PROJECT: LAND AT FINCHES FARM, FIVE OAK GREEN TECHNICAL NOTE: FIVE OAK GREEN & COLTS HILL BYPASSES

1 INTRODUCTION

1.1 NOTE PURPOSE

- 1.1.1 Velocity Transport Planning (VTP) has been appointed by Rydon Homes Ltd to undertake a review of the Tunbridge Wells Borough Council (TWBC) submission Local Plan 2023 documents in order to provide a:
 - Headline review of the documentation relating to the Five Oak Green Bypass to determine whether it is actually feasible/viable/necessary in the context of reduced development quantum and the removal of Tudeley; and a
 - Headline review of the Colts Hill Bypass to determine whether it remains viable in context of reduced development quantum.
- 1.1.2 In preparing this Technical Note, the following submission Local Plan documents have been reviewed:
 - Sustainability Appraisal of the Submission Local Plan Post Examination Addendum Part 1 Development Strategy and Strategic Sites -October 2023 prepared by TWBC
 - Tunbridge Wells Local Plan Examination Red, Amber, Green (RAG) Assessment Access and Movement - March 2023 - prepared by Stantec
 - Strategic Sites Masterplanning and Infrastructure Study Paddock Wood Growth Follow-on Study
 October 2023 prepared by David Lock Associates
 - TW Stage 1 Technical Note Review of Strategic Model Methodology and Set Up for Local Plan 17.08.2023 – prepared by SWECO
 - O TW Local Plan Stage 2 Reporting 18.08.2023 prepared by SWECO
 - TW Local Plan Stage 3 Modal Shift Impact Reporting 22.09.2023 prepared by SWECO
 - Tunbridge Wells Local Plan Local Junction Capacity Sensitivity Testing Technical Note –
 28.11.2023 prepared by SWECO
 - Local Plan Development Strategy Topic Paper Addendum January 2024 prepared by TWBC
 - Tunbridge Wells Local Plan: Paddock Wood and east Capel Access and Movement Report -November 2023 - prepared by Stantec
 - Summary of Proposed Modifications to the Development Strategy, following Inspector's Initial Findings Letter - January 2024 - prepared by TWBC
 - Statement of Common Ground between Tunbridge Wells Borough Council and Kent County
 Council in respect of the Tunbridge Wells Borough Local Plan Transport Matters March 2022
 prepared by prepared by TWBC
 - Local Plan Transport Evidence Base: Transport Assessment Report Update for the Pre-submission
 Local Plan Transport Modelling Report March 2021 prepared by SWECO
 - Local Plan Transport Assessment Addendum 2 October 2021 prepared by SWECO
 - Tunbridge Wells Local Plan Local Junction Capacity Sensitivity Testing Technical Note March
 2021 prepared by SWECO

1.2 BACKGROUND

- 1.2.1 Tunbridge Wells Borough Council (TWBC) is currently in the process of preparing its new Local Plan. The Local Plan has now been submitted to the Secretary of State for independent examination and the examination process is underway. Most recently, following an Examination in Public (EiP), the Inspector has provided their initial findings in a written format.
- 1.2.2 In review of the Inspectors comments and the documents listed above, a headline review has been undertaken of Five Oak Green and Colts Hill Bypasses to establish whether they are feasible, viable and necessary given the latest amendments to the submission Local Plan in terms of the reduced number of dwellings proposed. The following sections assess these criteria individually for the Five Oak Green and Colts Hill Bypasses.



2 FIVE OAK GREEN BYPASS

2.1 INTRODUCTION

2.1.1 The Five Oak Green Bypass was identified in the 'TWBC Submission Local Plan 2020 – 2038 – Submitted October 2021', as being necessary not only for strategic growth but that the highway modelling shows that the growth at Tudeley Village (and to a more limited extent that at Paddock Wood and east Capel) would increase traffic through Five Oak Green. It stated:

"The Five Oak Green bypass is largely required to alleviate issues caused by strategic development at Tudeley Village and the viability assessment shows that this can be delivered wholly by the Tudeley Village Garden Settlement".

2.1.2 The indicative alignment of the Five Oak Green Bypass is shown in **Figure 2-1** below as the purple line running between Five Oak Green Road in the north to Colts Hill in the south as indicated by the green arrow.

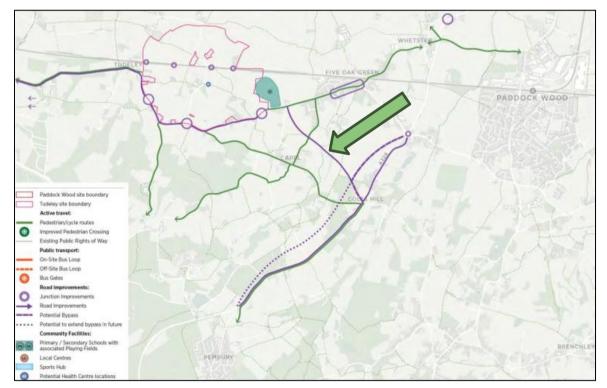


Figure 2-1: Extract of Map 33 from TWBC Submission Local Plan 2020 – 2038 – Submitted October 2021

2.2 FEASIBILITY

- 2.2.1 A key factor in whether the Five Oak Green Bypass is considered feasible is whether it is viable in the first place. The viability of the bypass is set out in further detail below and therefore this section appraises the feasibility of the bypass's delivery from a practical perspective.
- 2.2.2 The Inspector stated as part of his 'Examination of the Tunbridge Wells Borough Local Plan: Initial Findings' letter at paragraph 26 that:



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"From discussions at the hearings there are three main concerns with this part of the Plan. Firstly, the bypass is to be accessed from a new junction almost directly opposite Capel Primary School. At the hearings the Council confirmed that no detailed consideration had yet been given to the appropriateness of this location having regard to issues such as air quality, road and pedestrian safety and noise. They are all important considerations."

- 2.2.3 Stantec have set out in their 'Tunbridge Wells Local Plan Examination Red, Amber, Green (RAG) Assessment Access and Movement March 2023' report that they believe that the positioning of a roundabout outside a school is unlikely to have any direct impact on pupils in terms of air quality and noise. They consider the roundabout will re-locate the carriageway and therefore the cars marginally further away from the school and planting could be used to help shield the school from air quality and noise effects. However, they do note there is a wider air quality issue that may need to be considered. The new developments at both Tudeley and Paddock Wood are likely to generate more traffic along either through Five Oak Green Road or via the proposed bypass and anything that increases traffic/congestion directly outside a school could potentially have a detrimental impact on air quality and noise for pupils.
- 2.2.4 The National Planning Policy Framework, December 2023, states at paragraph 109:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

- 2.2.5 Stantec believe that the Inspector's concern regarding air quality and noise has merit and additional work would be recommended to ease this concern. Although they state without detailed modelling it is difficult to robustly know what the air quality and noise impact is likely to be, it is likely to be well below legal limits. There is no detailed information to support this assertion.
- 2.2.6 Stantec instead suggest a high-level air quality and noise assessment is undertaken that looks at the impact of the strategic sites on the village of Five Oak Green and Capel Primary School, using the SWECO traffic data. However, it is considered that a high-level impact assessment would not provide sufficient detail on which to base such an important and critical decision on whether the effects of the bypass and roundabout would result in air quality and noise being within legal limits and acceptable. As such a detailed assessment should be undertaken.
- 2.2.7 Schools are generally classed as sensitive receptors when it comes to air quality and noise, and therefore, it is considered the positioning of the roundabout adjacent to the school which would take traffic from the proposed bypass would have a significant impact on the school. The only way to mitigate this is by relocating the roundabout and the bypass alignment. However, this would only be possible if land was in the ownership of the developer or TWBC.
- 2.2.8 The National Planning Policy Framework, December 2023, states at paragraph 115:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.



- 2.2.9 The Inspectors letter at paragraph 26 also related to pedestrian safety. The positioning of a roundabout adjacent to the school which also brings additional traffic directly to area in front of the school will increase the opportunities for conflicts between pedestrians and motor vehicles, and increase severance caused by vehicles. Further, the anticipated positioning of the roundabout based on the constraints of Capel School and the residential/office development adjacent to Five Oak Green Road/Church Lane would result in parents having to park further away from the school for the drop off and pick up of pupils. To mitigate this a car park or pick up/drop off area would need to be created next to the school but the land to do this would fall outside of the control of the council and or prospective developers. Therefore, it is considered that the locating of a roundabout with bypass in this location would have a severe impact on the safety and operation of the Capel School and the pupils attending it, and therefore it would not be acceptable in national transport policy terms.
- 2.2.10 The Inspector also stated in his letter at paragraph 28 that:

"Thirdly, there remains uncertainty about the funding, phasing and deliverability of the road. At the hearings, it was suggested by the council that changes are required to the submitted Plan because only the Tudeley allocation needs to contribute to it. But without the bypass, presumably some residents of the nearly 3,500 new homes proposed at Paddock Wood will pass through Five Oak Green?"

The hearings also flagged uncertainty about when the by-pass would need to be built and what implications this would have on safety within the village. Finally, and crucially, building the road would require land in multiple ownerships. Although the Council is optimistic about the use of compulsory purchase orders, this process adds to the complexity, cost, timescales and general uncertainty of its deliverability."

- 2.2.11 Stantec's response stated that to prevent an unacceptable level of traffic travelling through Five Oak Green, traffic calming measures could be implemented in the village to deter anyone other than residents using this route to travel between Paddock Wood and Tonbridge. The idea would be to encourage people travelling from Paddock Wood to Tonbridge to travel down the A228 and then up the A21. They go on to state that they cannot comment on the funding, phasing and deliverability as the purpose of RAG Assessment is to consider the impact of the Five Oak Green bypass. They state, the delivery of the scheme and compulsory purchase orders are separate matters which will be dealt with separately by TWBC and their relevant consultants.
- 2.2.12 Information on the delivery of the scheme in terms of compulsory purchase orders is not yet available for consideration. However, it is clear that if the land needed to deliver the Five Oak Green Bypass and the junctions at either end connecting it to the existing highway network is within multiple ownerships, there would be significant difficulties in obtaining the land required to build it, with significant costs that it is expected could not be justified without the provision of the 2,800 homes to be delivered by Tudeley Village. As such, it is considered that on the basis costs and difficulties in obtaining land to deliver the bypass and connecting junctions at either end, without the need warranted by Tudeley Village, (further details below) the feasibility of delivering the Five Oak Green Bypass would be extremely difficult.



2.3 VIABILITY

- 2.3.1 An important point to note is that the Inspector has not said that he has considered all the matters and finds the proposal for a new settlement at Tudeley Village unacceptable in planning terms. Rather, he identifies a number of areas where he is not satisfied that the evidence provided is sufficient to justify the proposal in the context of the needs for "exceptional circumstances" for development in the Green Belt, especially given that the development is assessed as resulting in 'High' harm to it.
- 2.3.2 However, it is evident that there would need to be a wide range of further studies to provide the information that the Inspector is seeking. Not only would the commissioning, undertaking, collating, and reviewing of such work take many months, moreover, it may well still not provide the clear supporting evidence needed to justify Tudeley Village. In order for TWBC to recommend the most appropriate course of action as to whether they pursue Tudeley Village or not, regard has been given to the following:
 - a) It is clear that Tudeley Village, if retained in the Local Plan, would make a notably lesser contribution to housing supply in the short/medium term than previously anticipated;
 - The breadth of concerns raised by the Inspector is considerable and it is possible that any remaining concerns following further evidence work may still lead the Inspector to conclude that the exceptional circumstances test is not met;
 - c) Further delay in the Local Plan process would likely defer, or even prevent, the release of a number of proposed site allocations, most likely those in the Green Belt and Area of Outstanding Natural Beauty which are included within the current Submission Local Plan and are needed to contribute to boosting housing supply, and addressing the current shortfall in deliverable sites;
 - d) Given the now extended Local Plan gestation period, the fact that certain elements of the evidence base would become dated if the Examination was delayed further, would itself add to either time/cost or risk of challenge;
 - e) A Local Plan being examined in a year's time may be seen as out-dated by if not superseded by the new planning system following introduction of the Levelling Up and Regeneration Bill/Act;
 - f) The new planning system may involve fundamental changes to both the calculation of local housing needs and how such needs should be met, including in designated areas, such as in the Green Belt and Area's of Outstanding Natural Beauty.
- 2.3.3 There are currently no detailed studies on the alignment of the Five Oak Green Bypass and timescales to undertake such studies, their review and acceptability following technical review could take many months, even years. Even if found to be acceptable, the work needed to justify Tudeley Village and the Five Oak Green Bypass is likely to cause significant delay to the Local Plan process and thus jeopardise its delivery and adoption. Furthermore, the route would cross several Public Rights of Way which would either need to be stopped up or diverted with measures put in place to allow for safe crossing of the road, all of which would need to go through lengthy consultation processes.



- 2.3.4 Mitigation for the Five Oak Green Bypass will be required. For example, consideration of the final alignment and evidence that it causes least harm will be required, considering cut fill / using false cuttings, potentially wider land take to provide topography tie in, new landscape infrastructure/screening and to avoid tall bridge structures, and provision of landscape planting that is in keeping with local landscape character of the site and the surrounding area. Stantec believe the anticipated mitigation would reduce the residual magnitude of adverse effects, but there would still be the potential that significant adverse effects will remain after mitigation upon the setting of the High Weald Area of Outstanding Natural Beauty.
- 2.3.5 In terms of financial viability, further studies are being undertaken by TWBC to determine whether the Five Oak Green Bypass would be viable, even with Tudeley Village remaining within the Local Plan. However, it would be difficult to see such studies resulting in a positive viable option for the bypass without Tudeley Village, particularly given the difficulties in its delivery from land ownership issues, to impacts on the High Weald Area of Outstanding Natural Beauty. As such it is considered the Five Oak Green Bypass would not be viable without Tudeley Village and significant obstacles would still remain be needed to be overcome if it remained within the Local Plan.

2.4 NECESSARY

- 2.4.1 A review of the suite of traffic modelling reports prepared by SWECO has been undertaken. The latest versions of the assessment documents are based on the removal of Tudeley Village and a reduced provision of housing in Paddock Wood and east Capel.
- 2.4.2 The traffic modelling note prepared by SWECO, November 2023 *Tunbridge Wells Local Plan Local Junction Capacity Sensitivity Testing Technical Note* states that:

"Although the data analysis shows that congestion rises along the B2017 through Five Oak Green link in the Local Plan scenario, the demand is not seen as being of a level to justify a major expansion in link capacity or a new link road such as the Five Oak Green bypass that was previously considered.

2.4.3 It is therefore clear that the Five Oak Green Bypass is not considered to be necessary from a highway capacity perspective.

2.5 SUMMARY

In summary, the feasibility of delivering the Five Oak Green Bypass would be extremely difficult to achieve given the land required and the multiple landowners involved, even if compulsory purchase was utilised, as well as having significant impact on air quality, noise, safety and the operational aspects of the Capel School. The viability of the bypass from a financial perspective is still been calculated by TWBC. However, it is clear that from a timescale perspective, it could jeopardise the delivery and adoption of the Local Plan and in that regard, is not viable. It would be difficult to see the bypass being viable from a financial perspective if Tudeley Village did not come forward given the submission Local Plan identified it could be wholly delivered by that particular development. The modelling undertaken by SWECO demonstrates that whilst congestion is experienced along the B2017 Five Oak Green Road as a result of the revised Local Plan development numbers, it is not of a level to justify the delivery of the Five Oak Green Bypass.



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3 COLTS HILL BYPASS

3.1 INTRODUCTION

- 3.1.1 The Colts Hill Bypass running from Pembury in the south to the A228/B2017 roundabout in the north is a longstanding aspiration of Kent County Council (KCC) Highways & Transportation and the land to deliver it has been 'safeguarded' in previous Development Plans, including the Local Plan (2006), Core Strategy (2010), and Site Allocations Local Plan (2016).
- 3.1.2 Further work undertaken since the Draft Local Plan has indicated that this entirely off-line route is not necessary to mitigate the impacts of strategic growth at Paddock Wood and east Capel, and at Tudeley Village. Instead, a part off-line new section of highway running to the north west of a collection of houses in Colts Hill on the A228, together with other on-line improvements to the A228 to the east, is proposed.
- 3.1.3 The indicative alignment of the Colts Hill Bypass is shown in **Figure 3-1** below as the purple dashed line running between the A228/B2017 roundabout in the north to the west of Colts Hill as indicated by the green arrow. The dotted purple line is the continuation of the route proposed by KCC which is now not proposed to come forward.

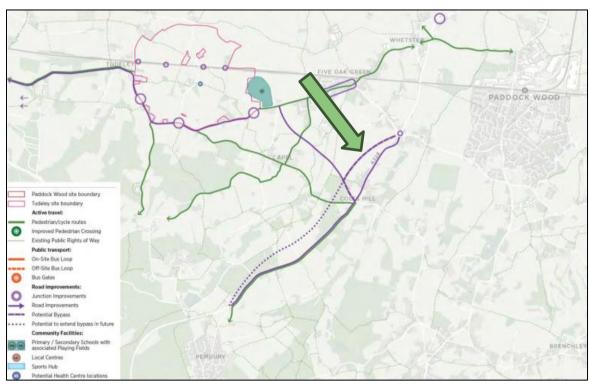


Figure 3-1: Extract of Map 33 from TWBC Submission Local Plan 2020 – 2038 – Submitted October 2021

3.2 FEASIBILITY

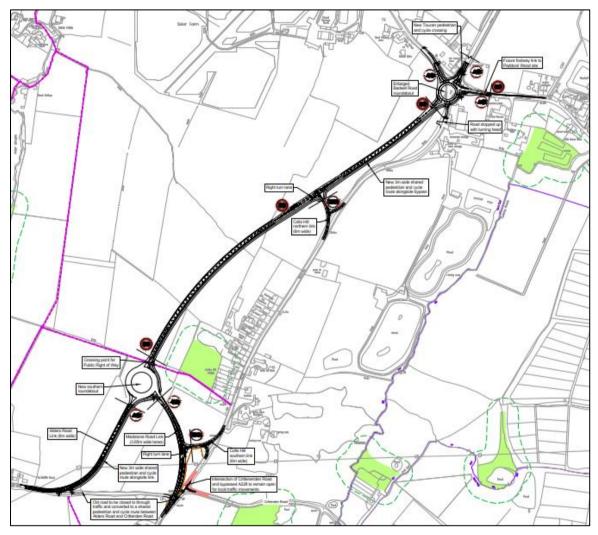
3.2.1 As with the Five Oak Green Bypass, a key factor in whether the Colts Hill Bypass is considered feasible is whether it is viable in the first place. The viability of the bypass is set out in further detail below and therefore this section appraises the feasibility of the bypass's delivery from a practical perspective.



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- 3.2.2 The submission Local Plan document 'PS_050 RAG Assessment Access and Movement Colts Hill Bypass' is actually a Landscape and Visual assessment which is also contained within 'PS_052 Zone of Theoretical Visibility Colts Hill Bypass'. The council have clearly uploaded the wrong document. As such, a full review of Stantec's RAG assessment for Access and Movement cannot be undertaken. Notwithstanding this, a review of the other submission Local Plan documents allows a high-level review to be undertaken.
- 3.2.3 The Access and Movement report, November 2023, prepared by Stantec contains drawing 332410964-STN-HGN-SW-DR-H-0702, an extract of which is shown below in **Figure 3-2**. This figure shows the indicative design of the Colts Hill Bypass and connecting junctions.





3.2.4 The indicative alignment of the Colts Hill Bypass indicates it would pass through at least one Public Right of Way and potentially multiple landownerships. Whilst TWBC could utilise compulsory purchase orders to obtain the land required, sections of land to the south/east of the link road would become unusable for farming due to their reduced size and access and therefore the land value would plummet for the existing owner. It is therefore considered appropriate compensation would be further required, possibly impacting on the viability of purchase and as such the feasibility to deliver the route.



- 3.2.5 Whilst Public Rights of Way could be stopped up or diverted with measures put in place to allow for safe crossing of the road, there would be lengthy consultation processes that could hinder the timescales of the delivery of the acceptability of the Local Plan
- 3.2.6 Information on the delivery of the scheme in terms of compulsory purchase orders is not yet available for consideration. However, it is clear that if the land needed to deliver the Colts Hill Bypass and the junctions at either end connecting it to the existing highway network is within multiple ownerships, there would be significant difficulties in obtaining the land required to build it. As such, it is considered that on the basis costs and difficulties in obtaining land to deliver the bypass and connecting junctions at either end, with fewer residential units planned at Paddock Wood and east Capel, the feasibility of delivering the Colts Hill Bypass would be extremely difficult.

3.3 VIABILITY

- 3.3.1 The modelling work undertaken by SWECO has not allowed for any internalisation of trips, i.e. those trips generated and contained within development parcels of land such as those travelling to school, work nearby or local shops. Whilst this provides a robust impact assessment, it can lead to figures that overstate the need for mitigation. Similarly, the travel mode share has been based on 2011 Census data: *Method of travel to work*. This travel mode share data only considers those travelling to work and therefore misses trips generated for other purposes such as trips to schools or local shops, which mainly use sustainable transport modes such as walking and bus. As such., the mode share is skewed to show more trips by private car. Again, this presents a robust traffic modelling position, but it over estimates the number of vehicles likely to be using highway infrastructure and therefore, such mitigation may not be required. Further, the 2011 Census data is somewhat old now and does not take into account the working practices that have become a normal way of life since the Covid-19 Pandemic including working from home and online grocery and goods shopping. All of which have significantly reduced the number of vehicular trips generated, particularly at peak times.
- 3.3.2 As such, whilst the SWECO modelling presents a worst case, it could be argued that the results skew the need for mitigation, and the viability of schemes such as the Colts Hill Bypass, may be deemed to be unnecessary with future studies. SWECO state the final design solution would be developed as and when individual site proposals come forward. However, it is expected that each developer will utilise internalisation figures, linked trip figures and mode shift figures to demonstrate the lowest impact possible on the highway network, thus avoiding the necessary financial contributions from each development needed to pay for the bypass. Therefore, if TWBC base the financial viability of the Colts Hill Bypass on the modelling by SWECO, it is considered that the cost benefit analysis would be overly estimated with future contributions from developers negotiated down creating a funding shortfall gap.

3.4 NECESSARY

3.4.1 The A228/B2017 already suffers from capacity issues at present and the Paddock Wood and east Capel proposals will only exacerbate this further. Therefore, mitigation is required prior to any development brought forward as part of the local plan by KCC. However, SWECO outlined potential mitigation at the roundabout in their 'Local Plan – Transport Assessment Addendum 2' document dated October 2021 which relied on local widening at the junction without the need for a Bypass.



3.4.2 It is understood the bypass is necessary to provide pedestrian and cycle links on the A228 south of Paddock Wood and to alleviate traffic through what is understood to be an accident hotspot but in terms of pure highway capacity, it is understood local mitigation at the roundabout could be sufficient alleviate these issues. Therefore, in highway capacity terms, further justification appears to be required for the Colts Hill Bypass from a highway capacity perspective.

3.5 SUMMARY

- 3.5.1 In summary, the feasibility of delivering the Colts Hill Bypass would be difficult to achieve given the land required and the multiple landowners involved, even if compulsory purchase was utilised. The viability of the bypass from a financial perspective is still been calculated by TWBC. However, it is considered that the traffic generation in the modelling assessments undertaken by SWECO over estimate the amount vehicles that could be generated by the proposals. As a result, the cost benefit analysis associated with the bypass could be based on incorrect information and as developers undertake their own assessments, showing lower traffic generation, there could be a resulting funding gap that may be difficult to fill.
- 3.5.2 The modelling undertaken by SWECO demonstrates that whilst existing traffic flows at the A228/B2017 result in the junction operating over capacity in the base case scenario and that this would be exacerbated by the proposals associated with Paddock Wood and east Capel, local mitigation at the roundabout could alleviate these capacity issues and therefore, the bypass would not be required in pure highway capacity terms.



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4 SUMMARY & CONCLUSION

4.1 SUMMARY

FIVE OAK GREEN BYPASS

- 4.1.1 The feasibility of delivering the Five Oak Green Bypass would be extremely difficult to achieve given the land required and the multiple landowners involved, even if compulsory purchase was utilised, as well as having significant impact on air quality, noise, safety and the operational aspects of the Capel School. The viability of the bypass from a financial perspective is still been calculated by TWBC. However, it is clear that from a timescale perspective, it could jeopardise the delivery and adoption of the Local Plan and in that regard, is not viable. It would be difficult to see the bypass being viable from a financial perspective if Tudeley Village did not come forward given the submission Local Plan identified it could be wholly delivered by that particular development.
- 4.1.2 The modelling undertaken by SWECO demonstrates that whilst congestion is experienced along the B2017 Five Oak Green Road as a result of the revised Local Plan development numbers, it is not of a level to justify the delivery of the Five Oak Green Bypass.

COLTS HILL BYPASS

- 4.1.3 The feasibility of delivering the Colts Hill Bypass would be difficult to achieve given the land required and the multiple landowners involved, even if compulsory purchase was utilised. The viability of the bypass from a financial perspective is still been calculated by TWBC. However, it is considered that the traffic generation in the modelling assessments undertaken by SWECO over estimate the amount vehicles that could be generated by the proposals. As a result, the cost benefit analysis associated with the bypass could be based on incorrect information and as developers undertake their own assessments, showing lower traffic generation, there could be a resulting funding gap that may be difficult to fill.
- 4.1.4 The modelling undertaken by SWECO demonstrates that whilst existing traffic flows at the A228/B2017 result in the junction operating over capacity in the base case scenario and that this would be exacerbated by the proposals associated with Paddock Wood and east Capel, local mitigation at the roundabout could alleviate these capacity issues and therefore, the bypass would not be required in pure highway capacity terms.

4.2 CONCLUSION

4.2.1 It is clear from the review of the amended submission Local Plan documents that there is further justification needed for both the Five Oak Green Bypass and the Colts Hill Bypass from a viability and need perspective. If both of these matters are justified, further work would be required demonstrate the actual practical delivery of the schemes would be feasible. At present, none of the documentation within the submission Local Plan demonstrates either bypass schemes are deliverable.

