



**Tonbridge & Malling Borough Council**

**Highways and Transportation**

Ashford Highway Depot

4 Javelin Way

Ashford

TN24 8AD

**Tel:** 03000 418181

**Date:** 16 October 2020

**Application - TM/19/00014/OAEA**

**Location - Land North Of Lower Haysden Lane, Tonbridge, Kent**

**Proposal - Outline Application: The construction of up to 125 new homes, a 2 form entry primary school, the formation of new means of access onto Lower Haysden Lane, new pedestrian and cycle links (including links to the existing playing fields and Country Park to the west), the laying out of open space, new strategic landscaping, habitat creation, drainage features and associated ground works and infrastructure.**

Thank you for your consultation in relation to the above planning application. I have the following comments to make with respect to highway matters :-

### **Introduction**

This response should be read in conjunction with this authority's previous consultation responses dated the 18<sup>th</sup> February 2019, 1<sup>st</sup> April 2020, and 10<sup>th</sup> August 2020.

It is noted that the proposals have now been amended to remove the requirement for a primary school, with permission now only being sought for 125 dwellings.

Finally, it is acknowledged that the applicant has produced a revised Transport Assessment (TA), revision 6, dated August 2020.

### **Access Arrangements**

#### **Vehicular Access**

Vehicular access arrangements for the site remain unchanged from the previous iteration of the TA (*Revision 5*), with access proposed via a new priority junction and ghost right turn lane on Upper Haysden Lane. These arrangements have previously been the subject of an independent stage 1 road safety audit (RSA), which raised only minor concerns that can be resolved at any future detailed design stage via the S278 technical approval process.

The proposals in the revised TA maintain no entry/exit only arrangements for one arm of the junction, with access only permitted for buses. This continues to address Kent County Council (KCC) Highways requirement for the retention of adequate turning and dropping off arrangements for students undertaking activities at the Judd School's off-site playing facilities.

In accordance with KCC Highways most recent comments, dated 10<sup>th</sup> August 2020, should the proposals be granted consent a Traffic Regulation Order (*TRO*) will be required to facilitate the provision of the proposed access arrangements. This should be the requirement of any potential planning permission.

The applicant has now acknowledged the discrepancy between the visibility values shown on the drawings key (*drawing number: 10246-HL-01*) and measured values. In response to KCC Highways previous comments on this matter the applicant has highlighted that vehicles will either be approaching the crossing points from a stationary position or turning in at low speed. Additionally, the applicant has highlighted the fact that visibility sight lines of 11 to 25 meters are achievable from the crossing points, which is consistent with a design speed of 10 to 15 miles per hour (*mph*). This rationale is acceptable and therefore addresses KCC Highways previous comments.

### **Pedestrian Access**

KCC Highways previously highlighted the requirement for the continuation of the proposed 3-meter shared foot/cycleway to be continued north into the site, owing to the possible provision of a primary school within the site. It is noted that this provision has now been removed due to the school being omitted from the development proposals.

KCC Highways maintain the view that the 3-meter cycleway should be continued into the site along the spine road in the interest of promoting sustainable modes of transport.

### **Growth Rates**

Tempo growth rates using a future year of 2031 have been applied to the traffic surveys previously undertaken by the applicant. To avoid the double counting of development trips the '*alternative assumptions*,' function within the Tempo software has been used. This function removes the 125 dwellings for which permission is being sought, from the overall 2031 growth rate. The use of such an approach to avoid any double counting is acceptable to KCC Highways.

The applicant's revised TA contends that based upon analysis of historical Department for Transport (*DFT*) traffic data the forecast levels of growth are in-fact unlikely to occur. Figures 7b and 7c on page 26 of the TA graphically illustrate the results of this analysis. Whilst KCC Highways acknowledge that this analysis indicates traffic levels have remained stable or dropped between 2000 and 2018, the data does not include 2019. Consequently, traffic levels may have changed in the intervening period.

In addition, Tempo uses a wide range of data, including forecast housing growth and employment opportunities which have not yet been built out and will therefore contribute to future traffic levels. KCC Highways do not therefore agree with the applicant's conclusion that past trends can be used to accurately predict future growth patterns.

### **Trip Distribution**

Census '*Journey to Work*' data for the middle super output area (*Tonbridge and Malling MSOA 13*), which the proposals are in has been used by the applicant to distribute the development trips across the assessment area.

All trips with an end destination outside of the TMBC or within the Tunbridge Wells administrative area have been distributed via the A21, Tonbridge bypass or A26 south. The one exception to this is workplace destinations within the administrative area of Maidstone, where

trips have also been distributed between the A2014, Pembury Road and B2260, Quarry Hill Road (*Tonbridge High Street*).

Finally, trips with a workplace destination within the TMBC administrative area have been distributed via the A21, Tonbridge Bypass, B2260, Quarry Hill Road (*Tonbridge High Street*), Vale Road, A2014, Pembury Road or via the A26, South, dependent on the MSOA in question. Where there is a choice of available routes with similar or equal journey times the applicant has evenly split the trips.

To assign the development trips across the assessment area the applicant has made use of a real time journey planner, in this instance the Google real time journey planner. This approach is also consistent with the methodology used in earlier iterations of the TA

### **Traffic Surveys and Assessment Periods**

Traffic surveys were previously undertaken by the applicant on Wednesday 19<sup>th</sup> October 2019. These assessments have been used by the applicant for the purposes of their traffic impact assessments. The use of these surveys is acceptable in principle to KCC Highways.

To identify the peak hours of demand at each of the assessed junction the assessment the applicant has interrogated the October surveys to identify the actual peak hours of operation at every individual junction. Whilst this results in some assessments being outside the traditionally assessed hours e.g. 08:00 to 09:00 and 17:00 to 18:00, KCC Highways consider the applicant's to be robust as it is based on identified times of peak demand from observed traffic flows.

### **Traffic Impact**

#### **Brook Street junction with A26, Quarry Hill Road (*Roundabout Junction*)**

To mitigate the impact of the development the applicant has proposed the following amendments to the existing junction layout: reducing the inscribed circle diameter (*ICD*) by 3 meters from 25 to 22 meters; increasing the entry width on the Brook Street arm of the junction by 0.55m (*55cm*) from 4.4 to 4.95 meters and increasing the entry width on the A26 arm of the junction by 0.10m (*10cm*) from 7.2 to 7.3 meters.

Neither a drawing illustrating the proposed revised layout of the junction or independent stage 1 RSA has been submitted in support of the proposals. In the absence of a satisfactory stage 1 RSA and corresponding designer's response KCC Highways are unable to form a view on the acceptability of the proposals in safety terms.

KCC Highways have several concerns about the suitability of the mitigating measures put forward by the applicant. Firstly, the Design Manual for Roads and Bridges (DMRB) confirms that the minimum permissible ICD for a non-mini roundabout to be 28 meters. Reducing the already sub-standard ICD of the roundabout is therefore likely to significantly impact on manoeuvrability at the junction for larger vehicles, such as Heavy Goods Vehicles (*HGV's*) and buses. No swept path analysis to demonstrate the suitability of the reconfigured junction layout for large vehicles has been provided by the applicant.

The applicant's capacity assessment suggests that widening of the entry width on the Brook Street Arm of the junction by 0.55m will achieve '*nil detriment*'. Should these amendments be implemented then the entry width at the give way line would increase to 4.95 meters. This is again contrary to the guidance in the DMRB, which confirms that a lane width of no greater than 4.5 meters shall be used at single lane entry roundabouts, such as the Brook Street roundabout. No increase in the number of entry lanes or in the entry flaring at the junction are

proposed on this arm of the junction, thereby creating the potential for areas of unused carriageway, rather than any meaningful improvement that would demonstrably mitigate the impact of the development. KCC Highways are therefore of the view that the results of the applicant's *'improved layout,'* assessment must be treated with significant caution.

Thirdly, in respect of the A26 south arm of the junction the applicant is again only proposing minor widening of the entry width (*by 0.10 meter*), without any increase in the number of entry lanes or entry flaring. The applicant's future year improved layout assessment suggests that this minor widening will again achieve mitigation of impact at this arm of the junction. Given the extremely limited increase in entry width KCC Highways are again of the view that the proposals are unlikely to demonstrably mitigate the impact of the development, particularly given the fact that this arm of the junction is anticipated to operate over theoretical capacity in all scenarios. This limits the confidence that can be attached to the applicants' conclusion that the improvement will achieve effective mitigation as the extent to which the junction is predicted to operate over capacity is likely to have distorted the modelling outputs.

Finally, the applicant's capacity assessment indicates that the entry/conflict angle on the A26 North arm of the junction will reduce by 6 degrees (*from 63 to 57 degrees*) as a consequence of the reconfigured junction layout, due to entry width reducing by 3 centimetres (*6.90 to 6.87m*). No explanation of how such a minor reduction in the entry arm of the junction could lead to the 6-degree change in entry angle has been provided by the applicant. KCC Highways are therefore of the view that the modelling results on this arm of the junction in the future year improved layout scenario represent an unjustified and unrealistic betterment in traffic capacity.

KCC Highways consider that the minor improvements proposed represent a manipulation of the Arcady outputs, rather than a tangible and meaningful improvement that would demonstrably mitigate the impact of the development in practice. It is therefore not considered that the applicant has demonstrated with sufficient confidence that mitigation of impact can be achieved at this junction.

The applicant's TA also highlights the fact that KCC Highways were seeking to bring forward their own cycle improvement scheme at the junction. I can confirm that these have not been progressed to detailed design and are no longer being pursued by KCC Highways. It is therefore unclear what scheme the applicant would make a financial contribution to as suggested within the TA.

### **A26, Quarry Hill Road junction with A2014, Pembury Road and B2260, Railway Approach (Roundabout Junction)**

To mitigate the impact of the development the applicant has proposed minor widening of the junction on the A26, Quarry Hill Road south arm. The widening proposed involves increasing the entry width by 0.35m (*35cm*) from 7.80 to 8.15 meters.

Again, neither a drawing illustrating the proposed revised layout or independent stage 1 RSA and corresponding designer's response has been provided by the applicant. In the absence of a satisfactory stage 1 RSA and corresponding designer's response KCC Highways are unable to form a view on the acceptability of the proposals in safety terms.

The applicant's capacity assessments indicate that the minor widening proposed, without any increase in the number of entry lanes, or entry flaring on this arm of the junction would mitigate the impact of the development on at this arm of the junction. KCC Highways again consider that

in practice this has the potential to create areas of unused carriageway, rather than constituting an improvement that would demonstrably mitigate the impact of the development. On this basis it is considered that the results of the applicant's junction capacity assessment should be treated with significant caution, particularly given the fact that the junction is forecast to operate over theoretical capacity in all scenarios on most arms. This is likely to have distorted the model outputs.

The entry angle on the A26 south arm of the junction has been set at 0 degrees within the junction capacity assessments, this appears to be incorrect and requires correction.

Finally, the applicant has concluded that mitigation of impact can be achieved at this junction on the basis that in the future year scenario with the revised junction layout a the Ratio of Flow to Capacity (RFC), queues and delays are no worse than the 2031 scenario without development on the Pembury Road and A26 arms of the junction.

KCC Highways disagree with this conclusion as the applicant's own capacity assessments confirm that even with the revised layout the RFC, queues and delays on the B2260, Railway Approach arm of the junction will continue to be worse than the 2031 scenario without development. It is therefore not considered that the applicant has demonstrated with sufficient confidence that mitigation of impact can be achieved at this junction.

The applicant has again suggested that it may be more appropriate for a reasonable and proportionate contribution to be made towards a sustainable travel scheme. However, it is unclear what scheme that the applicant would contribute towards.

#### **Waterloo Road junction with B2260, Railway Approach (*Signalised Junction*)**

The applicant's capacity assessment model indicates that the junction currently operates with a degree of practical reserve capacity and without any excessive levels of queueing, with the junction anticipated to continue to do so in the future year scenario following the addition of the development traffic.

It should be noted that such are the limitations of the modelling software the LINSIG model cannot replicate the way in which north and south bound traffic on the B2260 Railway Approach is routinely affected by the presence of the signalised junction being in the middle of two roundabout junctions. The results therefore need to be reviewed in the context of these interdependencies.

KCC Highways also previously requested explanation for the significant discrepancy between the observed and modelled queues presented within the baseline assessment. The latest iteration of the TA is silent in respect of this matter, with it being unclear if this discrepancy is due to how the survey company have differentiated between slow moving and stationary queued traffic.

#### **B2260, Railway Approach junction with Barden Road, High Street and Vale Road (*Roundabout Junction*)**

A revised junction capacity assessment has been provided for this junction by the applicant. This assessment more accurately reflects the results of the queue length surveys previously undertaken. The applicant's assessment confirms that the junction is currently operating over its practical capacity on most arms in the AM and PM peak period with significant queues.

The applicant is forecast to exceed theoretical capacity in the future year, even without the development, with a further, all be it marginal, worsening of conditions because of the

development traffic. KCC Highways have reviewed the latest model files associated with this junction and consider there to be a critical coding error, which requires amendment before any firm conclusions can be drawn.

The applicant has modelled the junction in such a way that the Barden Road and B2260, Railway Approach arm of the junction has a separate approach to the roundabout, with Barden Road only giving way to Railway approach traffic. This is incorrect because in practice following the merge traffic from both approaches would have to give way to traffic on the circulatory carriageway of the roundabout. Corrections are therefore required to the capacity assessment to show traffic from both arms of the junction giving way to traffic on the circulatory carriageway, thereby correctly reflecting the operation of the junction in practice.

In addition, u-turning traffic has not been included within the capacity assessment. Given the relatively significant level of u-turning traffic this should be included to ensure a robust assessment of baseline and future conditions.

### **Summary and Recommendation**

The applicant has been unable to conclusively demonstrate that suitable mitigation of impact can be achieved on the A26/B2260 corridor (*Tonbridge High Street to Brook Street*). KCC Highways are therefore remain of the view that the residual traffic impact on the local highway network would be **'severe.'** and an objection is raised on this basis.

In the event that the Borough Council is minded to grant planning approval against the advice of the Highway Authority, KCC Highways would seek agreement with the Borough Council on the use of financial contributions towards road capacity improvements on the A26/B2260 corridor.

A Section 278 Agreement is also required to secure any proposed Highways on the Upper Haysden/Lowe Haysden Lane corridor, including any works to facilitate access to the site. Any works to be completed under a S278 agreement shall be subject to agreement with KCC Highways.

The following should be secured via a Section 106 Agreement and planning conditions as appropriate:

-An appropriate sum per housing unit as a contribution towards highway capacity improvements along the A26/B2260 corridor. All details to be agreed with KCC Highways;

-Provision of works to upgrade the existing bus stop facilities outside *'The Hayesbrook School,'*

-An appropriate sum per housing unit as a contribution towards improved bus service provision through the enhancement of the existing service or the establishment of a new service. All details to be agreed with KCC Highways;

-The development shall not be brought into use until a Travel Plan, to reduce dependency on the private car, has been submitted to and approved in writing by the Local Planning Authority. The Travel Plan shall include objectives and modal-split targets, a programme of implementation and provision for monitoring, review and improvement. Thereafter, the Travel Plan shall be put into action and adhered to throughout the life of the development, or that of the Travel Plan itself, whichever is the shorter;

-Provision of a Travel Plan monitoring fee;

-Submission of a Construction Management Plan before the commencement of any development on site to include the following:

- (a) Routing of construction and delivery vehicles to / from site
- (b) Parking and turning areas for construction and delivery vehicles and site personnel
- (c) Timing of deliveries
- (d) Provision of wheel washing facilities
- (e) Temporary traffic management / signage

-Before and after construction of the development, highway condition surveys for highway access routes should be undertaken and a commitment provided to fund the repair of any damage caused by vehicles related to the development;

-Provision of construction vehicle loading/unloading and turning facilities prior to commencement of work on site and for the duration of construction;

-Provision of parking facilities for site personnel and visitors prior to commencement of work on site and for the duration of construction;

-Provision of wheel washing facilities prior to commencement of work on site and for the duration of construction;

-Provision of measures to prevent the discharge of surface water onto the highway;

-All Electric Vehicle chargers provided for homeowners in residential developments must be provided to Mode 3 standard (providing up to 7kw) and SMART (enabling Wifi connection). Approved models are shown on the Office for Low Emission Vehicles Homecharge Scheme approved chargepoint model list:

<https://www.gov.uk/government/publications/electric-vehicle-homecharge-scheme-approved-chargepoint-model-list>

-Completion and maintenance of the access shown on the submitted plans (*drawing number: 10246-HL-01 Rev K titled 'Proposed Access Arrangements*) prior to the use of the site commencing;

-The proposed roads, footways, footpaths, verges, junctions, street lighting, sewers, drains, retaining walls, service routes, surface water outfall, vehicle overhang margins, embankments, visibility splays, accesses, carriageway gradients, driveway gradients, car parking and street furniture to be laid out and constructed in accordance with details to be submitted to and approved by the Local Planning Authority;

-Completion of the following works between a dwelling and the adopted highway prior to first occupation of the dwelling:

- (a) Footways and/or footpaths, with the exception of the wearing course;
- (b) Carriageways, with the exception of the wearing course but including a turning facility, highway drainage, visibility splays, street lighting, street nameplates and highway structures (if any);

-Provision and maintenance of the visibility splays shown on the submitted plans (*drawing number: 10246-HL-01 Rev K titled 'Proposed Access Arrangements*) with no obstructions over 0.6 metres above carriageway level within the splays, prior to the use of the site commencing;

-Provision and maintenance of 2 metres by 2 metres pedestrian visibility splays behind the footway on both sides of the access with no obstructions over 0.6m above footway level, prior to the use of the site commencing.

INFORMATIVE: It is the responsibility of the applicant to ensure , before the development hereby approved is commenced, that all necessary highway approvals and consents where required are obtained and that the limits of highway boundary are clearly established in order to avoid any enforcement action being taken by the Highway Authority.

Across the county there are pieces of land next to private homes and gardens that do not look like roads or pavements but are actually part of the road. This is called 'highway land'. Some of this land is owned by The Kent County Council (KCC) whilst some are owned by third party owners. Irrespective of the ownership, this land may have 'highway rights' over the topsoil. Information about how to clarify the highway boundary can be found at <https://www.kent.gov.uk/roads-and-travel/what-we-look-after/highway-land/highway-boundary-enquiries>

The applicant must also ensure that the details shown on the approved plans agree in every aspect with those approved under such legislation and common law. It is therefore important for the applicant to contact KCC Highways and Transportation to progress this aspect of the works prior to commencement on site.

Yours faithfully

**Tom Harris**  
Development Planner