WinACC Commentary on

HCC Highway Authority

response to WCC consultation about proposals to develop

Bushfield Camp

6 January 2024

Introduction

Our commentary focuses mainly on what HCC Highways (they do not yet appear to have stationery to reflect their new structures) have said about the access elements of the proposal. We have written it with the aim of enabling people to make accurate use of HCC's comments in ways they feel will be useful. Occasionally, on specific issues, we also point out how HCC could in future put greater emphasis on climate issues in line with WCC and HCC climate change policies.

The HCC comments are appended below and have been colour-coded, those:

- Requiring changes
- Expressing doubts
- Making significant observations
- Stating agreement

Control/Click on the coloured extracts below to link to the respective sections of the HCC comments.

Summary

The HCC comments require a long list of changes. The main themes are:

- The development needs to halve the office floor area to avoid excessive traffic volumes
- Much more work needs to be done to specify walking and cycling infrastructure covering a sufficient area and designed to an adequate standard
- The Framework Travel Plan needs to be far more ambitious and rigorous
- More thought needs to be put into public transport provision
- Plans for new road infrastructure need to be more specific and demonstrate compliance.

We would welcome more discussion of greenhouse gas emissions by both the applicant and HCC with a clear numeric analysis of how far the development will increase emissions from transport use, and a quantitative analysis of how this can be prevented.

Changes Required

The main fundamental change required, somewhat hidden away, is the requirement that the office floorspace be reduced (Page 12 a suitably worded condition is required limiting the office element of the proposed 65,032sqm of Office and R&D use be capped to 32,516sqm and page 3 restricting the total office floorspace to 32,516sqm). This is described as the "most intense trip generator" implying but not explicitly stating that more office space than this will generate traffic beyond the capacity of the road system, and this does not seem negotiable. Such a condition will not prevent all development, but will reduce the scale. It raises for us the possibility that substitute office floorspace could be accommodated within the University and Hospital campus, and Winnall refurbishment proposed in the new draft local plan. It does not scale down the student and hotel accommodation proposals however. It is disappointing that the HCC comments are focussed mostly on network capacity and do not address directly the increase in transport emissions that will still occur.

Other requirements include:

- The need to specify further work at road junctions demonstrating in detail what will be done to mitigate the impact at these junctions in terms of safety
- Commitment to detailed proposals for the substandard routes identified in the Walking, Cycling, Horse-riding Assessment and Review Report (WCHAR) to achieve sufficient improvement if they are to be relied upon as part of the walking and cycling strategy for Bushfield Camp
- In terms of cycle access to the site, a requirement the applicant should revisit this aspect of the TA and confirm the assessment of future cycle use to the site and in particular address the fact that large parts of the city centre and surrounding residential areas are within a 20-minute cycle ride to the north of the site, presumably to modify proposals and make them more effective. It is not clear why the TA has estimated that so many of the cycle trips will be to the south when the city centre, residential areas, services and amenities are mostly located to the north of the site. Further justification of this is required
- A commitment to delivering improvements to walking and cycling infrastructure beyond the red line of the site to key destinations including the city centre and Badger Farm Sainsbury's and surgery
- A commitment to provide walking and cycling facilities within the site that incorporate a sealed surface and appropriate street lighting.walking and cycling facilities within the site that incorporate a sealed surface and appropriate street lighting.walking and cycling facilities within the site that incorporate a sealed surface and appropriate street lighting.

- Walking and cycling access is poor at the northern boundary of the site and improvements will need to be secured as part of this application.
- More detailed proposals to demonstrate how the applicant will ensure the permeability of the site and the links within the site.
- An exploration of whether it would be possible to provide bus stops serving Bluestar 1 close to the desire line at the St Cross Roundabout.
- More proposals on ensuring adequate P&R bus services in the busier direction in each peak .
- Evidence that the shuttle bus is a satisfactory long-term sustainable solution, using examples where this has worked elsewhere.
- A strengthening of the Framework Travel Plan. The 'Targets' section of the FTP needs to reflect that HCC require a minimum of 10% reduction in single occupancy vehicle trips and both a breakdown of each mode share biannually and a justification for why the mode-share will increase/decrease.
- Information on whether alternatives to the T-junction on Badger Farm Road such as a roundabout were considered and discounted.
- More detail regarding the site access works proposed to demonstrate compliance
- .More detail on proposed pedestrian and cycling provision both within and outside the site red line .
- Details of proposed infrastructure. These geometric details are necessary in order to assess if the junction complies with all the relevant guidance documents and the vehicle swept path analysis and visibility splays should also be provided. The HCC commentary does not pick up that plans for Saint Cross Roundabout do not follow LTN 1/20 recommendations for cycle-friendly roundabouts.
- A range of further additional road design issues must be addressed.
- A justification for providing parking for students when there is a desire for trips to be made via sustainable modes. It is disappointing that HCC do not explore the same question for other uses of the development (e.g. offices).
- An explanation for the apparent disproportionately high level of student accommodation and further detail about the use of the academic accommodation and how the vehicle trip rate and parking requirements will be realised.
- A more robust approach to expanding the modal share of sustainable transport. Currently, it is not deemed the measures discussed in the TA go far enough to either meet these splits or to increase the proportion of trips made via sustainable modes.
- More information on traffic generation calculations, as the traffic generation has not been agreed HCC appear rightly worried about the modest expectations for sustainable transport modes. They will not publish their concerns but will communicate directly with the applicant.

This is regrettable because WCC would have an active interest in this, and a more public discourse would help public discussion.

- Further information is required on the measures to improve walking and cycling to the site, public transport access, travel plan drafting, the highway modelling underpinning junction assessments and details of the highway mitigation measures put forward.

HCC helpfully conclude with an emphasis on the need to reduce transport emissions. Some comments on the weak points in the Framework Transport Plan would have strengthened this: e.g. the lack of targets, the modesty of the targets, the lack of robust procedures, the applicants' ignoring the mode share at the university because the active attempts there to reduce car travel mode made the node share untypical.

Doubts Expressed

Many of the doubts are expressed as a preliminary to setting out requirements. We concentrate here on those not linked to a requirement:

- With no further commentary HCC note that the Local Plan allocation does not include academic accommodation. Linked to later comments about trip generation linked to this it feels as if HCC would rather the application were consistent with the local plan.
- Rightly HCC have major doubts about the proposed bus arrangements: It will be particularly important for the student accommodation that there is an attractive bus service that operates during evenings and weekends, especially given the Park and Ride bus does not operate on Sundays. In the absence of these improvements it is difficult to envisage many site users utilising these services unless there are significant improvements for walking to these bus stops.
- HCC need more information about the nature of the students' way of life and are right to say there should be more clarity of on this to anticipate their transport requirements: It is assumed that the intention is for students to be studying at the University of Winchester campus off Romsey Road but this should be confirmed. If this assumption is wrong the applicants should say so.
- There appears to be some unease about the way the applicant reports on pre-application discussions and disagreement on what has taken place: The TA mentions that the approach was agreed through the preapplication process and, whilst the highway authority did raise some concerns regarding overspill parking at the time, the proposed parking provision has increased significantly since these discussions took place.
- There is a suggestion that the low-vehicle-movement strategy is not adequately reflected in the application but HCC may need to be more specific about how the Framework Transport Plan and parking provision should reflect this strategy: The TA states that 'a low-vehicle movement strategy has been adopted at Bushfield, and active travel by foot and bicycle

is the primary way of moving through the area', however it is unclear whether the proposed parking provision supports the sustainable transport strategy of the site. It is regrettable that more detail is not given on the type of clarity that is required. There is a danger that the applicant will fudge the issues that have been raised.

- It is stated that there is a disagreement about the trip rate calculation results: the trip rates themselves were not agreed for all uses at that stage. The planning committee needs more specific detail if it is to make an appropriate decision, especially if HCC say they approve of the 'TRICS' methodology.
- HCC appear reluctant to be critical but come close to rejecting the applicant's positive conclusions: it is noted that the proposals add to pressures on the highway network at the corridor of Badger Farm Road and St Cross Road. It is observed that there is frequent queueing along this corridor in the network peak periods which the proposals will exacerbate and increase. It would be helpful if HCC could be more precise about whether they believe the application will lead to congestion and what they believe can be done to avoid this (less development, more active transport?).

Significant Observations

The main significant observations on page 2 set the scene for the HCC assessment. The key documents all seek to promote and encourage travel choice through the provision of sustainable transport links. There are many useful references to sustainability, but it is disappointing that the HCC transport assessment does not address in any detail the carbon emissions, and the lack of calculations on this that have been provided by the applicant. In anticipation of LTP4 there is a need for more confident greenhouse gas emissions numeracy to support the climate policies of both HCC and WCC. In particular, nothing in the application assesses numerically the impact of the proposal on HCC and WCC emissions reduction strategies caused by the growth in transport. The only appendix addressing this assumes naively that transport use emissions will continue at the same level for 60 years up to 2087. It is an important omission not to refer to this. Unless the applicant can demonstrate that these emissions will reduce over the years this application should not be allowed to proceed.

We are told that HCC Countryside Services are responding to this application separately details.

On page 15 there is a statement supporting the assumptions behind the traffic forecasts. The use of TEMPRO dataset 7.2 has been agreed as this is still current and represents a robust forecast. This results in a growth factor of 1.0532 and

1.0533 in the AM and PM respectively between 2022 and 2027 and a growth factor of 1.1411 in the AM and 1.1414 in the PM from 2022 to 2039The use of TEMPRO dataset 7.2 has been agreed as this is still current and represents a robust forecast. This results in a growth factor of 1.0532 and 1.0533 in the AM and PM respectively between 2022 and 2027 and a growth factor of 1.1411 in the AM and 1.1414 in the PM from 2022 to 2039The use of TEMPRO dataset 7.2 has been agreed as this is still current and represents a robust forecast. This results in a growth factor of 1.0532 and 1.0533 in the AM and PM respectively between 2022 and 2027 and a growth factor of 1.1411 in the AM and 1.1414 in the PM from 2022 to 2039 This fails to allow for the aspirations of LTP4 or the HCC Climate Action Programme. Accepting traffic growth of over 14 percent between 2022 to 2039 is not compatible with the draft LTP4. This commentary on a major development should be striving for the proposed reductions in traffic set out in the draft LTP4, which rejects the 'predict and provide' embedded in the TEMPRO methodology and seeks to substitute 'decide and provide' with a (less than sufficient) 10 percent reduction.

Agreement

There is not much agreement in the HCC response. What agreement there is focusses on narrow methodological conventions used by the applicant. For example: TRICS is an industry standard tool and the use of this is accepted. This is questionable as mentioned above at a time when HCC has decided to control traffic growth and no longer respond to it.

Similarly on page 14 the review accepts the use of a 'blended mode share' that rejects taking west Winchester alone as a predictor of mode share because of the success University of Winchester has had in reducing car use, and adding into the mix the mode share of IBM in semi-rural Hursley because it is more typical. This in fact makes no sense given the nominal determination to reduce car use in this development. It would appear that the stated green policy has been comprehensively undermined by the mode share target setting methodology.

It would appear that even the limited examples of agreement need to be revisited by HCC.

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Date 11th December 2023

My reference 6/3/5/332

Your reference 23/02507/OUT

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Outline planning application with all matters reserved apart from access, for the demolition of all existing structures on site and redevelopment to provide a phased employment led mixed use scheme at Bushfield Camp, Badger Farm Road, Winchester

For Attention of Ms Amy Winch

Dear Sirs,

Thank you for the consultation on the above application. The highway authority have undergone extensive pre-application discussions with the applicant. Through this process, a number of matters were agreed which will be outlined in this response alongside comments on the information submitted in support of this application.

The outline application is for a phased employment led mixed use scheme comprising of up to 96,500sqm of Gross Internal Area (GIA). The proposed uses include: office (Class E), research and development (Class E), academic uses and 525-bed academic accommodation (Class F1/Sui Generis), a 100-bed hotel (Class E) and other complementary/ancillary uses, including a nursery (Class E), retail uses (Class E), restaurants/cafes/bars (Class E), visitor space/exhibition space (Class F1) and leisure and sports uses (Class F2). Parking is not included within the 96,500sqm GIA of the site but will be provided within the red line of the development.

Site location
The site is located to the north of Badger Farm Road (A3090), which connects Junction 11 of the M3 motorway. The site is bound to the east by the South West Main Line railway, to the west by open space and to the north by further open space and residential dwellings at Ivy Close and Honeysuckle Close

Policy

The sustainability of the site is a fundamental consideration for the highway authority from a policy perspective. The Winchester Movement Strategy, Local Transport Plan 4 (LTP4) and the Winchester Local Cycle Walking and Infrastructure Plan (LCWIP) are all key local policy documents that should be considered in relation to this application and seek to promote and encourage travel choice through the provision of sustainable transport links. Given the proposed use and the site location, this is a key consideration for this application.

The application site is allocated as an employment site within Policy WT3 of the WCC Local Plan Core Strategy (2013) as the 'Bushfield Camp Employment Site', with the potential for a development comprising up to 20 hectares. Specifically the policy criteria includes:

'promotes non-vehicular access to and within the site, through the creation of new routes and extensions/diversions of existing routes to ensure that the site integrates with surrounding areas and to minimise and mitigate its impact on the strategic highway network'.

The site retains its allocated status in the draft Winchester District Local Plan (2018-2039) with sustainability a key issue. It is expressly stated in the emerging Local Plan that:

'The proposals (should be) designed to create a permeable place and be based around sustainable modes of travel that maximises the opportunity for walking, cycling and public transport which connect to the surrounding area/PROW/cycle network, landscape and designated heritage assets and links to the Winchester train station, the city centre and existing nearby park and ride facility.'

It is noted that the Local Plan allocation does not include academic accommodation.

The potential sustainability of the site relates directly to the impact of the site in terms of vehicle trips and the subsequent impact on the surrounding highway network.

Local highway network

The site is situated north of the A3090 Badger Farm Road. With the B3335 St Cross Road to the east and St Cross roundabout to the south. The B3335 St Cross Road provides a route into Winchester City Centre, the A3090 Badger Farm links to Pitt and onto locations such as North Baddesley and Romsey, whilst the M3 and Otterbourne can be accessed via the St Cross roundabout.

The highway authority are satisfied that Section 3.3 of the Transport Assessment represents an accurate summary of the local highway network.

Accident history

The applicant has obtained Personal Injury Accident (PIA) data from Hampshire Constabulary for the most recently available five-year period in order to assess whether there is a pattern of accidents on the local highway network that is likely to be exacerbated by the proposed development. The scope of this assessment was agreed during the pre-application process and is shown in Figure 3-30 of the TA.

This review shows that there have been 72 accidents within the scope of the assessment in the past five years, with one fatality. Two of these accidents occurred at Badger Farm in the vicinity of the location of the proposed vehicle access for this development, five were at the Sainsbury's access roundabout, and eight were at the St Cross roundabout.

The application needs to set out what will be done to mitigate the impact at these junctions in terms of safety.

Development proposals

The proposals are for an employment led development totalling 96,500sqm of floorspace. This is an outline application, with the exact quantum of development to be refined at the Reserved Matters stage as the individual plots and/or phases of development come forward. For the purposes of assessing the impact of this development, the access location, and other transport matters, a 'flexible scenario' has been proposed. This provides a cap of 32,516sqm of office use as this is assumed to be the most intense trip generator associated with the development. As this is the basis on which this development has been assessed, a planning condition restricting the total office floorspace to 32,516sqm Gross Internal Area (GIA) will be required should planning permission be granted.

The illustrative masterplan of the development site has been demonstrated and this is shown in Table 1-1 of the TA, identifying the floorspaces that have been applied to each use for the purposes of the assessment in this application. For clarity, the proposals at this stage are as follows:

- 30,359sqm GIA office
- 30,325sqm GIA research and development
- 100-bedroom hotel (5,334sqm GIA)
- 525-bedroom student accommodation (12,127sqm GIA)
- 10,800sqm GIA academic (university)
- 25,501sqm car park
- 3,356sqm GIA amenity (shops, creche, gym aimed primarily at proposed development users)

Walking and cycling

The TA provides an overview of the pedestrian infrastructure in the vicinity of the site, identifying that there is footway on the northern side of the southeastern end of Badger Farm Road running from the St Cross roundabout to the existing site access.

A Walking, Cycling, Horse-riding Assessment and Review Report (WCHAR) has also been submitted at Appendix B of the TA. This has assessed the key routes form the site to and from key local services and amenities, places of education, nearest bus stops and Winchester and Shawford rail stations. This shows that a number of the routes are substandard and are not compliant with the Cycle Infrastructure Design standards set out in Local Transport Note 1/20 (LTN 1/20), meaning they will require improvement if they are to be relied upon as part of the walking and cycling strategy for Bushfield Camp.

The TA identifies missing or substandard links to the site for people walking and cycling towards the city centre and to Badger Farm (Sainsbury's and the wider residential area). At present onward connection to these destinations involves the use of unsurfaced and unlit routes. The TA references that the pedestrian/cycle links will need to be surfaced, lit and meet the criteria of LTN1/20. No details of improvements to these links have been provided and the highway authority is concerned that suitable walking and cycling connections to the site have not been included as part of the application.

The improvements to these off-site routes would need to be high quality and usable all year round, including for people with different mobility/access needs. The Travel Plan submitted states that 'there is potential to improve the existing pedestrian/cycle connection to the north of the site, subject to agreement by the relevant landowners'. This is not a firm enough commitment to routes that are likely to be fundamental to make the site sustainable.

The TA suggests that the majority of cycle movements will be to and from the south. The applicant should revisit this aspect of the TA and confirm the assessment of future cycle use to the site. For example, large parts of the city centre and surrounding residential areas are within a 20-minute cycle ride of the site and the majority of this area is to the north of the site.

In terms of walking and cycling infrastructure, the applicant does not appear to have proposed anything beyond the site red line to improve walking and cycle facilities in the area. Reference is made to the Winchester Phase 1 LCWIP, and it has been assumed by the applicant that the second phase of the study into LCWIP routes will include the site but there is no commitment to deliver improvements. Given the proposed scale of the development, it will be necessary that improvements from the site to key destinations including the city centre and Badger Farm Sainsbury's and surgery are developed and secured as part of this application.

The TA confirms that there are no amenities within 800m of the site which is the desired maximum walking distance as per CIHT guidance and constitutes an approximately 10-minute walk. The Sainsbury's food store, two primary schools and a doctor's surgery are all within 1.2km, but in the absence of attractive routes to these amenities as part of these proposals it is unlikely that site users will choose to walk this distance to these amenities.

Access to city centre

The highway authority have concerns about how pedestrians and cyclists will travel to and from the site to Winchester city centre. There is a proposed pedestrian and cycle route within the site red line to the north and the TA then states that 'site users could access the future, high-level, Walking and Cycling Network as identified in the Phase 1 LCWIP Study'. This is not acceptable. The proposals for this application must accommodate restricting the total office floorspace to 32,516sqmand cannot rely on potential future links provided by the highway authority to make the impact of the development acceptable. This should include details and a commitment to provide walking and cycling facilities within the site that incorporate a sealed surface and appropriate street lighting.

Once site users get to the northern boundary of the site they either have to travel over the railway bridge or a substandard route that is not lit or surfaced. This is therefore not conducive for walking or cycling and improvements will need to be secured as part of this application.

Access to Badger Farm (Sainsbury's)

The TA sets out that the route to the nearest food store (Sainsbury's) involves cycling in mixed traffic on Badger Farm Road, going on to say that cyclists would then navigate the roundabout and use the Sainsbury's access road.

The TA goes on to say that 'the facility for an off-road route has been provided for, utilising HCC land to the west of the site'. Figure 4-12 of the TA is labelled 'Possible cycle routes to amenities' but other than a line showing the potential route, there is no certainty of a route being delivered. Again, a firm commitment to a cycle route from the site to Sainsbury's and the other amenities nearby is required. The use of third-party land is mentioned to achieve this but this has not been secured by the applicant so it must be demonstrated what can be delivered and what exactly it is that is being proposed.

In addition, the highway authority does not accept that Badger Farm Road is a suitable route for all cycle users to access the facilities at the Sainsbury's site. The route is subjected to a derestricted speed limit, high general traffic flows and on a gradient. It is therefore likely to be unattractive to most potential users.

If it is not within the applicant's control to provide an off-road connection using the adjacent third-party land, then the applicant will need to set out what improvements it will deliver to the existing network of paths and rights of way to enhance to the pedestrian connection to Badger Farm.

On-site routes

Currently, the proposed pedestrian and cycle routes within the site boundary have been demonstrated at a very high level and are effectively lines drawn on a site map with no detail.

The permeability of the site and the links within the site are fundamental and should therefore be demonstrated in more detail with a firm commitment to implementing these so that this can be agreed with the highway authority.

Public Rights of Way

HCC's Countryside Services team are responding to this application separately to HCC in the role of highway authority through this response.

Sustainable Modes

Bus

The site is currently served by six bus services from two bus stops. Details of these services are demonstrated in Table 3-10 of the TA, with the northernmost pair of bus stops served by the Bluestar 1, 69 and E1/E2 and the southernmost pair served by the Bluestar 1, 63 and 623 for the southbound stop only. The Bluestar 1 provides a frequent service between Southampton and Winchester, whilst the other services are less regular.

There is an expectation in the proposals that those using non-Park and Ride bus services will walk 10 to 20 minutes to access the bus stops on Meadow Way, Otterbourne Road or St Cross Road. Except for the number 5 service, the bus services are generally less frequent with limited evening and weekend services. It will be particularly important for the student accommodation that there is an attractive bus service that operates during evenings and weekends, especially given the Park and Ride bus does not operate on Sundays. In the absence of these improvements it is difficult to envisage many site users utilising these services unless there are significant improvements for walking to these bus stops.

New bus stops are proposed on Badger Farm Road to allow P&R bus services to serve the site. This will enable commuters and visitors from the city centre to access the site utilising available capacity on the outward bound services in the AM peak and city centre bound services in the PM peak.

In addition, improvements are proposed to Otterbourne Road bus stops which are on the Bluestar 1 bus route. These upgrades consist of an upgraded paved shared use path which continues to the bus stops on either side of Otterbourne Road and south to the Park & Ride entrance on the eastern side of the carriageway. They will also include new high-quality waiting and alighting space and new raised-boarding kerbs, bus shelters and seating in line with HCC standards. This will need to be secured via a Section 106 agreement and will be subject to a Section 278 design check.

Whilst the above improvements are welcome, the Otterbourne Road stops are a 10-minute walk from the centre of the proposed development and involve crossing Badger Farm Road and Otterbourne Road (recognising that it is proposed to introduce new crossing facilities at the roundabout). It should be explored whether it would be possible to provide bus stops serving the Bluestar

1 close to the proposed pedestrian and cycle access close to the roundabout to make this a more attractive option and increase usage. This would mean that the bus stops are on the immediate desire line.

It is anticipated that there would be more demand for bus services to other parts of the city than has been demonstrated in the TA, particularly given the majority of the demand is forecast to be generated from the academic accommodation. It is assumed that the intention is for students to be studying at the University of Winchester campus off Romsey Road but this should be confirmed. If so, then the majority would use the Park & Ride service as that stops on Romsey Road, near the Winchester campus. The impact of this on the existing P&R bus capacity has not been assessed.

Generally, the access to the site by public transport requires clarity and appears to assume that all site users will be able to use the Park and Ride to access the site. However, whilst the principle of Park and Ride services providing trips in the 'contra-peak' direction as described above is agreed, the use of these services in the busiest direction in each peak is not agreed, for example use by students to access the University in the AM peak and returning in the PM peak.

Train

The two nearest rail stations to the site are Winchester station and Shawford station. Winchester station provides frequent services that run direct to destinations such as Southampton, Bournemouth, Portsmouth, London Waterloo and Manchester Piccadilly. Shawford station is less active but trains from Winchester to Southampton and Portsmouth Harbour may stop at Shawford on these routes.

As shown in Figure 3-26, Shawford station is within a 15-minute cycle from the site, whilst Winchester station is within a 20-minute cycle. The TA explains that a private shuttle service will be available to users from Winchester train station to the site and vice-versa. It is also outlined in the TA that rail user demand to and from the proposed development site will generally be in the contra-peak direction for the existing Park and Ride services. Therefore, it is assumed that this could represent an attractive option for rail users.

The justification of the shuttle bus service alongside this option is that peak demand for bus journeys to the site will fall in-line with train times and therefore there may not necessarily be a Park & Ride bus available at those times. However, given the frequency of this service, it should be confirmed how the shuttle bus would operate to ensure it is well-used by users of the proposed site. The applicant should provide evidence that this is a long-term sustainable solution, using examples where this has worked elsewhere.

Travel Plan

This Framework Travel Plan has been assessed using Hampshire County Council's (HCC's) evaluation criteria for the assessment of travel plans – "A

guide to development related travel plans". Whilst the quality of this FTP is generally good, it still requires some amendments before it can be approved – detailed comments will be forwarded to the applicant.

The FTP will be key in helping the proposed development to achieve mode share targets. The 'Targets' section of the FTP needs to reflect that HCC require a minimum of 10% reduction in single occupancy vehicle trips and both a breakdown of each mode share biannually and a justification for why the mode-share will increase/decrease.

It should be noted that the FTP will require further amendments before it can be considered acceptable for submission in conjunction with the proposed site.

Access

The proposed access points are:

- One vehicular access point onto Badger Farm Road, with pedestrian access provided alongside. This provides a pedestrian connection to PROW Footpath 056/12/1 and to new bus stops on Badger Farm Road
- A pedestrian and cycle access point to the southeast from the internal shared path leading to St Cross Road Roundabout. This access will also serve as the emergency access to the site.
- A pedestrian and cycle access point to the southwest onto Badger Farm Road linking to the PROW Bridleway 11
- A pedestrian and cycle access point to the north leading to near Ivy Close / Stanmore Lane
- A pedestrian only access point to the west leading to Whiteshute Ridge
- A pedestrian only access point to the north leading to Whiteshute Ridge

Vehicle access

The vehicular access to the site is proposed to be via a new signalised T-junction onto Badger Farm Road as shown in Appendix G of the TA. Whilst several options for signalised access were presented through pre-application discussions, the applicant should also set out whether alternative forms of access, such as a roundabout were considered and discounted. This is located to the southeast of the existing agricultural site access which will be closed once the new access is opened.

As a result of pre-application discussions, the design has been amended so that there is separation of the left-turn egress from the site to allow this to be signalised separately and avoid unnecessary delay for vehicles travelling westbound on Badger Farm Road. The design has also evolved to provide inset

of the bus stops to layby to allow buses to operate outside of the stream of traffic.

More detailed information regarding the site access works proposed is required in order for HCC to comment on the acceptability and suitability of these proposals. These include a Stage 1 Road Safety Audit (RSA1) along with designer's response, dimensions added to the drawings, vehicle swept path analysis and measured speeds.

The proposed remaining road widths between the refuge island should be confirmed. It is assumed that these widths will be at least 3.8m as per LTN 1/20 but the designer may need to consider large vehicles given the proximity to the motorway and agricultural land.

A Stage 1 Road Safety Audit (RSA1) is required for the site access and this should be submitted to the highway authority alongside the designer's response.

Pedestrian and cycle access

Whilst the pedestrian and access points seek to provide multiple points of access to the site which is welcomed, the exact form of these access points and provision both within and outside the site red line needs to be clearly shown – as set out in more detail, above.

A RSA1 is required for the pedestrian and cycle access to the site and this should be submitted to the highway authority alongside the designer's response.

St Cross Road roundabout

St Cross roundabout is located directly to the south of the site, connecting Badger Farm Road, St Cross Road, Hockley Link and Otterbourne Road whilst also being crossed by National Cycle Network Route 23. Currently, the roundabout does benefit from footways in places but crossings at this roundabout are uncontrolled.

Given the above and the requirement to improve pedestrian and cycle connectivity in the vicinity of the site, the applicant is proposing a series of improvements at this junction to prioritise the movement of pedestrians and cyclists whilst subsequently providing a capacity uplift at the roundabout. The proposed amendments to the roundabout are shown at Appendix G of the TA and the measures can be summarised as follows:

- New signals on the Badger Farm Road, St Cross Road and Hockley Link arms.

- Controlled Toucan-style crossing points for pedestrians and cyclists at each arm of the roundabout. Crossing point on Otterbourne Road is located to the south of the junction as this is closer to the desire line.
- New lane markings and supporting signing.
- Additional roadspace.
- Improvements to existing bus stops on Otterbourne Road.
- Combined pedestrian and cycle access from roundabout to enter the site.

The following amendments have been made to the design following preapplication discussions:

- Merge zone extended to 85m to north of the junction on St Cross Road.
- Third lane added to Badger Farm Road entry arm.
- Wayfinding to Bushfield Camp extended to Hockley Link approach.

In terms of the information submitted, further information is required.

Firstly, the details of dimensions have not been included in the drawings. These geometric details are necessary in order to assess if the junction complies with all the relevant guidance documents and the vehicle swept path analysis and visibility splays should also be provided.

When signal-controlled pedestrian crossing facilities are incorporated on the exit arms on signal-controlled and non-signal-controlled roundabouts as has been proposed, storage length should be provided to avoid traffic queuing back onto the circulatory carriageway.

It should be confirmed whether the crossing on the southern Hockley Link arm is proposed to be staggered. The applicant should note that CD116 of Design Manual for Roads and Bridges (DMRB) states the following:

- *NOTE 1 On the approach to the roundabout, a distance of 20 metres for a signal-controlled crossing can reduce the likelihood of drivers confusing the signal with one controlling flow into the roundabout and it leaves sufficient storage space for vehicles waiting to enter the roundabout.*

- *NOTE 2 On the exit, a distance of 20 metres reduces the likelihood that 'blocking back' can occur where traffic queues extend onto the circulatory carriageway, and it helps to ensure that drivers are still travelling slowly as they approach the crossing.*

- *NOTE 3 Where the crossing is staggered, the part of the crossing on the entry arm can be within the 20 metres to 60 metres zone.*

The merge on the St Cross Road exit is reasonable, although scales around 70m which will require a DfS to be agreed (ref DMRB CD123 7.12.1 which requires 100m). Also, a full Road Restraint Risk Assessment Process (RRRAP) should be undertaken at the appropriate time along with any other appropriate assessments required in order to protect the bridge and railway.

A RSA1 is required for the proposals at St Cross roundabout and this should be submitted to the highway authority alongside the designer's response.

The St Cross roundabout should be modelled with and without the proposed amendments to the M3 Junction 11 roundabout as this will have a direct impact on the operation of this junction.

M3 Junction 11 roundabout

The changes to this junction would seek to provide two lanes of traffic on approach from both the M3 offslip arm and the Hockley Link (east) arm through the roundabout and then two lanes on Hockley Link (north). This has been designed to address forecast capacity pressures at this junction. The applicant should confirm that the modelling for the St Cross roundabout has accounted for the additional flow that would result from the changes to the J11 roundabout.

Details of dimensions are also missing from the drawing showing the proposed amended layout of this roundabout. Geometric details are necessary in order to assess if the junction complies with all the relevant guidance documents. It is also not clear what additional queuing capacity would be provided on Hockley Link (east) by the extension of the flare.

Vehicle swept path analysis and all visibility splays should be provided for consideration.

The proposed alterations appear to have adversely affected Entry Path Deflection (southbound) and a Departure from Standard (DfS) may be required.

The scheme will also see the removal of a long section of a well-used layby on Hockley Link, which currently has a food van operating from it. Further consideration needs to be provided regarding the potential removal of the layby on existing users.

A RSA1 is required for the proposed layout of this roundabout and this should be submitted to the highway authority alongside the designer's response.

It should be noted that, due to the proximity of this junction to the National Highways network, any amendments to this junction will need to also be agreed with National Highways.

Parking

The applicant is proposing to provide a total of 1,055 car parking spaces within the development boundary. This has been based on an expected accumulation of traffic derived from the trip generation exercise undertaken for the development. The TA mentions that the approach was agreed through the preapplication process and, whilst the highway authority did raise some concerns regarding overspill parking at the time, the proposed parking provision has increased significantly since these discussions took place.

The TA states that 'a low-vehicle movement strategy has been adopted at Bushfield, and active travel by foot and bicycle is the primary way of moving through the area', however it is unclear whether the proposed parking provision supports the sustainable transport strategy of the site.

Given the low forecast vehicle trips associated with the student accommodation and the desire for trips to be made via sustainable modes it is unclear the need for any car parking provision associated with this element of the site. The TA implies that the academic use of the site will be heavily linked with the student accommodation. Therefore, it should be considered whether there is a requirement for both uses to have parking provided and how, if there is to be student parking, this is managed.

Traffic generation

The methodology to establish the estimated trip rate associated with the various proposed uses at the site has been agreed through the pre-app process, however the trip rates themselves were not agreed for all uses at that stage. The TRICS database has been interrogated by the applicant to obtain the trip rates. TRICS is an industry standard tool and the use of this is accepted.

<u>Employment use</u>

The employment use is anticipated to be the biggest trip generator of the proposed uses on site. Due to this and the absence of an alternative being assessed, a suitably worded condition is required limiting the office element of the proposed 65,032sqm of Office and R&D use be capped to 32,516sqm,

which is 50% of the total floorspace.

The methodology of using the total person trip rate of the Milton Road, Cambridge Science Park site in TRICS and applying it to the proposed 'flexible scenario' (office & R&D) is acceptable given the similar characteristics of the sites. Therefore, the agreed person trip rate for this use is 1.539 in the AM peak, 1.062 in the PM peak, and 7.277 daily. These trip rates can be applied to the proposed use and the agreed mode split for this development can be applied to assess the impact of the proposals.

When the private car or van mode split of 72.6% is applied to the total person trip rate for the Milton Road Cambridge Science Park this results in a traffic generation of 726 vehicles in the AM peak, 501 in the PM peak, and 3,435 daily.

Education/University use

For the academic use element of the site, the applicant has obtained trip rates from TRICS. The proposed total person trip rates per 100sqm associated with this use are 0.992 in the AM peak, 0.767 in the PM peak, and 10.845 daily.

For vehicle trips, the proposed trip rates are 0.353 per 100sqm in the AM peak, 0.272 in the PM peak, and 3.066 daily.

Academic accommodation use

For the academic accommodation element of the site, the applicant has proposed total person trip rates of 0.105 per bed in the AM peak, 0.283 in the PM peak, and 3.008 daily.

The proposed vehicle trips presented per bed for this use are 0.006 in the AM Peak, 0.009 in the PM peak, and 0.287 daily.

The proposed quantum of academic accommodation is 525 student beds. This would appear a far greater provision than would be required for any on-site 'supporting student accommodation' as the TA has indicated this would be used for and the highway authority would therefore have concerns over the transport impacts of this being used as dedicated student housing for students at the University of Winchester or Winchester School of Arts. The applicant will need to provide further detail about the use of the academic accommodation and how the vehicle trip rate and parking requirements will be realised.

Hotel use

For the 100-room hotel use of the site, the proposed total person trip rates per room are 0.639 in the AM peak, 0.592 in the PM peak, and 6.736 daily. The total vehicle trip rate presented per room is 0.496 in the AM peak, 0.356 in the PM peak, and 4.737 daily.

These trip rates are accepted and result in 52 trips in the AM peak, 48 in the PM peak, and 551 daily.

Summary

The highway authority are unable to comment on the acceptability of the cumulative total person and vehicle trips of the different proposed uses combined at this stage as not all of the individual trip rates are agreed.

Mode split

In order to establish the likely modal split for the development, the applicant has used 2011 Census Journey to Work data. The TA identifies that the site in

question is located within the 'Winchester 009' Middle Super Output Layer (MSOA), however as the majority of this area is rural, the neighbouring 'Winchester 007' and '008' MSOAs have also been considered. For clarity, the MSOAs are shown in Figure 5-1 of the TA.

The TA explains why the applicant considers neither 'Winchester 007' or '008' to represent appropriate locations in isolation for the purposes of establishing the mode split for the site. Therefore, a blended mode share has been proposed, combining the two datasets to achieve an accurate reflection of the characteristics of the site. This approach is agreed, with the proposed mode share being demonstrated in Table 5-7 of the TA.

This methodology provides a private car or van mode share of 72.6%. This has been applied to the total person trip rate of the Milton Road Cambridge Science Park to establish the total vehicle trips estimated to be generated by the office and R&D element of the site.

This also results in a mode share of 3.1% traveling to work by train and 3.7% by bus, minibus or coach, with 3.4% cycling and 11.4% travelling on foot. Currently, it is not deemed the measures discussed in the TA go far enough to either meet these splits or to increase the proportion of trips made via sustainable modes.

Trip distribution

Traffic distribution

The TA sets out that the Census 2011 Journey to Work data set on which the mode split is predicated on has also been used in order to derive the likely vehicle trip distribution.

These trips have been assigned to the likely routes that they would take to and from the various destinations, with the top twenty origin MSOAs presented in Table 5-16 of the TA. This methodology is accepted.

Figure 5-7 summarises the distribution and shows that 64% of vehicle trips are anticipated to travel south from the site, 16% north, 17% east and 3% west.

Pedestrian distribution

Pedestrian distribution has been predicted in a similar way, utilising the MSOA distribution but manually reassigning walking to trips internal to the Winchester '009' MSOA as these have been assumed as local trips for the purposes of this exercise.

This distribution exercise has resulted in it being estimated that 74% of walking trips will be north of the site towards the city centre, 15% will be north west

towards Sainsburys, with 6% west onto Badger Farm Road and 5% south to the St Cross roundabout.

Cycle distribution

A similar methodology has again been applied to the cycle trips associated with the proposed development, with the results shown in Figure 5-4 of the TA. This shows 19% of cycle trips heading north towards the city centre, 14% towards Sainsburys, 7% onto Badger Farm Road and 60% south towards St Cross roundabout.

It is not clear why the TA has estimated that so many of the cycle trips will be to the south when the city centre, residential areas, services and amenities are mostly located to the north of the site. Further justification of this is required.

Junction assessments

The scope of the assessment of the impact of the proposed development on the surrounding highway network was agreed between HCC, National Highways and the applicant during the pre-application process. The agreed study area is therefore as follows:

- Junction 1 – Romsey Road/ Badger Farm Road/ A3090 roundabout
- Junction 2 – Badger Farm Road/ Oliver's Battery Road South priority junction
- Junction 3 – Badger Farm Road/ Ridgeway priority junction
- Junction 4 – Meadow Way/ Sainsburys Access/ Badger Farm Road/ Parliament Place roundabout
- Junction 5 – St Cross Road (B3335)/ Hockley Link/ Otterbourne Road/ Badger Farm Road roundabout
- Junction 6 – Hockley Link/ M3 Slip/ Park & Ride access roundabout
- Junction 7 – B3335/ A3090 Hockley Link/ M3 on-slip signalised junction
  Junction 8 – B3335/ A3090 Hockley Link/ M3 off-slip signalised junction
- Junction 9 – Romsey Road/ Stanmore Lane signalised junction
- Junction 10 – Romsey Road/ Kings Road/ Battery Hill signalised junction
- Junction 11 – Romsey Road/ Clifton Terrace priority junction
- Junction 12 – B3335 Searless Hill/ Hazeley Road signalised junction
- Junction 13 – Romsey Road/ Chilbolton Avenue roundabout
- Junction 14 – Winchester Village Access junction with Pitt Road signalised junction
- Junction 15 – Romsey Road/ High Street/ B3420/ Castle Avenue miniroundabout
- Junction 16 – Site access junction with Badger Farm Road

Committed development

The applicant has not included any committed development in the assessment of the impact of the proposals on the highway network surrounding the site. It should be confirmed whether the Barton Farm development future year traffic

has been included in the traffic data. If not, this should be included in the assessments.

Traffic growth

It has been agreed through pre-application discussions that TEMPro should be used to generate future baseline flows for the purposes of the junction capacity assessments. The use of TEMPRO dataset 7.2 has been agreed as this is still current and represents a robust forecast. This results in a growth factor of 1.0532 and 1.0533 in the AM and PM respectively between 2022 and 2027 and a growth factor of 1.1411 in the AM and 1.1414 in the PM from 2022 to 2039.

Assessment scenarios

The applicant has proposed that the following scenarios are used for the assessment of the junctions:

- 2022/23 **Baseline**: observed traffic flows
- 2027 **Opening Year Base**: 2022/23 base flows with growth applied to 2027
- 2027 **Opening Year + Proposed Development**: 2027 opening year plus complete and operational proposed development
- 2039 **Future Year Base**: 2022/23 base flows with growth applied to 2039 (end of Local Plan year)
- 2039 **Future Year + Proposed development**: 2039 future year plus complete and operational proposed development

Each scenario has been assessed for the weekday AM and PM network peak hours. These scenarios are agreed.

Junction capacity assessment results

As the traffic generation has not been agreed and there is further information required regarding the sustainable modes relating to the proposed development, the highway authority is not in a position to comment on the results of the modelling exercise. However, the following comments relate to the modelling submitted for St Cross roundabout and the M3 Junction 11 roundabout. More detailed comments will be forwarded to the applicant for their review.

<u>St Cross roundabout</u>

In some scenarios, particularly the PM scenarios, the traffic assignment at the roundabout does not match the approach at the site access junction. Some weaving between junctions will be unavoidable and expected, however it is likely most vehicle drivers will select the appropriate lane at the roundabout and not risk conflict by merging upstream. In any case, this should be minimised as

much as possible particularly as there is a safety issue approaching the back of the right turn queue.

In the 2039 PM peak, the exit merge onto St Cross Road has 421 PCUs in the nearside lane and 697 in the offside lane. This is unlikely to happen at a merge due to driver behaviour and lane choice. It is therefore suggested that in this case the offside traffic lane is limited to 30% of the total traffic exiting from the circulatory.

A Degree of Saturation (DoS) weighting has been used on the circulatory, which is acceptable, however the weighting used is so high that it throws the optimiser off producing unacceptable results. Either the weighting should be modified in order to achieve suitable results with the optimiser or else removed completely and the circulatory prioritised manually. This appears to have been done already, in which case the weighting serves no purpose.

M3 Junction 11 roundabout

A comparison between the modelling outputs of the M3 Junction 11 roundabout both with and without the proposed amendments to the design should be submitted so that a view can be taken on the benefit to the proposals.

Summary

Whilst the impact of the modelling has not been fully reviewed due to the outstanding matters, it is noted that the proposals add to pressures on the highway network at the corridor of Badger Farm Road and St Cross Road. It is observed that there is frequent queueing along this corridor in the network peak periods which the proposals will exacerbate and increase.

Recommendation

As set out in the response, there are a number of areas that require further information prior to the highway authority being in a position to provide a recommendation.

Further information is required on the measures to improve walking and cycling to the site, public transport access, travel plan drafting, the highway modelling

underpinning junction assessments and details of the highway mitigation measures put forward.

I trust the above is clear but please contact the highway authority if you have any questions.

Yours faithfully,

Ben Clifton
Strategic Transport Manager – Highways Development Planning