

Matter 6 – Hemel Garden Communities ('HGC')

Issue 3 – Highways and Transport

Q1 Is the strategic modelling an appropriate tool for assessing likely impacts of growth at HGC on the strategic road network, and, for determining necessary mitigation?

- 1.1 Yes, the strategic modelling is considered to be an appropriate tool for assessing likely impacts of growth at HGC on the strategic road network and for determining necessary mitigation, particularly as in this case it has been supplemented and corroborated by the use of Paramics micro-simulation modelling.
- 1.2 The document SADCED76B St Albans Local Plan modelling narrative - July 2025 sets out the position clearly:

1.1 What is the COMET model / what can it do

Hertfordshire County Council (HCC) has developed a Strategic Transport Model which covers the whole county. This is known as the Countywide Model of Transport (COMET). COMET is a multimodal model developed using the Department of Transport's Transport Appraisal (TAG) guidance. It is able to predict changes in travel demand for cars, vans, heavy goods vehicles, buses and trains. The model covers the motorway and trunk road network (operated by National Highways), as well as the network operated by HCC and includes all A, B and main C roads and some key rat runs in residential areas. The county is split into a number of zones generally based on areas used in the National census (Medium Super Output Areas) and the model also includes key surrounding areas such as Luton, Aylesbury and London. In broad terms the model estimates the number of trips between zones during different times of the day and allocates them to the type of transport and a specific route. A summary of the model can be found at COMET - Countywide Model of Transport (COMET model brochure).

The strategic modelling undertaken using Hertfordshire County Council's COMET model is considered an appropriate and robust tool for assessing the likely impacts of growth associated with Hemel Garden Communities (HGC) on the Strategic Road Network (SRN), and for informing the identification of necessary mitigation measures.

1.2 Use of the model in a Local Plan context

One of the key uses of the model is to look at the impact of future development on the transport network. The increase in housing (and / or jobs) within a certain location can be added to the appropriate model zone. The model then calculates the number of additional transport trips generated by that growth and forecasts where those trips will go. A particular focus is on additional vehicle trips and whether additional congestion problems are caused as a result of the new developments. The strategic nature of the model means that it is able to test the implications of multiple

development sites and their total impact over the wider area (and not just in the immediate vicinity of the site). It enables a prediction of the impacts across the local road network within St Albans district for the local highway authority (Hertfordshire County Council) as well as the impact on the Strategic Road Network (SRN) for National Highways.

Whilst we have more detailed town based models covering Hemel Hempstead and parts of St Albans City these are not able to model all the developments across the district and can't predict how many trips might use public transport and also are unable to show the wider impacts of the growth (for example on the motorway network) or in neighbouring authorities.

The COMET model has already been used to support Local Plan work elsewhere in Hertfordshire and also to underpin planning of individual development sites and the development of major transport infrastructure schemes.

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1.4 The Strategic Road Network and National Highways

A key stakeholder for the Local Plan is National Highways. They operate the motorway and trunk road network known as the Strategic Road Network (SRN) (i.e. the M1 and the M25 in the St Albans District area) and therefore require evidence of the impact of the development growth on these routes (and in particular at the motorway junctions). The focus for National Highways is the impact of individual Local Plans on their network.

As part of the Duty to Cooperate discussions, a series of meetings have been held with HCC, SADC and National Highways supported by information exchange. The first stage was to demonstrate that the COMET model is accurately reflecting the traffic conditions on the motorway network. A separate comparison was undertaken of the modelled versus observed flows on the Strategic Road Network and confirmed overall that the model met the required comparison criteria during all model time periods.

240409 COMET 2014 Base Year Model Review-SRN

A specific comparison was undertaken of the performance of the M25 against National Highways own data was also undertaken at their request and was found to meet the required criteria on the majority of sections.

240701 COMET 2014 Base Year Model Review-SRN

National Highways subsequently confirmed that they were satisfied with the performance of the model for Local Plan testing purposes.

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4. Local modelling

HCC have also developed a more detailed local transport model covering the Hemel Hempstead urban area. This is known as a microsimulation model and has been developed in Paramics software. This model has more detailed coding of the local road network in Hemel and simulates the behaviour of individual vehicles and allows testing of improvements to the road network and different levels of development growth within the area of the model. Further information on the Hemel Paramics model coverage is available at [Hemel Hempstead Model Information](#).

The focus of the local modelling is on the Hemel Hempstead area as the model is being used by developers of the East Hemel allocation (consultants Vectos SLR on behalf of The Crown Estate) to help with their masterplanning exercise. There is also a need for more detailed modelling of the area around M1 Junction 8 due to the complexity of the layout here and the sensitivity of the network.

The base year of the model was updated by Vectos SLR in 2021 (based on 2019 observed data) and has since been audited by Systra and by National highways which confirmed it was an appropriate base to carry out forecasting and test the HGC proposals. It has been agreed with National Highways that due to the complexity of the highway layout around M1 Junction 8, there is a need for more detailed operational testing in this area.

Vectos SLR have tested the implications of the combined Local Plan growth by 2041 using this model. The 2041 growth aligns with the COMET model Joint Local Plan forecasts (Option 4a). This has been done by extracting the flows coming into and out of Hemel Hempstead in 2041 in the COMET model (a process known as cordoning) and using them as an overall cap on the level of future traffic flow. Vectos SLR have coded in the access arrangements associated with the East and North Hemel Developments including the East Hemel Spine Road and signalisation of the A414 /Green Lanes (Breakspear) junction along with the mitigation measures identified with both Dacorum and St Albans City & District Local Plans which have been included in the COMET model. The resulting model is known as M007 and is reported in: [SLR Vectos - 000197.R002 Hemel Local Plan Modelling report](#).

The Paramics modelling work indicates that the locations of queueing and delay across Hemel Hempstead are broadly consistent with those identified in the COMET model with the combined local plan growth up to 2041. At the A414 /Green Lanes (Breakspear) junction whilst there is an increase in delay in the Paramics model, this is less than predicted in the strategic COMET model and queues can be accommodated within the highway space available and do not block back along the M1 Junction 8 slip roads.

There will inevitably be some difference in the levels of delays and queuing experienced between a local microsimulation model such as Paramics and a more strategic model such as COMET as they model vehicles differently. A microsimulation model captures real time vehicle interactions and simulates individual vehicle behaviour such as lane changing, acceleration and deceleration and models the build up of congestion whereas a strategic model such as COMET is

based on hourly averages. Section 4 of the report outlines these differences in more detail.

The differences in the modelling results in the Hemel area are also explained by differences in the flow levels in the models. COMET has a base year of 2014 and year on year growth is applied up to 2041. Paramics has a base year of 2019 (growth from 2014 – 2019 was therefore omitted and further growth was not applied until 2022 (to take account of COVID). Some other adjustments were undertaken in Paramics to apply some additional mode shift in trips to and from the town centre (see Chapter 5 of the report). The combined impact means that there are 11% less trips in the Paramics model in the AM peak and 10% less trips in the PM peak compared to COMET.

There are also some differences in the infrastructure assumed in the Paramics model with a couple of the IDP infrastructure measures omitted in the town centre area due to sensitivity of traffic in this area and some additional measures proposed elsewhere to improve the operation of other junctions.

The Paramics report concludes that despite some differences in assumptions and the form of the model, there is a reasonable synergy between the impacts identified in the local model and those presented in COMET but that the local modelling demonstrates that changes to M1 Junction 8 are not required until beyond the current local plan period.

- 1.3 Overall, the COMET strategic model provides a validated, countywide framework for assessing the transport impacts of HGC growth on the SRN and for informing the timing and nature of mitigation measures. It is supported by National Highways and Hertfordshire County Council and is complemented by local micro-simulation modelling (Paramics), making it an appropriate tool for strategic transport planning for a Local Plan.

Q2 What are the implications of the growth proposed at HGC on the strategic road network, having particular regard to Junction 8 of the M1?

- 2.1 The implications of the growth proposed at HGC on the strategic road network, having particular regard to Junction 8 of the M1, are well understood. They are concisely addressed in SADC/ED76 -Transport Note relevant to Transport documents - July 2025 as:

Local Highway Network – Hertfordshire County Council (HCC)

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4 – For HGC - congestion in the vicinity of M1J8 can be addressed through a variety of measures including A414/Green Lanes (Project Breakspear Phase 1 and Phase 2), which are on the Local Highway Network

5 – For HGC – Project Breakspear Phase 3 (M1 Overbridge) – on the Strategic Road Network – is likely required post-2041 – provided that there is delivery of infrastructure and transport mitigation to deliver the mode-share shift

6 – SADC and HCC are working towards a Statement of Common Ground on transport matters to be provided as part of Stage 2 Hearings in autumn 2025. This will include proposed small amendments to Local Plan policies as Main Modifications to ensure their effectiveness, including through a ‘Monitor and Manage’ approach

Strategic Road Network – National Highways (NH)

1 – “Further evidence will be required to demonstrate that the Local Plan is sufficiently robust on transport grounds” at Reg 19.

2 – Further evidence to understand impacts on the Strategic Road Network and mitigations have been undertaken.

3 – There is predicted to be significant growth in traffic in the St Albans area – but there are ‘No Showstoppers’ or ‘Severe’ impacts on the Strategic Highway Network District wide to 2041 – provided that the significant investment required in infrastructure is secured through the ongoing planning application and Transport Assessment processes.

4 – For HGC - congestion in the vicinity of M1J8 can be addressed through a variety of measures including Project Breakspear Phase 1 and Phase 2, which are on the Local Highway Network, but assist the function of the Strategic Road Network.

5 – For HGC – Project Breakspear Phase 3 (M1 Overbridge) – on the Strategic Road Network – is likely required post-2041 – provided that there is delivery of infrastructure and transport mitigation to deliver the mode-share shift.

6 – SADC and National Highways are working towards a Statement of Common Ground on transport matters to be provided as part of Stage 2 Hearings in autumn 2025. This will include proposed small amendments to Local Plan policies as Main Modifications to ensure their effectiveness, including through a ‘Monitor and Manage’ approach.

Conclusion

As a result of the additional Transport work, the Council will be proposing some limited amendments to Local Plan policies as Main Modifications to ensure their effectiveness, including through a ‘Monitor and Manage’ approach. This will include an additional TRA policy in the draft Local Plan Part A Chapter 8 “Transport” and some additional ‘Key Development Requirements’ for a number of Allocations in Part B of the draft Local Plan. The additional Transport work and the proposed Main Modifications also relate to the evidence that sits within the Infrastructure Delivery

Plan (INF 01.01 - SADC Infrastructure Delivery Plan (2024)) and the Local Plan Viability Assessment (INF 10.01 - BNPPRE Local Plan Viability Report SADC (2024)). The detail of the Main Modifications to be proposed is under review with National Highways and HCC.

- 2.2 The implications are addressed in more detail in the document SADC/ED76B St Albans Local Plan modelling narrative - July 2025. The Executive Summary explains the implications and context as:

Executive Summary

- Hertfordshire County Council (HCC) have a Countywide Strategic Transport Model (COMET) which has been used to test the implications of Local Plan growth in St Albans district.*
- Following checks of how well the model is representing current traffic patterns in the district, a number of runs have been undertaken to test the impact of the St Albans Local Plan allocations. These have included modelling the associated infrastructure (as identified in the Infrastructure Delivery Plan) with some allowance for a shift to more sustainable modes (the level of which is based on earlier work – Opportunity to Shift Modes (2024))*

The results of this process indicate the following:

- There is predicted to be significant growth in traffic in the St Albans District area as a result of development already planned (before the Local Plan sites come forward) by 2041.*
- St Albans City & District Local Plan growth adds between 5-9% additional traffic on top of this depending on the level of mode shift applied.*
- Adding in additional transport schemes (from the Infrastructure Delivery Plan) alleviates some of the pressure particularly around the A414 in Hemel Hempstead and northern St Albans District and on more rural routes which could be potentially used as 'rat runs'.*
- Implementing infrastructure and other supporting measures to encourage a shift towards more sustainable modes of travel is also key to the efficient operation of the highways network.*
- The focus for National Highways is the impact of growth on the Strategic Road Network. The modelling work has shown potentially large changes in traffic flow at M1 Junctions 8 and 9 and work has identified modifications to junction layouts at these locations, which could be implemented, if and when required. The current layout of M1 Junction 8 however is predicted to accommodate the additional SADC Local Plan traffic providing changes are made to the A414 / Green Lanes junction on the Local Highway Network (which consist of signalisation).*
 - The Dacorum Local Plan is being developed in parallel and a series of model runs have also been undertaken to support this process. As a large proportion of Dacorum's growth is focussed on Hemel Hempstead there is a need for HCC as local highway authority to understand the potential impact of both sets of growth on the Local Highway Network.*

- A key issue is whether the current layout of M1 Junction 8 can accommodate the combined levels of growth in the Local Plan period. The tests indicate whilst the revised A414/Green Lanes junction works better than the current layout, there are increases in delay and a risk of westbound queues into the junction, blocking back onto the M1 northbound off slip.
- An alternative layout has been developed for M1 Junction 8 providing an overbridge over the M1. This provides a direct connection into East Hemel (central zone), relieving pressure on the A414/Green Lanes Junction. This alternative design has also been tested with the combined growth and shows that with some tweaks to the layout delays and queueing with the combined growth are reduced.
- The initial modelling work has assumed 8,000 jobs will be provided in the East Hemel employment zone, however recent evidence suggests that this may now be reduced and as a result a test has been undertaken assuming 4,000 jobs. Further testing has been undertaken with this lower employment number and has indicated reduced delays in the A414/Green Lanes area and queues that can be accommodated within the highway space available with no blocking back.
- This finding is backed up by local modelling work undertaken using the Hemel Hempstead Paramics Model. Local Modelling work undertaken using the Hemel Hempstead Paramics models indicates that the queues can be accommodated. Given the differences in the model outcomes and the ongoing uncertainty around future jobs growth it is suggested that a monitor and manage approach is adopted at this location.

2.3 This can be summarised as:

- Up to 2041 - the current layout of M1 Junction 8 is predicted to accommodate the additional SADC Local Plan traffic providing changes are made to the A414 / Green Lanes junction on the Local Highway Network (Project Breakspear Phase 1 and Phase 2)
- Beyond 2041 - there will need to be an overbridge over the M1 to provide sufficient mitigation and relief to M1 Junction 8

2.4 Overall, the implications of the growth proposed at HGC on the strategic road network, having particular regard to Junction 8 of the M1, are well understood and can be appropriately mitigated.

Q3 Can any significant highways impacts (in terms of capacity and congestion), or on highway safety, be cost effectively mitigated to an acceptable degree, consistent with paragraph 114 of the Framework? How have the need for highways improvements been costed, and will the sites proposed for allocation at HGC remain viable?

Can any significant highways impacts (in terms of capacity and congestion), or on highway safety, be cost effectively mitigated to an acceptable degree, consistent with paragraph 114 of the Framework?

3.1 Yes, the significant highways impacts can be cost effectively mitigated to an acceptable degree, consistent with paragraph 114 of the framework.

3.2 The NPPF at paragraph 114 sets out:

114. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

3.3 Each Council's Local Plan Viability Appraisals has considered highway costs and concluded that the mitigation included is viable and deliverable.

3.4 The Council considers there is sufficient evidence to date to demonstrate the SADC HGC site allocations' viability. Each of the HGC site allocations (H1, H2, H3 and H4) has been appraised through the Local Plan Viability prepared by BNP Paribas in 2024 (INF 10.02, INF 10.03, INF 10.03, and INF 10.09). The BNP Paribas viability testing demonstrates that all 4 HGC site allocations are viable and developable, having regard to both the Council's planning policy, highways and infrastructure requirements as set out in the SADC IDP, including 40% affordable housing, highways and infrastructure mitigation, including appropriate contributions towards Junction 8 improvements (Phase 1-3). BNP Paribas viability evidence considers the 4 HGC site allocations to be developable as required by the NPPF i.e. it has a 'reasonable prospect' of being available and viably developed within the plan period.

How have the need for highways improvements been costed, and will the sites proposed for allocation at HGC remain viable?

3.5 In accordance with paragraph 114 of the NPPF, the transport impacts of development at HGC can be mitigated to an acceptable degree through cost-effective infrastructure interventions and sustainable transport measures. The necessary improvements have been robustly costed, and the proposed allocations

remain viable, subject to ongoing monitoring and refinement. Highways Improvements have been developed and costed, through the Local Plans IDP, for SADC (INF 01.01 and INF 01.02).

3.6 Within Plan Period to 2041

Project Breakspear Phase 1

Phase 1 of package of transport measures to enhance M1 Junction 8 and surrounding area - Replacement of the existing Breakspear Way / Green Lane Roundabout (Phoenix Gateway) with traffic signals. - Estimated Cost £1M

Project Breakspear Phase 2

Phase 2 of package of transport measures to enhance M1 Junction 8 and surrounding area - package of transport measures to prioritise active and sustainable modes of travel including improvements to existing roads, A414 Walking and cycling bridge, East Hemel Mobility Hub and HGC Sustainable Transport Corridor. Estimated Cost £64M

3.7 Beyond Plan Period – to 2050

Project Breakspear Phase 3

Phase 3 of package of transport measures to enhance M1 Junction 8 and surrounding area. To provide additional capacity and connectivity to Maylands and Herts IQ, and relieve congestion on the A414. Land to the east of Junction 8 is safeguarded, in case it is required to come forward for junction improvements (Phase 3 J8 enhancements). Estimated Cost £107M

3.8 Project Breakspear Phases 1 and 2 are confirmed as viable for delivery within the current Plan period.

3.9 Project Breakspear Phase 3, which falls beyond the current Plan period, has an appropriate contribution to its costs accounted for in the BNP viability work. Due to its extended lead-in time and strategic nature, Phase 3 will be subject to a "monitor and manage" approach. Should future monitoring demonstrate continued need, the remaining funding will be sought through a combination of Section 106 contributions, Community Infrastructure Levy (CIL), external grants, and strategic partnerships such as Herts IQ.

3.10 The S106 contributions toward transport are set out in the following viability reports:

INF 10.02 – East Hemel (Central) Site Viability Report (2024)

INF 10.03 – East Hemel (North) Strategic Site Viability Report (2024)

INF 10.04 – East Hemel (South) Strategic Site Viability Report (2024)

INF 10.09 – North Hemel Hempstead Strategic Site Viability Report (2024)

- 3.11 The SADC Local Plan Strategic Site Viability Reports for HGC identify transport contributions as follows:

£11,000 per home for transport requirements (e.g. Highways)

- 3.12 There are well-understood impacts on M1 Junction 9. In simple terms, there is a need to upgrade a limited part of M1 Junction 9 over the medium to long term. An appropriate scheme to upgrade the relevant parts M1 Junction 9 has been devised and costed.

- 3.13 The Local Plan examination documents contain the following references to work undertaken by WSP regarding M1 J9 include:

SADC/ED76C.iv Appendix 4: March 2025 Technical Note

Diverge assessment for M1 Junction 9 This task involved extracting traffic flow information from the COMET model into a diverge assessment spreadsheet and reviewing the results.

SADC/ED76C.v Appendix 5: April 2025 Technical Note

To generate a potential mitigation proposal for M1 Junction 9 diverge which will provide a drawing of the proposal, undertake an initial safety assessment and provide an initial cost estimate

- 3.14 The estimated cost of the M1J9 diverge mitigation is £7.5M. The project would be delivered in accordance with the 'monitor and manage' approach.
- 3.15 The overall position with regard to M1 Junction 9 is that there is a costed design solution that works and the new TRA0 Policy wording will ensure that it can be funded and delivered through relevant planning applications.
- 3.16 Within the Plan period, in the context of the vicinity of M1 Junction 8, altogether, the improvements (including Project Breakspear Phase 1 and Phase 2) mean that the growth to 2041 can be successfully accommodated on the local road network and that there will be no 'severe' impacts on either the local road network or the M1. Beyond the plan period, there will be the need for the significant intervention of Project Breakspear Phase 3, to enable both the local and the strategic road networks to continue to function without 'severe' impacts.
- 3.17 Overall, significant highways impacts (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree, consistent with paragraph 114 of the Framework. The need for highways improvements has been costed through robust evidence and the sites proposed for allocation at HGC remain viable.

Q4 Where mitigation is required, is it sufficiently clear to users of the Plan what is required, where and when as required by policy?

- 4.1 Yes, it is considered that the mitigation is set out sufficiently and is clear to users of the Plan and it provides a clear and structured framework for identifying and phasing infrastructure mitigation.
- 4.2 The requirements are set out primarily in the following locations:
- Local Plan policies, including for SADC Strategic Policy SP14 - Delivery of Infrastructure; TRA1
 - Site specific mitigation is set out within the Local Plan requirements for the site allocations, including in Part B H1-H4 for SADC.
 - SADC Infrastructure Delivery Plan (IDP) (INF 01.01 - SADC Infrastructure Delivery Plan (2024) and Appendix A1 SADC Infrastructure Schedule (2024) INF 01.02)
- 4.3 Further detailed evidence work, which has informed the policy requirements includes:
- HGC 2050 Transport Vision & Strategy Executive Summary (2024) (HGC 05.01)
 - HGC 2050 Transport Vision & Strategy (2024) (HGC 05.02)
 - HGC Potential Modal Shift Executive Summary (2023) (HGC 05.04)
 - HGC 05.03 - Hemel Hempstead Modal Shift Study Full Report (2023)
 - St Albans District LCWIP Final Report (2023) (INF 07.02);
 - St Albans Modal Shift Study (2024) (INF 09.12)
 - INF 09.01 - Transport Impact Assessment (TIA) Intro (2024)
 - COMET St Albans LP Modelling Report (2024) (INF 09.11).
- 4.4 SADC, DBC and HCC are actively working with developers for sites H1 and H2-H4 through Planning Performance Agreements (PPAs) to refine infrastructure requirements and secure delivery through the planning application process. This ensures that the packages of mitigation are not only identified in principle but also will be secured through planning permissions. These PPAs are progressing well and applications are intended to be submitted in autumn/Winter 2025.
- 4.5 As set out in INF 01.01 - SADC Infrastructure Delivery Plan (2024):

4.3.6 Ongoing status of the Infrastructure Schedule

An IDP is intended to be a 'living document' that can be updated and reviewed at regular intervals. Where new or different information is received by the Council, or indeed the Council's own evidence base changes, it will be appropriate to review the IDP and amend the identified infrastructure requirements where necessary. This is particularly the case given the site-

specific nature of demand forecasting in the IDP, which is based upon the sites proposed for inclusion in St Albans Local Plan at the time of writing.

It is also important to note some of the sites upon which the infrastructure schedule is based are not expected to be built out until towards the end of the plan period, and the context and circumstances of these sites may therefore have changed by the time a planning application is submitted to the Local Planning Authority. Subsequent updates to the IDP are therefore likely to supersede the assumptions set out in this document over time. The timescales for updating the IDP will depend on the extent to which circumstances change. It is recommended that updates are made at least once every five years, linked to the NPPF's requirement to undertake reviews of local plans at this frequency.

4.6 As a result of ongoing work with National Highways and HCC, a Main Modification (as set out in SADC/ED85B and SADC/ED85C) to include a new policy TRA0 - Monitor and Manage has been proposed. Detailed Statements of Common Ground have been signed by both HCC and National Highways, as set out in M6I3Q4 Appendix 1 and Appendix 2 respectively. The current working draft of proposed new policy TRA0 is set out at M6I3Q4 Appendix 3. This draft policy wording has been agreed by HCC. It has been iterated on several occasions with National Highways and should be agreed in late September / early October 2025.

4.7 The introduction of proposed policy TRA0 is considered to add useful clarity here for users of the Plan about the commitment to develop a 'Monitor and Manage Plan' for the SRN and LHN in relation to M1 Junction 8 and M1 Junction 9 and the expectation for developers to provide financial contributions to help deliver this monitor and manage approach.

4.8 Key mitigation schemes for M1 Junction 8 include the following:

4.9 Within Plan Period to 2041

Project Breakspear Phase 1

Phase 1 of package of transport measures to enhance M1 Junction 8 and surrounding area - Replacement of the existing Breakspear Way / Green Lane Roundabout (Phoenix Gateway) with traffic signals.

Project Breakspear Phase 2

Phase 2 of package of transport measures to enhance M1 Junction 8 and surrounding area - package of transport measures to prioritise active and sustainable modes of travel including improvements to existing roads, A414 Walking and cycling bridge, East Hemel Mobility Hub and HGC Sustainable Transport Corridor.

4.10 Beyond Plan Period – to 2050

Project Breakspear Phase 3

Phase 3 of package of transport measures to enhance M1 Junction 8 and surrounding area. To provide additional capacity and connectivity to Maylands and Herts IQ, and relieve congestion on the A414. Land to the east of Junction 8 is safeguarded, in case it is required to come forward for junction improvements (Phase 3 J8 enhancements).

- 4.11 For M1 Junction 9, there is a need to upgrade a limited part of M1 Junction 9 over the medium to long term. An appropriate scheme to upgrade the relevant parts M1 Junction 9 has been devised and costed (see further detail at M6I3Q3 above).
- 4.12 It is established that:
- **Project Breakspear Phases 1 and 2** must be delivered early in the Plan period.
 - **M1 Junction 9** is not required until the mid-period of the Plan, with its delivery to be determined through a *monitor and manage* approach.
 - The **Project Breakspear overbridge (M1 crossing)** is not needed until after the Plan period (post-2041), and its timing will also be guided by the *monitor and manage* approach.
- 4.13 Overall, the Council considers that it is sufficiently clear to users of the Plan what is required, where and when as required by policy.

Q5 What is the justification for the sensitivity testing which looks at a reduced number of jobs at East Hemel Hempstead (Central)? How does this correlate to the allocation in the St Albans Local Plan and the mix of uses proposed?

What is the justification for the sensitivity testing which looks at a reduced number of jobs at East Hemel Hempstead (Central)?

- 5.1 The justification for the sensitivity testing which looks at a reduced number of jobs at East Hemel Hempstead (Central) is that the lower 4,000 jobs figure has become the most realistic estimate of future job creation on the site.
- 5.2 There has been an evolution of understanding of the most realistic estimate of future job creation as East Hemel (Central) in recent years. At Regulation 18 stage in 2023 the draft Plan set out:

5. A mix of employment uses linked to the Council's recent evidence base, and vision for Herts IQ to enable, in the order of, 8,000 jobs. The jobs growth will support a diverse economy for Hemel Hempstead and South West Hertfordshire.

- 5.3 At Regulation 19 stage in 2024 the draft Plan set out:

21. A mix of employment uses linked to the Council's recent evidence base, and vision for Herts IQ to enable, around 6,000 jobs. The jobs growth will support

rebalancing the local economy by prioritising higher-skilled jobs and learning opportunities for Hemel Hempstead and South West Hertfordshire.

- 5.4 Now in 2025 the latest evidence supports the 4,000 jobs figure. A Main Modification has been proposed for the H3 site to reflect the circa 4,000 jobs figure, as set out in SADC/ED85B and SADC/ED85C and as reproduced below:

21. A mix of employment uses linked to the Council's recent evidence base, and vision for Herts IQ to enable, around 4,000 jobs. The jobs growth will support rebalancing the local economy by prioritising higher-skilled jobs and learning opportunities for Hemel Hempstead and South West Hertfordshire.

- 5.5 Recent evidence from 2025, from Hertfordshire Futures (formerly Hertfordshire Local Enterprise Partnership) and The Crown Estate as they develop the East Hemel application, indicates that employment growth in the Maylands area is likely to be lower than previously anticipated. This is due to a number of factors, including:

- increased automation in the logistics and distribution sectors reducing the number of warehousing roles
- changes in space utilisation affecting the mix of B8 versus office/laboratory premises.
- greater demand than envisaged due to the rapid expansion of (e-commerce driven) logistics
- a reduction in demand for office space due to changing working patterns and types of office space required post COVID

- 5.6 In light of this evidence, officers from St Albans City & District Council, Dacorum Borough Council, Hertfordshire County Council, Hertfordshire Futures and the Crown Estate (as landowner) agreed that a revised assumption of approximately 4,000 jobs would be more realistic for the purposes of transport modelling and infrastructure planning.

How does this correlate to the allocation in the St Albans Local Plan and the mix of uses proposed?

- 5.7 As outlined above, this correlates exactly to the allocation in the St Albans Local Plan and the mix of uses proposed, with the only change being the reduction in the overall expected number of jobs to be created on the site. There is no other change.

Q6 What are the implications of the growth proposed at HGC on the local road network, having particular regard to the consequences of additional congestion and delays on the M1?

- 6.1 The implications of the growth proposed at HGC on the local road network, having particular regard to the M1, are well understood. There is a close relationship between the impacts on the local road network here and the Strategic Road Network, including as answered above at M6I3Q2.
- 6.2 In simple terms, local road network improvements and delivering physical improvements to enable a shift to more sustainable modes, are required in order to deal with the consequences of growth and potential additional congestion and delays on the M1. The evidence shows that this can be successfully delivered through a combination of local highways and sustainable transport projects, including Project Breakspear Phase 1 and Phase 2.
- 6.3 The overall implications for the local highway network are concisely addressed in 'ED76 -Transport Note relevant to Transport documents - July 2025' as:

Local Highway Network – Hertfordshire County Council (HCC)

1 – No Objection to SADC Local Plan at Reg 19 subject to ongoing joint work all the way to delivery and beyond

2 – There is predicted to be significant growth in traffic in the St Albans area – but there are 'No Showstoppers' or 'Severe' impacts on the Local Highway Network District wide to 2041 – provided that the significant investment required in infrastructure is secured through the ongoing planning application and Transport Assessment processes

3 – For Hemel Garden Communities (HGC) - ongoing work to take forward understanding of mitigations in parallel with Planning Performance Agreements work to create appropriate package of measures for The Crown Estate and Pigeon / Bloor planning applications (LP Allocations H1, H2, H3, H4)

4 – For HGC - congestion in the vicinity of M1J8 can be addressed through a variety of measures including A414/Green Lanes (Project Breakspear Phase 1 and Phase 2), which are on the Local Highway Network

5 – For HGC – Project Breakspear Phase 3 (M1 Overbridge) – on the Strategic Road Network – is likely required post-2041 – provided that there is delivery of infrastructure and transport mitigation to deliver the mode-share shift

6 – SADC and HCC are working towards a Statement of Common Ground on transport matters to be provided as part of Stage 2 Hearings in autumn 2025. This will include proposed small amendments to Local Plan policies as Main Modifications

to ensure their effectiveness, including through a 'Monitor and Manage' approach
...

Conclusion

As a result of the additional Transport work, the Council will be proposing some limited amendments to Local Plan policies as Main Modifications to ensure their effectiveness, including through a 'Monitor and Manage' approach. This will include an additional TRA policy in the draft Local Plan Part A Chapter 8 "Transport" and some additional 'Key Development Requirements' for a number of Allocations in Part B of the draft Local Plan. The additional Transport work and the proposed Main Modifications also relate to the evidence that sits within the Infrastructure Delivery Plan (INF 01.01 - SADC Infrastructure Delivery Plan (2024)) and the Local Plan Viability Assessment (INF 10.01 - BNPPRE Local Plan Viability Report SADC (2024)). The detail of the Main Modifications to be proposed is under review with National Highways and HCC.

- 6.4 The implications are addressed in more detail in the document SADCED76B St Albans Local Plan modelling narrative - July 2025. The Executive Summary explains the implications clearly as:

Executive Summary

- Hertfordshire County Council (HCC) have a Countywide Strategic Transport Model (COMET) which has been used to test the implications of Local Plan growth in St Albans district.*
- Following checks of how well the model is representing current traffic patterns in the district, a number of runs have been undertaken to test the impact of the St Albans Local Plan allocations. These have included modelling the associated infrastructure (as identified in the Infrastructure Delivery Plan) with some allowance for a shift to more sustainable modes (the level of which is based on earlier work – Opportunity to Shift Modes (2024))*

The results of this process indicate the following:

- There is predicted to be significant growth in traffic in the St Albans District area as a result of development already planned (before the Local Plan sites come forward) by 2041.*
- St Albans City & District Local Plan growth adds between 5-9% additional traffic on top of this depending on the level of mode shift applied.*
- Adding in additional transport schemes (from the Infrastructure Delivery Plan) alleviates some of the pressure particularly around the A414 in Hemel Hempstead and northern St Albans District and on more rural routes which could be potentially used as 'rat runs'.*
- Implementing infrastructure and other supporting measures to encourage a shift towards more sustainable modes of travel is also key to the efficient operation of the highways network.*
- The Dacorum Local Plan is being developed in parallel and a series of model runs have also been undertaken to support this process. As a large proportion of*

Dacorum's growth is focussed on Hemel Hempstead there is a need for HCC as local highway authority to understand the potential impact of both sets of growth on the Local Highway Network.

- 6.5 The key mitigation schemes for M1 Junction 8 are included in the INF 01.02 - Appendix A.1 SADC Infrastructure Schedule (2024) and are set out below:

6.6 Within Plan Period to 2041

Project Breakspear Phase 1

Phase 1 of package of transport measures to enhance M1 Junction 8 and surrounding area - Replacement of the existing Breakspear Way / Green Lane Roundabout (Phoenix Gateway) with traffic signals.

Project Breakspear Phase 2

Phase 2 of package of transport measures to enhance M1 Junction 8 and surrounding area - package of transport measures to prioritise active and sustainable modes of travel including improvements to existing roads, A414 Walking and cycling bridge, East Hemel Mobility Hub and HGC Sustainable Transport Corridor.

6.7 Beyond Plan Period – to 2050

Project Breakspear Phase 3

Phase 3 of package of transport measures to enhance M1 Junction 8 and surrounding area. To provide additional capacity and connectivity to Maylands and Herts IQ, and relieve congestion on the A414. Land to the east of Junction 8 is safeguarded, in case it is required to come forward for junction improvements (Phase 3 J8 enhancements).

- 6.8 It is established that:

- **Project Breakspear Phases 1 and 2** must be delivered early in the Plan period.
- The **Project Breakspear overbridge (M1 crossing)** is not needed until after the Plan period (post-2041), and its timing will also be guided by the *monitor and manage* approach.

- 6.9 During the Plan period, improvements around M1 Junction 8—including Project Breakspear Phases 1 and 2—will enable growth to 2041 to be accommodated without severe impacts on the local or strategic highway network. Beyond the period (post 2041), the implementation of Project Breakspear Phase 3 will be required to enable both the local and the strategic road networks to continue to function without 'severe' impacts. It is therefore demonstrated that the growth to 2041 can be successfully accommodated on the Local Highway Network and that there will be no 'severe' impacts on either the local road network or the M1.

- 6.10 Overall, the implications of the growth proposed at HGC on the local road network, having particular regard to the M1, are well understood and can be appropriately mitigated.

Q7 In assessing the impacts of cumulative growth at HGC, how does the evidence take into account the likelihood of modal shift away from private car use? Has this been applied consistently and is it justified?

In assessing the impacts of cumulative growth at HGC, how does the evidence take into account the likelihood of modal shift away from private car use?

7.1 The likelihood of modal shift away from private car use has been considered and applied in a consistent and justified way.

7.2 As set out in the Plan at:

3.47 The HGC Transport Vision and Strategy document (TV&S) sets out a sustainable movement network approach for the long-term growth and transformation of Hemel Hempstead and wider routes. The approach ensures the HGC programme area can be developed as a successful, integrated, well-connected place. Figure 3.3 identifies the key and local networks, set out within the TV&S, to achieve a town-wide sustainable transport network with a target of 60% of all journeys starting, ending or within the HGC growth areas and 40% of all journeys starting, ending or within the existing town of Hemel Hempstead, to be undertaken by active and sustainable modes by 2050.

...

LG3 - Hemel Garden Communities Growth Areas Place Principles

...

e) Deliver the Key and Local Transport Network, as set out in the HGC Transport Vision & Strategy document, to provide direct sustainable travel connectivity between existing and proposed key and local destinations. Interventions are required to achieve a target of 60% of all journeys starting, ending or within the HGC Growth Areas and 40% of all journeys starting, ending or within the existing town of Hemel Hempstead, to be undertaken by active and sustainable modes by 2050;

7.3 The Opportunities to Shift Modes work shows that there is a very high potential for a shift to more sustainable modes. This has been addressed at a District-wide level in INF 09.12 - Transport Impact Assessment St Albans Modal Shift Report (2024).

7.4 In relation to HGC, this is set out most directly in HGC 05.03 - Hemel Hempstead Modal Shift Study Full Report (2023). Key findings include:

For the HGC growth area, sustainable travel mode share could increase from 18% to 41%. This is lower than Hemel Hempstead as a whole, as the development zones identified in the COMET model were point data – which meant that mode share calculations for internal trips were not undertaken. This is primarily due to the assumptions made in our calculations. These findings represent a worst-case scenario. In this analysis, we assumed that HGC growth area residents would exhibit similar travel habits to the existing Hemel residents, there would be no significant

additional infrastructure developments, and that no internalisation of trips would occur due to the provision of facilities within the development.

The results show:

- *Walking increasing from 11% to 22%*
- *Cycling increasing from 1% to 13%*
- *Public transport remaining at 6%*
- *Car mode share decreasing from 80% to 40%.*

Although the sustainable travel mode share for the HGC growth area is 41%, it should be noted that the analysed data is for 2036, based on existing transport networks and current socio-demographics. The HGC is planned to be built out by 2050 – suggesting that over time improved active and public transport networks will increase the opportunity (or number of trips) that can be made by sustainable modes, while new residents will shift socio-demographics to have a higher likelihood (or propensity) to use alternative travel methods – edging close to the 60% sustainable travel mode share target.

7.5 For Hemel Hempstead as a town it sets out:

For Hemel Hempstead, sustainable travel commuting mode share could increase from 18% to 46%. The results show:

- *Walking increasing from 11% to 25%*
- *Cycling increasing from 1% to 13%*
- *Public transport increasing from 6% to 8%*
- *Car mode share decreasing from 80% to 48%.*

The data analysis suggests:

- *A relatively high sustainable travel potential for walking and cycling – which could be unlocked and encouraged through continued investment in active travel infrastructure and shared mobility. Interventions considered in more detail in this study include connected walking and cycling infrastructure, logistics infrastructure, micro consolidation, mobility hubs, bike and scooter share.*
- *A lower mode shift opportunity to use bus and rail – suggesting that enhancements to the public transport network will be required. Focus should be on improving the bus and rail network to better meet the needs of existing and new residents – improving connectivity between activity centres and areas with a higher propensity to use public transport, while improving travel time competitiveness with driving. Interventions considered in more detail in this study include bus priority and demand responsive transport.*

7.6 The document SADCED76B St Albans Local Plan modelling narrative - July 2025 sets out:

Executive Summary

...

- Following checks of how well the model is representing current traffic patterns in the district, a number of runs have been undertaken to test the impact of the St Albans Local Plan allocations. These have included modelling the associated infrastructure (as identified in the Infrastructure Delivery Plan) with some allowance for a shift to more sustainable modes (the level of which is based on earlier work – Opportunity to Shift Modes (2024))

...

- Implementing infrastructure and other supporting measures to encourage a shift towards more sustainable modes of travel is also key to the efficient operation of the highways network.

- 7.7 Transport modelling work has been undertaken to assess options of different scenarios, depending on the level of mode shift applied. The option tests run are set out in the document SADC/ED76B St Albans Local Plan modelling narrative - July 2025 and INF 09.11 - Transport Impact Assessment COMET St Albans LP Modelling Report (2024):

Table 3-1: Scenario Overview

	Option 0	Option 1	Option 2	Option 3
Completed / Consented developments (NTEM constrained except in SADC)				
SADC Local Plan development growth				
10% Modal Shift				
Opportunity to Shift Mode Tool				
SADC IDP				

2.2. Future Local Plan tests – What happens to the transport network if you add the St Albans City & District Local Plan sites?

In order to test the impact of the Local Plan growth a number of forecasts were developed and compared with the 2041 Do Minimum (Option 0). The forecasting methodology was discussed and agreed with National Highways as part of the Duty to Cooperate discussions. The following paragraphs outline the tests undertaken. More detailed results of the model tests are reported in Chapter 8 of the forecasting report

Option 3

A final option was tested which looked at a more sophisticated and nuanced way of applying the mode shift reductions. This was based on earlier work undertaken (Opportunity to Shift Modes tool) which looked at the type of people living in different areas of the district, the types of trip they were making and how likely they were to switch journeys from the car if the right infrastructure was provided. Different mode shifts were applied to different areas of the district – for example it recognises that younger people renting in more central areas of St Albans City have a greater opportunity and propensity to shift travel away from the car than older people living in more rural areas. Further information on this analysis is provided at:

INF 09.12 - Transport Impact Assessment St Albans Modal Shift Report (2024).pdf

Overall, this equated to a 24% reduction in internal vehicle trips within St Albans district (although this varies by model zone) and a 5% reduction in vehicle trips from St Albans district to other destinations. No reduction is applied for trips coming into St Albans district from elsewhere or for trips passing through. These reductions have been applied instead of the 10% global reduction applied in Option 2 along with the infrastructure schemes. Further information on this approach is included in Chapter 7 of the Forecasting report.

COMET- St Albans LP Modelling Report FINAL 22.05.2025

Overall, the levels of traffic generated are slightly lower than Option 2 with around 3,200 additional vehicle trips (5% increase) compared with the Do minimum (Option 0) in the AM peak hour and around 3,000 additional vehicle trips (4.5% increase) in the PM peak hour. Results are similar to Option 2 although there is a general improvement in delay in the St Albans City area due to the higher level of mode shift applied here.

- 7.8 The document SADC/ED76B.i Joint Comet Run Addendum Hemel Garden Community Comet Test, sets out options at table 2-1:

Table 2-1: Scenario Overview

Scenario element	Option 0A	Option 4a	Option 4b
Completed / Consented developments (NTEM constrained except in DBC and SADC)	Yes	Yes	Yes
Dacorum and St Albans Local Plan development growth	No	Yes	Yes
Dacorum and St Albans IDP Schemes	No	Yes	Yes
Opportunity to Shift Mode reductions	No	Yes	Yes
Improvements at M1 Junction 8	No	No	Yes

- 7.9 Overall, there has been a whole suite of transport evidence undertaken in relation to Mode Shift, including the Opportunity to Shift Modes work; COMET options for the individual Local Plans, and combined Local Plans; and the Paramics modelling work.

Has this been applied consistently and is it justified?

- 7.10 Yes, as demonstrated above, with the different COMET options tests, this has been applied consistently and has been followed up in the Paramics work. The use of mode share shift is justified.