

Economic Regeneration and Transport

Big plans for an outstanding Borough

INTERNAL MEMORANDUM Highways, Transport &

Environment

From: Highways, Transport &

Environment Manager

To: Planning Development

Services Manager

FAO: Mr Gregory Archer CC: Planning Administration

Proposal: Outline application with all matters reserved except	Date:	14/11/16		
for access for approximately				
100 dwellings (Use Class C3)				
Location: Land South Of Yarm School Playing Fields East Of	Ref:	16/1959/OUT	Rev	2
The Railway, Green Lane, Yarm				

HTE Consultation	Consultation Other
Network Safety/ Connect Tees Valley	Consultancy Practice
Highways Network Management	Community Transport
	Care for Your Area

I refer to your memo dated: 26th October 2016

Executive Summary

Subject to the comments below Highways, Transport and Environment has no objections to the outline planning application, with all matters reserved except for means of access, for the construction of up to 100 dwellings.

The impact of the proposed application on the highway network has been assessed by the applicant, within the Transport Assessment (TA) submitted in support of the proposed development, and also using the Council's Yarm, Ingleby Barwick, Aimsun Model (YIBAM).

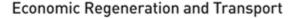
The YIBAM traffic modelling provides a more informed response regarding the impact of the proposed development on the wider network rather than reviewing each junction in isolation as undertaken in the TA.

The results show that there that further improvements would be required at the A19/A67 Crathorne interchange and the A67 / A1044 / Green Lane Roundabout.

The delivery of both schemes, which are shown on drawing ref. TS/10178/PD/006 and 2100/SK001/002 respectively, would be secured through a s106 / s278 Agreement, as appropriate and would take account of any contributions already secured towards mitigating the impact of development at this location.

Prior to commencement of the development, further details of the improvements to the A19/A67 Crathorne Interchange should be submitted and approved by the Council in consultation with the Highways England and this will be secured via a s106 / s278 Agreement as appropriate. A Stage 2 Road Safety Audit should also be submitted for the proposed layout at that time.

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The proposed site access arrangements, as shown on drawing ref SK010 Rev B and SK011 Rev B, which would be taken from the A67 Thirsk Road are considered to be acceptable and would be secured through a s278 Agreement.

Therefore, taking account of the above, Highways, Transport and Environment do not object to the proposed development in relation to the predicted impact on the highways network.

The applicant has submitted an Interim Residential Travel Plan in support of the proposed application which is considered to be broadly acceptable. The agreement of a final Travel Plan should be secured by condition.

The following works as identified in the Interim Residential Travel Plan, to improve the existing bus and off-site pedestrian and cycle infrastructure are required, and will be secured via a s278 Agreement:

- A new pedestrian crossing facility on the A1044 Green Lane (as shown on figure 6 of the Interim Residential Travel Plan);
- A new footway link from the crossing facility to Yarm Rail Halt (as shown on figure 6 of the Interim Residential Travel Plan);
- The removal of the existing stop on the A67 on the northbound approach to the roundabout;
- The provision of two additional stops (including low floor platforms, bus shelters and real time information monitors);
- The upgrading of the existing stop on the A67 on the southbound exit from the roundabout;
- The provision of a suitable pedestrian crossing facility on the A67.

A Construction Management Plan should be agreed prior to construction commencing on the site and this should be secured by condition.

The submitted Landscape and Visual Impact Assessment demonstrates that while a change in the local landscape character would be noticeable due to the change from an agricultural field to the proposed development, the predicted change would be relatively small due to the limited extent of the views and the proximity of existing housing north of Green Lane and west of the railway line. The view is limited by existing mature vegetation which will be enhanced with additional buffer planting to the site perimeter. This buffer planting along the eastern and northern boundaries as shown on the indicative layout is essential to allow the development to progress.

The spatial syntax drawing demonstrates a clear hierarchy of buildings and spaces. This should be clearly reflected in any reserved matters application, with careful sections of materials, tree species etc to provide a sense of place. The indicative site layout responds to the existing constraints of the site, notably the existing mature tree groups which have been incorporated into the design. New planting on the site should reflect this parkland character, with small groups of large species trees, as well as individual specimens.

There are no landscape and visual objections to the proposed development, although the Highways Transport & Environment Manager would request some minor amendments to the

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layout. It is considered that these matters can be addressed as part of the detailed design submitted within any Reserved Matters Application.

The proposed development is in a Flood Zone 1 and the Environment Agency flood maps show a low risk of surface flooding, a 0.1% (1 in 100 year event) chance in any year, in the south eastern corner of the site.

The applicant has not provided sufficient detail regarding the management of surface water runoff from the proposed development and this information should be secured by condition.

As details of the proposed renewable energy equipment is yet to be submitted this policy requirement should be secured by condition.

Detailed comments and conditions are included below in Appendix 1 and 2 respectively

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Appendix 1 - Detailed Comments

Highways Comments

All developments should be designed and constructed in accordance with SBC Design Guide and Specification (current edition) (Design Guide) and SPD3: Parking Provision for Developments 2011(SPD3).

This is an outline application with all matters reserved except for access.

A Construction Management Plan should be agreed, should the application be approved, prior to construction commencing on the site and this should be secured by condition.

Traffic Impact

The applicant has submitted a Transport Assessment (TA) in support of the proposed development which includes local junction assessments, however, at the request of the Council the impact of the proposed development on the highway network has also been assessed using the Council's Yarm, Ingleby Barwick, Aimsun Model (YIBAM).

The applicant has also submitted a supplementary note on Highways and Transport which includes minor alterations to the site access arrangements and an updated assessment of the impact at Crathorne interchange.

The trip rates for the proposed development have been taken to be the same as those accepted for the approved Green Lane residential development which are based upon information derived from TRICS (national trip rate database), an acceptable methodology. Table 1 shows the forecast vehicle trip generation of the proposed development.

Table 1: Vehicle Trip Generation

		AM		PM			
	ln	Out	Total	ln	Out	Total	
Trip rate	0.243	0.491	0.734	0.495	0.355	0.850	
Trips	24	49	73	50	35	85	

The traffic distribution of the proposed development has been estimated based on the 2011 Census data for the area and Table 2 presents the number of additional trips, associated with the proposed development, and also provides the study area for local junction assessments.

Table 2: Development Traffic at key Junctions

Ref.	Junction	Development Traffic Flows (PCU)				
		Weekday AM Peak Period	Weekday PM Peak Period			
J1	A67 / A1044 / Green Lane	34	39			
	Roundabout					
J2	A67 / Forest Lane Junction	40	46			
J3	A67 / Long Lane Junction	39	45			
J4	A67 / A19 Slip Road Junction	39	45			
J5	Proposed A67 / Site Access Junction	73	85			

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In order to assess the impact of the proposed development at key junctions, as set out in Table 2 above, local capacity assessments have been undertaken. The TA includes detailed analysis of each junction however; this response will focus on the following junctions:

- J1 A67 / A1044 / Green Lane Roundabout;
- J4 A67 / A19 Slip Road Junction;
- J5 Proposed A67 / Site Access Junction.

J1 - A67 / A1044 / Green Lane Roundabout

The initial assessment of this junction, which included the proposed mitigation associated with the Green Lane development (12/1990/EIS), has demonstrated that further improvements are required at this location to mitigate the impact of the proposed development on the A1044 Green Lane (East) approach to the roundabout.

The junction assessment results, which are included in Table 3 below, show that with the proposed development queuing on the A1044 Green Lane (East) approach to the roundabout increases.

Table 3 - A67 / A1044 / Green Lane Roundabout - Initial Junction Assessments

Approach	Weekday AN	Л Peak Hour	Weekday PM Peak Hour		
Approach	RFC	Q	RFC	Q	
Committed Layout (Green	Lane Mitigation	n) - 2021 Do M	linimum		
A67 Thirsk Road (North)	0.93	10.7	0.91	7.3	
A1044 Green Lane (East)	1.08	34.8	0.74	2.7	
A67 (South)	0.70	2.4	0.91	8.2	
Green Lane (West)	0.98	15.0	0.93	8.6	
Committed Layout (Green Lar	ne Mitigation) -	2021 With Dev	velopment		
A67 Thirsk Road (North)	0.94	11.0	0.91	7.4	
A1044 Green Lane (East)	1.07	31.1	0.74	2.7	
A67 (South)	0.72	2.6	0.92	8.8	
Green Lane (West)	0.98	15.8	0.93	8.4	

In order to mitigate the impact of the proposed development a highway improvement scheme has been developed and subsequently tested by the applicant. The junction assessment results are included in Table 4 below.

Table 4 - A67 / A1044 / Green Lane Roundabout – Junction Assessments with Proposed Mitigation

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	Weekday Al	Л Peak Hour	Weekday PM Peak Hour				
Approach	Approach RFC		RFC	Q			
Proposed Mitigation Layout - 2021 With Development							
A67 Thirsk Road (North)	0.93	11.1	0.91	7.4			
A1044 Green Lane (East)	0.79	3.7	0.56	1.3			
A67 (South)	0.72	2.6	0.92	8.8			
Green Lane (West)	0.97	14.7	0.93	8.4			

The results clearly demonstrate that, following the implementation of the proposed highway improvement scheme, the proposed development would have no discernable impact at this junction.

The delivery of this scheme, which is shown on drawing ref. 2100/SK001/002, would be secured through a Section 106/Section 278 Agreement, as appropriate and would take account of any contributions already secured towards mitigating the impact of development at this location.

J4 - A67 / A19 Slip Road Junction

The initial assessment of this junction included within the original TA, which included the proposed mitigation associated with the recently approved Kirklevington development (15/1643/OUT), offered no further mitigation at this location. In the opinion of the Highways, Transport and Environment Manager further improvements, in the form of a new roundabout junction, are required at this location to mitigate the impact of the proposed development.

The junction assessment results, which are included in Table 5 below, show that with the proposed development and no further mitigation at this location the queue on the A67, associated with right turning vehicles, would increase by 4 vehicles (from 8.9 vehicles to 12.9 vehicles).

The assessment of this junction, undertaken as a part of the Kirklevington application which used a forecast year of 2025 and not 2021, showed a maximum queue length of 11 vehicles at this location. The predicted increase in queue length of 4 vehicles, associated with the proposed development, would be over and above the 11 vehicle queue predicted for the Kirklevington application. Therefore with the additional traffic from the proposed development the maximum queue length, based on a forecast year of 2025, would be approximately 15 vehicles during the AM peak period.

The predicted queue length increase, of 4 vehicles, would need to be accommodated within the deceleration lane of the proposed Protected Right Turn thereby reducing the stopping distance available for drivers approaching the junction before joining the rear of the queue. This may result in rear end shunt type accidents or side on collisions, if vehicles swerve to avoid the queue of stationary traffic, due to the reduced stopping distances available which would be detrimental to highway safety.

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Table 5 - A67 / A19 Slip Road Junction – Initial Junction Assessments (Protected Right Turn)

		Weekday A	M Peak Hour	Weekday P	M Peak Hour
	Stream	RFC	Q	RFC	Q
	Committed Layout (with Kirklevi	ngton mitigation	on) - 2021 Do I	Minimum	
J4a	A19 Slip Road – LT/RT	0.04	0.1	0.05	0.1
J4a	A67 (Northwest) – AH/RT	0.96	8.9	0.54	1.2
J4b	A67 (LT Exit Lane) – LT/RT	0.29	0.4	0.14	0.2
J4c	A19 Slip Road (LT Exit Lane) – LT/RT	0.27	0.4	0.62	1.6
	Committed Layout (with Kirklevington)	on mitigation)	- 2021 With D	evelopment	
.,	A19 Slip Road – LT/RT	0.04	0.1	0.05	0.1
J4a	A67 (Northwest) – AH/RT	0.99	12.9	0.57	1.4
J4b	A67 (LT Exit Lane) – LT/RT	0.29	0.4	0.14	0.2
J4c	A19 Slip Road (LT Exit Lane) – LT/RT	0.28	0.4	0.63	1.7

In order to address the concerns set out above the applicant has submitted a supplementary note on Highways and Transport which includes an updated assessment of the impact at Crathorne interchange based on the provision of a new roundabout junction. The junction assessment results are included in Table 6 below.

Table 6 - A67 / A19 Slip Road Junction – Updated Junction Assessments (Roundabout)

	۸rm	Weekday A	M Peak Hour	Weekday PM Peak Hour		
	AIII	Arm RFC Q				
	t					
	A67 (Southeast)	0.52	1.1	0.72	2.5	
J4	A19 Slip Road	0.18	0.2	0.42	0.7	
	A67 (Northwest)	0.73	2.7	0.39	0.7	

The results clearly demonstrate that, following the implementation of the proposed roundabout scheme, the proposed development would have limited practical impact at this junction.

The delivery of this scheme, which is shown on drawing ref. TS/10178/PD/006, would be secured through a s106 / s278 Agreement, as appropriate and would take account of any contributions already secured towards mitigating the impact of development at this location.

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J5 - Proposed A67 / Site Access Junction

The initial assessment of this junction, which is included in Table 7 below, has demonstrated that the junction will operate well within capacity.

Table 7 - Proposed A67 / Site Access Junction

Stream	Weekday A	M Peak Hour	Weekday PM Peak Hour		
Sueam	RFC	RFC Q		Q	
Proposed Layout	- 2021 With De	evelopment			
Site Access – LT/RT	0.17	0.2	0.13	0.1	
A67 (North) – AH/RT	0.02	0.0	0.05	0.1	
Proposed Layout - 2021 V	/ith Developme	ent (Sensitivity	Test)		
Site Access – LT/RT	0.17	0.2	0.13	0.1	
A67 (North) – AH/RT	0.02	0.0	0.05	0.1	

The results clearly demonstrate that the proposed new site access junction would operate well within capacity and is therefore considered acceptable.

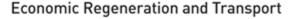
YIBAM Traffic Modelling

In order to assess the cumulative impact of development within the Yarm and Ingleby Barwick area an AIMSUN micro-simulation transport model was developed and validated, using existing traffic counts and journey time data, in 2012. The model has been utilised to assess the impact of various developments, following its development and validation, and a copy of the Local Model Validation Report (dated 05/04/13) can be found on the Councils planning portal under application ref 12/1990/EIS.

The YIBAM traffic modelling provides a more informed response regarding the impact of the development on the wider network, in the forecast year which assumes all dwellings associated with both the extant approvals and the proposed development would be built out giving a worst case scenario, rather than reviewing each junction in isolation as undertaken in the TA. The traffic model has been used to assess the current 'approved' situation which includes the traffic associated with the committed developments, which fall within the scope of the YIBAM, which are:

- Morley Carr Farm (340 residential units) (12/0980/OUT);
- Green Lane (370 residential units) (12/1990/EIS);
- Ingleby Manor Free School (including 350 residential units) (12/2517/OUT);
- Mount Leven (330 residential units) (13/0776/EIS);
- Tall Trees (330 residential units) (13/2568/EIS);
- Little Maltby Farm (550 residential units) (13/3107/OUT);
- Little Maltby Farm (70 residential units) (14/0562/OUT)
- Leven Bank Country Club (15/0527/OUT);
- Kirklevington (145 residential units (15/1643/OUT);

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- Blair Avenue (40 apartments) (15/2431/FUL);
- Roundhill Avenue 965 residential units) (15/2531/OUT);
- Sandgate (12 commercial units) (15/3136/FUL).

Further assessments have then been undertaken which take account of the traffic associated with the proposed development and those developments currently at Appeal within Ingleby Barwick. A comparison of the results from each scenario, which are reported as journey times, has then been undertaken to ascertain the impact of the proposed development traffic on the highway network.

Whilst the results demonstrate with the benefit of mitigation, some associated with extant permissions there would be limited practical difference in terms of traffic movements on the local road network with or without the proposed development, however, the highway safety aspects of the impacts will require significant highway mitigation at Crathorne, where a roundabout junction must be provided.

Vehicle Access

The application is outline only with all matters reserved except for access and the applicant has submitted a Transport Assessment (TA) and a Stage 1 Road Safety Audit in support of the application which includes the proposed site access arrangements (drawing ref SK010 Rev B and SK011 Rev B) which would be taken from the A67 Thirsk Road. Speed surveys have been undertaken which demonstrate that the proposed visibility of 120m in either direction is appropriate for the actual speed of vehicles on this section of road. The proposed site access would take the form of a Protected Right Turn (PRT) and it is considered that, for the scale of development, this would be acceptable however, it should be noted that the width of the through lanes should be 3.65m, not 3.30m, to ensure that the current lane widths are retained as this road forms part of a bus route.

The introduction of the a new vehicular access will require the existing 60mph speed limit, between the roundabout to the east of the access and the access to Judges to the west of the access, to be reduced to 40mph. As the implementation of the reduced speed limit will be subject to a separate consultation process any planning consent should be made conditional on the introduction of the reduced speed limit.

The works to form the PRT and the implementation of the reduced speed limit will be subject to detailed design and will be secured via a s278 Agreement.

Layout/Parking

The development should be designed and constructed in accordance with the Council's Design Guide and Specification (Residential and Industrial Estates Development) current edition and Supplementary Planning Document 3: Parking Provision for New Developments (SPD3).

The applicant has submitted an Illustrative Masterplan, drawing ref SD-10.01 Rev A, which is considered to be broadly acceptable.

<u>Sustainable Links / PRoW</u>
The development has a frontage with the A67 Thirsk Road which provides access to a footway which connects the site with the roundabout, and the wider area, at J1 - A67 / A1044 / Green Lane Roundabout. It is also proposed, as a part of the development, to provide a footway connection to the A1044 Green Lane approximately 200m east of Yarm Rail Halt.

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The development is located within walking distance of bus stops on the A67 Thirsk Road and the A1044 Green Lane, which is located within the Yarm Rail Halt car park, which provides access to service no. 82 and 83. Details of the services available are included in the table below:

Service	Operator	Destinations Served	Frequency
82	Stagecarriage	Yarm – Yarm via Kirklevington, Thornaby, Maltby, Hilton, Kirklevington and Yarm Station	3 services per day (Tuesday and Thursday)
83	Stagecarriage	Yarm – Yarm via Yarm Station, Kirklevington, Hilton, Maltby, Thornaby and Kirklevington	3 services per day (Tuesday and Thursday)

The developer, as a part of the Interim Residential Travel Plan submitted in support of the application, has proposed that the existing stop which is located on the A67 on the northbound approach to the roundabout is removed and that two new stops will be provided at the following locations:

- To the north of the site, a new bus stop will be provided on the northern side of Green Lane, adjacent to Conyers School. The bus stop will be sited on the leaving (downstream) side of the exit junction from Conyers School;
- To the east of the site, a new bus stop will be provided on the western side of the A67, adjacent to the proposed site access junction. The bus stop will be sited on the leaving side of the junction.

The new stops will require this application to fund low floor platforms, bus shelters and real time information monitors.

It should be noted that the existing stop located on the southbound carriageway of the A67 will need to be upgraded, in line with the requirements of the proposed new stops, and that a crossing facility, as shown on drawing ref SK010 Rev A and SK011 Rev A, will need to be provided on the A67 in order to provide a safe pedestrian route to / from the proposed development. The works to provide the crossing point will ne undertaken as a part of the site access works.

In order to improve connectivity to the wider area the developer has also proposed a pedestrian link from the site to Green Lane, which includes a new crossing facility on Green Lane and a new footway connection along the southern side of Green Lane to Yarm Rail Halt, as shown on Figure 6 within the Interim Residential Travel Plan.

The works to improve the existing public transport and off-site pedestrian and cycle infrastructure will be secured via a s278 Agreement and will include the following:

- A new pedestrian crossing facility on the A1044 Green Lane (as shown on figure 6 of the Interim Residential Travel Plan);
- A new footway link from the crossing facility to Yarm Rail Halt (as shown on figure 6 of the Interim Residential Travel Plan);

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- The removal of the existing stop on the A67 on the northbound approach to the roundabout:
- The provision of two additional stops (including low floor platforms, bus shelters and real time information monitors);
- The upgrading of the existing stop on the A67 on the southbound exit from the roundabout;
- The provision of a suitable pedestrian crossing facility on the A67.

Yarm Rail Halt is also located approximately 0.3km from the site providing access to the services, by First TransPennine Express, to Middlesbrough, York and Manchester.

The existing public transport and pedestrian connections make the site reasonably accessible by sustainable modes and a Framework Travel Plan has been submitted in support of the application which promotes the use of these alternative modes of travel. A Full Travel Plan should be secured by condition.

Construction

A Construction Management Plan should be agreed prior to construction commencing on the site and this should include:

- Access proposals (including HGV routes) and HGV trip profile;
- Details of staff parking proposals during construction;
- Hours of construction;
- Appropriate mitigation measures including wheel washing facilities.

The implementation and approval of the final Construction Management Plan, should the development be approved, should be secured by condition to ensure the impact on the highway is minimised during the construction phase.

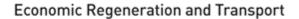
Landscape & Visual Comments

The following landscape and visual comments are made regarding the submission of the outline application for 100 dwellings off Green Lane, Yarm. The site is located west of the B1264, south of the playing fields associated with Yarm School, and east of the railway line. South of the site is a wooded area and a group of properties including Judges Hotel formerly Kirklevington Hall. Access to this group of properties can be gained via a private road which passes south east of the development site. The development is contained within one large field and is surrounded by existing hedgerows and mature trees. Within the site there are a number of small tree groups.

The proposed development is for executive homes of lower density than surrounding developments. The development is located towards the northern edge of the site, and is accessed from the B1264 to the east. The southern third of the site is indicated as open green space. This includes footpaths, planting and Sustainable Urban Drainage (SUDs) within an informal landscape. This open space feeds into the housing via new footpaths following existing hedge lines. Several smaller areas of open space are provided throughout the housing development and as buffer space between the housing and Green Lane (B1264).

Landscape Character

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The site is located within the Yarm Rural Fringe Character Area, and is described as a 'flat to rolling arable landscape' of large fields intersected by wooded valleys which follow local watercourses. There are pressures on these fringe areas for development due to their close proximity to settlements such as Yarm. These pressures have already been realised with the consented developments to the west of the site, at the Green Lane and Tall Trees sites, and this development must be considered within this context. Within the Stockton Borough Council Landscape Character Assessment and Capacity Study the area falls within SLCA0030 Yarm Station, and is described as having high landscape capacity.

The character of the site would change from an agricultural field to a residential development. The site is influenced by the existing built development at the edge of urban Yarm, and by the railway line to the west and consented developments beyond, which are currently under construction. Kirklevington Hall and the prison surround the site to the south and east, but these are set within wooded areas, therefore built form is not visible in conjunction with this site.

Kirklevington Hall is a local heritage asset, which lies in character area SLCA0029 directly adjacent to the southern site boundary. This character area is a typical parkland landscape of open grassland with occasional tree groups and specimen trees. A sense of openness is a key characteristic of the submitted indicative layout, which retains generous open spaces, and a large green space along the southern edge of the site. It is considered that small groups of trees, and occasional single trees within the south eastern corner of the site would be more appropriate, than a continuous dense buffer, and connect the development with the park landscape. Therefore, some minor amendments to the layout are required. However, it is considered that these matters can be addressed as part of the detailed design submitted within any Reserved Matters Application.

The spatial syntax drawing demonstrates a clear hierarchy of buildings and spaces. This should be clearly reflected in any reserved matters application, with careful selection of materials, tree species etc to build on local character, and provide a sense of place.

Visual Impact

As shown in the Zone of Theoretical Visibility Plan (ZTV) and accompanying report, there is limited visibility of the site due to the existing mature boundary planting. The key viewpoints for assessment were agreed with Council's Urban Landscape Team in advance of the fieldwork. Four key locations were identified and viewpoint photography prepared.

Viewpoint 1 – Southwest over Yarm Railway Station

This location is representative of pedestrian and road users of medium sensitivity using the station car park, and road and footpaths near by. From this location the proposed development would be viewed in the distance, behind an established mature hedge allowing views of upper stories and rooflines. The majority of the site would be completely screened by existing mature vegetation on the railway embankment. The visual effects from this location are assessed to be slight adverse, reducing to negligible beneficial once the proposed boundary planting becomes established. The Highways Transport & Environment Manager agrees with this assessment.

Viewpoint 2 – South from Conyers School

From this location the existing mature hedge completely screens the proposed development site. There is no visual impact of receptors in this location.

Viewpoint 3 – South West from Thirsk Road A67

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This viewpoint is representative of pedestrians and road users on the A67 Thirsk Road, close to the proposed new site entrance. These receptors are considered to be of medium sensitivity. From this location views through the site boundary will change from an agricultural field, to a view of residential properties surrounded by immature buffer planting. This change is assessed as being moderate adverse, changing to slight beneficial as the proposed boundary planting matures.

The assessment of a moderate adverse impact at completion is accepted, but it is not considered that this would become a positive impact as the planting scheme develops. When compared to the baseline, the view would be significantly changed to a residential development of many properties located in close proximity to the road. Any beneficial impacts would not be apparent until maturity of planting which may be 15-20 years away.

Viewpoint 4 – Northwest from Kirklevington Hall

This viewpoint is located on a private road accessing Kirklevington Hall and the adjacent residential properties. Receptors using this route are few in number, but are assessed to be of medium sensitivity. The LVIA assessment concludes that the visual effect will be slight adverse, changing to slight beneficial as the planting scheme develops. Highways Transport & Environment do not agree with this assessment.

Three large properties are shown on the south-eastern edge of the development, south of the central group of existing mature trees (to the right of the view). These properties will be very prominent in the foreground of the view, blocking views of the existing tree group in the centre of the site. To the left side of the view, houses will also be clearly visible, between the two existing tree groups. Scattered single trees are proposed around the edge of the development but these will provide only very limited filtering of the view.

Whilst mitigation planting is shown along the southern site boundary, this will take some time to become established, and until that time it will allow direct views of the development in close proximity to the viewpoint. At maturity the boundary mitigation planting will enclose the landscape, much like the existing site trees alongside the A67 to form a strong visual barrier, therefore substantially changing the experience of the view for receptors using the private road. Highways Transport & Environment conclude that based on the submitted methodology the visual effects from Viewpoint 4 will be moderate adverse at completion, reducing to slight adverse once the planting matures, when compared to the baseline.

The four viewpoints have been assessed reaching the conclusion that the visual impact from each position is not significant, as the significance of effects does not exceed slight beneficial. However, the Highways Transport & Environment Manager does not agree with this conclusion for viewpoints 3 or 4, where the effects will be adverse until maturity of planting in 15-20 years. As noted above, it is considered that some minor amendments to the planting arrangement along the southern boundary would be beneficial, and potentially reduce the visual impacts by retaining the open character of the park landscape.

Existing Site Trees

The existing site trees form a strong boundary around the edges of the site, and screen and filter views from the surrounding area, as outlined in the submitted Landscape and Visual Impact Assessment. It is essential to retain these trees to maintain and enhance these existing screening effects, but also to provide a green and pleasant landscape for the development.

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A tree survey has been undertaken and indicates that all of the trees within the site will be retained with the exception of Trees 26 and 27, which will be removed to facilitate access into the site. In addition to these trees a small section of the existing boundary hedge will also be lost.

The tree cover is located mainly around the edges of the site as mature trees within the existing hedgerows. It is not considered that this development, other than for the construction of the proposed access road would cause significant loss or damage to the existing trees. Any development or construction in close proximity to the island tree groups should be sufficiently offset from the trees root protection area to prevent any damage to mature trees.

All proposed works to trees that can be retained on the site including retention/ removal, and/or pruning work should be shown on a 'Tree Protection Plan' that details all tree protection measures –including a scale drawing to show protective fencing layouts and highlighting where modified design and construction methods may be required, e.g. no dig path construction and ground protection. No services should be routed through the root protection area of any trees.

The Tree Protection Plan and Arboricultural Method Statement need to be conditioned The Arboricultural Method Statement must detailing works to be carried out as part of the development within the tree root protection area, or any works that could potentially damage a tree.

Planting Strategy

Mitigation buffer planting as shown on the northern and eastern boundaries of the site will enhance the existing hedgerow and mature trees which form the boundary to the site. As shown in the submitted LVIA, planting on the site edge is required to soften the impact of the development and screen the new buildings from passing road users and local residents circulating around the site. Mitigation buffer planting will reduce the visual impacts of the proposed development and is essential on the northern and eastern boundaries should this application be progressed.

The layout allows for wide planted verges with specimen trees along the northern edge of the main estate road to create a sense of character within the development. This should be replicated on the southern side of the main road, and allow for tree planting in the front gardens that is able to develop and thus contribute to the future street scene. Tree planting should be extended along the main road so that visitors turning into the development from Thirsk Road experience views of a tree lined corridor.

The open space to the south of the housing should be used to create an informal parkland open space. This should include clumps of trees utilising native forest size species such as Beech, Lime and Oak and Pine to suite the rural nature of the existing landscape, rather than scattered incidental trees as shown. This parkland character can be extended into the housing areas. Within the open space itself areas of wildflower grassland can be created to improve the biodiversity of the site especially next to the wooded area to the south. Where space allows large trees such as Beech, Lime and Oak could be used to continue the 'parkland theme' in these areas.

Summarv

It is considered that while a change in the local landscape character would be noticeable due to the change from an agricultural field to the proposed development, the predicted change would

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be relatively small due to the limited extent of the views and the proximity of existing housing north of Green Lane and west of the railway line.

There are no landscape and visual objections to the proposed development, although the Highways Transport & Environment Manager would request some minor amendments to the buffer planting along the southern boundary. It is considered that these matters can be addressed as part of the detailed design submitted within any Reserved Matters Application.

Hard Landscaping, Street Furniture, Lighting and Enclosure

As part of any reserved matters application details of all hard landscaping, street furniture, including lighting and enclosure details should be provided. The principals of enclosure should relate to the hierarchy of housing as outlined in the spatial syntax drawing, and the position in the development.

Maintenance

The public open space (POS) including areas will have be maintained and managed in perpetuity. This may be through Title Transfer to SBC or through a management company or other appropriate organisations as deemed acceptable by the LA if not transferred to SBC.

A condition should be added to any recommendation for approval that requires the reserved matters application to provide long term management proposals for the POS on this site for a period of 25 years.

Environmental Policy

Prior to the commencement of development details of on-site renewable energy equipment shall be submitted to the local planning authority which details how the predicted carbon savings emissions of the development will be reduced by at least 10%, above and beyond what is required to comply with Part L Building Regulations.

Before the development is occupied the renewable energy equipment as approved shall have been installed and brought into use to the written satisfaction of the local planning authority. The approved scheme shall be maintained in perpetuity thereafter unless otherwise agreed in writing by the local planning authority.

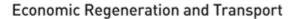
As details of the proposed renewable energy equipment is yet to be submitted and this should be secured by condition.

Flood Risk Management

The proposed development is in a Flood Zone 1 (FZ1) and the Environment Agency flood maps show a low risk of surface flooding, a 0.1% (1 in 100 year event) chance in any year, in the south eastern corner of the site.

The proposed development must not increase the risk of surface water runoff from the site or cause any increased flood risk to neighbouring sites. Any increase in surface water generated by the proposed development or existing surface water / groundwater issues on the site must be alleviated by the installation of sustainable drainage system within the site.

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If the applicant proposes to discharge surface water into an ordinary watercourse a land drainage consent will be required from the Lead Local Flood Authority (LLFA). A land drainage consent is separate application that could take up to 8 weeks for completion and no works on the watercourse can proceed until consent has been approved by the LLFA.

Surface water discharges from this site shall be flow regulated to ensure that flooding problems elsewhere in the catchment are not exacerbated. The layout of any proposed development and sustainable drainage system should be designed to mimic natural drainage flow paths, utilising existing natural low-lying areas and conveyance paths where appropriate.

The Flood Risk Assessment (FRA) does not mention that all surface water runoff generated by any storm events up to including the 1 in 100+ climate change, must be contained within the site without causing flooding to properties and main infrastructure, or entering any other drainage systems or water body.

The FRA also makes no reference to "Urban Creep" and an allowance of 10% should be included within the detailed surface water drainage design.

The Flood Risk Assessment contains no details of who will be adopting and maintaining the surface water management system.

The developer will need to provide a detailed program including time table for the construction of the main surface water drainage infrastructure.

Based on the above the applicant has not provided sufficient detail regarding the management of surface water runoff from the proposed development, however, as this application falls with FZ1 the provision and approval of this information can be secured by condition.

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Appendix 2 - Conditions

UDHC06d	Discharge of Surface Water	The development hereby approved shall not be commenced on site, up a scheme of 'Surface Water Drainage and Management' for the implementation, maintenance and management of the sustainal drainage scheme has first been submitted to and approved in writing the Local Planning Authority. The scheme shall be implemented a thereafter managed and maintained in accordance with the approved details, The scheme shall include but not be restricted to providing the following details;						
		Detailed design of the surface water management system A build program and timetable for the provision of the critical surface water drainage infrastructure A management plan detailing how surface water runoff from the site will be managed during construction Phase Details of adoption responsibilities; Management plan for the Surface Water Drainage scheme and any maintenance and funding arrangement;						
		The building hereby approved shall not be brought into use until the approved 'Surface Water Drainage' scheme has been implemented and the approved scheme shall be maintained in accordance with the Surface Water Management scheme for the lifetime of the development.						
		Reason:_ To ensure the site is developed in a manner that will not increase the risk of surface water flooding to site or surrounding area, in accordance with the guidance within Core Strategy Development Plan Policy CS10 and the National Planning Policy Framework.						
UDHC06e	Discharge of Surface Water	The development permitted by this planning permission shall only be carried out in accordance with the approved Flood Risk Assessment (FRA) & Drainage Strategy dated July 2016.						
		Reason: To prevent flooding by ensuring the satisfactory storage of / disposal of surface water from the site and to reduce the risk of flooding to the proposed development and future occupants.						
UDHC18b	Construction Management Plan	A Construction Management Plan shall be submitted and agreed, prior to the commencement of development on each phase, with the Local Planning Authority to agree the routing of all HGVs movements associated with the construction phases and to effectively control dust emissions from the site works, this shall address earth moving activities, control and treatment of stock piles, parking for use during construction and measures to protect any existing footpaths and verges, vehicle movements, wheel cleansing, sheeting of vehicles, offsite dust/odour monitoring and communication with local residents.						
		Reason: In the interests of the occupiers of adjacent and nearby premises.						

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UDHC26	Travel Plans	Prior to the development being brought into use, a Travel Plan shall be submitted to and approved in writing by the Local Planning Authority in consultation with the Highway Authority. This shall include: (i) the appointment of a travel co-ordinator (ii) a partnership approach to influence travel behaviour (iii) measures to encourage the use of alternative modes of transport other than the private car by persons associated with the site (iv) provision of up-to-date details of public transport services (v) continual appraisal of travel patterns and measures provided through the travel plan (vi) improved safety for vulnerable road users (vii) a reduction in all vehicle trips and mileage (viii) a programme for the implementation of such measures and any proposed physical works (ix) procedures for monitoring the uptake of such modes of transport and for providing evidence of compliance.
		The approved Travel Plan shall be implemented and the development shall thereafter be carried out and operated in accordance with the approved Travel Plan. Reason To establish measures to encourage more sustainable non-car modes of transport.
UDEP01	10% Renewables	Prior to the commencement of any of the development hereby approved a written scheme shall be submitted to and approved in writing by the local planning authority which details how the predicted CO2 emissions of the development will be reduced by at least 10% through the use of onsite renewable energy equipment. The carbon savings which result from this will be above and beyond what is required to comply with Part L Building Regulations. Before the development is occupied the renewable energy equipment as approved shall have been installed and brought into use to the written satisfaction of the local planning authority. The approved scheme shall be maintained in perpetuity thereafter unless otherwise agreed in writing by the local planning authority. Reason: In the interests of promoting sustainable development in accordance with Stockton on Tees Core Strategy Policy CS3 (Sustainable).
		accordance with Stockton on Tees Core Strategy Policy CS3 (Sustainable living and climate change).
UDLV07	Tree Assessment	Notwithstanding the proposals detailed in the Design and Access Statement/ submitted plans (whichever is applicable) .All trees on site and within 10m of its external boundary shall be indicated on the Site Survey Plan. These trees shall be assessed in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations section 4.
		The assessment should concur with the latest site plans and include for the following information:

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		 (i) A plan to scale and level of accuracy appropriate to the proposal showing the position of every tree on and adjacent to the site with a stem diameter over the bark measured at 1.5 metres above ground level at 75mm and all root protection areas. (ii) A tree schedule as detailed in BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations (iii) A schedule of all tree works specifying those to be removed, pruning and other remedial or preventative work. (iv) Details of any ground level changes or excavations within 5 metres of the Root Protection Area of any tree to be retained including those on adjacent land. (v) A statement setting out long term future of the trees in terms of aesthetic quality and including post development pressure. (vi) Details of any statutory of domestic services shall be designed in accordance with Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook 19th November 2007 Reason: To assess the existing trees on site that the Local Planning Authority consider to be an important visual amenity in the locality and should be appropriately maintained.
UDLV08	Retention of existing trees shrubs hedge	Notwithstanding the proposals detailed in the Design and Access Statement/ submitted plans (whichever is applicable) a plan shall be submitted identifying the trees to be retained on the site all trees indicated for retention shall be retained and maintained for a minimum period of 25 years from practical completion of the development. No tree, shrub or hedge shall be cut down, uprooted or destroyed, topped or lopped other than in accordance with the approved plans Any tree, shrub or hedge or any tree/shrub or hedge planted as a replacement that dies or is removed, uprooted or destroyed or becomes seriously damaged or defective must be replaced by another of the same size and species unless directed in writing by the Local Planning Authority Reason: To protect the existing trees/shrubs and hedges on site that the Local Planning Authority consider to be an important visual amenity in the locality and should be appropriately maintained
UDLV09	Tree Protection	No development shall commence until full details of proposed tree protection has been submitted to and approved in writing by the Local Planning Authority. Such protection shall comply with (Section 7, BS 5837:2005 and Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) Operatives Handbook 19th November 2007). The requirements of Stockton on Tees Borough Council in relation to the British Standard are summarised in the technical note ref INFLS 1 (Tree Protection), which is available upon request. Any such scheme agreed in writing by the Local Planning Authority shall be implemented prior to any equipment, machinery or materials being brought to site for use in the development and be maintained until all the equipment, machinery or surplus materials connected with the

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		development have been removed from the site.
		Reason: To protect the existing trees on site that the Local Planning Authority consider to be an important visual amenity in the locality that should be appropriately maintained and protected.
UDLV11	Maintenance Softworks	No development shall commence until full details of proposed soft landscape management has been submitted to and approved in writing by the Local Planning Authority.) The soft landscape management plan shall include long term design objectives, management responsibilities and maintenance schedules for all landscape areas/ retained vegetation, other than small privately owned domestic garden [delete as required] shall be submitted to and approved in writing by the Local Planning Authority and implemented in accordance with the approved plan prior to the occupation of the (i) Development; (ii) or approved phases. Any vegetation within a period of 5 years from the date of from the date of completion of the total works that is dying, damaged, diseased or in the opinion of the LPA is failing to thrive shall be replaced by the same species of a size at least equal to that of the adjacent successful planting in the next planting season.
		Landscape maintenance shall be detailed for the initial 5 year establishment from date of completion of the total scheme regardless of any phased development period followed by a long-term management plan for a period of 20 years. The landscape management plan shall be carried out as approved Reason: To ensure satisfactory landscaping to improve the appearance of the site in the interests of visual amenity.

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