

# Surrey County Council Highway Authority

Formal Response to SU12/0546  
Redevelopment of Princess Royal Barracks,  
Deepcut, Surrey



4 July 2013

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The Highway Authority raises no objections to the above development subject it being party to the completion of a Legal Agreement to provide:

**(A) THE FOLLOWING HIGHWAY WORKS AT THE DEVELOPERS EXPENSE SUBJECT TO THE NECESSARY STATUTORY PROCEDURES, TRAFFIC REGULATION ORDERS, ROAD SAFETY AUDITS, TECHNICAL APPROVALS AND GENERAL REQUIREMENTS OF THE HIGHWAY AUTHORITY:**

## HIGHWAY WORKS

### Deepcut Bridge Road / Blackdown Road Access Roundabout

1. The developer shall not commence the development until it has entered into a Highway Agreement in respect of the Highway Works generally in accordance with drawing number 22729-LEA1157 in the Highway Works Drawings. The Owner shall not commence development until these works (including any necessary land dedication) have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

### Internal Spine Road

2. The developer shall not commence the construction of more than 230 dwellings or the supermarket until it has entered into a Highway Agreement in respect of the Highway Works generally in accordance with drawing number 22729-LEA850 of the Highway Works Drawings. Such works shall be designed ensure the adequate simultaneous two-way movement of buses throughout the spine road. Prior to the occupation of the 230<sup>th</sup> dwelling, the opening of the supermarket, or within 24 months of commencement of development, whichever is the sooner, these works (including any necessary land dedication) shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

### Spine Road Highway Infrastructure

3. The developer shall not commence the construction of more than 230 dwellings or the supermarket until it has entered into a Highway Agreement in respect of the Highway Works to provide the necessary highway and transport infrastructure on the proposed spine road in general accordance with the planning application drawings. Such infrastructure shall include:
  - a. timber bus shelters integrating covered and lit cycle parking
  - b. high quality paving materials
  - c. landscaping
  - d. street furniture including benches, posts and signage
  - e. 3m wide shared use cycle paths

Prior to the occupation of the 230<sup>th</sup> dwelling, the opening of the supermarket, or within 24 months of commencement of development, whichever is the sooner, the spine road infrastructure shall have been installed to the satisfaction of the Local Planning Authority and the County Highway Authority.

#### Red Road / The Maultway / Upper Chobham Road Roundabout

4. The developer shall not commence the construction of more than 230 dwellings until it has entered into a Highway Agreement in respect of the Highway generally in accordance with drawing number 22729-LEA1163 of the Highway Works Drawings. Prior to the occupation of the 230<sup>th</sup> dwelling, or within 24 months of commencement of development, whichever is the sooner, these works (including any necessary land dedication) shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

#### Deepcut Bridge Road Bridge

5. The developer shall not commence the construction of more than 230 dwellings until it has entered into a Highway Agreement in respect of the Highway Works generally in accordance with drawing number 22729-LEA1156 of the Highway Works Drawings. Prior to the occupation of the 230<sup>th</sup> dwelling, or within 24 months of commencement of development, whichever is the sooner, these works (including any necessary land dedication) shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

#### Environmental Improvements to Deepcut Bridge Road

6. The developer shall not commence development until it has agreed with the Council and County Council after consultation with local residents a scheme for Environmental Improvements on Deepcut Bridge Road between Woodend Road and the existing zebra crossing and generally in accordance with drawing number 22729-LEA1214. Such works to include:
  - a. car parking set into bays
  - b. realignment of Deepcut Bridge Road
  - c. landscaping
  - d. high quality paving
  - e. posts, benches and street furniture.

Once agreed the developer shall not commence the construction of more than 400 dwellings until it has entered into a Highway Agreement in respect of the these works. Prior to the occupation of the 400<sup>th</sup> dwelling, or within 37 months of commencement of development, whichever is the sooner, these works (including any necessary land dedication) shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

#### Frimley Green Road/Stuart Road/Wharf Road

7. The developer shall not commence the construction of more than 450 dwellings until it has entered into a Highway Agreement in respect of the Highway Works generally in accordance with drawing number 22729-LEA1154 of the Highway Works Drawings. Prior to the occupation of the 450<sup>th</sup> dwelling, or within 42 months of commencement of development, whichever is the sooner, these works shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

#### Red Road/A322 and M3

8. The developer shall not commence the construction of more than 600 until it has entered into a Highway Agreement in respect of the Highway Works generally in accordance with drawing number 22729-LEA1152 of the Highway Works Drawings. Prior to the occupation of the 600<sup>th</sup> dwelling, or within 54 months of commencement of development, whichever is the sooner, these works (including any necessary land

dedication) shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

#### Junction 3 M3 / A322 Guildford Road

9. The developer shall not commence the construction of more than 600 dwellings until it has entered into a Highway Agreement in respect of the Highway Works generally in accordance with drawing number 22729-LEA1152 of the Highway Works Drawings. Prior to the occupation of the 600<sup>th</sup> dwelling, or within 48 months of commencement of development, whichever is the sooner, these works (including any necessary land dedication) shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

#### Gole Road/Dawney Hill Traffic Signal Works

10. The developer shall not commence the construction of more than 800 dwellings until it has entered into a Highway Agreement in respect of the Highway Works generally in accordance with drawing number 22729- LEA1155 of the Highway Works Drawings. Prior to the occupation of the 800<sup>th</sup> dwelling, or within 72 months of commencement of development, whichever is the sooner, these works (including any necessary land dedication) shall have been completed to the satisfaction of the Local Planning Authority and the County Highway Authority.

**(B) THE FOLLOWING TRANSPORT INFRASTRUCTURE AT THE DEVELOPERS EXPENSE SUBJECT TO THE NECESSARY STATUTORY PROCEDURES, TRAFFIC REGULATION ORDERS, ROAD SAFETY AUDITS, TECHNICAL APPROVALS AND GENERAL REQUIREMENTS OF THE LOCAL PLANNING AUTHORITY AND THE COUNTY COUNCIL:**

#### **CYCLE INFRASTRUCTURE**

1. Prior to commencement of development the developer shall submit to the Local Planning Authority for its written approval a Development Cycle Network Plan identifying cycle routes to be provided which enable safe and convenient connections to be made on foot and by cycle to and from the local highway network and within the development comprising:
  1. A cycle and pedestrian link between the Sergeants Mess in Bellew Road and Deepcut Bridge Road
  2. A cycle and pedestrian link between the Sergeants Mess in Bellew Road and Blackdown Road
  3. Cycle and pedestrian links between the proposed spine road and Deepcut Bridge Road as indicatively shown on the planning application drawings.
  4. An upgraded cycle and pedestrian link from Deepcut Bridge Road along the existing vehicular access to Frimley Lock including the upgrade of the existing path running directly behind Frimley Lock Cottage as indicatively shown on the planning application drawings - such path to be designed and located in such a way that it does not interfere with the operational use of the dry dock, Frimley Lock Cottage or Deepcut lock-gate workshop & store.
  5. The provision a ramped cycle access from Deepcut Bridge Road bridge to the tow path on the southern side of the canal.
  6. A cycle and pedestrian link between Deepcut Bridge Road and the proposed dwellings, Allotments and Sports pitches immediately north of Dettingen Park.
  7. A cycle and pedestrian link from the proposed Sports Pitches via Aisne Road and Minorca Road to Deepcut Bridge Road;

8. Cycle routes to and from all internal parts of the site including links to the spine road, school, nursery school, supermarket, local shops and canal tow path.
2. Once agreed the developer shall not occupy nor cause or permit Occupation in any phase of the development until the cycle route for that phase has been implemented in accordance with the approved Deepcut Cycle Network Plan as approved by the Local Planning Authority. The developer shall ensure that the cycle route in each phase is able to connect to the other cycle routes as approved in each other phase including phases still to be developed.
3. The developer shall ensure that the cycle routes in each phase are constructed in accordance with a specification to be agreed with the Local Planning Authority and including the provision of lighting unless otherwise agreed in writing. Once constructed the cycle routes shall be permanently retained as approved and maintained to provide for uninterrupted safe and convenient use.

#### Frith Hill to Tomlinscote School Cycle Path

4. Prior to commencement of development the developer shall submit details to the Local Planning Authority of the Frith Hill to Tomlinscote School Cycle Path for its approval, such details to include:
  1. the agreement by the developer to meet the County Councils reasonable costs in obtaining the necessary approvals to part divert the existing public bridleway number BW14 to the proposed route shown on drawing number 22729L-852.
  2. the agreement by the developer to meet the County Councils reasonable costs in dedicating the new path as public bridleway in the event that the part diversion of bridleway number BW14 fails.
  3. the specification of the Required Works.
  4. the alignment and position of the path in accordance with drawing number drawing number 22729L-852.
5. Once agreed the developer shall thereafter implement and dedicate as a new public right of way the Frith Hill to Tomlinscote School Cycle Path as approved by the Local Planning Authority and the Highway Authority and in accordance with the above details before the occupation of the 230th dwelling or within 24 months of commencement of development, whichever is the sooner.
6. Prior to the occupation of the 230<sup>th</sup> dwelling or within 24 months of commencement of development the developer shall have paid the County Councils' reasonable costs in securing the diversion and dedication of the Public Rights of Way.
7. In the event that the diversion of Public Bridleway number xx to the new route fails for statutory reasons or unresolved objections, the Frith Hill to Tomlinscote School Cycle Path shall be dedicated by the Owner as a new Public Bridleway and the existing public right of way shall remain.

#### Brookwood Cycle Parking

8. Prior to the occupation of the 230th dwelling or within 24 months of commencement of development, whichever is the sooner the developer shall pay to the County Council an index linked contribution of up to £25,000 towards cycle parking improvements at Brookwood station.

9. The above sum shall be linked from the date of the planning consent.

## **BUS SERVICES AND INFRASTRUCTURE**

10. Prior to the first payment of the bus services financial contribution the developer shall enter into a Revenue Sharing Agreement with the County Council which shall agree a mechanism for the revenue received from the new services to be shared between the developer and the County Council on a 12 monthly basis commencing one year after the first scheduled financial contribution. The Agreement shall require that:

1. Once agreed it shall be reviewed jointly by the County Council and the Developer annually and any rate of shared revenue return adjusted according the level of revenue, received any ongoing service costs, or as agreed between both parties at that time, and,
2. The rate of shared revenue return shall be agreed annually and paid to the developer within 28 days of having agreed such sum.

11. The developer shall pay the following sums to the County Council to provide new bus services in Deepcut to serve the development comprising:

1. Prior to the occupation of the 1200th dwelling or no later than 10 years from commencement of development whichever is the sooner, the developer shall pay to the County Council a maximum index linked sum of £4,080,000 in phased payments according the provisions below, all towards the provision of new bus services in and serving Deepcut:
  - i. Prior to the occupation of 325 dwellings or the occupation of the supermarket or within 44 months from commencement of development, whichever is the sooner, the developer shall pay an index linked contribution of £240,000 to the County Council towards the provision of new bus services in Deepcut
2. Thereafter, the developer shall pay further index sums according to the following payment schedule whichever is the sooner:
  - i. £480,000 - Prior to the occupation of 490 Dwellings or at the anniversary date of the previous payment whichever is the sooner.
  - ii. £480,000 - Prior to the occupation of 615 Dwellings or at the anniversary date of the previous payment whichever is the sooner.
  - iii. £480,000 - Prior to the occupation of 745 Dwellings or at the anniversary date of the previous payment whichever is the sooner.
  - iv. £480,000 - Prior to the occupation of 870 Dwellings or at the anniversary date of the previous payment whichever is the sooner.
  - v. £480,000 - Prior to the occupation of 980 Dwellings or at the anniversary date of the previous payment whichever is the sooner.
  - vi. £480,000 - Prior to the occupation of 1090 Dwellings or at the anniversary date of the previous payment whichever is the sooner.
  - vii. £480,000 - Prior to the occupation of 1200 dwellings or at the anniversary date of the previous payment whichever is the sooner.
  - viii. A sum of £480,000 payable one year after the occupation of the 1200th dwelling or no later than 10 years from commencement of development, whichever is the sooner.

12. All index linked sums shall be linked in accordance with RPIX from the date of the planning consent

### **BASINGSTOKE CANAL TOWPATH**

13. Prior to the occupation of the 230th dwelling or within 24 months from commencement of the development, the developer shall pay an index linked contribution of £481,000 to the County Council towards the provision of an upgraded canal tow path comprising:

- (a) the upgrade of the Basingstoke Canal Towpath between Frimley Lock and Pirbright Bridge with the construction of a 3m wide (except pinch points) reinforced tar and chip sealed surface over an appropriate MoT type 1 base, canal bank protection, tree removal, and all necessary signage incidental to the designation of this section of towpath as shared pedestrian/cycle route suitable for commuter use

AND subject to remaining funding,

- (b) the upgrade of the Basingstoke Canal Towpath between the eastern side of Deepcut Bridge to Mytchett Visitor Centre with the provision of an unbound stone surface on the existing towpath, soft and hard canal bank protection and reinstatement of eroded sections.

OR

- (a)  
(b)  
(c) Such other details as the County Council may require to promote commuter and leisure use of the sections of towpath between The Canal Visitor Centre and Connaught Road.

14. If the County Council agrees the developer may enter into a Towpath Improvement Agreement with the County Council for the construction of the canal towpath works at the developer's expense. In such event the developer shall submit to the County Council for its approval in writing details of the proposed canal towpath works prior to completion of the Towpath Improvement Agreement. Once agreed the developer shall implement the agreed tow path works prior to the occupation of the 230th dwelling or within 24 months from commencement of development in accordance with the Towpath Improvement Agreement to the satisfaction of the Local Planning Authority and the County Council.

13.

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15. All index linked sums shall be linked in from the date of the planning consent.

### **TRAVEL PLAN**

16. Prior to commence of development the developer shall submit to the Local Planning Authority for its approval in consultation with the Highway Authority a Development Travel Plan in broad accordance with the Framework Travel Plan dated May 2013 and Surrey County Council's Travel Plans Good Practice Guide. The Development Travel Plan shall require:

1. The provision of individual Travel Plans for each of the Supermarket, Primary School and or Nursery School
  2. Prior to the occupation of each of the Supermarket, the Nursery and the Primary School, individual Travel Plans for the respective land uses shall be submitted by the developer to the Local Planning Authority for its approval in consultation with the Highway Authority a Development in broad accordance with the Framework Travel Plan dated May 2013 and Surrey County Council's Travel Plans Good Practice Guide.
  3. The appointment of the Development Travel Plan Coordinator prior to the commencement of the development.
  4. The designation of Travel Plan Coordinators for each of the Supermarket, Nursery and Primary School prior to the occupation of the respective land uses.
  5. The Development Travel Plan Coordinator to liaise and work collaboratively with the Travel Plan Coordinators.
  6. The provision of a dedicated Deepcut Travel Planning web-site to a specification to be first agreed with the Local Planning Authority and the Highway Authority. Once agreed it shall become operational at least 12 months prior to the occupation of any part of the development and kept up to date.
  7. The Developer to submit the proposed Travel Pack Specification to the Local Planning Authority and the Highway Authority for written approval prior to the occupation of any dwelling.
  8. The developer to provide a Travel Pack to residents on the first Occupation of each Dwelling and to the first occupants of all non-residential uses within the Development.
  9. The Owner shall pay the Travel Plan Monitoring Fee to the County Council on submission of the Development Travel Plan and upon the submission of each individual Travel Plan.
17. Once agreed the developer shall implement the Developer Travel Plan prior to first occupation of any part of the development and thereafter shall continue to operate and monitor the Plan in accordance with the Framework Travel Plan until the completion of the development. On completion of the development the developer shall secure the ongoing management of the Developer Travel Plan in accordance with details to be agreed with the Local Planning Authority.
18. The Owner shall not occupy any residential units until it has paid the Development Travel Plan Monitoring Fee, and shall not occupy the Supermarket, Nursery or Primary School, until the developer or each respective occupier has paid the Travel Plan Monitoring Fee.
19. The Travel Plan Monitoring Fees shall be paid in accordance with Surrey County Council's Travel Plan Good Practice Guide and shall be index linked from the date of the planning permission.

#### **LAND DEDICATION**

1. The developer shall not commence development until indicative details of the private land required to complete the highway and transport obligations and which will be dedicated as publicly maintained highway has been submitted to and agreed with the Local Planning Authority and the Highway Authority. Once agreed such land or any additional land required by the detailed design of the works shall be dedicated as public highway under the terms of any Highway Agreement.

**THE HIGHWAY AUTHORITY ALSO RECOMMENDS THE IMPOSITION OF THE FOLLOWING CONDITIONS AND INFORMATIVES TO ANY PLANNING CONSENT:**

1. Before each phase of the development hereby permitted is commenced a Construction Environmental Management Plan (CEMP) in respect of that phase shall be submitted to and approved in writing by the local planning authority. Construction of each phase of the development shall not be carried out otherwise than in accordance with each approved CEMP. Each phase CEMP shall include the following matters:
  - a. a construction travel plan for the construction phase including details of parking and turning for vehicles of site personnel, operatives and visitors
  - b. a delivery and haulage travel plan including details of the routes of delivery vehicles, the timings of deliveries and other HGV movements and areas for loading and unloading of plant and materials
  - c. piling techniques
  - d. storage of plant and materials
  - e. provision of boundary hoarding and lighting
  - f. details of proposed means of dust suppression and noise mitigation
  - g. details of measures to prevent mud from vehicles leaving the site during construction
  - h. details of any site construction office, compound and ancillary facility buildings
  - i. lighting on site during construction
  - j. procedure for monitoring and review of the CEMP;
  - k. measures for the implementation of the CEMP through an environmental management system;
  - l. details of the temporary surface water management measures to be provided during the construction phase
  - m. appointment of a Construction Liaison Officer
  
2. Prior to the submission of any reserved matters applications Design Codes which are in substantial compliance with the approved parameter plans and the submitted Design and Access Statement shall be submitted for each of the Character Areas. The Design Code shall include the following:
  - a. built-form strategies to include density and massing, street grain and permeability, street enclosure and active frontages, type and form of buildings and landmarks and vistas
  - b. design strategies for principal buildings or land uses within the character area, including where appropriate the primary school, the sports hub sites
  - c. a strategy for a hierarchy of streets and spaces
  - d. principles for the alignment, width, lighting and surface materials proposed for all footways, cycleways, roads and vehicular accesses to and within the site
  - e. design of the public realm, including layout and design of squares, areas of public open space, areas for play, street furniture and sustainable urban drainage
  - f. principles for determining quality, colour and texture of external materials and facing materials for roofing and walls of buildings and structures including a consideration of opportunities for using locally sourced and/or recycled construction materials
  - g. principles for hard and soft landscaping including the inclusion of important trees and hedgerows
  - h. on-street and off-street residential and commercial vehicular parking, off street turning (where required) and/or loading areas and servicing provisions
  - i. cycle parking and storage
  
3. The Reserved Matters applications shall thereafter accord with the approved Design Codes for the site.



4. Prior to their first occupation each dwelling shall be provided with dedicated cycle parking in accordance with the requirements of the Local Planning Authority and the Surrey County Council Parking Guidelines. Such provision for flats and apartments may be communal whereas for single dwellings the cycle parking shall be integral to the main structure of each dwelling separately accessible from any garaging.
5. High quality, covered, lit and prominent cycle parking shall be provided for each non-residential land use (including the care home) prior to their first occupation in accordance with the requirements of the County Council. Once provided such provision shall be permanently retained for its future use.
6. No new development shall be occupied within each phase until space has been laid out within the site in accordance with details to be submitted to and approved in writing by the Local Planning Authority for the provision off street car parking for all non-residential land uses in accordance with Surrey County Councils Vehicular and Cycle Parking Guidance January 2012 and the adopted Deepcut Supplementary Planning Document.
7. Prior to their first occupation and use all land uses within the development shall be provided with electric vehicle charging points in accordance with the requirements of the Local Planning Authority, the Surrey County Council Parking Guidelines and the adopted Deepcut Supplementary Planning Document.
8. All proposed vehicle and cycle accesses shall prior to their first use shall be designed, constructed and provided with visibility zones, all in accordance with details to be submitted to and approved in writing by the Local Planning Authority. Once provided all accesses and visibility zones shall be permanently maintained to a specification to be agreed in writing with the Local Planning Authority.
9. Before any operations commence on site facilities shall be provided as must be first agreed with the Local Planning Authority for the provision of dedicated wheel washing facilities, in order that the developer can make all reasonable efforts to keep the public highway clean and prevent the creation of a dangerous surface on the highway. The agreed measures shall thereafter be retained and used throughout the construction of the development
10. Before any development within each phase is occupied pedestrian inter-visibility splays of 2m by 2m shall be provided on each side of all vehicle and cycle accesses, the depth measured from the back of the footway or verge and the widths outwards from the edges of the access. No fence, wall or other obstruction to visibility between 0.6m and 2m in height above ground level shall be erected within the area of such splays.

## **REASONS**

1. The above conditions are required in order that the development should not prejudice highway safety nor cause inconvenience to other highway users or adversely affect the amenity of existing residents.
2. The above conditions are required in recognition of the National Planning Policy Framework.
3. The above conditions are required in order that development sufficiently mitigates the impact of all construction activities associated with the development of the site.

## **INFORMATIVES**

1. The completion of the highway works and the provision of the Frith Hill cycle route will require private land currently owned by the applicant to be dedicated as publicly maintained highway. The applicant is advised that any Highway Agreement or Agreements required to undertake these works will require the land owner to be party to any Agreement.
2. Design standards for the layout and construction of access roads and junctions, including the provision of visibility zones, shall be in accordance with the requirements of the County Highway Authority, the adopted SPD and the Design Code.
3. The Highway Authority has no objection to the proposed development, subject to the above conditions and obligations but if it is the applicant's intention to offer any of the new roads, footways, cycleways or verges for adoption as publicly maintainable highways, their adoption will be subject to the requirements of Surrey County Council's Roads Adoptions Policy. Permission under the Town and Country Planning Act should not be construed as approval to the highway engineering details necessary for inclusion in an Agreement under Section 38 or 278 of the Highways Act 1980.
4. The applicant is advised that any works offered for adoption as publicly maintainable highway shall be subject to the County Councils application of its Commuted Sums Policy.
5. Details of the highway requirements necessary for inclusion in any application seeking approval of reserved matters may be obtained from the Transportation Development Planning at Surrey County Council.
6. Notwithstanding any permission granted under the Planning Acts, no signs, devices or other apparatus may be erected within the limits of the highway without the express approval of the Highway Authority. It is not the policy of the Highway Authority to approve the erection of signs or other devices of a non-statutory nature within the limits of the highway.
7. Any bridges, buildings or apparatus (with the exception of projecting signs) which project over or span the highway may be erected only with the formal approval of the County Council under Section 177 or 178 of the Highways Act 1980.
8. The permission hereby granted shall not be construed as authority to obstruct the public highway by the erection of scaffolding, hoarding or any other device or apparatus for which a licence must be sought from the County Council.
9. The permission hereby granted shall not be construed as authority to carry out works on the highway. The applicant is advised that an Agreement or licence must be obtained from the County Council before any works are carried out on any footway, footpath, carriageway, verge or other land forming part of the highway.
10. When a temporary access is approved or an access is to be closed as a condition of planning permission an agreement with, or licence issued by, the County Council will require that the redundant dropped kerb be raised and any verge or footway crossing be reinstated to conform with the existing adjoining surfaces at the developers expense.
11. The developer is reminded that it is an offence to allow materials to be carried from the site and deposited on or damage the highway from uncleaned wheels or badly

loaded vehicles. The Highway Authority will seek, wherever possible, to recover any expenses incurred in clearing, cleaning or repairing highway surfaces and prosecutes persistent offenders. (Highways Act 1980 Sections 131, 148, 149).

12. When access is required to be 'completed' before any other operations, the Highway Authority will normally agree that wearing course material and in some cases edge restraint may be deferred until construction of the relevant phase of the development is virtually complete, provided all reasonable care is taken to protect public safety.
13. The applicant is advised that as part of the detailed design of the highway works required by the above conditions, the County Highway Authority may require necessary accommodation works to street lights, road signs, road markings, highway drainage, surface covers, street trees, highway verges, highway surfaces, surface edge restraints and any other street furniture and equipment.

### **COMMENTARY**

The applicant has considered the impact of the current activities on the site in predicting the likely impact of the proposed development. The development can only be expected to address the additional impact of the development, it would not be reasonable or lawful to expect the development to address or solve existing problems on the highway network.

Where a development creates an impact and makes an existing problem unacceptably worse, it is reasonable for the developer to address the impact. In some cases this means that by mitigating any additional impact any existing problems are also addressed.

It is normal practice in highway planning terms to consider the reasonable potential of a site without the need for planning permission. For example that means that the possible traffic impact of a full operational office building must be assumed, even if the building is unoccupied. In the context of Princess Royal Barracks (PRB), the existing Base is currently in use, but is recognised as being not at full capacity. The Transport Assessment notes that the Base is currently operating at low level (around 20% of the maximum number of military personnel that could be based there). The existing data taken in 2008 therefore represents a lower level of traffic that could otherwise be generated. That in turn means that the level of increased traffic generated by the development is also proportionately higher than it otherwise could be. It also means that fewer existing traffic movements need to be subtracted from the existing traffic flows in presenting a PRB without traffic (baseline) scenario.

#### **How is the additional traffic created by the development estimated?**

The existing traffic levels are surveyed to understand how much traffic there already is on the local highway network. This was carried out before the preparation of the Transport Assessment by installing discrete traffic counting equipment at key junctions on the road network. These form the baseline scenario to which additional vehicle movements are added. Before doing that however, the existing traffic movements from the existing base are subtracted to provide a baseline situation which would occur if all the existing military traffic disappeared. This creates an artificially low baseline picture of local traffic volumes.

This new base line represents traffic volumes in Deepcut without PRB traffic in 2011. Surrey County Council as Highway Authority however are interested in the impact of the development in the future and when the development is complete. An estimation therefore needs to be made of how traffic volumes might naturally change on the local road network over that period of time. For this exercise the developer has used a future date of 2026.

Factors taken from traffic forecasting models are applied to the base line data to predict future traffic levels.

The estimated levels of traffic that the development is expected to create are calculated. In the case of PRB, the developers commissioned traffic surveys of the existing Alma Dettingen Park development. These surveys were undertaken at the developers expense by the TRICS consortium. TRICS is a transport modelling database, which collates data from developments all over the UK and is broken down to provide typical vehicle movements for a wide range of land uses. It is operated on behalf of six County Councils in the South East who founded and own TRICS. SCC is one of those six Councils. By interrogating the database, developers and Highway Authorities can estimate the likely impacts of any development. The use of data from Dettingen Park, collected in accordance with TRICS methods, provides a realistic prediction of the residential traffic impact from PRB. The database was also used to provide data for the other PRB land uses, such as the school and supermarket.

The data once collated required refinement. The traffic being created by the development will comprise people going to work, to school, to leisure uses, shopping and then home again. Some of these will be constrained to within the development itself. For example those residents with children will be able to walk or to school; if they drive, their journey will still be contained within PRB. Those who wish to do some shopping, go to the doctors, or visit the library will be able to walk or cycle to those facilities on site, or again, drive within the confines of PRB. Because of this the developer has calculated how many of the total journeys being created will be contained within the development and how many will spread further afield onto the surrounding highway network.

Similarly, the provision of improved transport infrastructure will allow residents an opportunity to travel within PRB or further afield using enhanced public transport services, and improved pedestrian facilities and cycle routes. The potential of these trips will help to reduce the impact of any traffic on local roads. In order to ensure a robust approach any journeys made by these more sustainable modes has not been subtracted from any predictions on the overall impact of vehicular traffic.

The additional traffic generated by the development is added back onto the estimated 2026 baseline flows to predict the impact of the development in the future. It is the future year with the addition of development traffic that is of most interest in highway terms, allowing for a comparison to be made against the existing situation.

The traffic is distributed across the road network, according to journey to work information and the proximity of other local facilities. Naturally the traffic impact is greater at locations closer to the development than it is further away. By way of an analogy, if a tree root is the development; the trunk, branches and leaves of the tree are the traffic movements dispersing across the road network, becoming less significant the further away they are from the development (the root). There are exceptions of course; if a large proportion of development traffic wishes to travel in the same direction to reach the same point on the road network, that traffic will take longer to disperse.

Wherever possible and when addressing the vehicular impact at key junctions, the aim is to provide capacity improvements that allow the junction to operate as it does currently. If that is not possible, a view is taken as to how the operation and efficiency of the junction compares to the 2026 baseline. Often it is the natural increase in year to year traffic flow that creates additional congestion, rather than that created by the development.

**What does this mean for PRB and Deepcut?**

The roads into and out of Deepcut will experience greater traffic flows than at present. The existing Barracks generate 300 vehicle movements in the morning peak hour, which as the development progresses will diminish. Therefore in the early stages of the development whilst the Barracks are decommissioned and houses are being built, it is possible that the volume of traffic on local roads has the potential to decrease. Some of this will be off set by construction traffic however.

The traffic generation proposed by the development does not make any reductions for trips made by bus, on foot or by cycle. The applicant claims that as a result of the improvements to the bus services and the pedestrian and cycle infrastructure, together with other travel plan initiatives, a 10% reduction on car borne travel may be achievable. This has not been factored into the calculations on traffic generation.

The roads and junctions into and out of Deepcut will suffer from increase traffic and this places additional pressure on roads and junctions. In regards to the roads themselves, the additional flows means that some roads (links) will be operating very close to their ultimate level of capacity. Red Road for example will be operating at 97% of its theoretical capacity during the morning peak. (It is predicted that it will be required to accommodate 1,503 vehicles, whereas its theoretical capacity is 1551 vehicles). Junctions too will come under pressure and in some instances will begin to operate beyond their existing capacity. If they are already, existing problems will be exacerbated. In an effort to address these additional impacts the applicant has considered the requirements of the SPD for Deepcut, which identified a range of junctions for assessment within the Deepcut area. Having considered these, the applicant has developed a range of capacity mitigation measures as set out below. These will be supported by sustainable travel improvements which it is envisaged will further minimise the vehicular impact.

A summary of each junction is as follows:

### **M3 Junction 3, Bagshot**

At present the junction is very close to or at capacity in the morning and evening peak (101.3% of its capacity at its worst on one arm in the am peak hour). By 2026 without any development, the delay and queuing is significant (120.3% at its worst on one arm in the pm peak hour). With mitigation works the junction is able to operate considerably better (102.5% at its worst on one arm in the am peak hour) and whilst not able to match that experienced now, is far better than would otherwise be the case.

Proposal – The A322 will be widened on the northbound and southbound approach to the M3, with changes to the road markings on the roundabout, increasing the northbound flow, minimising queueing on the northbound approach.

Summary – Even with mitigation the junction will not be able to operate as well as it does now, but it will operate better than it will do in 2026 without improvement.

### **Bagshot Road (A319)/Guildford Road (A322)/Red Road (B311), West End**

At present the junction operates below its ultimate capacity in the morning and evening peak hours. By 2026 without any development, the junction is operating beyond its ultimate capacity. With development and with mitigation works the junction is able to operate below capacity and slightly better than it does now, albeit marginally above capacity on one arm. Similarly, when compared to the 2026 baseline without improvement the mitigation scheme with development provides significant benefits.

Proposal – The junction will retain a roundabout configuration but will be re-modelled to provide greater capacity with a widening of Red Road on the eastbound approach.

Summary – With development and mitigation in 2026 the junction will operate slightly better than it does now. When compared to 2026 without development, It will also operate better in all respects.

### **Red Road/Lightwater Road, Lightwater**

No capacity mitigation is proposed for this junction. At present the junction operates beyond capacity in the pm peak. By 2026 without any development traffic this worsens considerably. The development does seek to distribute traffic through Lightwater Road from Red Road and as such, there are no notable increases in turning movements. The throughput of traffic on Red Road however does affect the ability of those drivers wishing the exit Lightwater Road onto Red Road.

Neither the developer nor the Highway Authority wish to see an increase in vehicles using Lightwater as a means of accessing the A322 northbound. Consideration has been given to possible junction upgrades, such as a roundabout or traffic signals, but these have been discounted simply because the introduction of a junction which makes egress from Lightwater Road easier will encourage through traffic to the detriment of Lightwater Village. The village already has traffic calming which will continue to discourage any additional through traffic. The combined improvements at J3 of the M3 and the Gordons Roundabout will also give less reason for drivers to deviate from that route.

Proposal – A contribution of £50,000 will be made towards Road Safety improvement measures on Red Road.

Summary – Whilst capacity improvements are not considered appropriate the developer has offered a financial contribution of £50,000 to improve road safety along Red Road. This funding will be used primarily to maintain the safety of the traffic wishing to exit Lightwater Road by a combination of high friction surfacing, signage and road markings.

### **Red Road/McDonald Road, Lightwater**

No capacity mitigation is proposed for this junction. At present the junction operates beyond capacity in the am peak. By 2026 without development this worsens considerably. The development does seek to distribute traffic through McDonald Road from Red Road and as such, there are no notable increases in turning movements. The throughput of traffic on Red Road however does affect the ability of those drivers wishing the exit McDonald Road onto Red Road.

Neither the developer nor the Highway Authority wish to see an increase in vehicles using McDonald Road or Lightwater as a means of accessing the A322 northbound. Consideration has been given to possible junction upgrades, such as a roundabout or traffic signals, but these have been discounted because:

- (i) the introduction of a junction which makes egress from McDonald Road easier will encourage through traffic to the detriment of Lightwater Village.
- (ii) having sought the advice of Surrey Police and the County Councils Road Safety Team the installation of a roundabout or traffic signals is not considered suitable for safety reasons.

The village already has traffic calming through the centre and along McDonald Road. Ambleside Road did have traffic calming, but was removed due to complaints by residents a number of years ago. Nonetheless the existing traffic calming in Lightwater will continue to discourage any additional through traffic. The combined improvements at J3 of the M3 and the Gordons Roundabout will also give less reason for drivers to deviate from that route.

Proposal – A contribution of £50,000 will be made towards Road Safety improvement measures on Red Road.

Summary – Whilst capacity improvements are not considered appropriate the developer has offered a financial contribution of £50,000 to improve road safety along Red Road. This funding will be used primarily to maintain the safety of the traffic wishing to exit McDonald Road by a combination of high friction surfacing, signage and road markings.

#### **Red Road/The Maultway/Upper Chobham Road, Frimley**

The junction currently operates at capacity in the morning peak hour. By 2026 the operation of the junction worsens. The proposed mitigation comprises the reconstruction of the roundabout making it larger with more capacity. Despite the increases in background traffic and the additional traffic generated by the development, the proposed enlarged roundabout will be able to operate within its capacity limit, with less queuing than at present.

Proposal – The junction will retain a roundabout configuration but will be enlarged significantly to provide greater capacity and increase the number of approach lanes.

Summary – The proposed works will accommodate the development impact and the background traffic growth and improve upon its current operation.

#### **The Maultway/Old Bisley Road, Deepcut**

The junction currently operates significantly below capacity with little if any queuing. By 2026 and with the addition of the development traffic and background traffic growth the junction remains to operate well within its capacity limits.

Summary – No mitigation is required at this junction

#### **Upper Chobham Road/Chobham Road/Old Bisley Road, Frimley**

The junction currently operates above capacity on one arm during the morning peak period. By 2026 with background traffic growth the junction operates above capacity on 2 arms. The addition of development traffic means the junction operates above capacity on all three arms, albeit without significant increases in queuing. The additional delay created by the development is not significant. As a result of the worsening of the existing situation the developer has considered converting the roundabout to traffic signals, or a normal priority arrangement. In both cases the junction would operate worse than it would do with the present arrangement.

Summary – The developer has considered improvements to the junction, but these worsen the situation compared to the present mini-roundabout configuration. Despite a minor worsening in capacity and queuing terms (2026 baseline versus 2026 with development) in the morning peak period it is not proposed to carry out any mitigation works.

#### **Blackdown Road/Deepcut Bridge Road, Deepcut**

This junction is currently a crossroads and operates with significant spare capacity, but by 2026 the junction would be operating above its capacity limit. The development proposes the replacement of this junction with a roundabout, with Blackdown Road (west) remaining to be a priority junction immediately north of the roundabout. The new junction will be able to operate well within capacity limits in the year 2026 and with the additional development traffic.

Proposal – The junction will be replaced with a new roundabout to serve the new development and to provide access to the new spine road.

Summary – the new access roundabout will be able to satisfactorily accommodate the impact of the new development.

#### **Deepcut Bridge Road/Brunswick Road**

The junction operates as two separate priority junctions fed by the main arm of Brunswick Road. The addition of back ground traffic flows and development traffic shows that by 2026 the junction remains capable of operating within capacity.

Summary – No junction mitigation is required.

#### **Deepcut Bridge Road/Lake Road**

The existing mini-roundabout operates within capacity. By 2026 with background traffic flows and development traffic, the spare capacity at the junction is reduced, but is still able to accommodate the anticipated flows within its capacity limits.

Summary – No junction mitigation is required.

#### **Deepcut Bridge Road Bridge, Deepcut**

The bridge is currently uncontrolled with drivers required to give way to another on an informal basis. The development will result in additional drivers using the bridge and in order to accommodate these and to improve road safety, the bridge will be signalised. It is also proposed that the bridge will be marked to provide a safe margin for pedestrians. The installation of the signals means that in 2026 with background traffic growth and development traffic, the signalised arrangement will adequately be able to accommodate the anticipated demand.

Proposal – The bridge will be provided with traffic signals to accommodate the additional capacity and to improve the safety conditions for pedestrians and cyclists.

Summary - The installation of a signalised arrangement will improve safety for all users whilst adequately accommodating the anticipated demand in 2026

#### **Deepcut Bridge Road/Guildford Road**

The existing priority arrangement remains to operate within capacity by 2026 with background traffic growth and development traffic. As a result no mitigation is required. Guildford Road and Gapemouth Road have a history of injury related accidents, which has the potential to be made worse with the addition of extra traffic. Therefore to mitigate this impact the developer will be making a financial contribution to improve road safety. It is anticipated that some of this funding will be used at this junction.

Proposal - A contribution of £50,000 will be made towards Road Safety improvement measures on Guildford Road and Gole Road

Summary – No mitigation is required for capacity reasons, but a financial contribution will provide additional road safety measures.

#### **Wharf Road/Frimley Green Road/Sturt Road/Guildford Road, Frimley Green**

Two mini-roundabouts are provided in close proximity to one another at present. By 2026 with background traffic growth and development traffic the roundabouts will be operating



beyond their capacity on three arms. The development therefore proposes their replacement with traffic signals, incorporating pedestrian crossing facilities. Once installed the junction would operate within capacity.

Proposal – The two existing mini-roundabouts will be replaced by a set of traffic lights which will also encompass pedestrian crossing facilities.

Summary – The installation of traffic signals will adequately accommodate background traffic growth and development traffic by 2026. The installation will also provide controlled pedestrian crossing facilities across some arms of the junction.

### **Gole Road/Dawney Hill**

The traffic signal controlled junction currently operates within capacity. By 2026 with increases in background traffic flow and the addition of development traffic, the junction operates beyond its capacity. The development proposes an improvement to the junction which widens the northbound approach on Dawney Hill, in turn allowing greater capacity to other arms of the junction. The result is a more efficient junction. Once development traffic is added the junction will operate better than it would do in 2026 in its current configuration.

Proposal – The junction will be widened on Dawney Hill increasing the number of northbound approach lanes and in turn increasing overall capacity at the junction.

Summary – The proposed changes will create an amended junction layout, which will not operate quite as well as it does now, but to a better standard than would be the case in 2026.

### **Closure of Bellew Road**

The development provides for the provision of residential accommodation on the existing Sergeants Mess on Bellew Road. Bellew Road and Blackdown Road are noted by residents to be used as a cut-through for those heading from Lake Road to Deepcut Bridge Road. Bellew Road does not permit movements in the opposite direction at its northern end. Nonetheless there is a fear that this through traffic could increase with the redevelopment of PRB. In order to prevent this, the development proposes the closure of Bellew Road at its northern end in discussion with existing residents.

Proposal – A financial contribution will be made to provide for the necessary statutory procedures and engineering works to bring about the closure.

Summary – The development will pay a contribution to be used for the closure of Bellew Road by the Highway Authority after consultation with residents.

### **SUSTAINABLE TRAVEL**

The development proposes a range of facilities within the site which will reduce the need for travel. The provision of the various facilities within the development means that journeys for these purposes are all capable of being contained within the development without impacting the local road network. In addition, the applicant is proposing a number of initiatives which individually and collectively will further limit the vehicular impact. These are:

#### **Bus Infrastructure**

The development will be provided with enhanced bus services, comprising:

- i. An extension of the existing number 48 service, (Deepcut – Brookwood – Woking) by providing additional buses and increasing its frequency to every 30 minutes from early morning through to late evening and regular services on a Saturday and Sunday.
- ii. Replacement and extension of the number 11 service (Farnborough to Deepcut). This would again provide additional buses and increasing its frequency to every 30 minutes from early morning through to late evening and regular services on a Saturday and Sunday.

The County Council's aim is for the services to be financially self sufficient by the time the development is complete. To do this maximum opportunity is provided for the new services to receive financial support. A mechanism has therefore been developed which makes provision for the developer to pay contributions on an agreed phased basis and where a proportion of the revenue being generated by the services is paid back to the developer allowing the services to be supported for a greater length of time.

The new services will be supported by the use of Real time Passenger Transport Information which will be provided at the new bus stops within the development. Other parts of the routes will provide access to the real time information.

The new spine road itself, will provide new bus stops throughout its length, with new high quality timber shelters adjacent to the new supermarket and the school. Each shelter will include ( or be located next to) high quality cycle parking provisions to promote linked cycle/bus journeys.

### **Cycle Routes**

The development includes a number of key improvements to local cycle infrastructure:

Canal Towpath – The developer has offered a financial contribution which primarily will be used to provide a significantly enhanced all weather route between the site and Connaught Bridge, (immediately west of Brookwood rail station and tying into previously improved sections of the canal tow path heading from Brookwood to Woking). This will provide a 3m wide surfaced path for the majority of its length. The development will also include links from the site and an enhanced route to the towpath. The route between Deepcut (Frimley lock) and Brookwood measures 2.2 miles and therefore presents an ideal commuter route for those residents wanting to access the rail station. Subject to sufficient funding, any remaining part of the contribution will be used to upgrade the western section between Deepcut Bridge and the Canal Visitor Centre at Mytchett, which is more likely to be used for recreational purposes.

Frith Hill – There is presently a network of paths and tracks which span Frith Hill, some of which are classified as public rights of way. None however provide a uninterrupted link between Deepcut Bridge Road and Tomlinscote secondary school. The development will therefore rationalise this existing situation by providing an upgraded, extended and diverted public right of way at a minimum width of 2.5m from Deepcut Bridge Road through to Tomlinscote School. The route will not be lit, but it will be provided with a highway quality surface and will become a dedicated public right of way available at all times. This will provide an important link for children of secondary school age going to Tomlinscote school and employees wishing to access Frimley Park Hospital and business in Frimley.

Deepcut Village – The existing cycle route on Deepcut Bridge Road currently stops at Dettingen Park. The route will be extended south utilising the existing footway and will extend through the village as part of the environmental enhancements, through to Lake

Road. The development will also be required to erect cycle signage within the development and the existing Deepcut village as part of a Deepcut Cycle Network Plan.

Development – All of the land uses within the development will be provided with high quality cycle parking. For the school and supermarket this means dedicated covered and lit parking in prominent locations. For residential dwellings and flats, this means proper integral cycle garages, easily and separately accessible. For public areas, this means covered and lit cycle parking integral to or immediately adjacent to the proposed bus stops in the new spine road.

### **Travel Plan**

The development will provide a dedicated Development Travel Plan co-ordinator for the site with the aim of promoting and advising residents, customers and employees of the development on sustainable travel options. The supermarket, primary school and nursery school will each have their own travel plan and dedicated Travel Plan Coordinator for their own plans. Those Coordinators will work with the Development Travel Plan coordinators.

It is envisaged that within the new library provision, there will be a dedicated Sustainable Travel Information Point. The Development will also be required to develop a Sustainable Travel Planning web-site, providing all residents and users of the development with a range of travel information and advice.

### **SUMMARY**

It is acknowledged that the development of the Princess Royal Barracks will have an impact on the surrounding highway network. It is also recognised that due to the size and complexity of the development, it is difficult for every impact to be fully mitigated. It will not be until 2026 when the development is complete that the full impact will be known. There will have been changes to background traffic flows over that time, which have been built into the assessment, but nonetheless, these are predictions which may change over time, due to other factors outside the control of the applicant.

The Transport Assessment and the obligations agreed with the developer comprises a package of highway and transport measures which seek to address the collective impact of the development.

- In capacity terms, six junctions are being upgraded to accommodate the additional traffic flows.
- In safety terms, three areas of the highway network are to be improved through financial contributions or works.
- In terms of providing cycle routes, links are being provided to local schools, business areas, the rail station and for improved leisure use. Routes within the development and Deepcut are also being provided.
- In terms of pedestrian facilities new crossings are being provided within the development and on Deepcut Bridge Road.
- In environmental terms, the existing village will receive an environmental improvement, with improved materials, street furniture, landscaping and dedicated parking bays.
- In terms of public transport, new bus services will be provided enhancing access to local amenities, employment and shopping destinations. Upgraded cycle parking will be provided at Brookwood Station.

In conclusion the Highway Authority are satisfied that the measures in isolation and collectively provide a transport solution that will minimise the impact of the development. The Highway Authority therefore raises no objections subject to the obligations and conditions set out above.

# Surrey County Council Highway Authority

## Commentary and Analysis of WSP Traffic Impact Assessment dated 18<sup>th</sup> December 2012



4 July 2013

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Surrey Heath Borough Council commissioned WSP UK Limited to produce an independent Transport Assessment in regard to the redevelopment of Princess Barracks, Deepcut. At the request of the Local Planning Authority the County Highway Authority has considered the Assessment whilst also referring to the WSP Interim Report and its accompanying technical Appendices.

The commentary below provides a summary of the report and the key differences between it and the Transport Assessment produced by AMEC Environment & Infrastructure UK Limited on behalf of the applicants the Defence Infrastructure Organisation.

### **Chapters 1&2 – Introduction & Existing Situation**

The WSP Assessment sets out the methodology of the report and provides a summary of the local infrastructure and the existing road network.

#### Traffic Counts

The report notes that traffic counts were undertaken on 3<sup>rd</sup> October 2012. By comparison the AMEC Counts were undertaken in May 2011. These surveys were undertaken in months considered to be acceptable by DFT advice. One set of AMEC surveys were repeated in July 2011 and therefore outside of the range considered acceptable by the department for Transport. However, the data has been cross referenced with other traffic counts and is considered to be robust.

The traffic flows presented by WSP are not summarised in the report in the same way as AMEC, however comparing the two sets of data from Deepcut Bridge Road and Lake Road, the data collected by AMEC is higher except for that collected on Deepcut Bridge Road between Dettingen Park and Old Bisley Road.

#### Existing Link Capacity

Link capacity assessments have been carried out by both reports. The WSP report considers the two way theoretical capacity and the two way impact in the peak hours. The AMEC report on the other hand compares the theoretical one way capacity and with the highest one way directional flow. Many of the roads serving Deepcut are tidal in the peak

periods, therefore comparing the highest one way flow (as done by AMEC) is more robust than an aggregate of the two way flow.

#### Existing PRB Traffic Generation

Both reports present data on the existing PRB traffic flows. The WSP report records higher flows with 378 versus 313 movements in the morning peak hour and 268 versus 163 in the evening peak hour. These differences are acceptable differences and can easily occur depending on the activities taking place at the Barracks at the time the surveys were undertaken. The lower PRB flows measured by AMEC results in less movements being subtracted from the base traffic flows, to which development traffic is then added.

#### Existing Junction Capacity

Both reports consider the existing capacity of junctions on the local highway network and consider those set out in the adopted SPD.

The WSP report indicates a similar position to AMEC in respect of the capacity and efficiency of the junctions it has considered. The WSP does not consider a number of the junctions considered by AMEC, the most notable being the junctions at Frimley Hospital, Red Road/The Maultway, McDonald Rod/Red Road, Lightwater Road/Red Road, A322 Guildford Road/Red Road, or Junction 3 of the M3.

### **Chapter 3 – Traffic Distribution and Future Years**

This section predicts the how the development traffic will be distributed across the highway network, and how year on year increases in traffic volumes are calculated.

#### Reductions for Internal Journeys

Both the WSP and AMEC reports make reductions for the amount of traffic that is assumed to remain within the site. By way of example, if a new resident drives from within the site to the school and then home again, (notwithstanding the fact that that journey might be better made on foot or by cycle), the corresponding journeys to and from the home and school are excluded from the development traffic flows joining the local highway network beyond the site limits.

#### Traffic Distribution

In regard to the traffic distribution the WSP report distributes the additional traffic across the network using census data according to the study area, i.e. the area bounded by those junctions outlined in the SPD. The AMEC report also uses census data but distributes residential traffic further afield using a 45 minute drive time.

For the retail trips WSP estimate that 70% of all supermarket trips will remain internal to the site, whereas AMEC estimate it to be 50%.

For school trips WSP estimate that only 30% of the school journeys will be internal, whereas AMEC predict this figure to be 50%.

These differences in approach in respect of the above assumptions and assessments, means that the resulting impact on the local highway network varies between the two reports.

The main area of difference relates to the way the traffic distributes across the network. The WSP report considers that a larger proportion of traffic will exit Deepcut via Lake Road, Guildford Road Deepcut and Old Bisley Road. The AMEC report however considers that a larger proportion of traffic will exit Deepcut via the north along Deepcut Bridge Road and The Maultway.

Growth of Traffic to Reflect Year on Year Increases

Both reports apply growth rates to the baseline traffic flows to predict how much traffic will be on the road network at the time when the development is complete. Each report uses different interpretations of Department for Transport Advice. The WSP report produces a slightly higher estimated increase in traffic growth over the period of the development up to 2026. In real terms this means that for every 500 journeys on the road in the morning peak by 2026, WSP estimate this will increase to 593 journeys and AMEC predict it will increase to 570 journeys. The difference between the two sets of figures is insignificant in the context of other variations in base-line traffic counts, and estimated increases in development traffic.

Estimated Vehicle Movements

Both the WSP report and AMEC use data collected from the TRICS database from Dettingen Park for the production of residential traffic flow data for their Assessments. TRICS is a computer database owned by a consortium of Local Authorities in the south east of England including Surrey County Council. TRICS is operated by consultants on behalf of the consortium and collects data from previously built developments to assist developers and local authorities when the considering the possible impacts of new development. WSP and AMEC both also use TRICS as a source for estimating the traffic generation of the respective land uses.

The total peak hour development traffic flows (without reductions made for internal journeys) are very similar in both reports. The AMEC predictions are in brackets and are marginally higher, again representing a very slightly more robust prediction than WSP.

AM		PM	
IN	OUT	IN	OUT
418 (437)	771 (784)	573 (591)	395 (413)

**Chapter 4 – Traffic Impact Assessment**

This chapter considers the overall impact of the development in 2026, incorporating background traffic growth and that added to the road network by the development.

Link Capacity

In 2026 with development both reports estimate the ability of the existing road network (link capacity) to cope with the additional traffic. The same approach has been taken for 2026 as that used for the existing situation. Some of the conclusions remain similar, for example Red Road reaches 92% of its capacity in the WSP report and 97% in the AMEC report. Other figures remain similar. The differing approach to distribution and growing means that the WSP report presents more link capacity results than the AMEC report and indicates greater link capacity issues on certain roads, the most notable being Guildford Road Frimley Green, London Road east of The Maultway, parts of Deepcut Bridge Road and parts of Portsmouth Road.

Notwithstanding these variances, the Highway Authority is content with the methodology used by AEMC in regard to the way the traffic has been estimated and distributed across the highway network.

Overall, WSP predict a very similar level of total traffic generation to AMEC. However, the way the traffic is distributed affects the nature of the resulting impact and the mitigation proposed.

### Junctions

Each report concludes that some junctions would be unable accommodate the anticipated demand of the additional development traffic in their current formation. In order to try and minimise any increase in queuing and delay at these locations both reports consider the options available to reduce the impacts. Generally speaking a roundabout will have more capacity for turning traffic than a t-junction and a set of traffic lights will have more capacity than a roundabout. Existing junction formations can equally be improved to achieve improvements, for example a roundabout can be made larger, or a set of traffic lights can be provided with longer or more approach lanes. Every situation is different, but these possible remedies are useful when considering the possible options available.

### **Chapter 5 – Mitigation.**

The WSP report proposes six mitigation options:

1. Deepcut Bridge Rd / Lake Rd – widen approaches or install traffic lights
2. Deepcut Bridge Rd / Newfoundland Road – Install roundabout
3. Deepcut Bridge Rd / Old Bisley Rd / The Maultway – Install roundabout or traffic signals
4. Chobham Rd / Upper Chobham Rd / Old Bisley Rd – install traffic lights
5. Frimley Green Rd / Wharf Rd – install traffic lights
6. Deepcut Railway Bridge – install traffic lights

The AMEC report proposes the same options 2,5 and 6 and unlike the WSP report has used modelling software to estimate the potential benefits, ensuring the works are achievable within existing constraints.

The AMEC report does not propose any improvements in respect of options 1, 3 or 4. In respect of option 4 it acknowledges the impact but concludes that the option of traffic lights would not bring about an improvement to the current configuration. It also concludes that



there is insufficient land available to improve the existing roundabout. The Highway Authority would be cautious about introducing a roundabout or traffic signals at this location due to the consequential impact of through traffic on Deepcut Bridge Road.

The AMEC report proposes further capacity and road safety benefits, these being:

1. The enlargement of the existing roundabout at Red Road/The Maultway,
2. The enlargement and reconfiguration of the roundabout at the Gordons Roundabout A322 Guildford Road/Red Road,
3. The widening of the A322 Guildford Road on the northbound approach and exit of Junction 3 of the M3.
4. Contributions to Road Safety Enhancements on
  - a. Red Road (focussing around the junctions of McDonald Road and Lightwater Road)
  - b. Guildford Road/Gole Road

### Sustainability Proposals

The WSP report does not include sustainable travel measures (nor does it attempt to), aimed at promoting sustainable travel choices. The AMEC report includes a range of infrastructure as part of the planning application for new residents and users of the development. These proposed measures along with a commitment to provide a travel plan with a dedicated coordinator gives the Highway Authority added reassurance that the development impact predicted by AMEC is a worst case scenario and that the sustainable transport measures will assist in reducing the vehicular impact.

### **Conclusions**

The production of two independent Transport Assessments would never be able to demonstrate the exact same impact. The WSP and AMEC reports share a lot of commonality which is to be expected, but they differ in relation to the assumptions made. It must be remembered that a Transport Assessment is merely an *estimate* of what is likely to occur when a development becomes fully operational. Being an estimate it requires assumptions to be made, having regard to government advice, guidelines and professional judgement. The result is two reports which each conclude that the development requires mitigation. The WSP report proposes a lesser level of mitigation, albeit some of the works are the same as those recommended by AMEC.

The AMEC report does not propose mitigation of the smaller more local junctions of:

- Lake Rd/Deepcut Bridge Road,
- Old Bisley Road/Deepcut Bridge Road, or
- Upper Chobham Road/Chobham Road/Old Bisley Road,

The AMEC report proposes works not offered by WSP at the larger more strategic junctions of:

- Red Road/The Maultway
- Gordons Roundabout/A322 Guildford Road/red Road
- A322 Guildford Road/Junction 3 of the M3.

The WSP report does not mitigate important points on the local highway network to the same extent as that proposed by AMEC. The smaller junctions not being mitigated by AMEC will inevitably suffer from congestion at certain times, in the same way as many other similar

junctions in a busy urban environment. The WSP report, by not recommending works to strategic points on the network, has the potential to have a greater unmitigated impact. It is not practicable or viable to achieve a package of mitigation that addresses the impact at all of the junctions proposed jointly by the two reports.

In conclusion, the Highway Authority is satisfied that the capacity mitigation package agreed with the AMEC forms part of a well balanced range of measures, including bus services, cycle routes and environmental enhancements, such that the level of transport impact from the development can be minimised.