Eastleigh Borough Council Consultation with Infrastructure Providers and Regulators 2015-2016





EBC Consultation with Infrastructure Service Providers and Regulators 2015-2016

Introduction

The purpose of this document is to collate the information received to date from Infrastructure providers and regulators in the production of the Eastleigh Borough Local Plan 2011-2036. It includes responses to both the potential level of development, and the potential for strategic growth options within the Borough.

Infrastructure planning is an iterative process and there will need to be continued engagement with all parties as the Plan progresses.

2015 Update

The 2015 Update to the Infrastructure Delivery Plan was published in December 2015 alongside the Issues and Options consultation. It set out the results of an initial high level consultation which was undertaken with infrastructure providers over the summer of 2015 based around four housing scenarios;

Scenario	Dwellings Per annum	Total dwellings 2011-2036
A	552	13,800
В	646	16,150
С	745	18,625
D	830	20,750

It provided an indication of the outcomes of the dialogue the Council has had to date with service providers in considering the implications of differing levels of development which may be in the new Local Plan, and the extension of the planned period from 2029 (the end date of the previous Local Plan) to 2036. It also provided infrastructure providers with an opportunity to update the Council on any changes to their service plans.

No infrastructure providers responded stating that there were any absolute constraints on development in response to this consultation.

The Issues and Options consultation

A number of infrastructure providers and regulators responded to the Issues and Options consultation in February 2016 these were summarised and reported in a Cabinet Paper in June 2016.

Consultation on Strategic Development Options in the Northern Part of the Borough

A letter was sent to infrastructure providers and regulators in October 2016 asking them to consider whether the information set out in the published Infrastructure Delivery Plan is still relevant. In addition they were asked to provide any specific advice on the infrastructure requirements for the two strategic growth options in the northern part of the borough (North Bishopstoke/Fair Oak and North of West End/Allington Lane) including any initial views on timing, phasing and cost and whether they could identify any "showstoppers" or barriers to delivery.

The results of these consultations are summarised in the following table. In some cases the position has developed as time has passed and the strategic growth options were identified. In some instance providers have not responded at each stage of the consultation. The purpose of this table is to set out, for each organisation, how the most recent position information has developed.

Summary of consultation feedback during 2015-2016.:

Organisation	Feedback – General/Specific and Date
Network Rail	General Feedback applying to the whole Plan / both Strategic Growth Options
Steve Taylor and	Feb 2016: Emerging policy should ensure that where development may impact upon a level crossing, a financial contribution should be made
Dan Chalk	Specific Feedback in relation to West End/Allington Lane SGO
	Refers to their aspiration to develop the 'Solent Metro' concept. to provide additional local services to enable a 4-6tph service level to encourage modal shift from car to railway. The first phase of this would be seeking to provide a heavy or light rail solution that would run between Southampton Docks and Eastleigh
	Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO
	See Highways Authority and Network Rail Agreed Statement regarding the underpass at Highbridge Road, Allbrook (attached)
West	General Feedback applying to the whole Plan / both Strategic Growth Options
Hampshire Clinical Commissioning Group Mark Tyrrell.	Summer 2015:
	Refers to the Department of Health recommendation that there should be one GP per 1400-2000 people. In Eastleigh Borough, the expected increase in population as a result of development provided for in the emerging Local Plan, is expected to put pressure on that ratio.
	Requests that relevant planning policies relating to new development sites make provision for additional health facilities, including additional GP services, as necessary.

Feb 2016

• S106 and/or CIL agreements would be required to ensure adequate healthcare provision;

Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO

Feb 2016

Option A and B would be the least favourable and most challenging to deliver healthcare to an increased population;

Option C could be accommodated, but would be costly.

Specific Feedback in relation to West End/Allington Lane SGO

Feb 2016

Options D to H are supported;

Portsmouth Water

Feb 2016:

Paul Sansby

None of these sites are within our area of supply and as far as I know we have not been contacted by the developers. We are, however, providing a bulk supply to Southern Water at Gaters Mill which is feeding into their distribution system.

Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO

General Feedback applying to the whole Plan / both Strategic Growth Options

Feb 2016:

- Option B Colden Common Winter Storage Reservoir (within the site) is currently unfeasible due to the risk of bird strike associated with Southampton Airport. Suggests consideration could be given to allocating it for future water storage;
- Option C Close to one of their abstraction points. Care should be taken with the design of SuDS drainage schemes;

October 2016:

• Fair Oak – contamination of groundwater by SUDS.

Specific Feedback in relation to West End/Allington Lane SGO

Feb 2016:

• Option E – The West End site is crossed by our large diameter water main which may have to be moved;

October 2016:

Our specific concerns about individual site were as follows:

West End – large diameter main running across site.

Environment Agency

General Feedback applying to the whole Plan / both Strategic Growth Options

Laura Lax

Feb 2016:

Development falling within the SGO's would require assessment work either due to direct impact upon watercourses/flooding and/or because of impact upon statutory designations. It is considered that SACs/SPAs should be excluded from Option B, Option D and Option H in order for them to become acceptable:

Believes that Option C, E and F have the potential to impact upon watercourses and exacerbate flooding or have a wider impact upon a designation nearby.

A Water Framework Directive Assessment will be required on whichever options are taken forward.

Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO

November 2016:

Allbrook Relief Road:

The proposal needs to ensure that there is no damage to the culverted main river due to the construction or loading of the new road. Additional attenuation may be required. Concerned with the potential slope of the road and therefore the rate and quality of runoff from this road towards and into the Itchen Navigation which is designated SSSI and SAC in this location. There are also records of Southern Damselfly in close proximity to this area so any ecological surveys that are carried out must look for this species in any watercourses or ditches nearby. Southern Damselfly have very specific habitat requirements and any changes to these as a result of increased run-off would be unacceptable.

Highbridge Road Options:

All 5 options fall within current day flood zone 3, consideration will need to be given to flood storage and how compensation for the loss of the flood plain would be provided. Compensatory storage should be at the same level as that lost and should be located outside the existing flood zone. Concerned balancing ponds are to be located alongside the proposed road options to manage surface water drainage. Proposed locations are within the flood zone it is therefore unlikely that they will work during a flood event.

A new river crossing in this location would result in significant environmental impacts on the SAC, protected species and wider biodiversity. H1 is the preferred option as no new crossing is required and additional land take in close proximity to the Itchen is limited. The impact of any land take and changes in drainage (including flood risk), water quality and flows and on the SAC, SSSI and adjacent habitats that support protected species such as Southern Damselfly, Water Vole and Otter, would need to be carried out.

Issues of fish passage in and the provision of adequate undeveloped buffer zones adjacent to the Bow Lake stream would need to be addressed as part of any future road and housing development.

Previous guidance on the Environment Agency's preference in relation to bridge structures applies e.g. clear span and ideally a soffit level 600mm above the designed flood level. The existing bridge already acts as restriction therefore any betterment that a new bridge can provide is preferred.

North Bishopstoke Bypass

Option 2A

This option crosses two main rivers, the Colden Common Stream and Bow Lake. The report does not reflect the crossing over the Colden Common Stream and therefore options and costing may need to be revised based on this additional information.

Early indications show that where the North Bishopstoke Bypass (options 2A and 2C) intends to cross the Colden Common Stream there are depths of around 0.6 – 0.9m in the 1 in 100 year flood zone. The crossing of the Bow Lake is proposed as a culvert. The Environment Agency does not support the culverting of watercourses. Any crossings of watercourse should be clear span.

The geology section of the report states that the soils in the area are likely to be unsuitable for infiltration drainage. There is a suggestion that balancing ponds would be used but would these be effective?

More work on road drainage and its direct and indirect impacts, including an understanding any existing pollution pathways, on the sensitive habitats and species of the Itchen, Bow Lake and other watercourses will be required. This option also impacts on the flood zone and therefore consideration will need to be given to flood storage compensation.

Option 2B

We think that this option has been discounted due to environmental impacts, therefore we are not providing additional comments here. If these are required please let me know but just to reiterate we would be strongly opposed to this route option.

Option 2C

Consider that this option has the potential for the least impact as it only crosses 1 main river – The Colden Common Stream. However comments made above for option 2A regarding this issue apply here also.

Highways England

Patrick Blake

General Feedback applying to the whole Plan / both Strategic Growth Options

Feb 2016:

Highways England (HE) is generally supportive and:

- wishes to work with us to ensure that housing scenarios and employment allocations are deliverable in transport terms;
- welcomes a meeting to discuss the Options as they develop to ensure that impacts can be mitigated;
- would welcome mitigation to tackle congestion, including sustainable transport schemes.

With regards to the Eastleigh Strategic Transport Study, HE questions why the M27, J7 is excluded from the study area. HE requires that J7 is considered as part of the study area and should be included in the evidence base due to its high levels of congestion and delay;

Notes that the study suggests that if the Chickenhall Lane Link Road is brought forward, it could result in additional congestion of M27, J5. Would welcome further assessment, (including junction modelling) if it forms part of the preferred option(s), in order to ascertain extent of impact upon M27, J5.

November 2016

Highways England provides a summary of the **Southampton Eastern Access package** as follows: Involves M27: Jn 5 (Southampton Airport) to Jn 8 (A3024): widening and signalisation of slip roads and access routes to junction 8, and replacement of rail bridges in Southampton (on local road network) to reduce pressure on the motorway. Advises that they are still at the stage of identifying viable options for a positive business case, but as we stand it is intended to commence construction by 2020.

Highways England provides a summary of the Smart Motorways proposals as follows:

Proposals are still at an early design stage but are due to be delivered as per the timescales outlined in Road Investment Strategy (RIS). The M3 SMART project is currently programmed to commence construction after the M27 SMART project has completed and before the end of this roads period (March 2020). Careful consideration of this project and a range of schemes for South Hampshire (Including the M3 Junctions 14 -12, 11-10 and M3 junction 9), is being undertaken to ensure a coordinated corridor of improvements are delivered. Works will be combined/ staged where possible to minimise the construction impacts to road users and the local communities.

In relation to **Route Strategies** covering the period 2020-2025 the follow comment were made:

Eastleigh were consulted on these back in summer 2016. Any representations they made will be included in the updated strategies which are due to be published in spring 107. Any local plan proposals which emerge will be incorporated in any further dates in future years.

Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO

November 2016

The improvements to junction 12 of the M3, identified within the Roads Investment Strategy (M3 12-14 improved slip roads) are centred around the merge and diverge points on the slip roads with the mainline carriageway. Planned designs are at an early phase at present and engagement with key stakeholders including Eastleigh Borough Council and Hampshire County Council will be undertaken when proposals are sufficiently developed.

Highways England has recently undertaken an evidence collection phase to assist with the preparation of our route strategies. These route

strategies (In this case the M25 to Solent) are key evidence documents that assist Government with producing the Roads Investment Strategy 2 and investment plan (For the period 2020-2025). This evidence will be analysed to correlate and interrogate any supporting information identifying the need for further improvements along this route, including the M3 junction 12 for the next roads period and beyond.

As with other parts of the network capacity would be available depending on the time of day travelled. However unless there is effective travel demand management in place or the availability of alternative sustainable transport measures the majority of development traffic is likely to use the strategic road network during the peak periods when there is limited capacity.

Specific Feedback in relation to West End/Allington Lane SGO

November 2016

Highways England confirmed they have no plans to pursue a J6 as they do not believe one can be delivered within the requirements of DMRB. They consider that any J6 would potentially undermine the purpose of a SRN route as it would encourage more junction hopping which is already a known issue in this area. It would need to be demonstrated how a potential J6 could be delivered before being included as critical mitigation for growth proposals.

They note that J5 has recently been upgraded to relieve existing congestion and provide some future capacity. However any further proposals in the area should be assessed in conjunction with other highway proposals being considered by HCC. J7 has existing issues which may be the subject of a forthcoming scheme. However that scheme will only address current issues and known committed development. Any further proposals should be assessed and if required mitigation offered.

Hampshire County Council Transport

Peter Drake

General Feedback applying to the whole Plan / both Strategic Growth Options

Feb 2016: With regards to the Eastleigh Strategic Transport Study HCC suggests that further collaborative work will be required post-consultation. The County Council, as Highway Authority will seek to progress the necessary technical design and development work for the Botley Bypass and will also seek funding opportunities to support early delivery of the bypass.

November 2016: The following generic advice was provided:

- A package of rural road improvements will be required to manage additional traffic
- Public transport measures to enable access to the sites, including Solent METRO and local rail stations and improve rail capacity and interchange should be considered.
- Improved access to the M3 and M27 should feature
- Sustainable travel and demand management should feature in the design and layout of sites.
- Eastleigh city centre junction improvements should also be factored into mitigation proposals

Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO

November 2016:

 Considered that mitigation for the North Bishopstoke/ Fair Oak sites could be in the form of a North Bishopstoke Bypass and Allbrook Hill Relief Road.

More detailed advice was received on **December 2**nd as follows:

Firstly in relation to potential development at Allbrook – Bishopstoke – Fair Oak. The County Council undertook a high level appraisal of key constraints on the existing network including the B3354 through Crowd Hill and Fishers Pond; the B3037 Bishopstoke Road approach to Eastleigh; and Allbrook Way / Allbrook Hill plus associated junctions approaching the M3 Junction 12. Whilst there are existing delays blocking back from the Allbrook Way / Allbrook Hill direction towards the existing rail over road bridge on the B3335 Highbridge Road, the delays at this time are not directly associated with the bridge itself.

Based upon the broad assumption of a development option in the North Bishopstoke area and potential associated traffic generation and distribution, the need for mitigation to reduce the impacts upon the key constraint points was identified. Initial feasibility design based upon the limited information available identified potential mitigation in the form of an Allbrook Hill Relief Road; improvements to Highbridge Road; and a north Bishopstoke Bypass to reduce the impacts of the potential development upon the surrounding highway network. Whilst the requirement for improvements to the Highbridge Road rail over road bridge was not identified in the initial feasibility work, further traffic modelling will be required, incorporating a more accurate assessment of the quantum and location of development, both in the strategic growth option and across the Borough, before the Highway Authority can consider further the traffic impacts and any mitigation measures required as more specific details become available.

Notwithstanding the comments above and specifically in relation to the rail over-bridge, improving the horizontal and vertical alignment of the road, as identified in the feasibility work referenced in the ESTS, would help to improve forward visibility on the approach and exit from the bridge and could help to improve both the flow of traffic and road safety in this location. In addition improved signing could be provided on the approaches to the bridge to further advise high vehicles of height restrictions and to reduce the propensity for bridge strikes to occur. Improved signing could also be provided on the wider network to help HGVs make the correct route choice at a point where they are still able to take an alternative route. Improvements to drainage will be necessary to reduce the frequency and impact of any flooding events. Physical works to the bridge itself are likely to be prohibitively expensive, as they would be likely to require the replacement of the current structure.

In light of the above I am unable to confirm in advance of further more detailed work, which considers the impacts of the potential development site as a whole, whether physical works will be required to the rail over road bridge at Highbridge Road.

Specific Feedback in relation to West End/Allington Lane SGO

November 2016:

• Strategic road improvements to support the north of Allington Lane/ West End sites to focus on connectivity towards M27 J7 rather than taking traffic through Bishopstoke/ Fair Oak. Further evidence and modelling is required.

More detailed advice was received on **December 2nd** as follows:

	In relation to potential development at Allington Lane, south of the Eastleigh to Hedge End railway line. Whilst the County Council have not undertaken any site specific appraisal work in relation to development in this location, the generic sites tested within broad proximity have provided some indication of the likely scale of potential impacts for which mitigation in the form of new links or connections to the Strategic Road Network are likely to be required. Emerging proposals from the promoters of land at Allington Lane north of	
	West End indicate a transport solution based on providing access points onto Allington Lane and Burnetts Lane, however more work will be required to identify appropriate mitigation in the form of connections to the wider Strategic Road Network and to demonstrate to the Highway Authority that a workable transport solution can be found. Given the constrained nature of the highway network surrounding the potential site, the Highway Authority would expect to see major new off site infrastructure including new / improved links to the Strategic Road Network, in particular connections to the M27 Junction 7 and Junction 5, and to the M3. The scope and demand for mitigation will need to be fully detailed in a Transport Assessment which will need to consider enhanced connectivity to the Botley railway line; an enhanced connection to and improved facilities at the existing Hedge End Station; and any interface with proposals for Solent Metro in this area.	
Hampshire	General Feedback applying to both Strategic Growth Areas	
County Council Minerals and	Summer 2015:	
Waste	All options have the potential to put additional pressure on existing waste management facilities;	
	Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO	
	Summer 2015:	
	The Minerals and Waste Safeguarding in Hampshire SPD should be referred to, particularly Policy 15: Safeguarding - Resources (as it would affect Options B,C, F and H);	
	The safeguarding of Fair Oak Household Waste Recycling Centre applies to development falling in Options A, B and C;	
	November 2016:	
	Consideration should be given to the reserves of safeguarded sand and gravel in the Bishopstoke/ Fair Oak area (per Policy 15: Safeguarding Mineral Resources of HMWP 2013)	
	HCC would require a minerals assessment with robust proposals on how to maximise the extraction of mineral resources prior to or during development of this area.	
Hampshire	General Feedback applying to both Strategic Growth Areas	
County Council Education	Feb 2016:	
	There would be an increase in school places required for all Options.	

November 2016:

Further Comments;

- Timing of the construction of secondary schools should tie in with delivery of social housing.
- Sites for all new schools detailed for each option above would need to be provided and the construction costs (based on current rates) will be
 over £150 million.

Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO

November 2016:

- Likely to require primary provision for four new 3 form-entry (FE) schools or any combination to provide 12FE worth of provision total.
- Likely need for 12FE new secondary school.
- Will require additional early years places with a minimum of two full day care facilities offering a total of 120 places as well as two sessional preschools offering a total of 60 places.

Specific Feedback in relation to West End/Allington Lane SGO

November 2016:

- Likely to require two new primary schools; one 2FE and one 3FE or a combination to provide 5FE total.
- Secondary provision of 4.25FE required but as this is not enough for a whole new school, expansion or reorganisation of existing facilities would be required.
- Will require a minimum of one full day care facility offering 60 places as well as a sessional preschool offering 30 places.

Hampshire County Council **Environment**

General Feedback applying to both Strategic Growth Areas

Feb 2016:

Agrees that the separate requirement for 15% reduction of emissions from new homes should be maintained, that BREEAM excellent standards are implemented and that work on the reduction of carbon emissions through the Energy Strategy and Hampshire Climate Local is encouraged. Believes reference to 'Water. People. Places – a guide for master planning sustainable drainage' should be made in relevant the Local Plan Policies;

Specific Feedback in relation to North Bishopstoke/ Fair Oak SGO

November 2015:

Comments made below are based on data on flood events that have been reported to HCC and therefore unreported incidents, or those reported to other authorities or agencies are not considered. As well as this the location of some surface water draining is not known.

North Bishopstoke/ Fair Oak;

- The Lower Itchen runs through the western side of the Bishopstoke Strategic Growth Option and Bow Lake runs through much of the western and northern part of the area.
- Land adjacent to both of these rivers has an annual probability of flooding of 3.3% and are within flood zone 3.
- There are various watercourses flowing into Bow Lake which have an annual probability of flooding of between 0.1% and 1%.
- The Lower Itchen runs through the south-eastern part of the Allbrook Strategic Development Area. Land adjacent to the river has an annual probability of flooding of between 0.1% and 1% and are within flood zone 3.

The Lower Itchen and Ford Lake run through the southern part of the Fair Oak Strategic Development Area. Land in this area has an annual probability of flooding of 3.3%.

Specific Feedback in relation to West End/Allington Lane SGO

November 2015:

Comments made below are based on data on flood events that have been reported to HCC and therefore unreported incidents, or those reported to other authorities or agencies are not considered. As well as this the location of some surface water draining is not known.

North of West End, Allington Lane;

• The Lower Itchen runs through the centre and western side of the West End Strategic Growth Option.

National Grid (AMEC)

Julian Austin

General Feedback applying to both Strategic Growth Areas

Summer 2015: It is unlikely that any extra growth will create capacity issues for National Grid given the scale of these gas and electricity transmission networks. Southern Gas Networks (SGN) and Scottish and Southern Electric (SSE) should be contacted for further information regarding constraints and opportunities that the distribution networks may have on specific sites and growth in the area, and not the transmission network which operates at a much more strategic level.

	Proposed enhancements to the electricity transmission network and can be found at the following link: Future of energy National Grid. Proposed enhancements to the gas transmission network and can be found at the following link: Gas Ten Year Statement National Grid
Scottish and	General Feedback applying to both Strategic Growth Areas
Southern Energy	Summer 2015: Where existing infrastructure is inadequate to support the increased demands from the new development, the costs of any
Graham Paisley	necessary upstream reinforcement required would normally be apportioned between developer and DNO (Distribution Network Operator) in accordance with the current Statement of Charging Methodology agreed with the industry regulator (OFGEM). Maximum timescales in these instances would not normally exceed around 2 years and should not therefore impede delivery of any proposed housing development.
Southern	General Feedback applying to both Strategic Growth Areas
Water Susan Solbra	Summer 2015:
	Confirm that increased wastewater treatment capacity and additional water resources are likely to be required over the planning horizon. This can be planned, funded and delivered through the water industry's price review process undertaken every five years. Confirm that new and improved sewerage infrastructure as well as water mains would be required to serve individual sites. In principle, this is not a constraint to development but the necessary infrastructure would need to be planned and delivered in parallel with development, in collaboration with developers and the planning authority.
	The adopted Local Plan will inform their investment planning and therefore plays a key role to facilitate good forward planning. The five year supply of housing is also key to our investment planning.
	Feb 2016:
	Southern Water supports all Spatial Options apart from Options D and H;
	The south east is an area of water stress. Southern water supports the option for 'seeking higher standards of water efficiency than minimum building regulation requirements'
	New and improved water supply and wastewater infrastructure will be required. Delivery of such will need to be supported by planning policy that positively encourages this provision. Policy wording is suggested.
Hampshire County Council Libraries	General Feedback applying to both Strategic Growth Areas
	Summer 2015:
	Currently all of the borough's settlements have access to library facilities. Hampshire Library and Information Service has identified that, with the exception of the Chandler's Ford library, the other libraries in the borough are too small to serve the needs of their population. They have floor spaces of less than 20m² per 1000 population, below the 30m² per 1000 population recommended by the Museums, Libraries, and Archives Council.
	The County Council wishes to improve access to its services by partnering libraries with other services;

Hampshire County Council	General Feedback applying to both Strategic Growth Areas
	November 2016:
Rights of Way	The following should be priorities for development at the proposed strategic sites:
	Upgrade and improve the Itchen Navigation route from Southampton to Winchester.
	Installation of a high quality cycle link between Botley and Eastleigh.
	Upgrade the right of way between Hedge End and Itchen Valley Country Park with a potential link to the Itchen Navigation.
	Potential to provide a multi-user network to improve east-east links to the North Bishopstoke/ Fair Oak sites by upgrading links to the Forest of Bere.
Hampshire Police	General Feedback applying to both Strategic Growth Areas
	Summer 2015: An increase in the numbers of residents does not mean that we need to increase the numbers of police officers. Eastleigh will be the same as other Districts in respect of their populations growing over the same time period. Hampshire Police will have to look at all of these issues in the round and place resources to match demand.
Hampshire Fire And Rescue	Summer 2015: Confirmed correct contact details.
South Central Ambulance Service	No response.
Rob Kemp	
Southern Gas Networks	No response.
Ms A. Mair	
Transport for South Hampshire	No comments received.

Allbrook - Bishopstoke - Fair Oak

This strategic growth option is likely to rely upon the provision of a new link road from Junction 12 of the M3 to the B3354 at Crowd Hill. The link road will be required to mitigate the impact of the new development by providing additional highway capacity. The requirement for mitigating new strategic highway infrastructure has been identified by the Highway Authority in the Eastleigh Strategic Transport Study (Interim Report) which was published in December 2015.

The new link would connect the A335 Allbrook Way to Highbridge Road at the junction with Pitmore Road. The route would then follow Highbridge Road under the rail underpass (a structure owned by Network Rail – their reference E1-196). There are then a number of options for the realignment of Highbridge Road. A new link would be required from the B3335 Highbridge Road to the B3354 Winchester Road / Main Road, to serve the new development. There are also different options for the location of this section of the link.

The existing road under rail bridge has a clearance of approximately 4m above the road. There is a height restriction on the bridge and consequently when high vehicles are not taking notice of the height restrictions incidents have occurred with vehicles hitting the roof of the bridge or becoming stuck. The underpass itself has been subject to flooding.

The bridge has an existing carriageway width of 5.7m with a 1.2m pedestrian footway on one side of the road. A width of 6m is generally accepted as an appropriate width to allow two HGVs to pass. Hence due to the perceptual narrowness related to the side walls of the structure, HGVs generally give way to each other if two are approaching the bridge at the same time. This has the potential to cause delays on the approaching links. The carriageway width could be increased if the pedestrian footway under the bridge could be diverted and the potential for this needs to be explored further.

The existing flooding and drainage measures at the bridge will need to be considered and upgraded if necessary.

At present, there are no proposals to widen the underpass or increase its height. Leaving the existing structure the same height and width will reduce the attractiveness of the route and will preclude vehicles which exceed the height restrictions from using the route. This could have implications for the attractiveness and suitability of the strategic growth option to accommodate certain types of employment development.

Neither the County Council (as Highway Authority) or Network Rail has raised any objection in principal to the development proposals in the Issues and Options consultation. However the Highway Authority will not provide a definitive response until further site specific details have been provided.

Discussions with the Highway Authority

Hampshire County Council as Highway Authority identified the requirement for a new link as part of the Eastleigh Strategic Transport Study (ESTS) and has continued to work with the Borough Council in considering the requirements for mitigation associated with potential development in this location. Discussions with Highway Authority have established the following -

- That the North Bishopstoke Bypass would only be required to help mitigate
 development on the land north of Bishopstoke. The onus would be on the
 developers to demonstrate (as part of a Transport Assessment) that the new road
 and associated improvements was sufficient to mitigate the impact of their
 development and acceptable to the Highway Authority.
- The initial ESTS was informed by transport modelling based on estimates for the level and location of development set out in Section 2.4 of the Study. Additional transport modelling, including a more accurate assessment of the quantum of development and the location of development, both in the strategic growth option and across the Borough will be required before the Highway Authority can consider further the traffic impacts and any mitigation measures required.
- Notwithstanding the above, the initial traffic modelling undertaken to inform the Eastleigh Strategic Transport Study (ESTS) Interim Report, indicates a new road in this location would be attractive to additional non development related traffic from the surrounding area wishing to access the M3, hence would offer wider network benefits. Further assessment and design work will however be required once more precise details are known.
- That specifically in relation to the road under rail bridge at Highbridge Road, it is considered that realigning Highbridge Road on the eastern approach to the bridge (as presented in the ESTS) and by improving the horizontal and vertical alignment of the road, would help to improve forward visibility on the approach and exit from the bridge and could remove some of the existing road safety issues. In addition to reduce the propensity for bridge strikes to occur, improved signing could be provided on the wider approaches, to help HGVs make the correct route choice at a point where they are still able to take an alternative route. Physical works to the bridge itself are likely to be prohibitively expensive in the context of the amount of development proposed, as they would be likely to require the replacement of the current structure.
- That in relation to pedestrian and cycle access particularly under the railway bridge further work is required to identify potential alternative routes. The onus would be on the potential developer to identify route options which could possible involve the use of the current underpass for the Itchen Way located slightly further south and then providing a new bridge link onto the western side of the river. Current thinking is that some form of pedestrian provision is likely to still be required under the existing rail bridge, as this will remain the desire line that people are likely to want to use.

Discussions with Network Rail

Although no formal objections were received at the Issues and Options stage Network Rail staff have highlighted the following points to the Council -

- The structure was last examined last year and no significant defects were observed. There is no planned work for the structure at this time.
- There is a record of bridge strikes (18 since 2008). With increased traffic predicted to be generated from the potential development and changes in traffic movements generally in the area as a result of the new link road, traffic volumes travelling under the rail bridge will increase. Precise increases cannot be determined in advance of

more detailed assessment work. However the predicted increase in traffic through this underpass, should the road link and development be delivered, would require measures to mitigate the increased safety risk to the bridge, vehicular traffic and pedestrian and cyclists. Measures discussed to date have included the provision of safety barriers some point before the bridge and additional signing of height restrictions.

- The bridge currently has a paved vehicular carriageway width of c.5.7m, with a footway of c.1.2m and headroom of 3.7 metres. The dimensions of the bridge cannot be considered to be compliant in accordance with the current standards and recommended dimensions which Design Manual Road and Bridges TD 27/05 stipulates. Any improvement scheme proposed for the road, even if only resurfacing, could require further departures from standards which would need to be agreed with the Overseeing Organisation. Any physical works to increase the Maintained Headroom and Paved Width would also require relevant approvals. It should be noted that the improvement of an existing road will likely require adequate NMU provision to be provided in accordance with TA 90 (DMRB 6.3.5), TA 91 (DMRB 5.2.4), HD 42 (DMRB 5.2.5) and IHT Guidelines For Providing For Journeys On Foot.
- Should any property rights or related matters (e.g. the release of restrictive covenants) be needed from Network Rail to enable the scheme to happen, they are under a best value obligation from the Department for Transport to ensure that any rights granted (or other related work needed to enable the scheme) are appropriately valued and take into account the uplift in land value (from agricultural to residential) that such works will unlock. The value secured by Network Rail in that scenario would then be reinvested back into the railway network. This could result in a significant value being due to Network Rail which could significantly impact upon the viability of the development option.
- Further work is required through the Transport Assessment work to understand the scope for the increased risk of bridge strikes or changes to the drainage regime etc. Any engineering costs needed to satisfy Network Rail, both to implement the scheme and to cover ongoing liabilities associated with the scheme, would have to be covered by the promoter/developer. It is also subject to getting any rail industry and regulatory consents that may be needed.

Conclusion

To date the Highway Authority has not stated that any works to the existing rail structure, involving widening the carriageway at this point, will be necessary to accommodate the volumes of traffic identified in initial assessment work, based upon broad assumptions of the location and quantum of development anticipated should the strategic growth option to the north of Bishopstoke and Fair Oak and associated link called the North Bishopstoke Bypass be delivered.

However further more detailed assessment work, going beyond the more generalised initial assessment of the road network in the ESTS will be required which is based on more precise parameters of any selected scheme. The more detailed assessment should also include a greater understanding of the level and location of other development in the Borough. Further work is therefore essential to enable the Highway Authority to provide a definitive response.

Similarly Network Rail has not raised an objection to date but discussions have highlighted issues concerning the possible need for works to the bridge which could have significant implications for delivery of the growth option.

Further work will be required to provide a better understanding of impacts and appropriate mitigation and to manage the risk to the overall proposal, in terms of technical delivery; safety for road and rail users; and potentially significant additional costs impacting upon the viability of the proposals. The Highway Authority considers that the onus is on the site promoters to take a lead in this work, but there is clearly a need for both the Highway Authority and Network Rail to be involved in this further process, and given the potential for these issues to prevent delivery, the Borough Council should be proactive in ensuring that work is progressed given the potential for these critical issues to prevent delivery.