WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Adur & Worthing Councils FAO: Gary Peck
FROM:	Stephen Gee WSCC - Highways Authority
DATE:	10 September 2020
LOCATION:	Land North West Of Goring Railway Station Goring Street Worthing West Sussex
SUBJECT:	AWDM/1264/20 Mixed use development comprising up to 475 dwellings along with associated access, internal roads and footpaths, car parking, public open space, landscaping, local centre (uses including A1, A2, A3, A4, A5, D1, D2, as proposed to be amended to use classes E, F and Sui Generis) with associated car parking, car parking for the adjacent railway station, undergrounding of overhead HV cables and other supporting infrastructure and utilities (Outline with all matters reserved).
DATE OF SITE VISIT:	-
RECOMMENDATION:	Objection / More Information
S106 CONTRIBUTION TOTAL:	-

The application is for a mixed-use development of up to 475 dwellings, a local centre and car parking for the adjacent railway station at Land to the North West of Goring Station. All matters including access are reserved.
The site has been subject to pre application advice between November 2018 and August 2020. At the time of submission of the planning application, the suitability of the access and off-site mitigation had not been agreed.

Policy
The site is not an allocated development site in the WBC Core Strategy 2011 or in the Worthing Borough Draft Local Plan 2018.

The Worthing Draft Local Plan 2018 was supported by a transport assessment. The site was included as a sensitivity test alongside a site at the Ferring Gap, together the two sites were tested with a total of 699 dwellings between them. (354 at Goring/Ferring Gap and 345 at Chatsmore Farm).
The study identified that the Goring Crossroads would be significantly over capacity in a future year scenario with severe delays on the Titnore Lane, A259 Littlehampton Road (west) and Goring Street. A mitigation scheme at the Goring Crossroads that provides additional capacity for the junction by widening the approach lanes from Littlehampton Road and Goring Street from 2 to 3 lanes and the approach from Titnore Lane from 1 lane to 2 lanes. The southern side of the roundabout will also be widened from 2 to 3 lanes and both a with and without development scenario was tested. The study identifies that this is a broad level of design rather than a final design.

Walking and cycling policy
Since the production of the TA, LTN 1/20 has been produced. The application should consider the document and the proposed cycling improvements proposed by the development.

The application should also consider the Worthing Local Cycling and Walking Infrastructure Plan (LCWIP) and identify how the development would support the plan.

Access

The site currently benefits from a field gate onto the A259 Goring Street.

Whilst access is not for consideration, the transport assessment and masterplan show a three arm roundabout being provided on the A259. The existing A259 Goring Street junction with Goring Street (leading to the station) would be closed and diverted though the development to a three-arm roundabout within the site. The access proposals also include the modification of the A259 /Strand junction to remove the right-hand turn and the relocation of the pedestrian crossing.
A Stage 1 Road Safety Audit have been carried out on the site access and mitigation measures and all of the auditor's comments are accepted and will be incorporated/considered in detail at a detailed design stage.
A raised table also appears to have been incorporated at the access to Salisbury House and as such consultation should be undertaken with local stakeholders in line with WSCC guidance.
https://www.westsussex.gov.uk/media/9306/developers_guidance_note.pdf

Without considering the access in detail it is not possible to fully assess the interaction of the site access and adjoining roundabouts (considered in further detail below).

Plan ref 18122/SK04 also shows a 5.5m access road onto Ferring Lane at the location of the existing no 34 Ferring Lane, no further detail has been provided within the application on to the level of development provided by this access or any information supplied as to any planning applications to Arun District Council.
A stage 1 RSA has not been carried out on this access.
Following discussion with the applicants transport consultant it has been confirmed that the drawing does not form part of the application.

Sustainable Transport

Walking

Revised pedestrian facilities would be provided in the vicinity of the site access and proposed mitigation at the Goring Crossroads and the A259/Goring Street / Aldsworth Avenue.

Cycling

The application proposes the upgrade of Footways ref 2121 and 2121 1.
Footway 2121 1 would not appear appropriate for an upgrade to Bridleway (to allow cyclists to legally use it) due to the width and effective width between the site and Ferring Lane. As such the site poorly integrates to the existing network to the north and north-west.
During pre-application discussions the potential for a bridleway link to the north west of the site across the Ferring Rife was discussed which would link into the existing uncontrolled crossing on the A259 and Bridleway ref 2135 allowing access to towards Highdown Hill, sports pitches and the South Downs National Park. This however has not been included within the application.

Bus

The 700 service runs to the west, south and south east of the site along Ferring Lane, Goring Way and the A259 Goring Way. The 700 service provides a 10-minute headway between Littlehampton and Brighton inc Worthing town centre.
No consideration has been provided to the routes to the stops or measures such as waiting facilities and real time information that would encourage future residents to utilise the services.

Train
The site is in close proximity to Goring Station. The station benefits from 3 services per hour in each direction providing connections to locations such as Worthing, Brighton, London Victoria, Littlehampton, Chichester and Southampton. The masterplan provided shows linkages from the site to the station.

Trip Generation, Distribution and Assignment
Whilst the parameters utilised in TRICS do not match the proposals with regard to the number of units, the outputs are acceptable for use.

The development would generate the following trips:

Trips	AM Peak			PM Peak			Daily
	Arrivals	Departures	Two - way total	Arrivals	Departures	Two - way total	
Residential	58	233	344	186	111	297	2,634
Commercial	27	22	49	42	39	81	817
Creche	10	7	17	10	7	17	61
Total*	126	388	513	338	217	555	4931

* Clarification should be provided to the level of development tested within the modelling, presented with the text of the TA and included within table 6.9 and Appendix 14. As the peak hour and daily flows for each land use do not sum correctly.

The distribution of trips is based on 2011 census journey to work data and is acceptable. Confirmation should be provided as to the method of assignment.

Junction Modelling
A base year modelling of 2018 has been provided. The junction modelling has been calibrated using observed queue length surveys.
The modelling indicates that the following junctions operate over capacity in the base year:

- Goring Crossroads;
- A259 Goring Street/ The Strand; and
- A259/ Aldsworth Avenue / Ardingly Drive / Goring Way

And the following currently operate within capacity

- A259 / Ferring Lane;
- A280 /A27 / Titnore Lane; and
- A280 / A27 / Arundel Road.

Future Year scenarios of 2024 and 2033 have been provided.
A wide range of committed development have been included within the assessment both within Worthing and to the West in Angmering in Arun district which had not been included as sites in the Local Plan transport study. The Worthing developments include sites put forward within the draft local plan and the Ferring Gap which is not promoted in the draft local plan.
The application of TEMPRO growth factors also provides a robust assessment.

Site Access

Modelling parameters should be provided for the site access roundabout.

2024. The modelling provided shows the site access is at capacity at the year of occupation with the largest queues of 29 vehicles queuing on the northbound approach to the junction. Average vehicle delays for both northbound and vehicles existing the development would be 68 and 86 seconds in the AM peak.

2031. The queues and delays on the northbound approach to the site access would increase to 55 vehicles and 114 seconds and delays from exiting the development to 2 minutes in the AM peak.

A259/ The Strand

The modelling presented shows the junction would operate within capacity within the 2024 scenario and approaching capacity in the 2033 scenario with delays of 68 seconds in the AM peak. However, the modelling assess the junction in isolation and does not consider the impact of queues associated with the site access and A259/Ardingly Drive/Aldsworth Way/Goring Way roundabout. As detailed below the queue from the A259/Ardingly Drive/Aldsworth Way/Goring Way roundabout would extend through the site access and this junction making the capacity assessment provided unrealistic.

The assignment also indicates that flows would likely reassign to other routes onto the A259 (Limbrick Lane, The Avenue and The Boulevard) which would add to vehicle flows on A259 approach to the Goring Crossroads which is shown to be over capacity.

Goring Crossroads

The modelling presented shows the junction is over capacity in the base year and in the future year scenarios all arms would experience severe delays and operate with a 'F' level of service.
In the 2024 AM base RFCs would be in excess of 1.22 with queues on all arms above 100 vehicles (103 on Titnore Lane to 260 on A259 Littlehampton Road) with delays between 5 minutes and 23 minutes.
In the 2033 AM base all RFC would be in excess of 1.30 with queues on all arms above 130 vehicles (130 on Titnore Lane and 361 on A259 Littlehampton Road) with delays between 11 minutes and 29 minutes.
The 'with development' scenario would significantly increase vehicle queues and delays and result in a severe impact.
In the 2024 AM peak RFCs would be in excess of 1.33 with queues increasing by approximately 30 vehicles on Titnore Lane, A2032 Littlehampton Road and A259 Littlehampton Road and by 155 vehicles on A259 Goring Street, with delays increasing by 5 minutes on Titnore Lane and A29 Goring Street.
In the 2033 AM peak RFCs would be in excess of 1.41 on all arms with queues increasing by approximately 33 vehicles on Titnore Lane, A2032 Littlehampton Road and A259 Littlehampton Road and by 166 vehicles on A259 Goring Street, with delays increasing by 7 minutes on Titnore Lane and A29 Goring Street.
PM peak queues and delays would also increase in both with development scenarios.

As such the application has proposed a mitigation scheme considered in further detail below.

A259 / Ardingly Drive / Aldsworth Way / Goring Way

The modelling presented shows the junction is operating at capacity in the base year and in the future year scenarios all arms would experience severe delays and operate with a 'F' level of service.
The 'with development' scenario would significantly increase vehicle queues and delays and result in a severe impact.

In the 2024 AM peak base scenario the maximum queues would be 123 vehicles on the A259 North and 72 vehicles on A259 Goring Street East and associated delays of 6 minutes on each arm and 10 minutes on Aldsworth Avenue.
In the 2033 AM peak base the maximum queues would be 182 vehicles on the A259 North and 106 vehicles on A259 Goring Street East and associated delays of 9 minutes on each arm and 14 minutes on Aldsworth Avenue.

The 'with development' scenario would significantly increase vehicle queues and delays and result in a severe impact.

In the 2024 AM peak the development would increase queues on the A259 North by 66 vehicles to 189 and increase delays by 3 minutes. In the PM peak queues on the A259 Goring Street east would increase by 56 vehicles (87 to 143) and delays increase by 4 minutes.

In the 2033 AM peak the development would increase queues on the A259 North by 84 vehicles to 267 and increase delays by 3 minutes. In the PM peak queues on the A259 Goring Street east would increase by 67 vehicles (130 to 1197) and delays increase by 5 minutes.

As such the application has proposed a mitigation scheme considered in further detail below.

A280 / Titnore Lane / A27
The modelling presented highlights the junction currently operates satisfactorily, however in a future year scenario, the A280 approach would start to experience an increase in queues and delays which the proposed development would exacerbate.
An improvement scheme at the junction has been secured via Land North of Water Lane Arun ref: A/40/18 which has been modelled and details with the improvements the junction would operate within capacity.

A280/A27 / Long Furlong
The modelling presented shows the junction currently operates within capacity. Whilst the junction would be approaching capacity on the A280 Long Furlong arm in a 2031 scenario, the development would add 1.5 vehicles to the queue (8.3 increasing to 9.7) and increase delays by 3 seconds per vehicle, as such the development would not result in a severe impact on the junction.

A259/ Ferring Lane
The modelling presented shows the junction would operate within capacity in all the modelled scenarios.

Mitigation
Goring Crossroads
A mitigation scheme is shown on 8122-002 Rev A the proposed mitigation includes the extension of two entry lanes from the north (Titnore Lane), and the provision of three lane entries on the eastern (A259 Littlehampton Road) and southern arms (A259 Goring Street), with the southern section of the circulatory to be widened to accommodate three lanes. A vehicle restraint system would be installed adjacent to the south-east corner of the roundabout junction to prevent errant vehicles from encroaching the footway.

The scheme closely resembles the mitigation proposed within the Worthing Local Plan transport study.

It is noted that the site access is approx. 230m south of the junction.

In the 2024 AM peak scenario the modelling presented shows all arms of the junction are significantly over capacity in the AM peak. The A259 Goring Street approach queue would increase from 131 vehicles to 180 vehicles and delays from 5 minutes to 7mins 30 seconds. The queues (1080m) would significantly affect the operation of the site access proposals and would reach all the way to the A259 / Goring Way / Aldsworth Avenue junction affecting the mitigation proposals identified at that junction.

In a 2033 scenario the above figures would be an increase in queues from 131 to 259 vehicles (786m to 1554m) and delays from 5 minutes to 10 minutes 20 seconds.

Within the TA the applicant presents that the developments impacts would be mitigated by comparing the with and without development scenario. The delays on all arms (when considered in isolation) in a 2033 scenario show a minimum delay of 10 minutes on each arm and a maximum of 25 minutes in the AM peak.

A259 / Ardingly Drive / Aldsworth Way / Goring Way

A mitigation scheme has been proposed as per drawing ref 18122/003 Rev A. The scheme includes minor widening of all the approaches to the junction.

The modelling presented shows the four main arms operating over capacity in the 2024 scenario with maximum AM peak queues of 87 vehicles on the A259 North and delays approaching 5 minutes on Aldsworth Avenue.
The development would add an additional 52 vehicles onto the A259 Arm and increase delays by 2 minutes 40 seconds. The vehicle queue would block back through the site access and onto the Goring Crossroads.

In a 2033 scenario queues on the A259 North Arm would increase from 134 vehicles to 201 vehicles again causing queuing back through the site access and onto the Goring Crossroads. Significant queues and delays would also be experienced on other arms of the junction.

Modelling Conclusion

From the above it can be seen that any access between the Goring Crossroads and the A259 / Goring Way / Aldsworth Avenue would operate in a severely congested network even with the proposed mitigation.
The extensive queuing back is not demonstrated within the isolated site access modelling and as such an objection to the development is raised.
Possible options to address the concerns over the modelling provided are:

- Provide mitigation that accommodates development trips and would not cause severe delays and queuing back through any site access and adjoining junctions;
- Reducing level of development presented in the assessment;
- Considering level of background growth between TEMPRO and developments; and
- Microsim modelling could provide a potential solution to demonstrate the inter connectivity of the junctions;
- Provision of a significantly enhanced sustainable transport package to reduce vehicle trips.

Personal Injury Accidents

A total of 34 Personal Injury Accidents were recorded within the study area in a five year period, of which 8 were classified as serious and 26 slight. The draft local plan transport study identifies the Goring Crossroads as an area of concern and recommends several measures. The A259/ Goring Way/ Aldsworth Avenue is also identified with clearer signage and road marking suggested. The mitigation measures identified would appear to incorporate the recommendations.

Travel Plan

Amendments are required to the travel plan to accord with the WSCC Development Travel Plan Policy and a copy of the documents will be provided to the applicant, specifically the Travel Plan must:

Be monitored in accordance with the TRICS UK Standard Assessment Methodology (SAM)

- Include a target to reduce the 12-hour weekday vehicle trip rate by 15% compared to the predicted trip rate from the Transport Assessment
- Include a financial incentive to encourage residents to use sustainable mode. We would expect this to take the form of a £150 voucher for each household upon occupation.
- Include provision for enforcement/remedial measures should the five year target not be met. We would expect this to take the form of a second £150 voucher issue per unit.

Parking

Vehicle and Cycle parking would be considered further at reserve matters. The TA indicates that the residential element of the development would require approximately 663 parking spaces. It should be noted that the table provided within the TA and subsequent calculation does not include the suggested 0.2 visitor spaces per unit.

A car park of 73 spaces is proposed to serve as parking for the railway station. A parking survey has been undertaken to assess the current demand. The parking stress survey indicates that the average parking stress on Goring Street (in the vicinity of the station) is a maximum of 64% (37 of the 58 spaces utilised) and the wider area parking stress is a maximum of 33%.

Consideration should be provided to providing increased cycle parking facilitates at the station.

Servicing

The site would be serviceable from both access points and the looped arrangement and secondary streets with turning heads would appear appropriate.

Conclusion

An objection to the development is raised:

- Due to the junction modelling being undertaken in isolation it has not been demonstrated that an safe and suitable access could be provided to accommodate the level of development. As such the formation and use of an additional access to the public highway at this point would add to the hazards of highway users to an unacceptable degree and interrupt the free flow of traffic.
- Due to the lack of pedestrian and cycle linkages to the North and cycle linkages to the north west of the site, the proposal would not achieve safe and convenient access by a choice of means of travel nor encourage and enable and increase in environmentally sustainable means of travel such as walking and cycling and thereby minimise the impact of car journeys.
- Insufficient information has been provided to assess the impacts of the offsite mitigation and as such it has not been demonstrated that the development would not result in a severe impact on the local highway network

Further Information that is required to be submitted:

- Consideration of LTN 1/20 and Worthing LCWIP;
- Provision of further pedestrian and cycle links to the A259 north of the site; as discussed during pre-app discussions;
- Provision of routes to public transport stops and improvements to the stops themselves including shelters, real time information and cycle parking;
- Confirmation of trip assignment methodology;
- Site access modelling parameters;
- Confirmation of trip generation / what has been modelled;
- Confirmation if reassigned The Strand flows have been added to the A259 Goring Crossroad assessments;
- Further modelling/mitigation of Goring Crossroads / Site Access/ A259 The Strand and A259/Goring Way / Aldsworth Avenue including consideration to the need for Microsimulation modelling;
- Revised Travel Plan; and
- Consideration of further cycle parking in the vicinity of the station.

Stephen Gee
West Sussex County Council – Planning Services