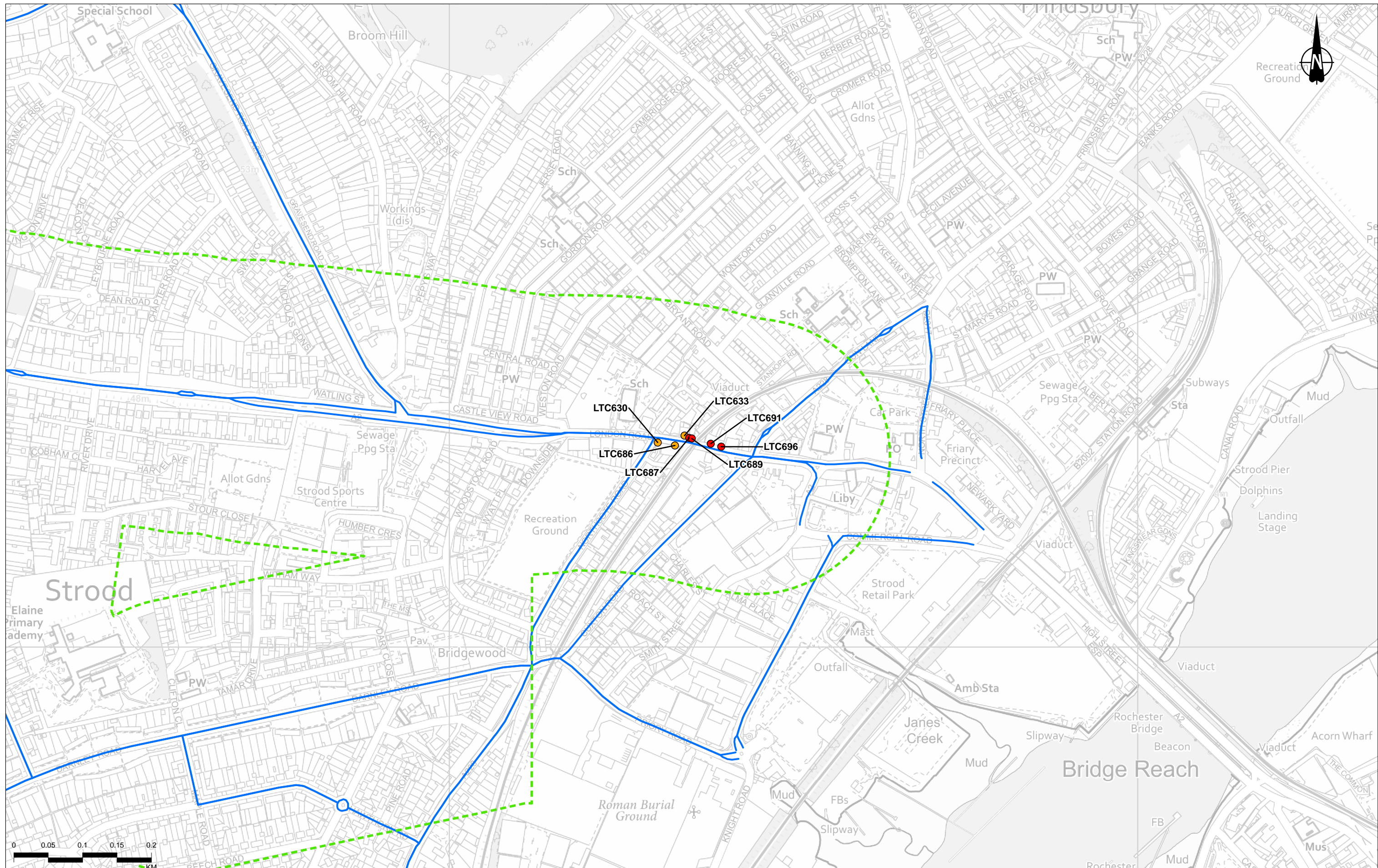
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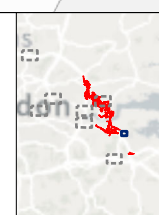
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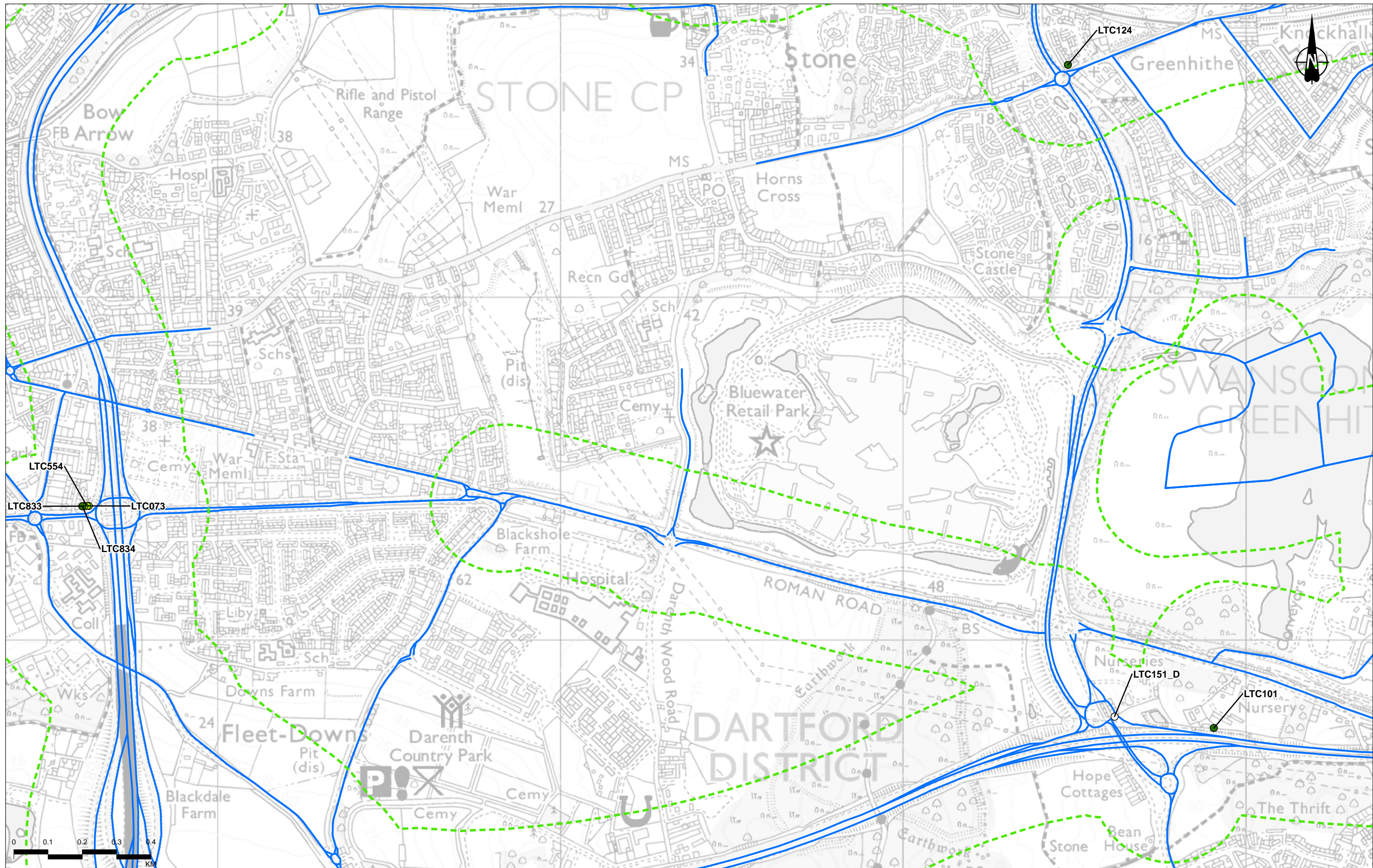
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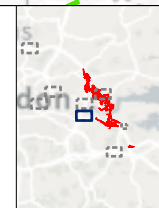


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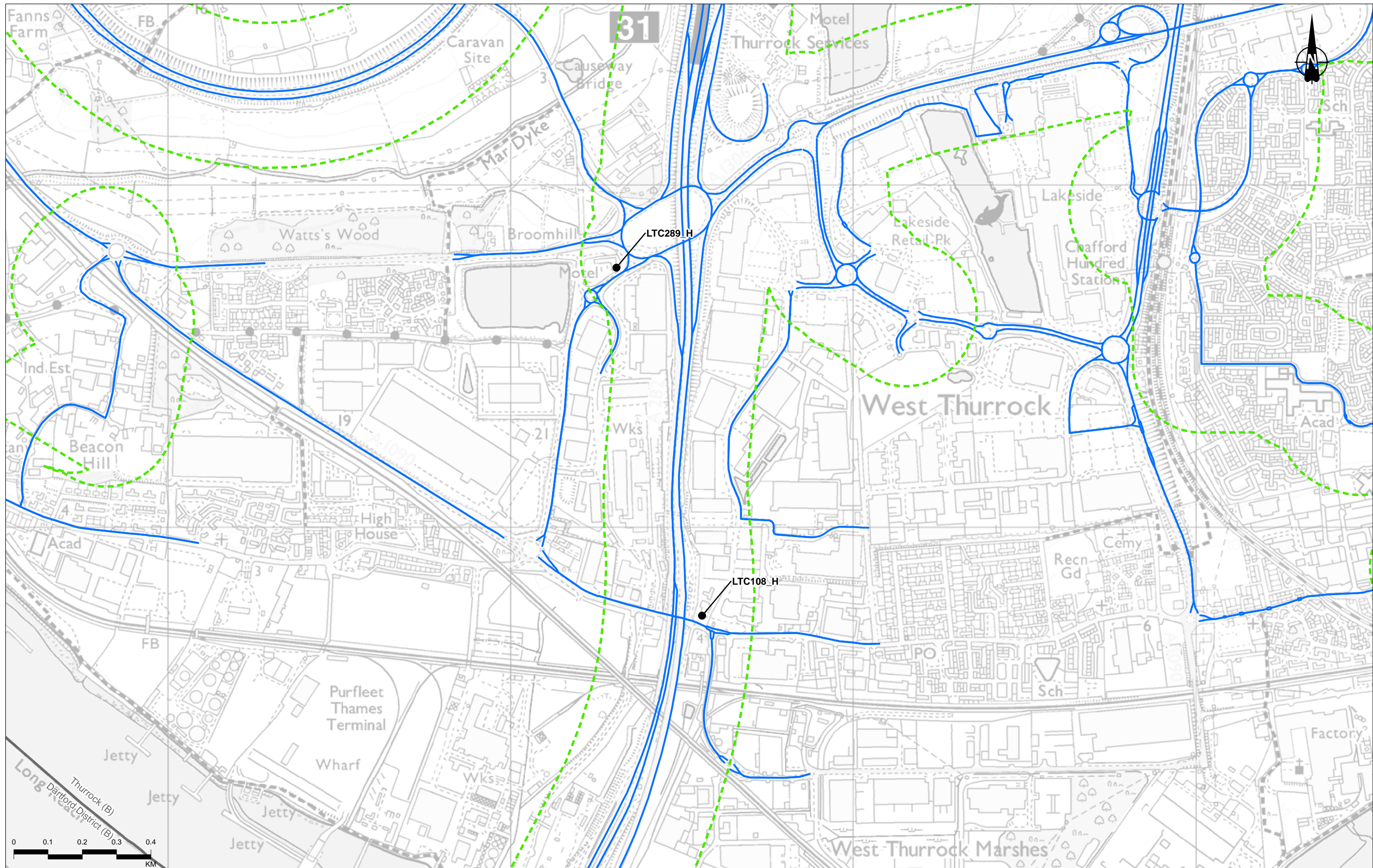
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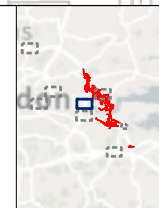


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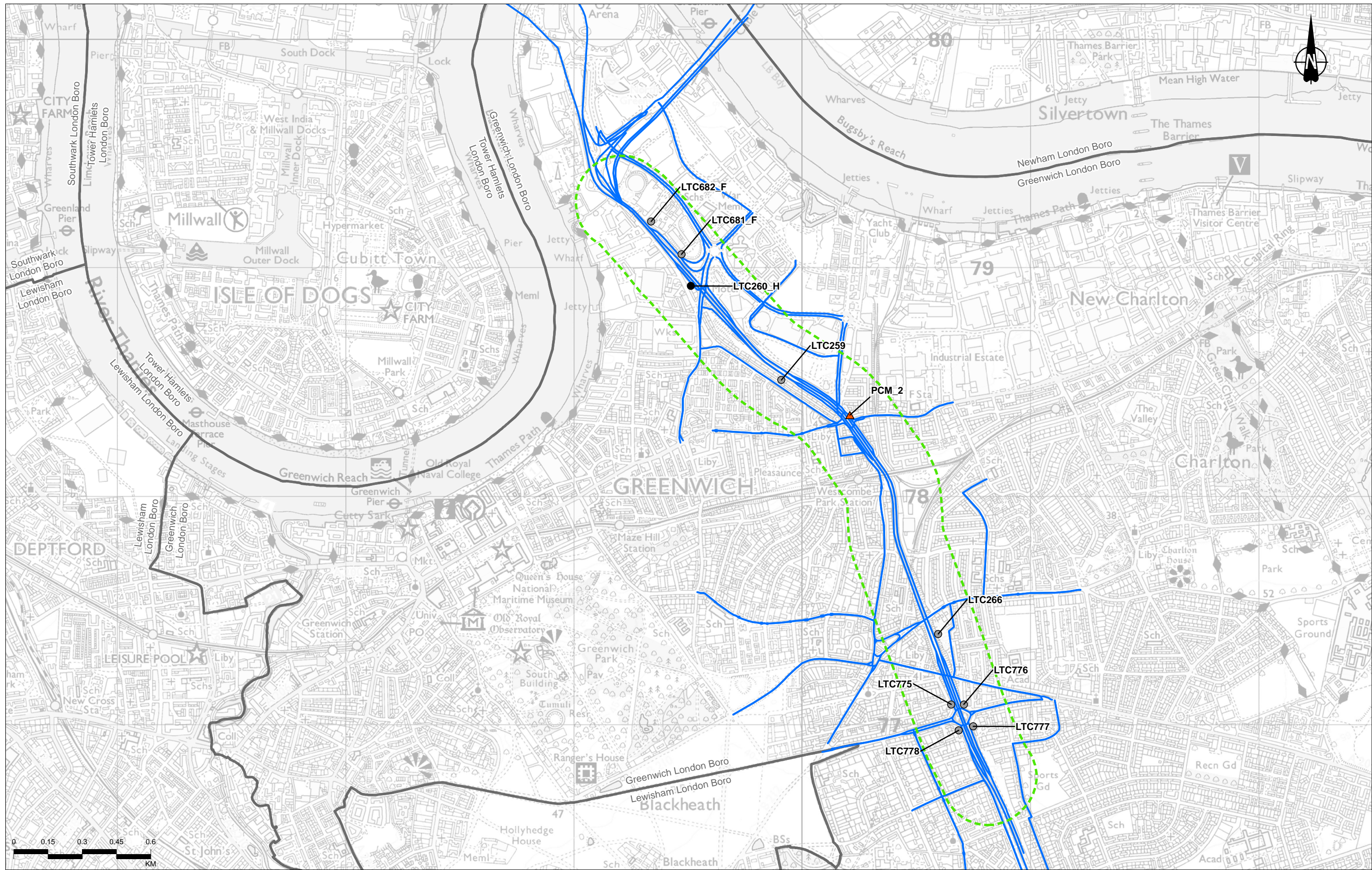
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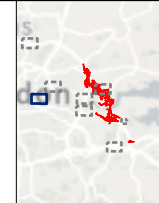
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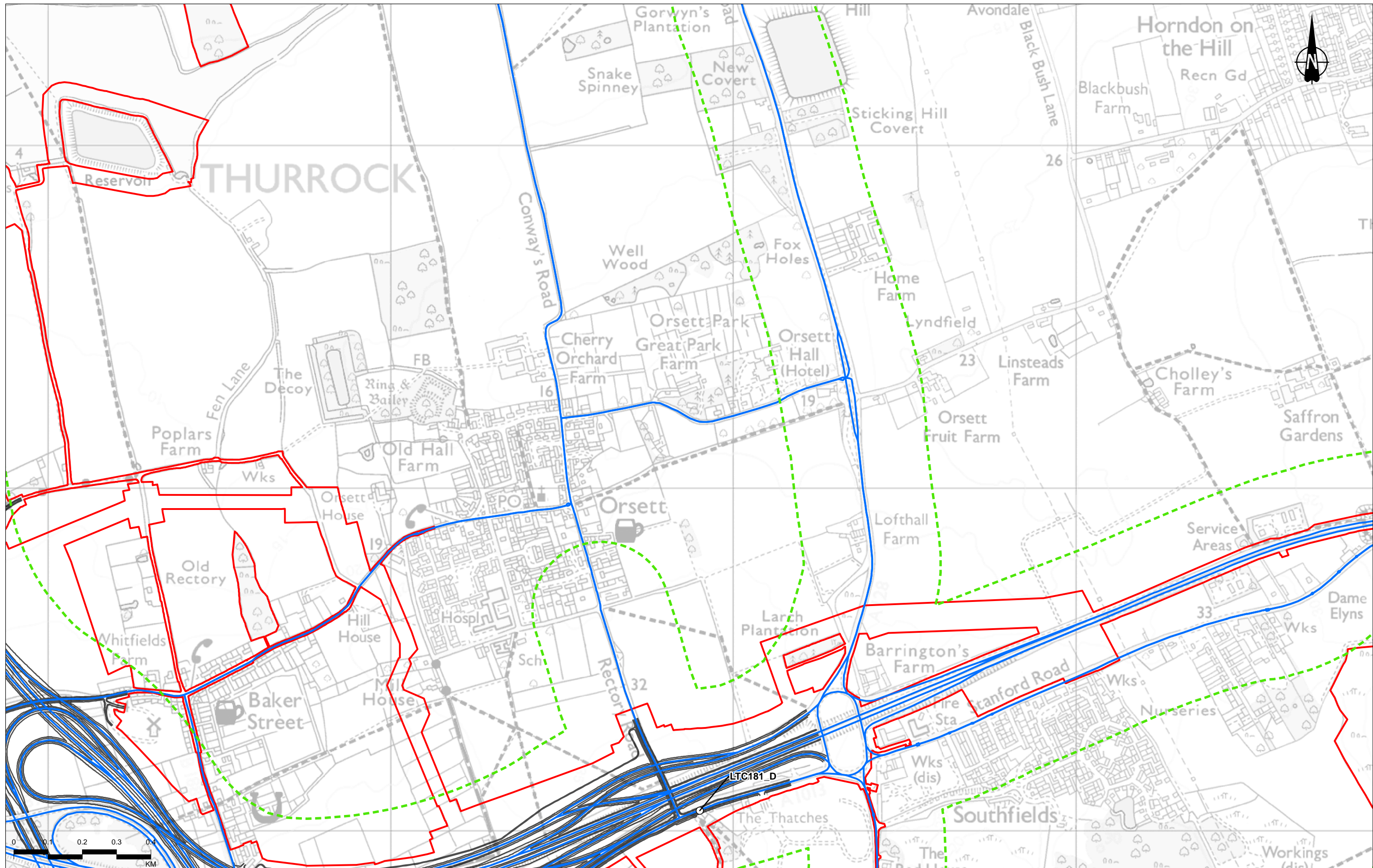
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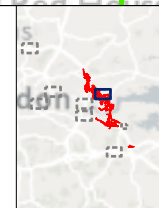
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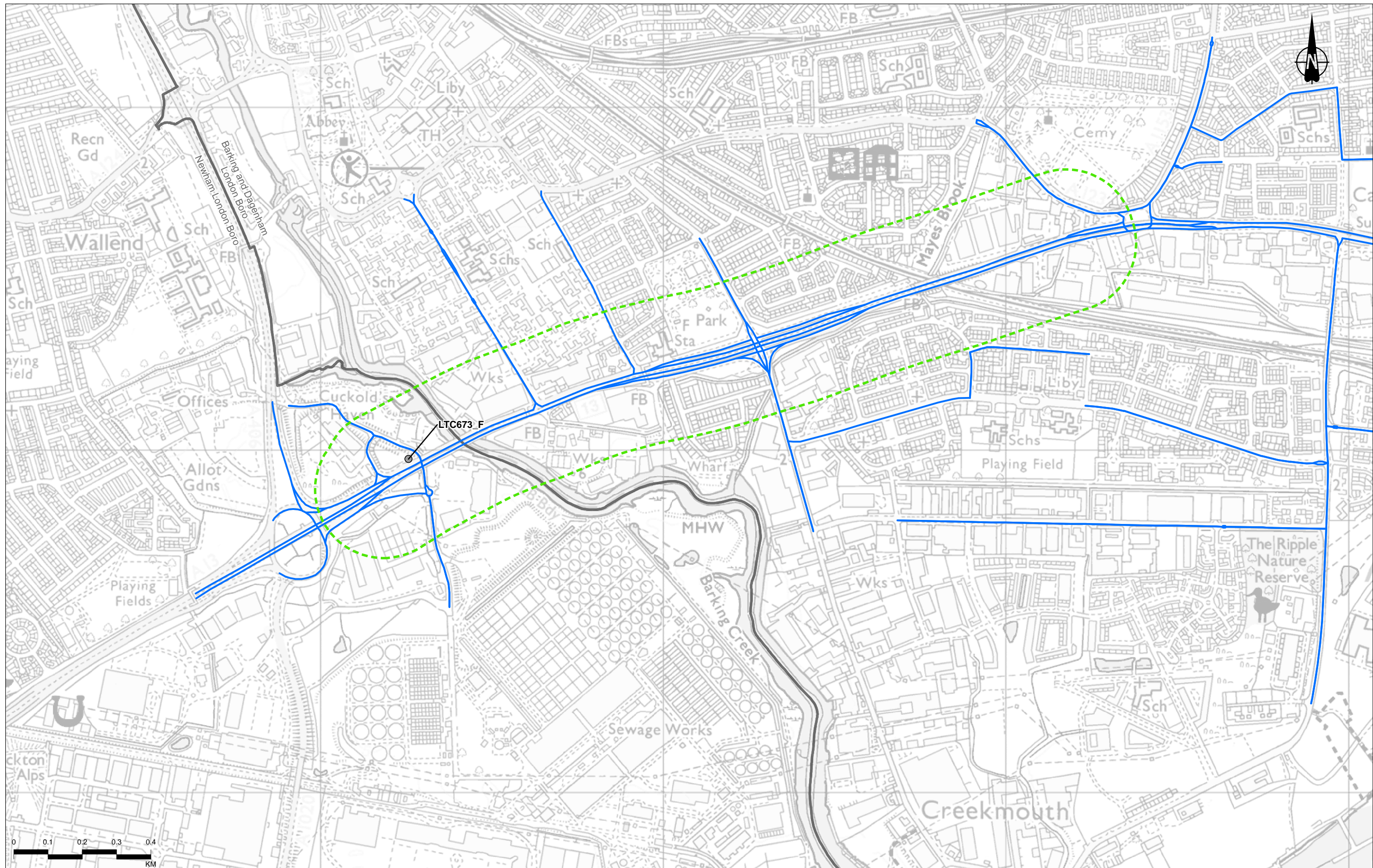
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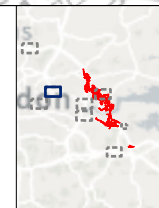


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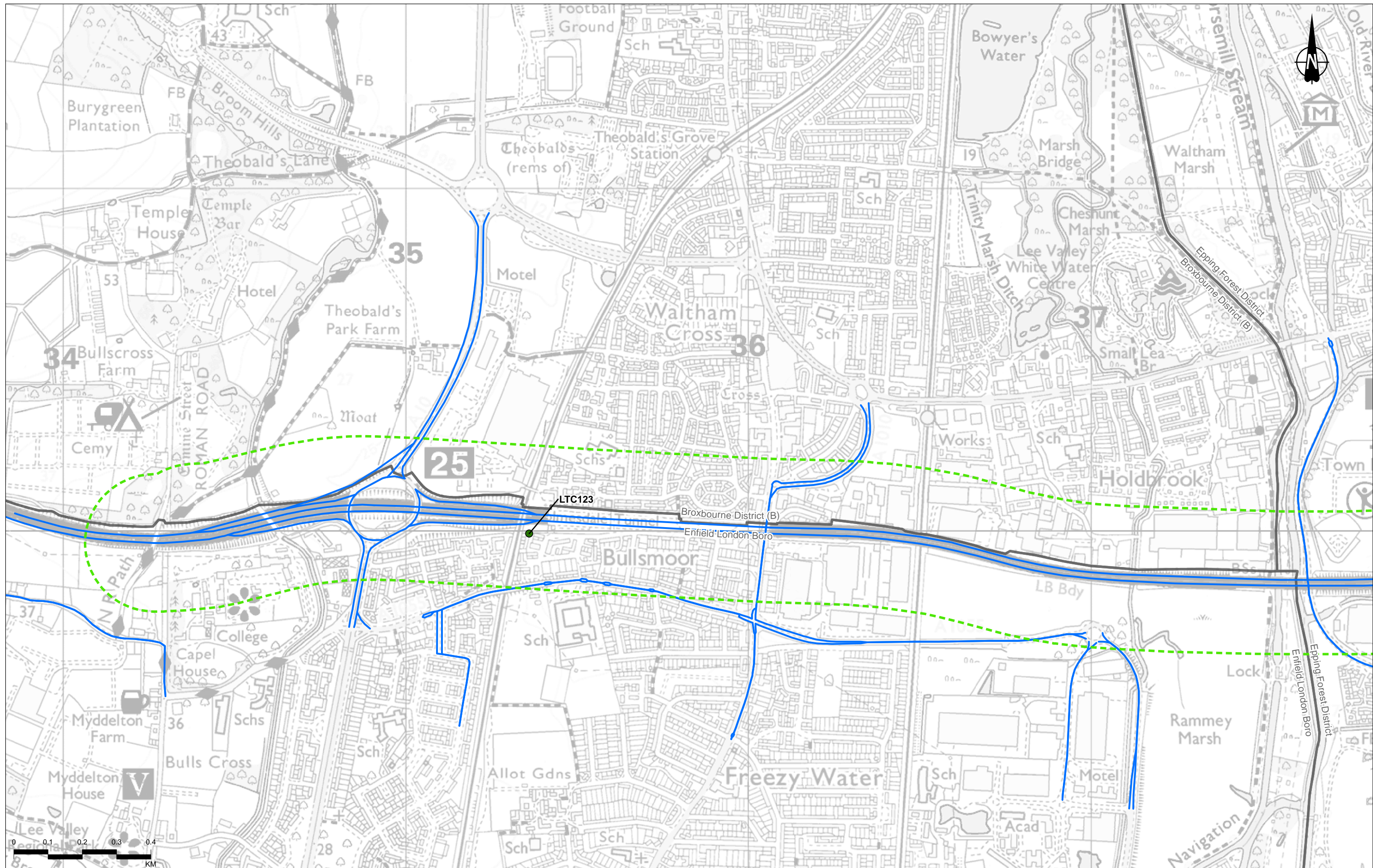
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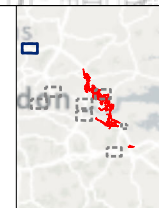
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