



Attention: Kay Mead
East Herts District Council
Wallfields
Pegs Lane
Hertford
Hertfordshire
SG13 8EQ

Highways Development Management
County Hall
Pegs Lane
Hertford
SG13 8DN

19 May 2016

Dear Kay,

North and East of Ware – Development Proposals

Further to our letter of 26 January 2016, and as requested, we are writing to you with regard to the development proposals currently being explored for the area North and East of Ware.

Previously we were asked to comment on development proposals of 2,000 to 3,000 dwellings, and we raised concerns in our letter about increased delay in journey time and the ensuing traffic queueing.

We have now been asked to comment on the revised scenarios of development, from a highways point of view, and this we have done with the information provided to date by the developer.

Whilst previously the quantum of development was limited by the existing sewage infrastructure, we have now been presented with a range of scenarios that, at the larger end of the scale, include a new foul sewer. Also at the larger end of the scale, a link road is provided as part of the scheme. This link road is a spine through the new development between Wadesmill Road and Widbury Hill.

For ease of reference, we have summarised our comments on the scenarios presented in the tables below.

AM peak

Scenario/Key Issue*	300 Homes	600 Homes	1,000 Homes	1,500 Homes	2,000 Homes
Impact on Ware High Street/town centre	Journey times increase compared with base (around 40 seconds) on A1170 (Wadesmill Road – High Street – Viaduct Road – London Road)	Journey times over a minute higher than base	Spine Road reduces traffic along route resulting in improved journey times (14 seconds higher than base)	Spine road, greater internalisation and shift to bus result in a prediction of improved journey times compared with the base.	Depends on level of traffic assumed to transfer to the A10. With a 20% diversion journey times are around 30 seconds longer than the base with a 40% diversion they are lower than the base
Impact on the wider Ware network	Increases in journey times of over a minute on Musley Hill / New Road and on the B1004 EB (Westmill Road to Widbury Hill). Increases in delay of over 1.5 minutes are also evident around Amwell End and London Road. Queuing evident from the model on the High Street, London Road and around the station area. Some sporadic queuing at the A10	Increases in journey times of 83 seconds predicted on Musley Hill / New Road. Increases of journey time of 80 seconds on B1004 EB (Westmill Road to Widbury Hill) and journey times in southern part of the town centre also increase. Queuing evident from the model on High Street, London Road, New Road, Bowling Road. Some sporadic queuing at	Increases in journey times of 51 seconds on Musley Hill / New Road (some relief provided by the Spine Road). Increases of journey times of 50 seconds on B1004 EB (Westmill Road to Widbury Hill). Additional pressure on B1004 WB due to traffic exiting from the Spine Road south increases B1004 WB journey times by 40 seconds. Journey times	Increases in journey time of 31 seconds on Musley Hill / New Road. Greater internalisation, assumed transfer to bus and benefits from personalised travel planning reduce amount of local traffic and lead to improvements in journey times on B1004 EB and in the southern part of the town centre compared to the base and other scenarios. Queuing	Impact is dependent on level of traffic assumed to transfer to A10 from town centre. With a 20% diversion, journey times over a minute greater than the base are evident on Musley Hill/ New Road, B1004 eastbound and on London Road / Viaduct Road (journey time route 10) whereas with an assumed 40% diversion journey times in the southern

	/A602 junction	the A10/A602 junction	around southern part of town (Amwell End, London Road) are improved compared with 300 and 600 scenarios. Queuing evident from the model on High Street, London Road, the New Road junction and Wulfrath Way	evident from the model around High Street, London Road, Bowling Road and Wulfrath Way.	part of the town centre are predicted to be around 1.5 minutes lower than the base. Queuing evident from the model around High Street, London Road, Bowling Road and Wulfrath Way.
Impact on A10	6 additional trips to/from A10 north, 26 additional trips to / from A10 south.	12 additional trips to / from A10 north, 58 additional trips to/from A10 south	14 additional trips to/from A10 north, 65 additional trips to / from A10 south	24 additional trips to /from A10 north, 106 additional trips to/from A10 south	32 additional trips to / from A10 north, 240 additional trips to / from A10 south
Impact on the A414 to/from Hertford	19 trips to Hertford	41 trips to Hertford	52 trips to Hertford	84 trips to Hertford	113 trips to Hertford
Overall impact	Number of additional trips on network limited but with no additional infrastructure these add additional delay to the Ware network in the town centre area.	This is the worst case scenario in traffic terms. A relatively large development accessed via the existing road network with little internalisation of trips results in additional delays across Ware	Presence of Spine Road provides some relief to Wadesmill Road and New Road / Musley Hill but does increase pressure on Widbury Hill.	Presence of Spine Road and potential reductions in shorter distance trips from internalisation, modal transfer to bus and PTP improves operation of network in Ware and this is probably the 'best' scenario in traffic terms however the volume of trips heading towards Hertford and the A10 south of Ware will	Limitation of traffic impact in Ware is based on a number of uncertain assumptions (assumed transfers of trips to bus, further reductions in vehicle trips due to PTP and the assumption that a large proportion of trips heading south will transfer to the A10 rather than travelling through Ware). Significant

				add to existing congestion problems.	numbers of trips head on the A414 to Hertford and the A10 to Broxbourne with the potential to worsen delay / congestion at existing hotspots
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*Change in number of trips and journey times taken from Spreadsheets provided by TPA 11 May 2015 (North of Ware Technical Note 13 comments TPA response) supplementing information already provided in Technical Note 13 Tables 3.29-3.32 and Table 7.2

PM Peak

Scenario/Key Issue*	300 Homes	600 Homes	1,000 Homes	1,500 Homes	2,000 Homes
Impact on Ware High Street/town centre	Journey times increase by 16 seconds compared with the base on A1170 (Wadesmill Road – High Street – Viaduct Road – London Road)	Journey times are similar to the base on the A1170 southbound route	Journey times increase by 28 seconds compared to the base	Journey times increase by 44 seconds compared to the base	Journey times are around a minute higher than the base
Impact on the wider Ware network	Journey times on Musley Hill / New Road are 48 seconds higher than the base and increases of around a minute are evident on the routes in the southern part of the town centre/ Queuing evident from the model on London Road, High	Journey times on Musley Hill / New Road are 20 seconds higher than the base. Long delays (up to 2.5 minutes compared with the base) are evident in the southern part of the town centre. Model indicates major congestion in	Journey times on Musley Hill / New Road are 44 seconds higher than the base. Delay around the southern part of the town centre is reduced although journey times are higher on the B1004 EB and WB compared with the	Journey times on Musley Hill / New Road are 27 seconds higher than the base. Journey times on B1004 EB are a minute higher than the base. Journey times are however improved in the southern part of the town centre. Queuing	Depends on level of traffic diversion assumed to the A10. With a 20% diversion journey times on Musley Hill / New Road are over 1.5 minutes longer than the base, journey times on B1004 EB are 84 seconds more and those around

	Street and around the Hertford Road / Amwell End roundabout.	the High Street / London Road / station area	lower housing number scenarios. Queuing evident from the model around the New Road / High Street junction and around the station area	evident from the model around New Road (including the junction with the High Street), London Road and around the station.	London Road / Viaduct Road (route 10) are 77 seconds more. Some reduction in journey time is however evident on the A119 route (Hertford Road – Amwell End)
Impact on A10	9 trips to / from A10 N; 42 trips to / from A10 S	19 trips to / from A10 N; 86 trips to / from A10 S	26 trips to / from A10 N; 117 trips to / from A10 S	40 trips to / from A10 N; 180 trips to / from A10 S	53 trips to / from A10 N; 240 trips to /from A10 S
Impact on the A414 to/from Hertford	13 trips to Hertford, 24 trips from Hertford	26 trips to Hertford 47 trips from Hertford	35 trips to Hertford, 66 trips from Hertford	54 trips to Hertford 100 trips from Hertford	72 trips to Hertford, 135 trips from Hertford
Overall impact	Number of additional trips limited but lack of additional infrastructure / mitigation does result in journey time increases across Ware	Reliance on existing network leads to long delays in the southern part of the town centre	Relief from operation of Spine Road is less evident in PM peak within town centre and on routes from north of town, however measures such as transfer to the bus and greater internalisation of trips reduce the additional impact south of the town centre.	Relief from operation of Spine Road is less evident in PM peak within town centre and on routes from north of town and journey times increase on the B1004 east west route. However mitigation measures to reduce local travel by car do improve conditions to the south of the town centre.	With a 20% assumed diversion of traffic to the A10 journey times increase on a number of routes (A1170 SB, Musley Hill, B1004 EB and A119 by 1- 1.5 minutes). Significant additional traffic predicted from already congested routes WB on A414 through Hertford and NB from A10 (Broxbourne).

*Change in number of trips and journey times taken from Spreadsheets provided by TPA 11 May 2015 (North of Ware Technical Note 13 comments TPA response) supplementing information already provided in Technical Note 13 Tables 3.29-3.32 and Table 7.2

Within the modelling, assumptions have been made for internalisation factors and the modal shift to bus, and we agree with this principle. However as the quantum of development increases to 2,000 units, we would question the assumptions for the amount of southbound traffic diverting to the A10 to avoid congestion in Ware. Test results provided for the 2000 home scenario with a lower level of diversion indicate a much greater impact of traffic on the road network in Ware. The assumed trip reductions due to Personalised Travel Planning within the development and wider Ware area are also optimistic given the limited improvements proposed to sustainable transport provision. Given this we feel that with this scenario there are still too many uncertainties around the level of traffic impact and we cannot support this level of development at this time.

However, recent traffic flow data for the A414 in Hertford indicates that there is capacity to support a mid-range scenario of development, and we would therefore suggest that a quantum of 1,000 to 1,500 dwellings may be acceptable. Note that this use of the A414 residual capacity will take away from other future developments utilising this capacity (ie any additional dwellings over the 200 shown in your draft Local Plan would reduce the number of dwellings available at other sites by a requisite number). There are also uncertainties around the likely level of background traffic growth due to development along the wider A414 corridor and beyond.

Other modelling assumptions have been made for personalised travel planning, and this is something we would expect to be undertaken as part of the development. We would also look for good sustainable transport provision, including cycling and walking, linking the development to the town centre and station, and further mitigation measures as required.

We trust this letter enables you to move forward with your allocation planning.

Yours sincerely

Juliet Cromack
Development Manager