To	Horsham Local Plan Inspector	**Technical Note**	
Cc			
From	Homes England / West Sussex County Council		
Date	05 November 2026		
Project	Land West of Ifield	Project No.	23747304

Matter 6a: Strategic Policy HA2: Land West of Ifield - Traffic modelling

Introduction

1. This note, which has been drafted by Steer on behalf of Homes England and West Sussex County Council provides further clarification to the Horsham Local Plan inspector in relation to the impact on the road system including roads in Crawley, having regard to sustainable transport, active travel and other mitigation measures.

2. It specifically addresses the traffic modelling which has been undertaken to assess the impacts of future growth scenarios, including development at the West of Ifield (WoI) allocation. The West of Ifield site has been considered in at least four modelling assessments, using three different strategic transport models. The following provides a summary of these modelling assessments and the key findings.

   The note sets out that the modelling of the WoI development does not identify any unacceptable residual highway impact that would prevent the allocation from coming forward provided the sustainable transport and highway mitigation is secured and delivered.

Horsham Local Plan Transport Study

3. Stantec were commissioned by Horsham District Council (HDC) to produce a modelling Transport Assessment to support the emerging Local Plan 2039. The assessment was undertaken using a SATURN highway model with a study area primarily focused on Horsham District, which assesses the impact of a number of development scenarios on the local highway network managed by WSCC, along with impacts on the Strategic Road Network, managed by National Highways.

4. As the model was developed to support the Horsham Loal Plan, the model network extends into Crawley Borough so that impacts on key junctions can be assessed. However, the model network and zoning structure within Crawley are less detailed than within Horsham District. In particular, only the main roads are included in the Crawley area of the model. As a result, traffic is concentrated onto the principal network and key junctions, as some minor roads that drivers use to avoid congestion are not represented. In addition, trips to and from large areas of Crawley are loaded onto the model network at relatively few points usually located close to these key junctions. This can lead to higher levels of traffic and congestion being forecast on parts of the modelled network than may occur in reality. As the Crawley Local Plan model has a significantly more detailed network and zone structure within Crawley, its forecasts of impacts on Crawley are likely to be more representative.

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5. A number of scenarios have been taken through the modelling process and outputs of these have been used to inform the development of a preferred development scenario. It has been assumed that West of Ifield (Proposed Development) would be associated with the following land use quanta during the Local Plan period:

   - Local Plan Period (Dwellings) = 1,600;
   - Overall (Dwellings) = 3,000;
   - Employment B1 (Plan Period, sqm) = 2,700sqm; and
   - Employment B2 and B8 (Plan Period, sqm) = 6,300sqm.

6. Sustainable transport measures have been proposed to promote and encourage sustainable active transport modes as part of the development sites included in the emerging Local Plan 2039. Where it has been demonstrated that sustainable travel measures would not be enough to fully mitigate the impacts of the Local Plan, further mitigation measures have been developed and assessed. The following junctions are shown to require physical mitigation within Horsham District:

   - A24 / A272 Buck Barn;
   - A24 / B2237 Hop Oast Roundabout; and
   - A24 / A283 Washing Roundabout.

7. None of these junctions are located within close proximity of the WoI development site. Therefore, it can be concluded that the transport modelling completed for the emerging Local Plan 2039 in the Horsham District outlines that the WoI development will not result in a residual negative impact on the operation of local junctions within Horsham.

8. National Highways have concluded that the evidence, combined with the proposed "monitor and manage" approach to delivering the Local Plan is sufficient to demonstrate no unacceptable impacts on their Strategic Road Network.

Crawley Local Plan Transport Study

9. Stantec were also commissioned by Crawley Borough Council (CBC) to undertake a transport study to inform the Draft Crawley Local Plan Review for the Crawley Borough Area. The study was undertaken using the Crawley Town Model Saturn Highway Assignment Model (CTM). This model has a significantly more detailed network and zone structure within Crawley than the Horsham strategic model, so it can represent impacts on the Ifield and Langley Green areas of the town neighbouring the West of Ifield allocation site in greater detail. Both the Crawley Local Plan and Horsham Local Plan models have the same base year and draw on the same origin to destination mobile phone data.

10. The future year traffic modelling of proposed development sites is based on a 'vision-led' approach, encouraging modal shift as far as possible, while only including limited network capacity improvements. Three Local Plan scenarios were tested, with the third scenario including the West of Ifield allocation:

    - Scenario 1 – 6,720 dwellings within Crawley Borough at 420 dwellings per annum and Employment Land Trajectories;
    - Scenario 2 – As Scenario 1 plus Gatwick Green Employment Allocation; and
    - Scenario 3 – As Scenario 2 plus West of Ifield (3,750 Dwellings) and West of Kilnwood Vale (1,546 dwellings) and 50,000 square metres of employment leading to 12,016 dwellings at 751 dwellings per annum in this scenario.

11. From this work a minor highway mitigation scheme was identified for delivery at the junction of Ifield Avenue with A23 Crawley Avenue because of the Crawley Local Plan development in scenarios 1 and 2 and this has been included in Crawley Borough Council's IDP. A significant proportion of the traffic to and from West of Ifield will also pass through this junction as will the bus services to Crawley town centre.

12. As part of the evidence base associated with the Crawley Local Plan, additional sensitivity tests and modelling reviews were undertaken including:

- A sensitivity test of Scenario 3 that included a full link road running from the A264 to the west to A23 London Road to access junctions for the WoI development. The transport assessment concluded that the full link road was not necessary to support the Crawley Local Plan (and the proposed development at West of Ifield), however it went on to state that if further development beyond Scenario 3 comes forward (i.e. in a future local plan), then a full link road would help to relieve the impacts on the local highway network.
- A test of additional traffic associated with the Gatwick Airport Northern Runway Project (NRP) DCO. This also concluded that the additional traffic associated with the Gatwick Airport NRP could be accommodated on the network, alongside proposed strategic interventions.
- Future year assessment – a review was undertaken of the Local Plan end year against modelling which had assumed a slightly earlier end year. It was identified that the most recent predicted growth rates show a slower growth and increase in sustainable travel habits which mean that growth rates included within the strategic modelling are robust.

13. These modelling scenarios provide further evidence of the extent of modelling undertaken which WSCC use as part of checking the implications of development on their highway network.

14. The Crawley Local Plan Transport Study formed part of the evidence base considered through the examination of the Crawley Local Plan. The Local Plan was subsequently found sound.

Gatwick Airport DCO

15. The Gatwick Airport NRP, Transport Assessment Annex B – Strategic Transport Modelling Report set out that:

> *8.4.1 As detailed further in the Uncertainty Log Section 9, there are a number of developments within the vicinity of Gatwick that are considered 'reasonably foreseeable' and do not form part of the Core Scenario. However, given their geographical proximity to Gatwick deemed sufficiently important for a set of scenarios to be run that included key sites as identified with the Local Authorities. The 'Reasonably Foreseeable' sites included are as follows:*
>
> - *Horley Business Park;*
> - *West of Ifield; and*
> - *Gatwick Green.*
>
> *8.4.2 These developments have been added to the Core Scenarios to form Cumulative Development Scenarios. These Cumulative Development Scenarios have been run for all four assessment years: 2029, 2032, 2038, 2047.*

16. The modelling for the Gatwick Airport NRP was undertaken using a multi-modal model "GHoST" developed by Arup for Gatwick Airport Ltd (GAL). The road network model combined elements from the Crawley Transport Model (WSCC), the Southeast Regional Transport Model (National Highways) and the London Highway Assignment Model (TfL). It also included a rail model derived from DfT's PLANET South model, a bus and coach network model developed by Arup for GAL and a bespoke travel demand model.

17. The forecasting included at West of Ifield traffic flows associated with 3,250 dwellings, 15,000 sqm office space, 3,500 sqm food store, 6,000 sqm retail, 900 pupil secondary school and 1,450 pupil secondary school. The model forecast network included the section of the proposed Crawley Western Multi Modal Corridor (CWMMC) associated with the planning application. This extends from the southern edge of the application red line incorporating the junction with Rusper Road to its junction with Charlwood Road and the realignment of the existing Rusper Road.

18. The TA concludes that there are no 'With Project' specific impacts in the immediate vicinity of the West of Ifield development and that the cumulative development scenario shows trends similar to the Core Scenario.

19. The traffic modelling, which included an assessment of WoI, formed an integral part of the evidence base for the Gatwick Airport NRP DCO, setting out how the network would operate in the future and any interventions necessary to support the proposals. The Gatwick Airport NRP (DCO being granted by the Secretary of State on 21 September 2025, following a detailed examination.

West of Ifield (WoI) Transport Assessment

20. The Transport Strategy for WoI is to create a sustainable community which supports residents, employees and visitors to prioritise sustainable modes. Homes England are committing to a significant sustainable transport package to deliver the mode share assumptions which will be monitored through the Travel Plan. Alongside typical travel plan measures this includes: new high quality, frequent bus services and routes, improvements at Ifield Station, and the delivery of active travel interventions in line with the Crawley Local Cycling Walking Implementation Plan (LCWIP). These coordinated interventions provide improvements to the existing infrastructure between the site and key destinations, for both new and existing residents. This supports the drive towards sustainable travel, modal shift and a reduced reliance on the private car. The Transport Strategy for WoI moves away from the traditional approach to transport planning using the "predict and provide" process, towards a Vision Led, "decide and provide" approach, which is reflected in the traffic modelling

21. A Transport Assessment was completed for the West of Ifield planning application. This includes a further run of the Crawley Highway Assignment Model (CTM) based on refined assumptions around development quanta and land uses. The assessment includes 3,000 new homes, and the middle section of the CWMMC and the closure of Rusper Road to through traffic. Therefore, the Transport Assessment provides a more site-specific assessment of the effects of the development, applying assumptions regarding development quantum, land use and the proposed transport network and a more granular assessment of the impacts on the highway network and any junctions that are over capacity and the specific mitigation measures required to alleviate this, and to facilitate modal shift.

22. The modelling shows that the additional development can be accommodated when delivered alongside the package of sustainable transport interventions identified. Additional highway mitigation is proposed at Ifield Avenue / Warren Drive and at Ifield Avenue / Stagelands junctions to help improve the efficiency of these locations and improve conditions for active travel and public transport. No other junctions tested require additional mitigation to be included within the Core Mitigation package, and no junctions were identified as requiring any improvements in Horsham as a result of WoI.

23. The Transport Assessment and traffic modelling has been reviewed by WSCC and National Highways, who have provided comments on the application. As would be expected with a development of this scale, there are areas of clarification being addressed including proposed frequencies of public transport services, however at the date of this note, neither authority has identified a transport issue which is considered to make the allocation unacceptable in principle.

24. In order to deliver the vision for the development, including the sustainable interventions relating to public transport, walking and cycling, it is proposed that contributions towards targeted highway and junction improvements, are secured through a legal agreement and delivery of the transport mitigation will be through a 'Monitor and Manage' approach rather than a 'predict and provide' approach. The Site will be supported by regular monitoring of trips in and out of the site, to understand the impact of the scheme on the highway network, when considered against the predictions contained within the TA. The monitoring reports will be reviewed by the County Council, and any fallback interventions will be agreed through the implementation of Transport Infrastructure Management Groups. This will ensure that investment is targeted at improving conditions for all users. This will avoid the provision of highway capacity improvement schemes which have typically been implemented at the expense of public transport, walking, and cycling.

Summary and Conclusion

25. A least four modelling assessments have been undertaken, using three different strategic transport models, as summarised above. Taken together, this provides a robust evidence base in support of Strategic Development HA2. Whilst produced in support of their respective Local Plans, the Gatwick DCO and in support of the Application the different modelling exercises all reach a consistent overall position. The more detailed Crawley Local Plan Transport Study and West of Ifield Transport Assessment complements the Horsham Local Plan Transport Study and ensures that impacts within Crawley have been adequately assessed. Collectively, the assessments demonstrate that the cumulative impacts of planned growth, including the Horsham and Crawley Local Plans and the Gatwick DCO can be accommodated within the transport network. Importantly, the assessments have not identified any transport constraints which would prevent delivery of the allocation and have shown that the identified impacts are capable of being appropriately mitigated through the delivery of sustainable transport mitigation packages and targeted highway capacity interventions.