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AMENDMENTS TO THE FOLLOWING SECTION ARE SHOWN IN GREEN ITALICS FOR EASE OF REFERENCE.

INTRODUCTION TO THE ADDENDUM

- 1.1. In response to the comments raised on planning application (Ref:14/01932/OUT) and at the request of the Local Planning Authority under the provisions of regulation 22 of the EIA Regulations 2011 (as amended), the Council have requested that further information is provided to support the ES to ensure that the environmental information contained within is up to date and relevant. As such this addendum submission has been prepared to sit alongside and update the current ES.
- 1.2. The Planning Authority have indicated 5 points on Traffic and Transport Impacts to be addressed which are summarised as follows.
 - 1) Land to opposite side of Bloxham Road is a committed development given that outline planning permission has been granted. This is for up to 350 dwellings rather than the 150 for which it is allocated and the 400 originally proposed. The traffic modelling and assessment should reflect this change.

Within the original assessment sensitivity testing was undertaken that allowed for the inclusion of this scheme which at the time was not permitted, but under consideration. Subsequent additional testing has been undertaken by Oxfordshire County Council which is discussed further below.

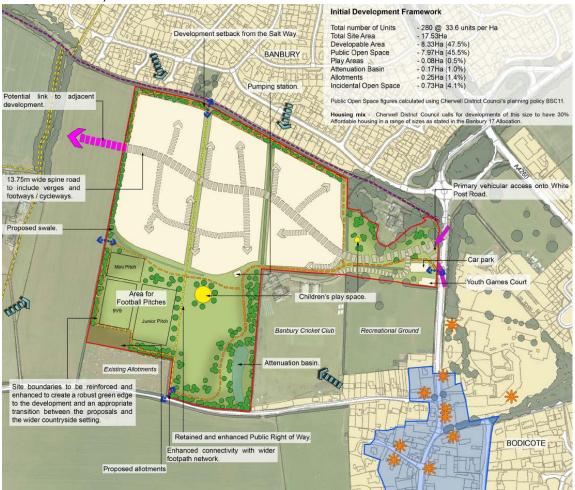
2) The impact of development on the eastern part of Banbury 17 was not considered and assessed as part of the EIA. Not only would this increase the cumulative amount of traffic movements it would also facilitate the creation of a spine road through the site from the Bloxham Road to White Post Road. The environmental impact of this has not been assessed or considered within the ES. This will undoubtedly affect the projected traffic distribution onto surrounding roads - in some cases presumably lessening impact and in other cases causing an increase.

Subsequent additional testing has been undertaken by Oxfordshire County Council which is discussed further below and in the accompanying TA addendum that examines the modelling undertaken by Atkins on behalf of OCC.

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3) The ES references an internal road layout that differs from that being proposed as part of the application and is too small to reflect that required for a spine road. This should be addressed.

The original application provided for a road width in accordance with Oxfordshire standards for a bus route. The applicant is accepting of the request and will update the proposals to allow for an increased width of 6.75m carriageway rather than 6.1m. This accords with the link road proposals submitted for the current application for the eastern part of Banbury 17 (Ref 15/01326/OUT or "Gladman site").



Extract of masterplan for land at White Post Rd - Ref 15/01326/OUT

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4) The ES assumes an existing local bus service would be diverted into the site during construction which could have implications for projected traffic generation. OCC appears to have a fundamental objection to this and given that it is a partially subsidised service they have control over some of the route/timetable. With this uncertainty there are doubts as to whether this should realistically be take into account in robustly assessing environmental effects which should assume worst case scenario in this instance i.e. no temporary diverted bus service into the site.

Prior to submission of the application, discussions with the local bus operator, Stagecoach, indicated that such a diversion to the existing route 488 was acceptable to them on a commercial basis. It is accepted that upon the provision of a link road wider changes could occur in parallel with revisions to the Banbury bus network though a through route.

Upon commencing the development the existing bus stop on Bloxham Road would provide appropriate access to public transport services with 40% of the site within 400m of Bloxham Road. Upon construction of the first 200m of the spine route, the diversion of the bus service will increase the public transport coverage to 70% of the proposed development. If OCC do not support the diversion (although it is supported by the bus operator) the impact upon public transport use is felt to be marginal with an increased walking time to access the bus service for those furthest from Bloxham Rd (up to 10 minutes rather than 5 minutes or less).

5) The ES should address the traffic and transport impacts leading up to the completion of the spine road through the site (i.e. all traffic to and from the site initially with ingress and egress via junction with Bloxham Road) and after completion of the spine road so that the environmental effects during construction are assessed as well as post completion of the whole development.

The original assessment assumed all development traffic would enter/exit the site via Bloxham Road and hence this was considered. The additional modelling undertaken by Oxfordshire County Council has assessed the scheme with and without the link road. These results show subtle changes within the town, confirming the conclusions of the originally submitted Transport Assessment (TA) (dated November 2014), that the proposed development on land at Wykham Park Farm can be accommodated on the highway network and that the mitigation measures proposed in the original TA remain robust

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- 1.3. In summary as requested by OCC the following updates the original ES submission to reflect 5 issues of concern in line with Regulation 22 of the EIA Regulations 2011 (as amended). Using the Banbury Highway model to test the impact of the proposed development on land at Wykham Park Farm on the highway network the Model runs have revealed that the link road will attract very little traffic during the peak hours. In fact it will be used by only 2-3 vehicles per minute at peak times. The conclusions and analysis used to inform the original ES is therefore still valid and appropriate.
- 1.4. The development is therefore not reliant upon the delivery of the link road, however, and notwithstanding this, Gallagher Estates are willing to deliver the link road in so far as they are able to across the land that they control, as part of the phased implementation of the proposed development at Wykham Park Farm.

5.5 POTENTIAL EFFECTS

Construction Stage

- 5.5.1 It is anticipated that construction activities will be undertaken over a period of up to some 10 years and due to the complexity and length of the construction programme it is not possible to accurately predict volumes of traffic that will be generated over the course of a normal working day. However, a qualitative assessment can be carried out as described below.
- 5.5.2 If it is assumed that if some 100 dwellings were constructed in a year then it is likely that this could result in circa 40-50 dwellings being constructed at any one time. This could result in around 50 tradesmen being on site at any one time which would lead to 100 two way trips per day. It is assumed that there would be in the region of up to 10 HGV movements per day from vehicles accessing the Site, which would lead to 20 two way trips per day.
- 5.5.3 All construction traffic would enter and exit the site from the A361. It is considered that the effect of construction traffic on the surrounding highway network will be of no greater than minor adverse significance as the HGV movements will be scheduled to avoid the peak times of travel demand and the traffic generated by the tradesman will not be discernible from general traffic. Furthermore, the effect of the construction traffic will be minimised as construction trips will not be routed along local roads and routes that are not designed to cater for such traffic.
- 5.5.4 The construction period will be short term and its overall significance is therefore reduced. Due to the nature of the construction process there is likely to be a temporary minor adverse effect.

Post-completion stage *Traffic Impact*

5.5.5 Full details of the predicted traffic generation are contained within the TA. The assessment compares the predicted traffic generations for the Proposed Development with the 2027 AM and PM peak hours and includes further sensitivity testing which includes traffic generation arising from an assumed quantum of development on the Ely Diocese Land (200 units) and Crouch Farm (400 units) and College Field Phase 2 (600 units) schemes. Since these assumptions were made Crouch Farm has been granted permission for 350 homes, whereas an application for 280 dwellings has been lodged

for the Ely Diocese land. The difference of 30 additional dwellings is not considered significant in the scope of the assessment undertaken.

- 5.5.6 The estimated number of vehicle trips generated by the Proposed Development is 124 arrivals and 406 departures in the AM peak hour and 332 arrivals and 151 departures in the PM peak hour. The changes in the masterplan to accommodate additional school provision is not predicted to increase vehicle movements on the wider network, being internal to the site, or accounted in the trip generation for residential uses already considered.
- 5.5.7 In the Base 2027 " Do Nothing" scenario i.e. with committed development traffic and without mitigation, junction capacity analysis reveals:
 - Bloxham Road / Wykham Lane Priority Crossroads No capacity issues during the AM and PM peak periods;
 - Bloxham Road / Springfield Avenue Priority Junction –Capacity issues during the PM peak period;
 - Bloxham Road / Queensway Priority Junction The Queensway junction is operating over capacity during the testing periods with a RFC value of 1.48 and 1.75 observed respectively for AM and PM Peak;
 - The Oxford Road network junctions the network is operating with
 - -30.50% practical reserve capacity in the AM peak and
 - -60.10% practical reserve capacity in the PM peak.
- 5.5.8 In the Forecast 2027 " Do Something" scenario i.e. with committed traffic + development traffic and with mitigation, junction capacity analysis reveals:
 - Bloxham Road / Wykham Lane Priority Crossroads No capacity issues during the AM and PM peak periods;
 - Bloxham Road / Springfield Avenue Priority Junction (Road Widening) the improved junction will operate with a reduced RFC and reduced queues when compared to the Base 2027 'do nothing' situation;
 - Bloxham Road / Queensway Priority Junction (signalisation improvement) The results with the improvements scheme indicate that there are no capacity issues during the AM and PM peak periods;
 - The Oxford Road network junctions (with the College Fields scheme's improvements, Sainsbury's improvements and proposed Wykham Park Farm improvements at the Oxford Rd/Bloxham Rd junction) will operate with -0.9% spare capacity in the AM peak and -15.8% spare capacity in the PM peak, a significant improvement over the base situation.

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- 5.5.9 In the Sensitivity Test scenario which assesses the impact of both the Crouch Farm and College Field Phase 2 development when added to the Forecast 2027 scenario junction capacity analysis reveals:
 - Bloxham Road / Wykham Lane Priority Crossroads No capacity issues during the AM and PM peak periods;
 - Bloxham Road / Springfield Avenue Priority Junction With the addition of Crouch Farm at draft allocation levels (150 dwellings) Springfield Avenue will operate at the same level of performance as the Base 2027 'do nothing' situation.
 If Crouch Farm is developed at 400 units then capacity and queues on the Springfield Road exceed these do nothing levels;
 - Bloxham Road / Queensway Priority Junction (signalisation improvement) With the addition of Crouch Farm at draft allocation levels (150 dwellings) the junction operates with adequate spare capacity. If Crouch Farm is developed at 400 units then the junction operates just over desirable levels of spare capacity but within theoretical capacity. MOVA has the potential to improve these results still further. The results are a considerable improvement over the situation that would occur if the junction is left as a priority junction in a base 2027 situation.
- 5.5.10 Overall there will be a minor beneficial effect in terms of delay and queueing on the assessed highway network within Banbury due to the proposed highway capacity improvements.

Additional testing using the Banbury SATURN model has further tested the above
assumptions with a design year of 2031 and the scenarios tested as described
above. This revealed the Link Road to generally have little impact on the wider
network with few 'external' trips attracted to it. In looking at the changes in flows
from the Atkins Model outputs the following changes are predicted:

		Α	В
Link	Secondary Location		No LR vs LR
A361 - Bloxham Road	Immediately south of dev access	1.8%	-1.9%
A361 - Bloxham Road	Immediately north of dev access	22.8%	-18.3%
A361 - Bloxham Road	South of Springfield Avenue	-2.9%	-2.1%
Queens Way	At junction with Bloxham Road	1.5%	-6.1%
Springfield Avenue	At junction with Bloxham Road	28.2%	-5.4%
A361 - Bloxham Road	North of Queensway	16.3%	-4.0%
A361 - Horse Fair	North of High St	15.5%	-7.2%
Southam Rd S	South of Hennef Way	7.1%	-5.3%
A422 - Hennef Way (West)	Between Southam Rd - Concord Avenue	-1.1%	2.5%
A422 - Hennef Way (Central)	Between Concord Avenue - Ermont Way	2.0%	0.1%

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A4269 - Concord Avenue	At junction with Hennef Way	1.4%	2.2%
Oxford Rd	North of Upper Windsor St	1.0%	4.6%
Oxford Rd	South of Upper Windsor St	-0.7%	11.0%
Oxford Rd	South of Grange Rd	1.9%	-0.9%

 Table 5.8A: Atkins modelling results – changes in traffic flow

A) Without or With Development (DM no LR vs DS no LR)

B) Development without or with Link Road (DS1 no LR vs DS1 + LR)

The above indicates the expected increase in the immediate locality of the development, but minimal changes further afield. Similarly the introduction of the link road reduces traffic flows to the west of the development, but increases them to the north and east.

Accident Effects

5.5.11 In accordance with the IEMA Guidance, an assessment of road safety should be considered if the character of traffic flow alters through increases in volume. The Proposed Development is not predicted to generate significant volumes of HGV traffic and the TA demonstrates that traffic is not likely to increase significantly on any links that are not designed for the predicted levels. Therefore development traffic would have a minor impact upon the amount of accidents due to the fact that most accidents are not directly caused by the volume of traffic but the driver's error or irresponsible driving behaviour. The existing accident pattern will not be negatively affected by the proposed development.

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5.6 MITIGATION MEASURES Construction stage

- 5.6.1 It is considered that construction traffic will have no greater than a minor adverse impact. However this will be further mitigated through the production of a Construction Environmental Management Plan (CEMP). The purpose is to reduce the risk of adverse effects of construction on sensitive environmental resources and to minimise disturbance to local residents.
- 5.6.2 The objective is to demonstrate that appropriate checking, monitoring and audit processes will be implemented to ensure works are undertaken in an appropriate manner, together with measures to ensure that appropriate corrective actions or mitigation measures are taken.
- 5.6.3 The CEMP shall include:-
 - Details of the approved construction traffic routes;
 - The times within which traffic can enter and leave the Site;
 - Specified on-site parking for vehicles associated with the construction works; and the provision made for access thereto.

Post-completion stage

Junction Improvements

- 5.6.4 As identified above, the delivery of any substantial residential development has the potential to increase traffic levels on the surrounding road network. An assessment of the potential impacts associated with the Proposed Development has indicated that there are several locations identified within the local road network that require junction interventions. These include:
 - Signalisation of the Bloxham Road / Queensway junction giving improvements in capacity and pedestrian improvements;
 - Localised widening of Springfield Avenue to increase capacity at the existing priority junction; and
 - Bloxham Road / South Bar / Oxford Road provision of a longer left turn lane on Bloxham Road and a left turn flare on Oxford Road north into Bloxham Road and signal staging improvements.
- 5.6.5 The other improvements on the Oxford Road Network will be delivered by committed developments at College Field and Sainsbury's.

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Highway Improvements

5.6.6 The 30mph traffic limit on Bloxham Road will be extended to the south of the Bloxham Road / Wykham Lane junction. *The provision of an appropriately phased 6.75m wide road carriageway within the development site which accommodates a connection to the adjoining proposed residential development at White Post Road (ref 15/01326/OUT) will thereby create a new link road.*

Public Transport

5.6.7 As the development is built out, it is proposed to adapt the local bus stop provision to ensure the development remains within a 5 minute walk of a bus service. In agreement with the local bus operator, Stagecoach, it is proposed that a minor diversion of the bus service 488 will be made into the site until such time as the link road could facilitate a through route. The additional patronage that the Proposed Development will bring about on these services will help to increase their viability with minimal delay from the short detour (600 metres/1 minute additional journey time). Appendix A of this Addendum details these diversions and bus stop access.

Walking and Cycling

- 5.6.8 The Proposed Development will result in a network of high quality streets for pedestrian and cyclists. The Proposed Development will provide additional pedestrian / cycle links to the existing Salt Way Cycle Route and make provision for a circular movement link (bridleway, cycle, foot) along the southern edge of the Site, linking pedestrians and cyclists with Banbury's existing pedestrian and cycle network along Salt Way and providing access to key facilities and services including the town centre, the railway station, employment areas and a foodstore. *The provision of a roadside cycle route along the length of the spine road will allow further connections through to White Post Road once the spine road is completed.*
- 5.6.9 The signalisation of the Bloxham Road / Queensway junction will improve pedestrian crossing facilities on Bloxham Road and Queensway.

Travel Plans

5.6.10 The travel plans for residents and other occupiers of the Proposed Development will play an important role in promoting sustainable travel. The TP for the residential and employment components which accompanies the application includes specific measures

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and will be finalised and implemented at appropriate stages through the development. The TP for the primary school will be developed following occupation of the building.

5.6.11 The requirements for the travel plans will be secured by condition and will be monitored by travel plan co-ordinators of the residential, employment and educational elements and by OCC.

Proposed Development Design

- 5.6.12 A number of initiatives are proposed as part of the Proposed Development that will reduce reliance upon the private car and provide residents with a real choice of modes of travel.
- 5.6.13 The site access has been designed to provide a safe and convenient assess into the site and to cater in terms of capacity with the traffic generated by the Proposed Development and the expected traffic levels on Bloxham Road in 2027 and 2031.
- 5.6.14 The local bus operator has agreed to divert the existing 488 bus service into the site. Bus stops within the site will be provided with shelters, timetable displays and bus boarder kerbs if appropriate. Upon completion of the route between Bloxham Road and White Post Road Oxfordshire County Council propose to review bus routes within the town which may see a new route or diversion of an existing service.
- 5.6.15 The Proposed Development will be designed to provide safe and convenient walking and cycling routes throughout the site, such as to the Primary School and Local Centre, and will link into walking and cycling facilities outside of the site.
- 5.6.16 All community facilities will be provided with high quality secure cycle parking facilities close to the main access to the buildings / facilities.
- 5.6.17 The street pattern within the Proposed Development will be designed at the detailed design stage to meet with the standards as set out within DfT's Manual for Streets and other best practice design documents.
- 5.6.18 The street pattern will be deigned on a legible and direct network of interconnected routes. Streets will be overlooked by properties and will act as functional community spaces. Streets will not be deigned on motor traffic criteria and will be interesting, varied and attractive, offering higher levels of pedestrian and cycle priority than 'estate' style street patterns; it will be safe and welcoming for pedestrians and cyclists and will be well specified and constructed.

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5.6.19 Traffic speed will be carefully controlled by design so as to create a calm and safe environment for all. This will consider a range of common design options such as changes in horizontal alignment, reduced forward visibility, a number of converging streets, reduced street widths, the use of street trees, key buildings and changes in street materials.

5.7 RESIDUAL EFFECTS Construction Stage

5.7.1 Taking account of the proposed CEMP, it is considered that potential minor adverse effects would be reduced to negligible level.

Post-completion stage

Junction Improvements

- 5.7.2 The modifications proposed at the Bloxham Road / Queensway and Bloxham Road, South Bar Street / Oxford Road and Bloxham Road/Springfield Road junctions will ensure that the junctions are able to cater for the traffic generated by the Proposed Development and the expected level of background traffic in 2027 and will bring about a long term moderate beneficial impact. *This is supported by additional Banbury wide modelling with an assessment year of 2031.*
- 5.7.3 The modifications brought about by the Proposed Development and the committed development will have a long term moderate beneficial impact on the Oxford Road network.
- 5.7.4 The proposed roundabout junction will cater for the traffic generated by the Proposed Development and for the expected vehicle movements along Bloxham Road in 2027 and the long term effect will be negligible.

Public Transport

5.7.5 The diversion of an existing bus route providing additional patronage arising from new residents and the provision appropriate facilities within the site will have a moderate long term beneficial effect on public transport from an improved ease of using the bus, and additional patronage/revenue generated. The diversion would add approximately 600m travel distance and 1 minute to the journey time for other users (typically longer distance due to the route served) and this is not seen as impacting upon the existing patronage or running costs.

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5.7.6 OCC have indicated, contrary to the bus operator, they do not support a diversion into the site. If this does not occur it is felt there would be a negligible impact upon public transport use, with a longer distance to walk to catch a bus. Without the diversion fewer households would be within the preferred walking time of 5 minutes (400m) but still have access.

Walking and Cycling

- 5.7.7 The construction of quality, safe and convenient walking and cycle routes within the site and links to the existing Banbury walking and cycle network will have a moderate long term beneficial effect on walking and cycling in the local area.
- 5.7.8 The provision of improved pedestrian crossing facilities at the Bloxham Road / Queensway junction will have a moderate long term beneficial effect on walking and cycling in the local area.

Travel Plans

5.7.9 The Travel Plans will promote travel by means other than single occupancy vehicles, thus lowering traffic generation from the Proposed Development and will have a substantial long term beneficial effect.

Statement of Effects

- 5.7.10 There will be an increase in traffic when compared to current traffic levels experienced on the local highway network. With the proposed junction improvements and other mitigation measures including junction improvements and the implementation of Travel Plans the anticipated traffic movements can be accommodated in capacity and safety terms on the surrounding highway network. The proposed junction improvements and other measures will improve the operation of the highway network in capacity and safety terms when compared with the Base Scenarios. The residual impact of the increase in vehicle movements on the local highway network brought about by the operation of the Proposed Development will be negligible.
- 5.7.11 The provision of a diverted local bus service providing additional patronage and the provision of appropriate facilities within the site will have a moderate beneficial residual effect on public transport.
- 5.7.12 The construction of high quality, safe and convenient pedestrian routes within the site linking into Banbury's existing pedestrian and cycling network along with pedestrian

improvements at the Bloxham Road / Queensway junction will have a moderate beneficial residual effect on walking and cycling.

- 5.7.13 Whilst measures have been designed to mitigate the effects of the Proposed Development there will be an inevitable overall increase in traffic levels compared with expected levels in 2027/2030. It is concluded in the TA that with appropriate mitigation measures the local network would have the capacity to absorb this without causing any detrimental effect. The site is located in a sustainable location with access by public transport, walking and cycling to a wide range of local services and facilities and offers good opportunities for travel by sustainable modes of transport. The design of the Proposed Development, the measures introduced to encourage cycling, walking and the use of public transport and the proposed mitigation measures will mean that the Proposed Development will bring about a minor beneficial effect on the environment in terms of traffic and transport.
- 5.7.14 The effects identified are summarised in Table 5.10:

Potential effect	Significance (pre- mitigation)	Mitigation measure	Significance of residual effect
Construction stage			
Construction traffic	Minor adverse	CEMP	Negligible
Post-completion stage			
Traffic	Minor/Major adverse	Junction mitigation as identified above	Minor beneficial
Air Quality	Minor adverse	Travel Plan Junction improvements Public transport support	Negligible
Impact on Public Transport	Minor adverse	Diversion of existing service	Minor beneficial
Pedestrian amenity	Minor adverse	Improved facilities within the Site and provision of appropriate linkages to the existing facilities within the area	Minor beneficial
Accidents and safety	Minor	Junction mitigation as identified above, introduction of 30mph speed limit	Negligible

Table 5.10: Summary of Effects

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APPENDIX A

BUS STOP CATCHMENT

