

North Somerset Council

Hearing Statement April 2017

Reference: CS/11

Matter 4 – Transport

- 4.1 To what extent has the SAP been tested against any requirement for new or improved transport infrastructure?**
 - i Highways England (HE) is concerned about the impacts of the scale of development on the strategic road network (SRN), and on M5 junctions 19, 20 and**
 - ii . What assessments of impact on the SRN and M5 junctions have been undertaken and to what extent has any impact been taken into account in the choice of allocated sites?**
- 4.2 Should site specific requirements in relation to transport infrastructure be identified within the schedules of housing and employment sites?**

Matter 4.1

1. This statement focuses on the Strategic Road Network looking at each of the three motorway junctions within North Somerset and the impact the Site Allocations Plan will have on each.

Strategy for allocating sites

2. In their representation HE suggest there is “little or no strategic transport evidence underpinning the site allocations”.
3. The largest single employment destination from within North Somerset is North Bristol; 10% of employment trips arising from residents across North Somerset (source 2011 census). Employment led development in Weston-super-Mare is supporting improved self-containment within the town, reducing trips accessing the motorway at Junction 21. By allocating housing near Junctions 20 and 19, notably Nailsea and Yatton, NSC are spreading demand across the motorway access points, lessening the impacts upon the SRN.

Weston-super-Mare and Junction 21

4. In its submission HE makes reference to development at Weston consisting 8,640 dwellings, 70.5 hectares of B class employment sites and 57 hectares for safeguarded employment sites [8141345/5 19th Dec 2016]. These figures are derived from Schedules 1, 2 and 3 of the SAP. However, it should be noted that:

- (i) These figures relate to the plan period 2006 to 2026 and many of the dwellings already have planning consent;
 - (ii) Many of these dwellings and employment allocations were already factored into the models at the baseline date of 2012;
 - (iii) The 57 hectares of safeguarded employment land relate to existing rather than proposed sites.
5. North Somerset Council (NSC) maintains a suite of transport models that cover the Weston-super-Mare area, including Junction 21. There are two VISSIM models fed by an overarching SATURN model.
 6. These models were used to prepare the Weston Villages Mitigations Report; CH2M Hill; February 2014ⁱ. The Base Year was 2012, with a future year of 2026 as defined by the Weston Villages Supplementary Planning Documentⁱⁱ published in 2012. At that time Weston Villages was regarded as being 5,800 dwellings and 8,700 jobs. Since 2012 the capacity of Weston Villages has increased to 6,500 dwellings with the jobs being based on 1.5 jobs per dwellings.
 7. The report [Weston Villages Mitigations Report, 2014] considered a number of identified interventions in a sequential manner, identifying the house build out trigger points at which the interventions should be implemented. It is this report that is the basis for NSC's programme of interventions and justification for securing S106 contributions towards the interventions.
 8. Interventions include those on the Local Highway Network and notably at J21:
 - 'Weston Package' which included significant improvements at J21 (J21 outbound scheme) to reduce congestion in both the morning and afternoon peaks at the junction. Weston Package, including the J21 Outbound Scheme, was implemented in early 2014.
 - 'Twin Lane Northbound' now referred to as 'J21 Northbound Merge Scheme' will be implemented by HE in January & February 2018.
 - 'J21 Bypass'. This scheme has not been progressed yet. Investigations into an additional junction on the M5 (J21a) are underway in the context of the Joint Spatial Plan and Joint Transport Study; West of England LEP 2016 and 2017; which may affect the J21 bypass proposal.
 9. Post 2014 the model suite has been revalidated as interventions on the highway network have been implemented and as actual house builds and job creation have become known. These revalidated models have also included the increases in housing allocations as defined by Site Allocations Plan (October 2016 Publication Version). These models have been used to test the impacts of highway improvement schemes, notably;
 - J21 Northbound Merge Scheme [modelled in 2016];
 - Westwick Roundabout Scheme [modelled in 2016].

10. Modelling of the J21 Outbound scheme and J21 Northbound Merge included an assessment of the M5 mainline follows at the junction. Both assessments found no adverse impacts on the mainline.
11. The trip generation arising from proposed developments at Clevedon, Nailsea, the Service Villages and Infill Villages are not considered significant in the context of J21.
12. HE note in their representation that the A370 corridor is of particular significance as it connects directly with the SRN and an appropriate evidence base should consider impacts on the SRN. NSC have evidenced, above, the appropriate assessment of development impacts has been carried out and have evidenced appropriate interventions that have, or will be, implemented.

Nailsea, Yatton, Clevedon and Junction 20

13. NSC maintains a number of 'spreadsheet' models. One covers the area of Yatton and Congresbury, one covers the area of Nailsea and Backwellⁱⁱⁱ. They are Excel Spreadsheets that replicate the local highway network using traffic count data to populate each highway 'link'. There are models for the AM peak and the PM peak. Development sites are then assigned to specific links. The trip generation is taken from TRICS. Origin and destination information taken from the 2011 census. Distribution of trips through the model is based upon 'directions' in Google Maps sense checked with local knowledge. The models can forecast the number of trips arising from an individual development that pass through each junction within the model. The models can forecast the cumulative number of trips arising from a number of developments that pass through each junction within the model. It is noted that the models will define the forecast additional number of vehicles passing through specific junctions. The impacts of those additional vehicles are then assessed and any potential mitigations proposed using either further junction modelling or professional judgement as appropriate.
14. The models have been used to assess the cumulative impacts of allocated sites as defined by the Site Allocations Plan (October 2016 Publication Version). It is the assessment of cumulative impacts that has been used to evidence impacts, mitigations and S106 contributions, and to proportion them to individual developments. Notable mitigations are road safety improvements at Yatton High Street, contributed to by developments at Yatton.
15. HE note in their representation (8141345/7) that traffic from these developments [Nailsea] could impact on junction 20 of the M5. Because of the significant draw towards North Bristol, the models predict, and are confirmed by observation, that more traffic accesses the motorway via junction 19.

Junction 20 is observed to operate with significant spare capacity and the trip generation arising from the developments at Nailsea are regarded as not significant in relation to J20. (J19 is discussed below).

16. Trip generation arising from developments at Clevedon, Yatton and Nailsea combined are predicted to add 125 vehicles (am peak) to the motorway mainline at J20. This represents an increase of less than 2% of existing mainline flow at the junction. This is not considered significant in the context of daily variability on the motorway and as such it is considered disproportionate to undertake detailed assessment of the impacts.
17. The trip generation arising from the proposed developments at the Service Villages and Infill Villages that are not included in the spreadsheet models are not considered significant in the context of J20 and the SRN.

Portishead, Nailsea and Junction 19

18. Trip generation arising from housing allocations at Portishead which do not have planning consent (93 in total) are not regarded as significant in the context of J19.
19. The Nailsea & Backwell spreadsheet model predicts a total of 47 vehicles route to J19 during the morning peak. 47 vehicles represents an increase of 0.5% of mainline flow at J19. This is not considered significant in the context of daily variability on the motorway and as such it is considered disproportionate to undertake detailed assessment of the impacts.
20. HE note in their representation considerations as to whether Portbury Hundred (A369) from M5 J19 into Portishead needs to be dualled. A joint study by HE and NSC has determined that capacity improvements at J19 and on the local highway network are required. These interventions are now fully funded with implementation before March 2020

ⁱ Weston Villages Mitigations Report; CH2M Hill; February 2014.

ⁱⁱ Weston Villages SPD; June 2012. <http://www.n-somerset.gov.uk/wp-content/uploads/2015/11/Weston-villages-supplementary-planning-document.pdf>

ⁱⁱⁱ Screenshot of the network plans for the Yatton & Congresbury model and Nailsea & Backwell model; CH2M; 2015.

4.2 Should site specific requirements in relation to transport infrastructure be identified within the schedules of housing and employment sites?

1. Ideally yes, but with the pressure to increase housing numbers and a number of developments coming forward prior to the Site Allocations Plan being in place the work on the transport mitigation package has been evolving alongside the Site Allocations Plan. A number of sites within the plan have already been approved and the Council's priority has been on focusing on development that still needs to come forward and where there is a significant cumulative impact.
2. As previously stated:
 - Extensive modelling has been undertaken focussing on the site specific and cumulative impacts on the local highway network included in the Site Allocations Plan.
 - Weston Villages Mitigation Report (CH2M Hill, February 2014) identifies a package of infrastructure improvements required to facilitate the development of Winterstoke Village and Parklands Village and this has been used to secure developer contributions.
 - A package of measures has been identified to improve the infrastructure in Yatton High Street which is being funded by development.
 - The spreadsheet model for Nailsea has been updated and is being used to develop a mitigation package for Nailsea.