

10th February 2017

POSITION STATEMENT ONE:

**Plymouth and South West Devon Joint Local Plan Transport
Strategy Working Group**

This position statement represents the agreed position regarding the
transport evidence base for the Plymouth and South West Devon
Joint Local Plan of:-

PLYMOUTH CITY COUNCIL

DEVON COUNTY COUNCIL and

HIGHWAYS ENGLAND

At the time of pre-submission consultation

1.0 Background

In order for the transport evidence base for the Joint Local Plan (JLP) to satisfy the requirements of National Planning Policy Framework (NPPF), Department for Transport Circular 02/2013 and National Planning Practice Guidance (NPPG) the evidence base includes:

2.0 Transport Baseline Conditions Report

Consultants WSP|PB, using existing available transport evidence, have produced a Transport Baseline Conditions Report for the JLP area. This report is due to be supplemented by the Thriving Towns and Villages Baseline Traffic Report which is being produced by Devon County Council. The reports describes the current network within the JLP area and services available, travel patterns and network performance issues. The reports are intended to satisfy the requirements, as set out in National Planning Practice Guidance (NPPG). The Transport Baseline is required in order to build up a broad picture of current day operation of the transport network and how this is likely to operate once future developments are taken into account.

The Plymouth element of the Transport Baseline Conditions Report was agreed and approved by the Transport Strategy Working Group (TSWG) at its meeting of the 31st October 2016 and will now form part of the library of evidence supporting the JLP. The Draft Baseline Traffic Report for the Thriving Towns and Villages was shared with the TSWG in December for review and will also form part of the library of evidence supporting the JLP.

3.0 Transport Modelling Work

A strategic Saturn traffic model covering Plymouth and its urban fringe, including Sherford and Woolwell, has been prepared as part of the evidence base to support the JLP.

The role of the model is:

1. To assess the operation of the highway network up to 2034 (the end of the plan period), with and without JLP allocations, and without any further intervention / mitigation to address development-related traffic impacts;
2. To identify where transport interventions are likely to be required to support, and in direct response to, the proposed levels of growth during the plan period and;
3. To test the effectiveness of the transport strategy set out within the draft JLP.

The Baseline Traffic Report for the Thriving Towns and Villages, prepared by Devon County Council on behalf of the TSWG, sets out potential transport infrastructure requirements for the Thriving Towns and Villages, to support the Joint Local Plan and sets out areas of further work necessary to inform the transport evidence base. The Devon Transport Infrastructure Plan sets out planned investment in transport infrastructure across Devon covering the

period 2014 to 2030. It complements their Local Transport Plan 2011-2026 which sets out the transport strategy for the county and the detailed infrastructure delivery plans relating to district council Local Plan development.

3.1 The Plymouth Area

The strategic traffic model for Plymouth and its urban fringe has been undertaken using the SATURN (Simulation and Assignment of Traffic to Urban Road Network) program. Table 1 below is an extract from the Modelling Methodology Note and summarises the strategic transport modelling previously undertaken in support of projects in and around Plymouth.

Reference	Area/Modelled and Year	Year Produced	Modelling Undertaken
HAM 1	Plymouth wide, 2009	2011	Highway Assignment Model (HAM) using SATURN completed by PBA to provide a WebTAG compliant tool for assessment of major schemes. In doing so, PBA produced a validated 2009 base model of the existing network conditions.
HAM 2	Plymouth wide, 2009	2015	WSP PB update of the validated 2009 baseline model in support of the Forder Valley Link Road (FVLR) Project. The 2009 base year was maintained with added levels of detail to junctions around the Forder Valley area.
HAM 3	Plymouth wide, 2015	2017 (ongoing)	Presently WSP PB are in the process of updating the 2009 Plymouth HAM to a 2015 base year in support of the FVLR work. The update is to be made available in 2017 which therefore excludes its availability for use in the current stages of JLP assessment work.

Table 1: Strategic Transport Modelling undertaken in Plymouth

The key objective of HAM 1 was to create a calibrated and validated strategic model of the Plymouth city area. This was required to provide an accurate reflection of network conditions over which future growth and development could be tested, providing a key resource in planning future development and highway proposals. HAM 1 was updated to produce HAM 2. HAM 2 has been validated for journey times.

HAM 1 and HAM 2 are compliant with the HotSW Local Transport Board Assurance Framework and were assessed as an appropriate tool for evaluating Major and non-Major schemes by the Independent Transport Advisor to the LTB. HAM 1 supported business cases which secured circa £12.25m of growth funding in 2015.

HAM 2 is the model which has been used to inform the JLP process. It has been updated, as part of the JLP transport modelling work, in terms of quantum and distribution of growth which took place between 2009 and April 2016. This provided a platform to which future growth was applied producing a 2034 future year model.

Government guidance is open to the use of existing, available evidence and a proportionate approach. As HAM 3 is not yet available, the TSWG, at its meeting on the 14th June 2016, agreed that there was no major in-principle objection to the use of the HAM 2 and HAM 2 was generally viewed as a pragmatic approach to the timely development of a transport evidence base to support the JLP.

A summary of the modelling which has been undertaken for the Plymouth Area is set out in Table Two below. Further modelling is proposed and this is set out in Table Three. The aim is to work towards a 'preferred' transport strategy which meets the needs of the plan and satisfies applicable policy requirements.

Development Scenario	Modelled Networks		
	Baseline		Mitigated
	<i>With committed physical transport interventions (1)</i>	<i>With committed physical transport interventions and sustainable transport measures (2)</i>	<i>With committed physical transport interventions, sustainable transport measures and non-committed (pipeline) transport interventions (3)</i>
A- 'Core' (control scenario) – with non-JLP growth (background growth only)	A1	A2	
B- All JLP allocations, including Woolwell	B1	B2	B3

Table Two: HAM 2 Modelled Networks

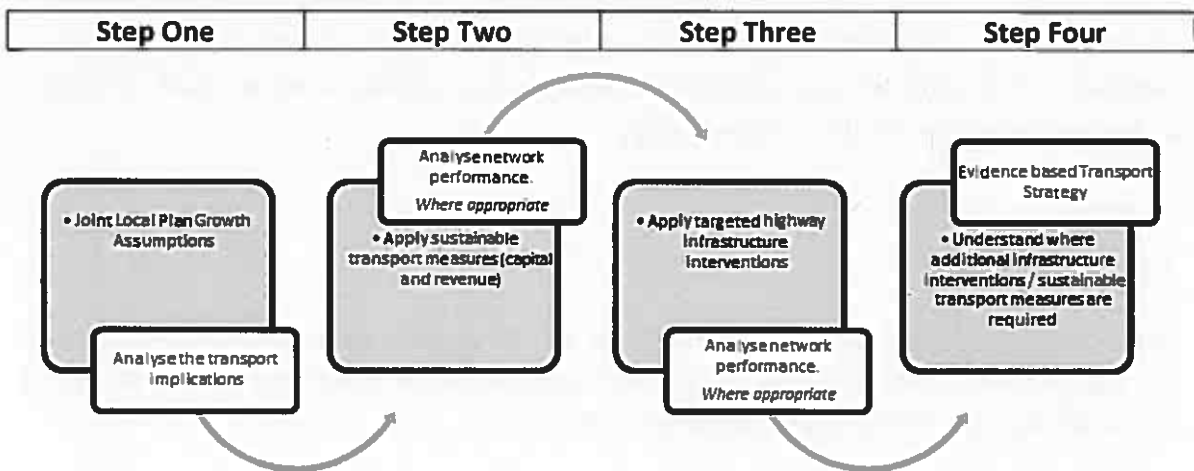
Development Scenario	Modelled Networks	
	Mitigated	
	<i>With committed physical transport interventions, sustainable transport measures and non-committed (pipeline) transport interventions and revised housing supply figures and site allocations (3a)</i>	<i>With committed physical transport interventions and sustainable transport measures and non-committed (pipeline) transport interventions, revised housing supply figures and site allocations, plus additional interventions/ sustainable transport measures identified / agreed by TSWG (4)</i>
B- All JLP allocations, including Woolwell	B3a	B4

Table Three: HAM 2 Proposed Additional Modelling

The JLP growth assumptions (Scenario B) that have been modelled in steps 1, 2 & 3 (Figure One), are based on an Objectively Assessed Need (OAN) of 21,000 additional households across 120 sites within the Plymouth Plan Area. This figure is greater than the anticipated final OAN and the opportunity will be taken to re-run the model with a lower housing supply figure, once this figure has been confirmed. Moreover, account will also be taken of changes to site allocations which have been informed by transport considerations as well as the outcome of the additional sites consultation completed in December 2016. This will create network model B3a, as set out in Table Three.

However, completing the initial assessment of the transport strategy set out in the JLP, using an OAN of 21,000, as part of the development of the evidence base for the JLP, is felt to be appropriate because it accords with the need to work with the best evidence available at the time and provides a contingency should more houses be built than anticipated during the plan period.

Figure One: The approach taken to inform the JLP transport evidence base



3.2 Transport Modelling Methodology Note

Commissioned by the Plymouth City Council, on behalf of the TSWG, this report records the methodology for producing the 2034 forecast models for use in supporting the assessment of JLP development allocations, in accordance with national policy and guidance. The broad methodology was agreed by the TSWG prior to the commencement of the modelling. The report will form part of the library of evidence supporting the JLP.

It is accepted that HAM 2 is not ideal for the purposes of assessing the JLP transport needs. In broad terms this is due to the fact that the base model does not accurately reflect, in the normal way, the level of traffic congestion that is known to exist; i.e., that that can be observed in the present day. It has therefore been necessary to re-consider the volume/capacity reference figure at which a junction or link is considered to be at capacity and above which congestion would be deemed to occur. The agreed approach to resolve this issue is set out in Appendix One.

In summary; typically the volume/capacity reference figure at which a junction or link is considered to be at capacity and above which congestion would be deemed to occur, is assumed to be 85%, i.e. traffic flow can occur up to 85% of the theoretical capacity without congestion occurring. As traffic flow exceeds 85% of theoretical capacity, congestion starts to develop. When considering the outputs of the HAM2 model it has been agreed that a revised volume/capacity figure of 75% is used. This figure has been derived by reference to the operation of the A386 northbound from Manadon Junction in the morning peak period. This link is known to frequently experience congestion at this time. The outputs from HAM 2 show parts of this corridor to be operating at up to 75% of theoretical capacity in the base model traffic flow conditions. It is therefore considered appropriate that a volume/capacity figure of 75% is used as the capacity threshold in the HAM2 model to guide decisions on where further physical transport interventions and/or sustainable transport measures might be required to support the efficient operation of both the local and strategic highway network. This methodology effectively addresses any shortcomings of HAM 2 for the purpose of assessing the JLP transport needs.

3.3 Work to date

As of February 2017, steps one, two and three of Figure One, above, have been completed for development scenario B. The results will be presented in the modelling results report which will form part of the evidence base for the JLP.

3.3 Next steps

Appendix One is a flowchart which shows the process that will be followed to complete stage four of Figure One and, in modelling terms, progress from the B3 network to the B4 network. The transport interventions included in B4 are those which will be necessary to support the JLP and to satisfy relevant policy requirements.

If time permits, the TSWG will undertake further modelling using HAM 3 which is being updated using more up to date data including RSIs undertaken in 2015 to validate the findings of the work using HAM 2 and to make any further refinements made necessary as a result of subsequent model outputs.

The Baseline for the Thriving Towns and Villages refer to two further studies to understand traffic queues with Ivybridge and also a review of the Okehampton Town access road. These studies will inform the Transport Infrastructure Statements.

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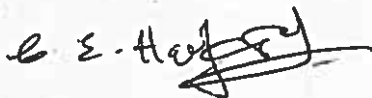
Signed:

Date: 10/02/2017

For Plymouth City Council and Chair of the Transport Strategy Working Group

Name: Ed Halford

Signed:



Date: 10/02/2017

For Highways England

Name: Jamie Hlland

Signed:



Date: 09/02/2017

For Devon County Council

APPENDIX ONE- Flowchart showing the process that will be followed to progress from B3 to B4

Timescales	Step	Process						Output	Published as part of JLP evidence base?	Deadline
Feb-17	Step 1	Review outputs from B3						Modelling Results Report	Yes	10.02.17
Feb-17	Step 2	Review V/C for each node in the model. Are all nodes less than 75% or as reported in A1 (whichever is the greater)?	Yes				No further action required			
			No							
Feb-17	Step 3	Professional review Hold a workshop (2) Agree final list of nodes where further investigation / mitigation is required. Consideration to be given to whether any nodes should be removed from the list mindful of: ACMAs, Classified Roads, HQPT Corridors, Proximity to ecologically sensitive sites (SAC / SPA), Proximity to SCN, Noble Sensitive Zones, Proximity to Schools (these are the data sets we're adding to the Project Viewer)						Position Statement - provisional list of nodes which will need further investigation / mitigation over the course of the delivery of the JLP	No	Target date - end of February (before pre-submission consultation)
March - May	Step 4	Re-run model scenario 'B3' using the revised housing supply figures and site allocations - as set out in the pre-submission JLP - to create modelled network 'B3a'								
May-17	Step 5	Professional review Hold a workshop: Check / amend output from Steps 2 and 3						Position statement - final list of nodes which will need further investigation / mitigation over the course of the delivery of the JLP	No	Target date - end of May 2017
May-17	Step 6	Professional review Hold a workshop: Identify the next iteration of the transport strategy. This will identify additions or changes to the proposed strategy. Consideration to be given to (1) the proposed sustainable transport measures (2) additions or changes to the schemes assumed in the previous iteration and will not necessarily involve improving the specific junction or link at which the need for capacity improvements have been identified								
May onwards - process not expected to be completed by Public Examination	Step 7	Code network changes into B4 - repeat steps 2, 3 and 6 - using revised housing supply figures and site allocations - until all residual capacity issues judged as acceptable						Position statement - TSWG update on work completed and proposed next steps		Target date - September 2017