Consultation Response from KC, Highways Development Management (HDM)		
2023/93667 Storthes Hall Student Village, Storthes Hall Lane, Kirkburton, Huddersfield, HD8 0WA		
Outline application for demolition of buildings and erection of residential development (up to 261 dwellings), redevelopment of Lodge Cottage for residential use and associated works.		
Date Responded: 31/03/25	**Responding Officer:** A.Darwin	**Responding Ref:** K12-27/4

RECOMMENDATION: No objection, subject to conditions and S106 requirements

Development Overview:

The site is located at Storthes Hall and is currently occupied by student accommodation. The site forms part (10.2Ha) of Local Plan site allocation MDGB1 that has a suggested indicative capacity of 505 dwellings for the entire site (28.8Ha in total). Planning approval has previously been granted on the southwest part of the MDGB1 site, for the creation of a 300 unit retirement community and carehome (outline planning approval ref.2012/91503).

The applicant has submitted an outline planning application for a residential development of up to 261 no. dwellings and associated works. Following clarification provided by the applicant during the determination period, outline approval is sought with means of access only. Therefore, site layout and other matters are not being considered at this stage, and would be dealt with by a future Reserved Matters application(s). Notwithstanding this, the applicant has provided an indicative masterplan for the site, indicating how the site could be developed.

The site is currently occupied by DIGS student accommodation, Costcutter Convenience Store and 'The Venue' Bar & Kitchen. However, it is understood that these uses have now ceased since the submission of the planning application.

Various sports facilities are also located to the south of the Site. This includes 4no. adult football pitches and 2no. children's pitches , in use by Shelley Community Football Club. An all-weather pitch with floodlighting is also in use by Huddersfield Dragons Hockey Club. It is not intended that the development would impact the ongoing use of these sports facilities, and access to these facilities will be maintained through the site following development.

The development site is bound to the southwest by the former Storthes Hall Hospital land, which has been cleared for development since circa 2005 (for the aforementioned retirement community and carehome). Access to this development site is proposed via a new access (not yet constructed) on to Storthes Hall Lane.

Reference to Plans/Documents:

Since the planning application was originally submit, HDM have been liaising with the applicant and their transport consultant to address highways and transport issues associated with the development proposals. This has included extensive discussions regarding the site access and off-site highway works proposals. The applicant has also provided further supporting information, including additional traffic assessments to address issues previously raised by HDM.

The following list includes that latest transport related information that has been submitted in support of the proposals and has informed this consultation response:

- Indicative Masterplan – Ref. 1826-MP-01 dated November 2024 (by Parker Peel Architectural);
- Transport Addendum – Ref. 18092 dated December 2024 (by Optima Highways);
- Stage 1 Road Safety Audit Brief – Dated 14/02/2025 (by Optima Highways and approved by Kirklees HDM);
- Stage 1 Road Safety Audit - Dated 27/02/2025 (by Road Safety Initiatives);

- Stage 1 Road Safety Audit Response Report - Dated 18/03/2025 (by Optima Highways and approved by Kirklees HDM);
  Northern Access Drawings
- Optima drawing no. 18092/GA/01/REV F – General Arrangement
- Optima drawing no. 18092/ATR/01/REV B – Vehicle Swept Path Analysis
  Southern Access Drawings
- Optima drawing no. 18092/GA/06/REV B – General Arrangement
- Optima drawing no. 18092/ATR/05 REV B – Vehicle Swept Path Analysis
  Off-site Improvement Scheme Drawings
- Optima drawing no. 18092/GA/05/REV D – General Arrangement
- Optima drawing no. 18092/ATR/04/REV D – Vehicle Swept Path Analysis
- Optima drawing no. 18092/IN/06/REV D – Traffic Regulation Orders

Site Access and Internal Layout:

The Storthes Hall student accommodation site (known as the DIGS) is currently accessed via two priority junctions onto Storthes Hall Lane, with the northern access being entry only and the southern access being exit only. The accesses are then connected via a one-way (clockwise) route through the site, which provides access to the student accommodation and it's ancillary facilities (including a publicly accessible bar/restaurant).

The site accesses and internal roads also provide access to other land uses within the wider Storthes Hall site (outside of the development site boundary), which include a number of sports pitches and other uses that are to be retained following development. The internal roads also previously accommodated a student bus service through the site.

As the proposals are in outline only, the internal site layout is not being considered in detail at this stage. However, the following access strategy and requirements are anticipated, and have been taken into account in the revised site access design proposals:

- The existing separate entry and exit vehicular accesses on to Storthes Hall Lane are proposed to be converted to two-way accesses. This approach has been taken to minimise through traffic on Storthes Hall Lane, by enabling site traffic to use either access based on direction of travel; and to facilitate a two-way bus route through the site (see further comments below regarding public transport access);
- A new/upgraded two-way spine road would be provided through the site, which would provide access to the residential development and facilitate the bus route, and be designed to an adoptable standard.
- Access to the retained uses (e.g. sport facilities) to be retained. This is likely to be via an existing section of one-way private road that runs around the perimeter of the development site. This route would be largely unaffected by the proposals and is anticipated to remain a private estate road. This route would then connect into the new two-way spine road. Existing 'on-street' parking on this private estate road, which is used for leisure purposes (e.g. walkers in the adjacent woods) and as overspill parking for the sports pitches is to be maintained.

The above design principles are acceptable. However, further details will need to be agreed at the Reserved Matters stage, and a suitably worded condition(s) are required to secure the internal layout arrangements and phasing.

It is anticipated that the internal spine road and other residential estate roads will be offered for adoption. However, due to the extensive tree cover within the site and other constraints (e.g. heritage assets etc), some non-standard highway features are likely to be necessary. Therefore, at the Reserved Matters stage, the applicant will need to work closely with the Councils S38 Team to ensure that an adoptable standard layout is achieved.

As the development proposals are in outline, it is not yet possible to determine the optimum arrangements for active travel users accessing and circulating within the site. This includes ensuring safe and suitable access arrangements are provided for key desire lines, including connections with Storthes Hall Lane (over and above those provided at the two main access points), to existing and proposed public rights of way (PROWs include KIR/61/20 on the north side of Storthes Hall Lane, and claimed route KIR/dmmo app136/20 through the site and

the woods to the south) and to the adjacent development site. A pedestrian/cycle link should also be provided within the site, running parallel to Storthes Hall Lane, as currently indicated on the Illustrative Masterplan. Further details of active travel links and connections into and within the site should be secured by condition.

The proposed works to the site accesses on to Storthes Hall Lane are shown on the preliminary design drawings 18092/GA/01/REV F and 18092/GA/06/REV B for the northern and southern accesses respectively. These upgraded site access arrangements have been tested using swept path analysis to confirm that they can accommodate the turning movement of large vehicles, including the Kirklees design refuse vehicle, and a public service bus. The site access arrangements have also been subject to a Stage 1 Road Safety Audit (RSA), and all recommendations have been taken into account in the designs. Therefore, the site access proposals are acceptable in principle.

Below is a summary of some of the key design issues at the upgraded site accesses are as follows:

Northern Site Access

- The existing entrance is to be converted to a two-way vehicular access, and the existing security barriers are to be removed.
- Junction visibility is to be improved, to enable 2.4x90m visibility splays (measured to nearside wheeltrack) to be provided. These splays have been determined based on DMRB (based on 'one step below desirable minimum' SSD parameters) and MfS guidance, and are informed by the existing speed limit on Storthes Hall Lane and recorded vehicle speeds. These visibility splays will enable the access to operate safely on a two-way basis, but have been kept to minimum DMRB standards to minimise impact on the adjacent boundary walls and trees.
- The existing junction bellmouth is currently very wide. Therefore, to encourage lower turning speeds at the junction, the junction radii have been reduced to 10m. However, the reduced radii are still able to accommodate the turning movement of large vehicles (e.g. buses).
- The site access is proposed to include an improved footway link on the south side. Typically adoptable estate roads require footways on both sides. However, a single footway is proposed in this instance, to minimise impact on trees and the listed gate-posts, with a 0.6m margin provided instead of a second footway. This is acceptable in this instance, given that the initial section of site access road will not directly serve any dwellings.
- The site access carriageway is to be widened to 6.5m for the initial section (widening to 6.75m further into the site) to accommodate two-way use by buses and other large vehicles.
- To accommodate the site access alterations, it is necessary to amend the existing boundary walls, listed gates (and gate posts), and steps at the existing security lodge. This includes relocating the existing gates to the back of the proposed highway, which would then be fixed in an open position. These indicative proposals have been developed to minimise impact on these heritage assets and maintain their character; and the changes are understood to be acceptable in principle to the Councils Conservation and Design Team.

Southern Site Access

- The existing exit is to be converted to a two-way vehicular access, and the existing security barriers are to be removed.
- Following recommendations made in the Stage 1 Road Safety Audit, Storthes Hall Lane is proposed to be locally widened (by circa 1-1.5m) within the vicinity of the access. This is to enable traffic to turn and pass within the vicinity of the junction, even when on-street park takes place opposite the junction (that frequency occurs, particularly outside of daytime periods). To enable the carriageway widening, it has been necessary for the access to be relocated circa 15m to the north. The access relocation has been kept to a minimum, but still results in some impact on a number of mature trees. Therefore, careful design will be required at the detailed design stage, to minimise the impact on trees and the associated tree loss.
- Junction visibility is to be improved, to enable 2.4x90m visibility splays (measured to nearside wheeltrack) to be provided. These splays have been determined based on DMRB (based on 'one step below desirable minimum' SSD parameters) and MfS guidance, and informed by the existing speed limit on Storthes Hall Lane and recorded vehicle speeds. These visibility splays will enable the access to

operate safely on a two-way basis, but have been kept to minimum DMRB standards to minimise impact on the adjacent boundary walls and trees.

- The relocated junction has been designed with 10m radii (and tapers on the minor arm) to accommodate the turning movement of large vehicles (e.g. buses), and takes into account the presence of on-street parking opposite the junction on Storthes Hall Lane.
- The site access road is designed to accommodate a 6.75m wide spine road (designed to residential collector road standard, and to accommodate a future bus route), with 2m wide footways on both sides.

Off-site Highway Works

As identified in the Local Plan site allocation box *'development proposals will need to fully assess any impact on the junction of Storthes Hall Lane and Penistone Road, and if necessary include improvement to that junction'*.

The above requirement is due to the layout of the junction and adjacent highway network being constrained and not to current design standards. Whilst an interrogation of personal injury collision data over the most recent 5 year period has not identified any significant pattern or trends at the junction (there have been only two recorded incident that were slight in severity), it is clear that there are operational and safety issues associated with the existing highway layout and associated features.

In addition to the layout issues at the Storthes Hall Lane / Penistone Road junction, there is a lack of continuous footway provision connecting Storthes Hall Lane to Penistone Road and the wider footway network in Kirkburton (leading to the various amenities and local schools). This includes the narrow bridge on Storthes Hall Lane where there is no footway, and that is not of sufficient width to allow vehicles to pass comfortably. There is also a lack of pedestrian crossing provision on Penistone Road, which is difficult to cross due to the relatively high traffic flows and speeds (40mph speed limit).

Therefore, in consultation with HDM and with input from various Highway Authority teams (including Highway Safety and UTMC), the applicant has now proposed a package off-site highway improvements that seek to address operational and safety issues. The scope for improvements is relatively limited due to existing highway constraints (in terms of available width and horizontal/vertical alignment). However, the measures are considered to provide significant improvements over the current situation, to the benefit of existing and future highway users.

The proposed off-site works are shown on drawings 18092/GA/05/REV D and 18092/IN/06/REV D, with a summary of the works and associated benefits as follows:

Storthes Hall Lane / Penistone Road junction (northern two-way link)

- Existing on-street parking takes place within the vicinity of the junction, including within the junction mouth, opposite the junction, and on the initial section of Storthes Hall Lane. This parking impacts turning movements at the junction, obstructing right turners into Penistone Road, and passing traffic on Storthes Hall Lane (particularly at peak times, when queues occur on Storthes Hall lane) and Penistone Road. Therefore, 'No waiting' double yellow lines (DYL) markings are recommended at the junction, to discourage obstructive parking, which includes DYL opposite the junction, and on the initial sections of Storthes Hall Lane. The proposed DYL have been kept to a minimum, to ensure the impact on dwellings (who do not benefit from off-street parking) are not adversely affected by the proposals, and a number of formalised parking bays have been retained at the top of Storthes Hall Lane.
- Junction visibility looking to the right from the Storthes Hall Lane minor arm on to Penistone Road is restricted due to the presence of the existing retaining wall, guard railing and vegetation, with a visibility splay of circa 2.4x25m currently available, measured to the front of the guard railing. Therefore, it is proposed to rebuilt the initial section (circa 17m) of retaining wall, which will enable the guard railing (or a new parapet) to be set back to improve visibility to circa 2.4x37m, measured to the front of the guardrail / parapet, or 2.4x53m when looking over/through the new guardrail / parapet (subject to detailed design development that will aim to facilitate this).
- Minor changes are proposed to the road markings on the Storthes Hall Lane arm of the junction and the ghost island right turn lane, to ease turning movements at the junction and encourage better vehicle positioning for right turners in/out of Storthes Hall Lane.
- A new traffic island on Penistone Road in advance of the right turn ghost island, to discourage over-taking on approach and through the right turn lane.

Storthes Hall Bridge

Storthes Hall Bridge is narrow (circa 5m wide), which restricts the two-way flow of vehicles. There is also no footway provision over the bridge or on it's immediate approaches.

Improvement works have been investigated to consider how a continuous footway link can be provided over the bridge (in conjunction with other improvements linking Storthes Hall Lane and Kirkburton village centre – see separate comments below). Consideration was initially given to a single lane priority working system for vehicles over the bridge, to enable a footway to be provided. However, following initial concept designs, this option was not considered to be workable.

Therefore, following advice from the Councils Highway Safety Team, it was determined that the only viable option to provide a footway over the bridge (without the use of third party land), is to provide three way traffic signals. This would allow for shuttle working over the bridge, and operate in a similar manner to the traffic signals on the A637 in Flockton village. The operation of these proposed traffic signals has been assessed by the Councils UTMC team, who have confirmed that they will be able to operate adequately in this situation. In terms of the exact traffic signal design and operation, this would be determined at the detailed design stage, utilising the latest traffic signal technology available at that time. However, it is envisaged that the signals would usually sit on an 'all red' stage, which would then change to a green signal based on an approaching traffic demand, and would be the most efficient form of operation. That said, priority would be given to traffic approaching from Penistone Road, to ensure that blocked back does not occur. This traffic signals would also be able to help manage traffic flows approaching Penistone Road, by holding back traffic away from the junction when queuing occurs.

The proposed traffic signals/shuttle working enables the carriageway to be narrowed over the bridge to a single lane width (3.7m), with a 1.2m wide footway provided on the south side, which would then connect to the existing footways on either side of the bridge.

To ensure that blocking doesn't not occur within the vicinity of the bridge, 'No waiting' double yellow lines (DYL) markings have been recommended. However, a marked parking bay would be retained on the existing one-way section of Storthes Hall Lane adjacent to the existing dwellings, for use by visitors.

Pedestrian / cycle Improvements on Storthes Hall Lane, Penistone Road and North Road

To facilitate pedestrian access between Storthes Hall Lane and Kirkburton village centre via North Road, the following improvements are proposed:

- On the existing one-way section of Storthes Hall Lane that connects to Penistone road immediately north of the Spring Grove Tavern PH, the existing footway is proposed to be extended, to connect the new footway over Storthes Hall Bridge, to the start of the footway adjacent to the pub, where no footway is currently available. Due to the width of this section of highway, the footway would be reduced to a minimum of 1m for a short section. The existing footway along this section of Storthes Hall Lane is also proposed to be widened where possible. Measures to prevent pedestrian falling over the high retaining wall adjacent to the new footway will be provided (e.g. increased wall height, guard railing and/or handrail, as recommended in the Stage 1 Road Safety Audit).
- At the junction of Storthes Hall Lane and Penistone Road, adjacent to Spring Grove Tavern PH, the new footway would be built out to narrow the junction entry, thereby encouraging lower traffic speeds of left turning traffic entering Storthes Hall Lane. Dropped pedestrian crossing facilities would be provided in this location, as well as bollards to prevent vehicles overrun of the new footway.
- A new controlled crossing (toucan) is proposed on Penistone Road, immediately north of the North Road junction, and south of the existing fish and chip shop. The crossing has been designed to minimise impact on the parking adjacent to the fish and chip, which will still be possible on the north side of the crossing. 'Keep Clear' markings are proposed on the northbound approach to the crossing, to facilitate gaps in queuing traffic at the crossing, which will assist exiting vehicles from the North Road junction.

The proposed controlled crossing on Penistone Road has also provided the opportunity to assist right turning cyclists from North Road to Penistone Road. This is achieved by creating a short section of shared cycle/footway on the northwest side of North Road that links to the new controlled crossing. The controlled crossing would be provided as a Toucan crossing, which would allow cyclists to turn right on to Penistone Road, without conflict with vehicular traffic, thereby also improving safety for cyclists. It would also allow cyclists to bypass some of the traffic queuing that occurs on the North Road arm, to reduce journeys times for cyclists. These measures provide an additional benefit to the scheme, which accord with the principles set out in DfT guidance (LTN 1/20 Cycle Infrastructure Design) and the West Yorkshire Vision Zero strategy, and complies with local and national planning policy objectives.

To facilitate the section of cycle/footway on North Road, 'No waiting' restrictions are proposed on the initial section, to ensure that parked cars do not obstruct the junction, passing traffic and the pedestrian / cycle facilities. This would result in some existing on-street parking that currently occurs on the south side of North Road being moved further to the south (by circa 30m).

All of these highway improvements have now been subject to a Stage 1 Road Safety Audit, with all issues that were raised being addressed.

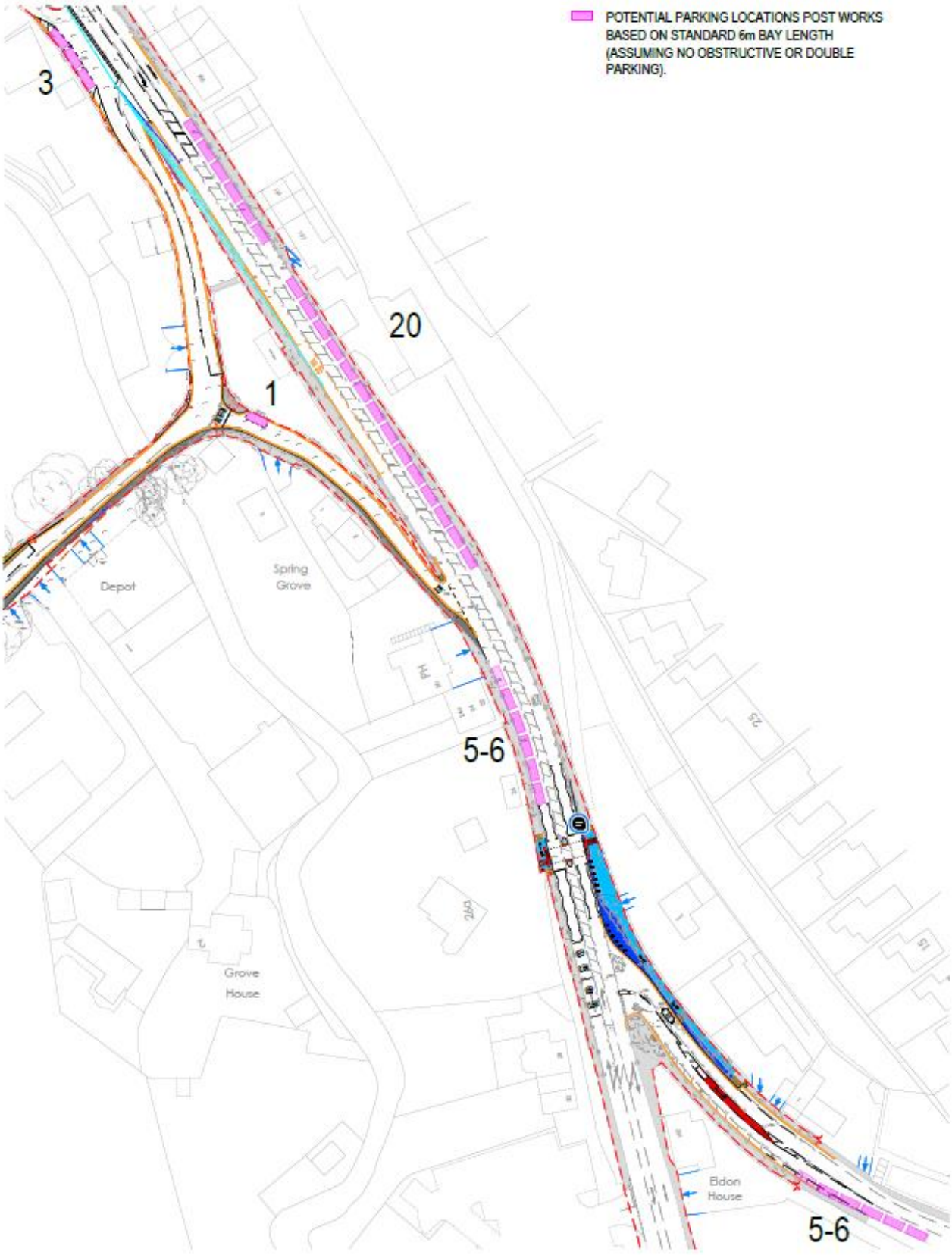
Therefore, the proposed off-site highway works are acceptable, and are considered suitable to address existing issues on the local network, and will provide benefits to existing and future highway users, with particular emphasis on active travel users. These works will need to be secured by condition and implemented via a S278 agreement.

Local concerns have been raised regarding the 'no waiting' double yellow line (DYL) marking proposals, including concerns from adjacent property owners, some of which do not benefit from off-street parking facilities, as the proposals would result in some existing on-street parking being affected. However, it is noted that the proposed 'no waiting' markings that have been shown are indicative only (to inform the Road Safety Audit process), and would be subject to the statutory consultation process required for all traffic regulation orders (TRO), which would occur at the detailed design stage should the scheme/development progress. Therefore, the DYL information currently shown on the plans is provided for illustrative purposes only at this stage. If the proposals do progress, the impact on available on-street parking will continue to be considered as the design develops, and the impact on local residents/occupiers will be taken into account. The proposals would also be subject to further Road Safety Audits, both at the detailed design stage (RSA2) and post implementation (RSA3) stage, to ensure that all safety issues are taken into account.

The sketch below provides an indication of where on-street parking could continue to occur following implementation of the works based on the current preliminary design information, with potential parking locations shown in pink. This indicates that on-street parking will remain available for properties that do not benefit from off-street parking within the vicinity of the works, including:

- 3 No. formalised bays within the Storthes Hall Lane / Penistone Road junction mouth;
- At least 20 No. spaces on the east side of Penistone Road to the south of the Storthes Hall Lane / Penistone Road junction (prior to bus stop to the south);
- 5-6 No spaces on the south side of North Road, between Penistone Road and the access to Kirkburton Hall;
- 5-6 No. spaces on the west side of Penistone Road immediately north of the proposed Toucan crossing and adjacent to the fish and chip shop.

Kirklees COUNCIL



Sustainable Transport / Accessibility

Public Transport

Following the closure of the student accommodation, it is understood that the student bus service has now ceased. Therefore, there are no existing bus services within the vicinity of the site, with the nearest services available on Farnley Road to the south and Penistone Road to the north. These services are beyond recommended walking distances and are also limited in terms of frequency and route choice.

Therefore, as recommended by WYCA in their formal consultation response dated 21/01/24, the applicant has confirmed that they will provide funding to enable a new hourly bus service to be provided. This would include funding of £200,000 per year for 5 years (e.g. **£1,000,000** in total), which would enable a new (or diverted / enhanced) bus service to be established. This will need to be secured via the S106 agreement.

The timing of the bus service contribution and implementation of the bus service needs to be agreed with the applicant. However, the aim should be to commence the bus service as soon as practical once the development is occupied, to ensure public transport use is embedded at the earliest opportunity. HDM have sought the views of WYCA on this matter, who have confirmed that commencing the service no later than the occupation of the 50th dwelling would be a sensible trigger, which should enable some demand for the service to be created (in addition to existing residents on Storthes Hall Lane that would also benefit from the service), and to allow adequate on-site infrastructure to be implemented to accommodate the bus route through the site.

At this time, WYCA are unable to confirm the optimum bus route/service option that will be available, as this will be dependant on the wider public transport provision available at the time of implementation, which is subject to change (particularly in view of the forthcoming bus franchising changes that are taking place in West Yorkshire). Therefore, WYCA have requested that sufficient flexibility is provided within the S106 wording, to enable the funding to secure the best available bus service that may be achievable, and to maximise the benefit of the contribution.

WYCA have also confirmed that there would be scope for the service to operate through the site prior to full adoption of the internal streets and spine road, which will enable the early introduction of the service. However, temporary arrangements for the bus route may be required if the spine road has not been fully completed at that time. These matters can be secured by planning condition / S106 agreement.

In addition to the bus service contribution, WYCA have requested that 2 No. bus shelters with realtime displays are provided at the new bus stops within the site. The cost of these have recently increased to £20,000 per shelter and £12,000 per realtime display. Therefore, provision of these facilities will require a S106 contribution of **£64,000**, which has been agreed by the applicant. In addition to this contribution, the bus stop designs will need to be incorporated into the spine road layout, including the provision of bus boarder kerbs etc.

Alongside the bus stop/service improvements, WYCA have also recommended that a Sustainable Travel Fund (STF) is provided by the development, which Kirklees Council usaully request for all residential sites that have a formal Residential Travel Plan (typically where 50 units or more are proposed). The Sustainable Travel Fund value should be based on the Residential MCard Scheme based on a bus only MCard, which is currently £511.50 per dwellings. This equates to a Sustainable Travel Fund value of **£133,501.50**, based on the 261 dwellings currently proposed and should be secured by S106 agreement, which has again been agreed with the applicant.

As the development includes over 50 dwellings, a Travel Plan is required. A draft Residential Travel Plan has been submitted with the planning application, which will need be developed further prior to occupation, and include the above Sustainable Travel Fund and associated measures that have been agreed with the LPA. As such, the details of the final Travel Plan should be secured by condition / S106, and the Travel Plan implemented upon first occupation.

Kirklees Council will require a Travel Plan Monitoring Fee to be secured as part of the S106 agreement. For a development of this scale (classed as a 'large scale major residential development') the fee is **£15,000.00** (£3,000 per year for 5 years), which has been acknowledged and agreed with the applicant.

Pedestrian / Cycle Accessibility

The site is relatively remote from local amenities, with the nearest significant facilities located in Kirkburton (and Highburton) village centre, which is circa 2km from the site. The gradients on route to these local amenities are also relatively steep. Therefore, development users are likely to be reliant on private motor vehicles and public transport for the majority of journeys when accessing a range of local services.

However, the facilities in Kirkburton would be accessible by more able pedestrians and cyclists. Whilst these trips are likely to be relatively low, the applicant has proposed a package of pedestrian improvements (as previously described), to address existing gaps in provision that will enable pedestrians to safely walk to these amenities. These improvements will be of benefit to both existing users and development occupiers.

Pedestrian access facilities have been incorporated into the site access designs. As the design of the development progresses at the Reserved Matters stage, additional pedestrian and cycle accesses and routes within the site will need to be developed to suit existing and future desire lines. High quality cycle parking and other active travel facilities will also need to be incorporated. The matters should be secured by condition.

In summary, whilst it is accepted that development users will be largely reliant on private motor vehicles and public transport, the applicant has sought to provide measures that will encourage and facilitate active and sustainable travel options where possible. These improvements are welcome, and are consistent with local and national policy objectives.

Construction Access Strategy and phasing

A Construction Management Plan (CMP) is required for the development and should be secured by planning condition, which must specifically include details of wheel washing facilities and street cleansing. Highway condition surveys (pre and post construction) and remediation is also required and secured by condition.

Due to the scale of development, a phasing strategy for the delivery of on site infrastructure will be required. This will need to take into account the access requirement of the retained site uses (e.g. sports facilities etc.) and also the requirements to deliver bus service facilities within the site at a relatively early stage in the development delivery. This may require temporary access/turning facilities to be provided at various stages of the development. These matters should be secured by condition.

Traffic Impact

The applicant submitted a Transport Assessment (by Optima Highways) with the initial planning submission. Following issues raised by HDM with the initial submission and traffic assessment methodology, the scope of further assessment work was agreed, which is summarised in the final Transport Addendum report.

Vehicle Trip Generation

Due to the sites relatively remote location, and lack of existing public transport facilities, HDM initially raised concerns regarding the weekday peak hour vehicle trip rates that had been utilised within the assessment. This issue has now been addressed through the agreement of revised trip rates. The agreed trip rates take into account the new bus service that is to be funded by the development, but also takes into account that pedestrian and cycle trips are likely to be lower than more accessible sites.

The weekday peak hour trip rates and associated vehicle trips from the proposed development, based on the maximum number of dwelling envisaged (261 units) are as follows:

Table 3.1 Agreed Trip Rates

Time Period	Trip Rate		
	Arrivals	Departures	Total
AM Peak	0.189	0.441	0.630
PM Peak	0.441	0.189	0.630

Table 3.2 Proposed Traffic Generation

Time Period	Total Vehicular Traffic Generation (261 dwellings)		
	Arrivals	Departures	Total
AM Peak	49	115	164
PM Peak	115	49	164

Traffic Distribution

In the original Transport Assessment, traffic distribution was determined using a census based gravity model. However, following comments from HDM, the applicant has utilised a revised traffic distribution based on existing turning proportions at the site access and on the local highway network. This approach was requested to ensure a robust assessment of traffic impact was undertaken, with 80% of traffic distributed to/from the north via the Storthes Hall Lane / Penistone Road junction, and is acceptable.

Traffic Growth and Committed Development

The traffic assessments have been undertaken at a design year of 2032, which takes account of the following, as agreed with HDM:

- 2022 Base traffic count data has been utilised, with traffic growth then applied using TEMPRO data;
- Committed development traffic from other major development sites has been added, including the adjacent retirement development;
- The net impact of the development has been assessed, taking into account the existing site traffic that would cease following development.

Traffic Assessment

Junction capacity assessments have been undertaken at both improved site accesses on to Storthes Hall Lane, using PICADY modelling. These assessments have confirmed that the proposed simple priority junctions will be able to operate well within capacity, with minimal queuing and delay.

Junction capacity modelling has also been undertaken at the Storthes Hall Lane / Penistone Road junction using PICADY modelling. Using standard modelling parameters, the modelling indicates that the junction would operate within theoretical capacity (RFC of below 1.0). However, this modelling is not considered to fully representative of the operation of the junction, due to it's non-standard nature and associated operational issues (e.g. blocking that can occur for inbound/outbound vehicles, the difficult alignment for right turning traffic etc.).

Therefore, as requested by HDM, the applicants consultants have undertaken additional sensitivity test modelling at the junction. This has been undertaken by validating the base traffic model with existing baseline queue data, to provide a more robust assessment of the junction operation. These additional assessments, which consider a worst case modelling scenario, indicate that the junction would operate at capacity in the weekday AM peak period (Max. RFC of 1.03), but slightly below capacity in the weekday PM peak period (Max. RFC of 0.83). The sensitivity test modelling also confirms that the worst case queuing on Storthes Hall Lane would be 12.8 vehicles, which would not cause blocking back to the proposed three way traffic signals at Storthes Hall Bridge (the traffic signals could also be used to help regulate this queue).

It is concluded that whilst additional development traffic will increase queuing and delay at the Storthes Hall Lane / Penistone Road junction, the traffic impact would not be severe. Furthermore, the improvements proposed at the junction will provide practical benefits to the operation of the junction, including the improved junction visibility and other measures that will reduce the risk of blocking of turning traffic. Therefore, it is concluded that the impact of the development at the junction is acceptable.

The applicant has also undertaken traffic signal modelling at the three way traffic signals at Storthes Hall Bridge and the new Toucan crossing on Penistone Road. The applicants modelling has also been supplemented by further detailed assessments by the councils UTMC Team, using their knowledge of how the signals are likely to operate in practice. This modelling work has determined that the traffic signals will be able to function adequately, without adversely impact on the operation of adjacent junctions.

Summary

Following the submission of additional supporting information, and agreement of a comprehensive package of off-site highway works and sustainable transport measures, the applicant has now addressed all outstanding highways and transportation matters that can be agreed at this outline planning stage. Therefore, HDM offer no objection to the proposals, subject to conditions and S106 contributions/requirements (See below):

HDM Suggested Section 106 Contributions/Requirements (wording/details to be agreed):

- Sustainable Travel Fund / Residential MCard - £133,501.50 (£511.50 per dwelling);
- Travel Plan monitoring fee - £15,000.00 (£3,000 x 5yrs);
- Travel Plan Implementation and management, including appointment of Travel Plan Co-ordinator;
- 2 No. Bus Shelters and Real-time displays on site - £64,000.00;
- Bus service contribution - £1,000,000
- Bus service route and infrastructure delivery and timescales.

HDM Suggested Conditions (wording/details to be agreed):

- Site Access Implementation
- Surfaces to be sealed and drained
- Off-site Highway Works Implementation
- Internal Estate Streets and Active Travel links to be agreed at Reserved matters stage
- Footpath and active travel links into and with the site to be agreed at Reserved matters stage
- Highway Structures Conditions (See separate consultation from HS Team for details)
- Temporary and permanent waste collection arrangements to be agreed and implemented
- Secure Cycle Parking to be agreed and implemented
- Travel Plan to be agreed and implemented
- Construction Management Plan (CMP) to be agreed and implemented
- Highway Condition Surveys and Remediation to be agreed and implemented