

Broxbourne Borough Council

8th January 2025

Enfield Local Plan Examination

Hearing Statement Matter 5: Key Diagram, Spatial Strategy and methodology for selecting site allocations

Q5.8: Have the cumulative effects on the transport network been robustly assessed?

This representation expands on Broxbourne Council's representations regarding PL10: Crews Hill and SARUR.03: West of Rammey Marsh. Weblinks for these representations are as follows:

<https://www.enfield.gov.uk/file/PDFs/email-21.11.2024/00580-1-1.pdf>
<https://www.enfield.gov.uk/file/PDFs/email-21.11.2024/00580-2-1.pdf> (incorrectly catalogued under Appendix A within the Representations Database)

The Statement of Common Ground

Broxbourne Council has notified Enfield Council that there is a discrepancy between the wording of the Statement of Common Ground on the website and that which we agreed by email on 19/07/2024 as follows: *"We are however keen to continue to engage with Enfield and their specialist consultants during the Local Plan examination process to mitigate any potential impact and reduce the potential risk to junction capacities to acceptable levels."*

Introduction

The A10 and subsidiary road network within the Borough of Broxbourne is severely congested at peak times. That has been the consistent conclusion of numerous plan-wide and scheme specific transport assessments undertaken by a variety of transport consultants, including WSP, the advisor to Enfield Council. It is also the experience of the residents and businesses in Broxbourne that rely on the A10 for journeys. That is the majority of residents and businesses.

Congestion on the A10 in Broxbourne – Broxbourne and Hertfordshire Assessments

Broxbourne has multiple assessments leading to the conclusion that the A10 within Broxbourne is and will continue to be severely congested without mitigation. It is not intended to summarise all these assessments within this representation but the following tables drawn from traffic assessments undertaken firstly for Broxbourne's strategic Brookfield development and secondly (by WSP) for the Major Road Network Broxbourne Scheme currently being assessed by the Department for Transport demonstrate volume/capacity figures at key junctions on the A10. Figures above 100% volume/capacity are considered to represent severe congestion.



Table 3.1 Broxbourne Transport Model - V/C Outputs (AM Peak)

Ref	Junction Description	2033 Reference Case (RC)	2033 RC + Brookfield Garden Village (BGV)	2033 RC + Retail Riverside Park (RRP)	2033 RC + BGV + RRP
1	A10 Turnford Interchange roundabout	48%	98%	55%	99%
2	A1170 Great Cambridge Road / High Road Turnford roundabout	81%	66%	65%	71%
3	High Road Turnford / Thomas Rochford Way / Cheshunt Wash / Halfhide Lane roundabout	63%	67%	67%	67%
4	A1170 Great Cambridge Road / Halfhide Lane / A10 On-slip roundabout	55%	41%	41%	40%
5a	The Links / Halfhide Lane signal junction	79%	28%	25%	37%
5b	The Links / Brookfield Shopping Centre Car Park signal junction	37%	23%	23%	26%
6	Halfhide Lane / Mylne Close / M&S Car Park access roundabout	73%	78%	90%	81%
7	Brookfield Lane West / Halfhide Lane priority junction	55%	69%	70%	70%
8	Brookfield Lane West / Flamstead End Road / Longfield Lane mini-roundabout	95%	104%	103%	104%
9	Flamstead End Road / Church Lane / Churchgate Road / Andrews Lane mini-roundabout	57%	57%	60%	81%
10	A10 Great Cambridge Road / Church Lane signal junction	105%	104%	102%	105%
11a	High Street / Turners Hill / Church Lane Roundabout	87%	87%	90%	90%
11b	Blindman's Lane / Turners Hill roundabout	74%	79%	76%	80%
12	A10 Great Cambridge Road / College Road signal junction	115%	119%	117%	120%
13	College Road / Turners Hill roundabout	69%	67%	67%	68%
14	New Spine Road / Link Road (to A10) / BGV Development Northern access roundabout	N/A	45%	59%	55%
15	New Spine Road / Hotel and Office Access	N/A	33%	58%	50%
16	New Spine Road / Riverside Car Park access priority junction	N/A	33%	49%	41%
17	New Spine Road / Brookfield Riverside Main Car Park access / BGV South access	N/A	45%	61%	57%
18	Halfhide Lane / Residential Development access	N/A	32%	32%	43%
19	Halfhide Lane / Elderly Acc Development access	N/A			
20	New Spine Road / Halfhide Lane signalled junction	N/A	83%	81%	85%



Table 3.2 Broxbourne Transport Model - V/C Outputs (PM Peak)

Ref	Junction Description	2033 Reference Case (RC)	2033 RC + Brookfield Garden Village (BGV)	2033 RC + Retail Riverside (RRP)	2033 RC + BGV + RRP
1	A10 Turnford Interchange roundabout	48%	98%	101%	102%
2	A1170 Great Cambridge Road / High Road Turnford roundabout	89%	86%	98%	98%
3	High Road Turnford / Thomas Rochford Way / Cheshunt Wash / Halfhide Lane roundabout	67%	69%	77%	73%
4	A1170 Great Cambridge Road / Halfhide Lane / A10 On-slip roundabout	74%	56%	55%	52%
5a	The Links / Halfhide Lane signal junction	98%	58%	50%	45%
5b	The Links / Brookfield Shopping Centre Car Park signal junction	58%	41%	48%	39%
6	Halfhide Lane / Mylne Close / M&S Car Park access roundabout	102%	96%	87%	92%
7	Brookfield Lane West / Halfhide Lane priority junction	133%	139%	126%	139%
8	Brookfield Lane West / Flamstead End Road / Longfield Lane mini-roundabout	100%	102%	102%	102%
9	Flamstead End Road / Church Lane / Churchgate Road / Andrews Lane mini-roundabout	71%	66%	72%	72%
10	A10 Great Cambridge Road / Church Lane signal junction	102%	104%	104%	102%
11a	High Street / Turners Hill / Church Lane roundabout	94%	99%	100%	96%
11b	Blindman's Lane / Turners Hill roundabout	69%	69%	70%	70%
12	A10 Great Cambridge Road / College Road signal junction	117%	119%	121%	125%
13	College Road / Turners Hill roundabout	78%	80%	79%	78%
14	New Spine Road / Link Road (to A10) / BGV Development Northern access roundabout	N/A	45%	44%	56%
15	New Spine Road / Hotel and Office Access	N/A	35%	46%	47%
16	New Spine Road / Riverside Car Park access priority junction	N/A	35%	58%	58%
17	New Spine Road / Brookfield Riverside Main Car Park access / BGV South access	N/A	46%	84%	88%
18	Halfhide Lane / Residential Development access	N/A	51%	56%	53%
19	Halfhide Lane / Elderly Acc Development access	N/A			
20	New Spine Road / Halfhide Lane signalled junction	N/A	91%	105%	101%

A10 MRN SOC Modelling

Junctions with worst turn V/C >85%

- 2036 Core Scenario NTEM 8.0 (DM & DS)

Junction	AM		IP		PM	
	DM NTEM 8	DS NTEM 8	DMNTEM 8	DS NTEM 8	DM NTEM 8	DS NTEM 8
A10/Lieutenant Ellis Way	116	98	105	95	106	85
A10/College Road Junction	108	100	105	104	103	101
A10/Church Lane Junction	109	96	102	98	105	100
College Road / Turners Hill Roundabout	100	89	92	89	101	94
Turners Hill / Windmill Lane	105	102	103	100	103	101

- 2036 Sensitivity test NTEM 7.2 (DM)

Junction	AM	IP	PM
A10/Lieutenant Ellis Way	119	107	106
A10/College Road Junction	113	106	104
A10/Church Lane Junction	110	103	125
College Road / Turners Hill Roundabout	103	100	120
Turners Hill / Windmill Lane	107	107	103

In all scenarios, the main Broxbourne junctions on the A10 exhibit volume/capacity ratios above 100% - the figure deemed to represent a severely congested junction.

It should be noted that the Broxbourne assessments were undertaken with the full involvement of Hertfordshire County Council and that the Broxbourne Local Plan “Saturn” model assessments were verified by the County Council’s own “Comet” model assessments. Both modelling exercises returned similar outcomes in relation to capacity/congestion levels on the A10 and the subsidiary network.

Congestion on the A10 in Broxbourne – Enfield Assessments

The transport assessments that have been undertaken for the Enfield Local Plan depict a very different analysis for the A10 junctions within Broxbourne. The plans and table on the ensuing two pages of this representation suggest that the A10 junctions within the Borough of Broxbourne are not severely congested, either in current or future year projections. To this Council’s surprise, no junction movements are shown to be above 100% in current usage or future projections. Furthermore, the addition of the Enfield Local Plan growth shows negligible impact and even volume/capacity improvement at the congested A10/College Road junction. Dialogue is on-going with WSP to understand how the addition of development is leading to improvements at this and M25 J25 (see below). However, in the absence of network improvements or traffic re-assignment, it appears that modal shift is being applied in the growth scenario to reduce traffic on the network. WSP has explained that any changes in modal split come from TfL’s MoTion demand model. At the time of writing, Broxbourne is endeavouring to understand how that is quantified but in the absence of modelled improvements to sustainable travel modes that benefit Broxbourne residents, it is difficult to understand how modal shift could be applied within Broxbourne.

Extract from AM Peak Local Plan Reg 19+Beyond Junction V/C (document TRA6 [link](#))

Scenario 2
Junction V/C (%)
PM Peak

- 80 - 90
- 90 - 100
- > 100



Extract from "PM Peak Local Plan Reg 19+Beyond Junction V/C" (document TRA5 [link](#))

Scenario 2
Junction V/C (%)
PM Peak

- 80 - 90
- 90 - 100
- > 100



Extract from WSP Technical Note provided to Broxbourne Council on 16th December 2024

Table 3 - A10 junctions VoC - Enfield Local Plan - 2041 Future Baseline and Local Plan with M25 J24 mitigations

Junction	AM		PM	
	LBE FB	LBE LP	LBE FB	LBE LP
A10/Lieutenant Ellis Way	98	98	88	89
A10/College Road Junction	84	84	97	94
A10/Church Lane Junction	96	96	90	90
College Road / Turners Hill Roundabout	77	79	86	86
Turners Hill / Windmill Lane	Not modelled			

Please note:

FB – Future Baseline (without Local Plan)

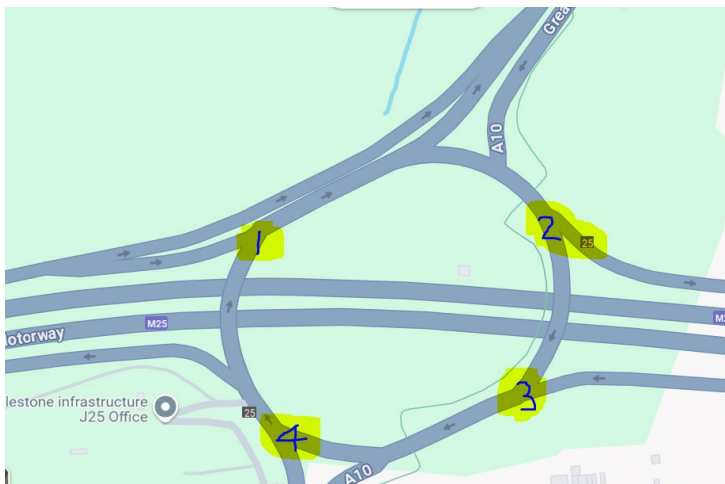
LP – Local Plan (with Local Plan)

WSP notes that there is no material change in junction VoC values between the Future Baseline scenario with/without the Local Plan growth, as noted in the tables below:

- A10 / Lieutenant Ellis Way Junction – PM only increase of 1% VoC from 88% to 89%
- A10 / College Road – PM only decrease of -3% from 97% to 94%
- A10 / Church Lane – No change
- College Road / Turners Hill Roundabout – AM only increase of +2% from 77% to 79%

M25 Junction 25

Broxbourne and Enfield share junction 25 of the M25. Improvements to this junction undertaken by Highways England formed a major element of the transportation package required to support the Broxbourne Local Plan. An up to date run of the Hertfordshire wide Comet model is imminent but Broxbourne had not seen modelling results for this junction post the improvements. The Council is however aware that south bound travel from Broxbourne to Enfield and onto the M25 remains congested at peak times. The Council was therefore keen to see the Enfield analysis of this junction and is in receipt of the following assessment.



	AM Peak		PM Peak	
	Reference Case	Local Plan	Reference Case	Local Plan
1	61	59	73	72
2	93	90	86	86
3	85	83	64	63
4	84	85	78	81

The reference case demonstrates that south bound movements are the most challenging but not yet at severe level. What is surprising is that the Local Plan scenario shows improvements to all arms, including on the south bound approach, a movement over which Enfield has little influence. These improvements presumably indicate that there is less traffic on the network. Is that a credible/sound conclusion to support the level and direction of growth in Enfield? It is not the conclusion of Broxbourne’s analyses which show continual traffic growth. This is fuelled by Broxbourne’s own adopted growth proposals, a matter considered in the following section of this representation. The Council is therefore concerned that the combined levels of development in Broxbourne and Enfield may create severe congestion at junction 25 of the M25.

In view of the weight of contrary evidence, this Council is unable to accept the foregoing evidence underpinning the Enfield Local Plan and would request that no reliance is placed on that evidence regarding the impact of the Enfield Local Plan on road infrastructure within the Borough of Broxbourne. To the contrary, without mitigation, this Council considers that there will be residual impact from the Enfield Local Plan land allocations that will exacerbate severe congestion on the A10 and subsidiary road network within the Borough of Broxbourne. That is a matter of soundness for the Enfield Local Plan and the examination needs to consider what if any mitigations will need to be secured to address the impact if these allocations are to proceed.

Cumulative Growth Underpinning the Projections

A related concern of this Council is that Enfield has not taken into account the growth allocations encompassed within the Broxbourne Local Plan or by implication the adopted plans of other adjoining councils. Rather, it has relied on NTEM projections of future growth. NTEM 8.0, which underlies the Enfield modelling, shows dwelling number increases within Broxbourne of 2,771 between 2014 and 2036.

Extracts from A10 Major Road Network (MRN) Statement of Case Transport Modelling by WSP for Hertfordshire County Council (emailed to Broxbourne Council 30 October 2024, circulated to Enfield Council by email and discussed with Enfield Council at a meeting on 16 December 2024)



A10 MRN SOC Modelling

Growth Assumptions - (2014-2036)

NTEM 8.0

	Enfield	Broxbourne
Dwellings	11,857	2,771
Jobs	15,929	5,127

NTEM 7.2

	Enfield	Broxbourne
Dwellings	17,110	6,311
Jobs	13,433	4,186

The Broxbourne Local Plan makes provision for 7,700 homes and between 5000 and 6000 jobs by 2033. The assessed need for Broxbourne is for 775 homes per annum using the December 2024 version of the standard method, which PPG states should be applied over a 15 year plan period. This would result in 11,625 new dwellings in Broxbourne between 2025 and 2040. The scale of disparity with the Enfield NTEM projections is considerable and it is not considered credible for the evidence base to maintain a low growth position.

Implications

The Enfield Local Plan appears to place reliance on modal shift to sustainable means of transport. However, this is not explicit and there is little apparent substance within either the Local Plan or the evidence behind it to demonstrate that measures will be implemented to secure modal shift. That is a matter for the soundness of the Plan which should contain a measurable set of interventions that could include projects outside the Borough of Enfield.

In pursuing the Broxbourne Local Plan, Broxbourne Borough Council worked with service providers to put in place policies and specific projects detailed in an Infrastructure Delivery Plan including high-level cost assessments for new railway stations, new bus services and a network of strategic and local pedestrian and cycle paths. The Council is now working with providers and stakeholders to implement those projects. Those projects are still not sufficient to address the severe congestion on the A10 and policies were therefore also advanced within the Broxbourne Local Plan to improve the A10 within Broxbourne. Those have resulted in a submission for Major Road Network funding and Broxbourne and Hertfordshire await a Government decision on a £30 million package of works.

The Enfield Local Plan and Transport Strategy appear silent on the A10 and road network that will accommodate the majority of non-localised journeys resulting from the Local Plan allocations. That is not a tenable position and this Council considers that the Local Plan should be explicit in its approach to the A10 and wider road network. The “emerging” Enfield Infrastructure Delivery Plan does to a certain extent recognise the issues associated with the A10 and junction 25 of the M25 and the need to address those issues but there is no apparent substance to what is suggested.

If Enfield is reliant on the existing network accommodating the impacts of development, that should be clear. In Broxbourne, this Council is clear that the A10 and associated network cannot accommodate planned growth – in either Broxbourne or Enfield – without direct intervention and modal shift. Broxbourne is therefore requesting more clarity within the Enfield Local Plan to demonstrate that the levels of growth and the settlement strategy proposed to deliver that growth will be supported by infrastructure improvements, that those improvements can be and will be delivered and that planning permissions for Crews Hill and land west of Ramney Marsh will be withheld until it is clarified that they will not exacerbate severe congestion on the road network.

1646 words