

Town and Country Planning Act 1990

Appeal by Barratt David Wilson and Hopkins Homes concerning Land North-East Of Humber Doucy Lane Ipswich Suffolk. Appeal against Ipswich Borough Council's and East Suffolk Council's refusal of – Outline Application (With All Matters Reserved) - Hybrid Application – Full Planning Permission for the means of external access/egress to and from the site. Outline planning application (all matters reserved) for a mixed use development for up to 660 dwellings (Use Class C3), up to 400 sq m (net) of non-residential floorspace falling within Use Class E and/or Use Class F2(b), an Early Years facility, and associated vehicular access and highway works, formal and informal open spaces, play areas, provision of infrastructure (including internal highways, parking, servicing, cycle and pedestrian routes, utilities and sustainable drainage systems), and all associated landscaping and engineering works.

**LPA Reference (Ipswich Borough Council):
IP/24/00172/OUTFL**

PINS Reference: APP/R3515/W/24/3350674

**LPA Reference (East Suffolk Council):
DC/24/0771/OUT**

PINS Reference: APP/X3540/W/24/3350673

Proof of Evidence of Luke Cantwell-Forbes

On behalf of Suffolk County Council (Local Highway Authority)

1 Personal Qualifications and Experience

- 1.1 I am Luke Cantwell-Forbes, Principal Transport Development Planner of Suffolk County Council ("SCC"), Endeavour House, 8 Russell Road, Ipswich, Suffolk, IP1. I graduated with a BSc in Civil Engineering from the University of Suffolk in 2021.
- 1.2 I am employed by SCC as the Principal Transport Development Planner and have worked for SCC since 2014. I have been part of my current team since May 2021, and I am responsible for formulating the Local Highway Authority's response to major and strategic planning consultations, Local Plans and Development Frameworks across Suffolk. My role includes leading on the Highways aspects of Planning Appeals for SCC. Previously, I have worked as a Senior Transport Planning Engineer and Development Management Technician, providing statutory responses to planning applications on highway matters for a variety of scales of development. I have also worked as a Flood and Water Management Engineer, providing statutory responses to planning applications on behalf of SCC in its capacity as the Lead Local Flood Authority.
- 1.3 I present this Proof of Evidence ("PoE") to explain SCC's position on highways matters in respect of the proposed development at Land North-East Of Humber Doucy Lane, Ipswich, Suffolk (the "Appeal Site"), planning appeal references APP/R3515/W/24/3350674 and APP/X3540/W/24/3350673, which is the subject of this appeal made by Barratt David Wilson and Hopkins Homes (the "Appellants") against Ipswich Borough Council's ("IBC") and East Suffolk Council's ("ESC") decision to refuse planning permission.
- 1.4 SCC as Local Highway Authority is a Statutory Consultee to IBC's and ESC's Planning Process. SCC provide highways advice and expertise in the form of Highways Consultation Response Letters during the Statutory Consultation period for a planning application.
- 1.5 I was the Officer who drafted the response to the Planning Consultation on the application. Where I refer to the 'position' of SCC/the Local Highway Authority in its consultation response (CDHW1) below, that represents my professional view on those matters. The views and judgements contained within this PoE are my own.
- 1.6 Where the facts and matters set out in this PoE are within my own knowledge, they are true and where they derive from other sources, they are true to the best of my knowledge and belief. I confirm that the opinions expressed are my true and professional opinions and are given to this inquiry as an objective and independent assessment.

2 Introduction

2.1 This PoE on highways matters sets out the position of SCC in relation to its statutory highways function, as the Statutory Consultee for the local road network in the vicinity of the site, in relation to the proposed development at Land North-East of Humber Doucy Lane, Ipswich, Suffolk.

2.2 My evidence particularly focuses on reasons for refusal 2 and 3 (based on the IBC numbering). I also address s106 contributions which are required in connection with highways, public rights of way or other transport impacts and the points raised in SCC's Statement of Case which are relevant to reason for refusal 1 (masterplanning).

2.3 The following documents are submitted alongside, and in support of, this statement:

- ISPA Contribution Route to Ipswich Town Centre (Appendix A)
- PRoW Contribution Routes (Appendix B)

2.4 I have reviewed the Appellant's Statement of Case and I have also been liaising with the Appellant on the draft Highways Statement of Common Ground (CDSoCG4). I understand that the main matters of disagreement, concerning SCC in its capacity of Local Highway Authority, relate to the trip distribution exercise underpinning the Transport Assessment (CDAD37.1), the details submitted to support the site access designs and the package of off-site highways mitigation measures required by SCC to make the site acceptable.

2.5 I address these matters in Sections 6 and 7 below.

3 Site Description

- 3.1 The site is located on the north-east of Ipswich, which is the largest town in Suffolk, in the south of the county. The site is split into three parcels, with the western parcel bounded by the Ipswich to Lowestoft railway line on its northern boundary, Lacy's Farm and Ipswich Rugby Club on its eastern boundary, Humber Doucy Lane on its southern boundary and Tuddenham Road on its western boundary. The eastern parcel is bounded by Ipswich Rugby Club on its northern and western boundaries, Seven Cottages Lane on its eastern boundary and Humber Doucy Lane on its southern boundary.
- 3.2 The third parcel is located on the western side of Humber Doucy Lane, to the south of the junction with Tuddenham Road. It is understood that this parcel was included to accommodate potential junction improvements to the junction of Humber Doucy Lane and Tuddenham Road (Section 2.4 of the Planning Statement (CDAD33)).
- 3.3 The site from its southern edge of the western parcel is approximately 1.9 miles (or 46 minutes' walk) from the centre of Ipswich Town, by the most direct route. The site from its southern edge of the western parcel is located approximately 0.5 miles from Northgate High School, 0.3 miles from Rushmere Primary School, 0.4 miles to the Selkirk local centre and 1.5 miles from Ipswich Hospital. Walking and cycling facilities within the area are constrained and generally substandard when assessed against current guidance.
- 3.4 Both Sidegate Lane and Tuddenham Road offer connectivity to the A1214 corridor, provides ongoing connectivity to the east, south and west of Ipswich. Tuddenham Road offers no off-carriageway facilities for walking and cycling and is constrained by the railway bridge adjacent to the Ipswich Hockey Club. Sidegate Lane offers footway connections, which are constrained in places, and offers no off-carriageway facilities for cycling. The A1214 offers walking and cycling facilities in the form of footways and mandatory cycle lanes.
- 3.5 Humber Doucy Lane provides connectivity to Playford Road, and ongoing connectivity to the east via the A1214 (Woodbridge Road East). Humber Doucy Lane is constrained in places, in terms of both carriageway and footway facilities, and offers no off-carriageway cycling facilities.
- 3.6 Four vehicular access junctions are proposed; (1) a signalised junction on Humber Doucy Lane (opposite Inverness Road) to serve the western parcel (CDAD2(10)), (2) a priority junction from Tuddenham Lane to serve a small section of the western parcel (CDAD2(10)), (3) a priority junction from Humber Doucy Lane (between Kinross Road and Roxburgh Road) to serve the eastern parcel (CDAD2(10)) and (4) a bus only access opposite Sidegate Lane which will enable bus penetration into the western parcel (CDAD2(10)).

4 National and Local Planning Policy related to Transport Matters

National and Local Planning Policy

4.1 National and Local planning policy is addressed within Laura Ashton's Proof of Evidence.

Suffolk Local Transport Plan (2011 - 2031)

4.2 The current Suffolk Local Transport Plan (LTP) was adopted by SCC in 2011.

4.3 The document is in two parts; Part 1 is the overarching transport strategy for Suffolk, Part 2 is a four-year implementation plan indicating how the County Council are proposing to address the issues identified within the longer-term transport strategy.

4.4 In Part 1 it set out three strands for dealing with transport issues in urban areas:

- reducing the demand for car travel
- more efficient use and better management of the transport network
- where affordable - infrastructure improvements, particularly for sustainable transport

4.5 The LTP also highlights links to wider SCC priority themes:

- A prosperous and vibrant economy
- Learning and skills for the future
- Creating the greenest county
- Safe, healthy and inclusive communities

4.6 It is clear that the direction of travel from the Department for Transport (DfT) is towards a greater emphasis on sustainable transport. On 27 July 2020 the DfT published Local Transport Note (LTN) 1/20 – Cycle infrastructure design (CDHW3). This document places far more emphasis on good quality infrastructure design for cycling to make it a safe, convenient and attractive mode of travel across the UK. This was backed up by Gear Change (CDHW10), published at the same time. This set out a bold vision for cycling in the UK, backed up by the infrastructure requirements set out in LTN1/20 (CDHW3). In February 2022 the Highway Code was rewritten to put the most vulnerable road users (pedestrians and cyclists) at the top of a new road user hierarchy, with the road users that have the most potential to do harm, motor vehicles, at the bottom.

4.7 The SCC LTP is in the process of being completely rewritten to place more emphasis on decarbonisation of transport through active travel and demand management measures. The new LTP will be consulted on once the DfT have updated their guidance to Local Transport Authorities on drafting a LTP and their preferred approach to assessing the carbon impacts of the transport sector.

5 SCC's Engagement

Application Timeline

- 5.1 My first involvement with the proposed development with is the subject of this Appeal was when I attended a meeting with the Appellant on **09 March 2023**. This was a meeting to discuss basic highway principles, which were in early stages of development. The discussion primarily focused on discussing the form of the proposed highways in terms of carriageway, footway and cycle track widths, alignment and sustainable drainage solutions, alongside accessibility to public transport. Due to the early stages of the proposals, the meeting primarily focused on ensuring the principles within the Suffolk Design: Streets Guide (CDDG1) were considered throughout the design of the development proposals.
- 5.2 I was contacted by the Appellants transport consultant, RSK, on **14 September 2023** to request initial feedback on a proposed study area (an area of the local highway network which should be assessed). Feedback was provided by SCC on **19 October 2023**, outlining general comments on trip generation, trip distribution and proposed methodology. In terms of trip distribution, it was outlined that the Suffolk County Transport Model (SCTM) should be used to compare the assumptions from the 2011 Census data proposed within the Scoping Proposal. It was also outlined that a detailed assessment of local facilities and destination and anticipated desire lines should be undertaken, alongside an audit of these routes to establish where improvements are required and what form those improvements should take, in line with current guidance (for example, LTN 1/20 (CDHW3), Manual for Streets (MfS) (CDHW4) and the Suffolk Design: Streets Guide (CDDG1)).
- 5.3 I also participated in three Pre-Application meetings held between the Appellant and the Local Planning Authorities:
- 5.4 A meeting held on **01 November 2023**: this related to green infrastructure and did not focus on highways and transportation.
- 5.5 A meeting on **02 November 2023**, which focused on highways and transportation. Based on an agenda circulated by Phase 2 Planning on 25 October 2023, the main topics of discussion were: vehicular access proposals, bus strategy, pedestrian and cycle strategy and Transport Assessment scoping.
- 5.6 A meeting on **08 December 2023**, which based on an agenda circulated by Phase 2 Planning on 07 December 2023, consisted of the Appellant providing an update on highway proposals and the position of the Rugby Club land. The remainder of this meeting consisted of SCC, IBC and ESC discussing the information presented without the presence of the Appellant.
- 5.7 Together with a member of the SCC Passenger Transport Team, I attended a further Pre-Application meeting with the Appellant on **24 January 2024**, which focused on passenger transport options. The meeting consisted of discussing local bus services

which could be extended into the Appeal site and the general requirements of the internal road network to support a bus service. The main requirements included ensuring a loop within the site to avoid busses needing to turn around within the site and ensuring that consideration was given to the actual walking distance for residents to proposed passenger transport infrastructure.

- 5.8 Following earlier email exchanges relating to use of the SCTM, SCC provided two modelling scopes for the consideration of the Appellant on **16 February 2024**. The modelling was commissioned on 17 April 2024 and the outputs were provided to the Appellant on **09 July 2024**.
- 5.9 The planning applications which are the subject of this appeal (references IP/24/00172/OUTFL and DC/24/0771/OUT) were submitted to IBC and ESC respectively in **March 2024**.
- 5.10 SCC was formally notified of the planning applications under references IP/24/00172/OUTFL and DC/24/0771/OUT by letters from IBC and ESC on **02 April 2024**.
- 5.11 On behalf of SCC, in its capacity as Local Highway Authority, I submitted a formal consultation response to IBC on **24 May 2024** (CDHW1). The response recommended that a Holding Objection was upheld pending the submission and review of additional information and is summarised in Section 6 of this Proof of Evidence.
- 5.12 The application was refused by IBC and ESC on **04 June 2024** with thirteen (13) and eleven (11) Reasons for Refusal (RfR) respectively; with RfR 1 relating to master planning, RfR 2 relating to highways and transport, RfR 3 (IBC's refusal letter) relating to character and amenity of Humber Doucy Lane and RfR 13 and 11 (IBC and ESC respectively) relating to the absence of a signed section 106 Agreement.
- 5.13 I attended a meeting between SCC and the Appellant took place on **07 June 2024** to discuss SCC's consultation response.

6 The reasons for refusal: highways concerns

RFR 2 – TRANSPORT:

- 6.1 RfR 2 of both IBC's (CDDD6) and ESC's (CDDD5) refusal letters outline that the impacts of the development on the surrounding highway network need to be fully assessed to understand the acceptability of the proposals and the mitigation required, stating that the development proposals will also be expected to ensure opportunities to promote walking, cycling and public transport use are identified and secured.
- 6.2 In terms of the assessment of the impacts the development would have upon the local highway network, SCC response dated 24 May 2024 (CDHW1) outlined some fundamental concerns relating to the submitted Transport Assessment (CDAD37.1) (reference 230597, dated March 2024).

TRANSPORT ASSESSMENT – TRIP DISTRIBUTION:

- 6.3 A primary concern associated with the submitted Transport Assessment (CDAD37.1) relates to the methodology underpinning the trip distribution assumptions. Trip distribution is a standard component of a Transport Assessment (CDAD37.1) and seeks to detail the routes motorists will take to and from the proposed development on the local highway network.
- 6.4 There are three common ways to distribute traffic on a road network: survey data, census data and strategic modelling. Survey data relies on applying turning count proportions associated with existing traffic flows from a survey to proposed development traffic. This is a basic form of assessment and is not suitable for large-scale development.
- 6.5 Census data (often referred to as a "gravity model") utilises journey to work data from the Census to identify the origin and destination of traffic for the area around a development site and assumes routing between those two points. This was the method used within the submitted Transport Assessment (CDAD37.1).
- 6.6 The primary risks with a Census based approach are that it relies on the user to accurately identify reasonable routing, which becomes increasingly difficult as the size of the site and network increases, and that Census data only represents journey to work trips when only a moderate proportion of vehicle movements are to and from work. Furthermore, Census data has the potential to misrepresent current conditions the older that data becomes, and in the case of the assessment for the Appeal site, the data is from 2011, which could significantly differ from an assessment undertaken in 2023.
- 6.7 Another primary risk relates to how growth is applied to the trip distribution derived from the Census data and subsequent routing assumptions.
- 6.8 A Transport Assessment will assess multiple scenarios, typically consisting of a base year (representing the point in time in which the proposed development is assessed), an opening year (the year in which the development is expected to be first occupied) and a future year (a point in the future in which the development is expected to be fully occupied). When considering these different scenarios, it is essential that suitable growth is applied to ensure that additional trips associated with the development are considered

in conjunction with additional background trips that are resultant of growth over the period.

- 6.9 A Census based approach will apply DfT TEMPro growth factors to the trip distribution anticipated for the base year (2023 for the Appeal site) to derive both opening year (2026 for the Appeal site) and future year (2032 for the Appeal site) scenarios. In other words, the traffic distribution anticipated within the opening year and future year scenarios are directly linked to the base year assumptions, just growthed proportionately, and will not consider any dynamic redistribution of traffic which could result from changes in traffic conditions on the network.
- 6.10 The third common way to distribute traffic on a road network is through strategic modelling. Strategic modelling is generally more accurate than the survey or Census methods. Strategic modelling uses a number of data sources, most notably survey data and mobile phone data, to identify routeing between 'zones' (an area consisting of multiple buildings) within the model. The model area is split into different zones and all trips will start at a zone (origin) and terminate at a zone (destination).
- 6.11 Surveys and mobile phone data provides and understanding of trips between individual zones and the routing which those trips take. Travel time is a key contributing factor to likely vehicle routing, with a common assumption being that travellers will choose routes which minimise travel time. Therefore, additional growth and infrastructure projects, which can have the potential to impact journey times, can impact route choice.
- 6.12 Committed highway schemes and developments can be inputted into strategic models. Changes in demand on the network resultant of committed highway schemes and developments are represented within the model and may lead to dynamic redistribution of traffic. For instance, where the capacity of an existing junction is improved, trips utilising different routes may reroute to this junction because it now enables a shorter journey. Conversely, where additional demand reduces capacity on a junction, trips may re-route to an alternative route which offer a shorter journey time.
- 6.13 The Census based approach is directly on the routeing assumptions determined for the base year and subsequently, does not account for dynamic redistribution of traffic in future years resultant of growth and infrastructure projects over the period. Therefore, due to the quantity of future highway schemes and committed development, alongside the general risks associated with the Census based approach, SCC remains of the view that that the Transport Assessment (CDAD37.1) associated with the Appeal site should be underpinned by strategic modelling.
- 6.14 It should be recognised that while strategic modelling did not inform the Transport Assessment (CDAD37.1) associated with the Appeal site, the Appellant did commission use of the SCTM, a strategic highway model built in Saturn. The outputs were presented to the Appellant on 09 July 2024, and included the following future highway improvements:
- Capacity improvements on Bixley Road, Heath Road and Foxhall Road, Ipswich,
 - Changes to Nacton Road and Maryon Road, Ipswich,
 - Changes to Upper Orwell Street, Ipswich,
 - Changes to St Helen's Street and Bond Street, Ipswich,
 - Changes to A1214 Bell Lane, Ipswich.
 - Changes to the Ipswich Radial Corridor Route,
 - Several new junctions associated with the Ipswich Garden Suburb,

- Capacity improvements to the A1214 Valley Road / Westerfield Road junction,
- Capacity improvements to the A1214 Valley Road / Tuddenham Road junction,
- The Europa Way link road,
- Several A12 corridor improvements linked to Brightwell Lakes (a committed residential development for 2,000 homes),
- Several new accesses associated with Brightwell Lakes,
- Several other future highway schemes within East Suffolk and Mid Suffolk districts.

6.15 SCC would have expected the Appellant to review the SCTM outputs and compare the anticipated vehicle trip distribution with the trip distribution assumptions presented within the Transport Assessment (CDAD37.1). If there were material differences in trip distribution, revisions may have been required to the junction modelling included within the Transport Assessment (CDAD37.1). If the outputs demonstrated a greater impact on junctions which were not assessed within the Transport Assessment (CDAD37.1), additional junction modelling may have been required. Furthermore, if outputs demonstrated a greater impact on roads there may have been a requirement to consider mitigation measures such as traffic calming measures which seek to limit an intensification resultant of development. To-date SCC is not aware that this assessment has been undertaken.

6.16 None of the above schemes – and the associated impacts on the highway network – are captured within the Transport Assessment (CDAD37.1) supporting the Appeal site as the outputs are linked to base year traffic surveys. While committed development flows were included within the assessment within the Transport Assessment (CDAD37.1), the flows associated with those developments are predicated on the flows included within their Transport Assessment (CDAD37.1) and subsequently, they are not dynamically re-distributed.

6.17 An additional concern which was raised within SCC's consultation response (CDHW1) is that the highway network assessment does not extend beyond vehicles heading north on Tuddenham Road, with no consideration given to potential routing to and from Tuddenham Village or Church Lane and Lower Road, which offer alternative east-west routing to the A1214 corridor. Church Lane and Lower Road are known locally for alternative routing and SCC considers that these routes should be sufficiently assessed with consideration given to any highway safety concerns which could arise from intensification. Strategic modelling would allow for this assessment to be undertaken, with dynamic redistribution of traffic considered.

6.18 Use of strategic modelling would not only provide an assessment of the highway network with the development traffic, committed development traffic and future highway schemes with dynamic re-distribution included, it would also allow for the impacts of development related proposed infrastructure to be assessed. The Appeal site proposes a new signalised junction on Humber Doucy Lane opposite Inverness Road, which has the potential to influence route choice due to increased journey times on Humber Doucy Lane. For example, as above, Church Lane and Lower Road are known locally for alternative routing to the A1214 corridor, and there is potential for the proposed signalised junction to influence route choice and increase demand on Westerfield Road to reach the A1214 corridor as an alternative for traffic routing east-west. This is just one potential example, and it is considered necessary for the impacts to be properly assessed to determine if mitigation is required to make the development acceptable in terms of highway safety and/or residual cumulative impacts on the road network.

- 6.19 Overall, as outlined within the SCC's consultation response (CDHW1), use of strategic modelling would allow for a review of the local highway network on a wider scale than was included within the submitted Transport Assessment (CDAD37.1), and due to the advantages of strategic modelling outlined above, provide a more comprehensive and robust understanding of which specific junctions should be subjected to further detailed junction modelling; whether alterations were required to the junction modelling presented within the Transport Assessment (CDAD37.1); and what mitigation measures are required to ensure that the development's impacts are suitably mitigated.
- 6.20 SCC does not consider that the development's impacts on the local highway network have been adequately assessed and subsequently, is not confident that sufficient mitigation has been proposed to ensure that the development would not present an unacceptable impact on highway safety, or that the residual cumulative impacts on the road network, following mitigation, would not be severe taking into account all reasonable future scenarios, contrary to Paragraph 116 of the NPPF.

TRANSPORT ASSESSMENT – TRIP GENERATION:

- 6.21 In terms of trip generation (the quantum of trips anticipated to leave and enter the Appeal site), SCC is generally content with the approach within the submitted Transport Assessment (CDAD37.1).
- 6.22 It was highlighted within SCC's consultation response (CDHW1) that it appears that anticipated trip generation forecasts did not correlate with the trip generation inputted into the junction models and that a further review should be undertaken due to the potential for flows within the submitted junction modelling to be understated. This was based upon the flows presented within the submitted Traffic Flow Diagrams (Appendix 14) not correlating with Table 6.2 of the submitted Transport Assessment (CDAD37.1), which summarises the trip generation for the development.
- 6.23 SCC is now content that the flows presented within the Traffic Flow Diagrams correlate with Table 6.2 of the submitted Transport Assessment (CDAD37.1) and this concern has fallen away.

TRANSPORT ASSESSMENT – JUNCTION MODELLING:

- 6.24 Notwithstanding the position on trip generation outlined above, junction models underpinning the model outputs for the proposed site accesses included within Section 7.6 of the submitted Transport Assessment (CDAD37.1) have not been submitted for review. Therefore, while it is accepted that flows have been correctly inputted into the submitted Traffic Flow Diagrams, it is not evident that they have been correctly inputted into the junction models supporting the site accesses. SCC would expect the junction models associated with the proposed site accesses to be submitted for review.
- 6.25 In terms of the off-site junctions which require modelling to suitably assess the Appeal site, as outlined above, strategic modelling would allow for a review of the local highway network on a wider scale than was included within the submitted Transport Assessment (CDAD37.1), and due to the advantages of strategic modelling outlined previously within this PoE (Paragraphs 6.10 – 6.19), provide a more comprehensive and robust understanding of which specific junctions should be subjected to further detailed junction modelling to ensure that the developments impacts are suitably assessed.

- 6.26 Not only would strategic modelling provide a better understanding of the junctions which should be assessed in detail, it would also provide more confidence in the flows inputted within the junction models, which are a key input. There is potential for strategic modelling to highlight a higher number of flows at a junction than has been derived from the Census based approach and subsequently, increase the demand at the junction. This could result in material differences in the model outputs and the risks associated with the Census based approach warrant consideration as a result. Therefore, concerns relating to trip distribution, which I have discussed at paragraphs 6.7 – 6.20 above, are also of concern in relation to the submitted junction modelling.
- 6.27 In terms of the junctions which were modelled within the submitted Transport Assessment (CDAD37.1), SCC's consultation response (CDHW1) outlined that the Origin-Destination model inputs for each of the junction models should be reviewed as they do not appear to correlate with the submitted Traffic Flow Diagrams. As an example, for the Tuddenham Road / Colchester Road / Valley Road roundabout, full build-out with committed development scenario, the Traffic Flow Diagrams (Appendix 14, Figure 7.24) show an ahead movement from Colchester Road to Valley Road of 1,030 during the PM peak. When looking at the inputted model data, it appears this movement has been inputted as from Tuddenham Road (NB) to Tuddenham Road (SB). SCC upholds its position that the junction models should be assessed to ensure inputs are correct as this could materially impact model outputs.
- 6.28 If traffic flows are not correctly inputted into the junction models the model outputs are undermined. For example, if one arm of a junction has significant spare capacity and another experiences capacity issues, incorrectly inputting a greater proportion of traffic on the arm with more capacity in place of the arm with constrained capacity could understate the impacts at the junction and fail to highlight highway safety or cumulative impact problems.
- 6.29 SCC's consultation response (CDHW1) also requested further justification be provided for utilising a flat traffic profile within the junction modelling. Flat traffic profiles assume that traffic is distributed evenly across the peak hour (same traffic flows each 15-minute segment) rather than what could be typically anticipated within a peak hour, which has a greater proportion of peak hourly flows within the central 30-minute segment (quarter-past to quarter-to). While use of the flat traffic profile may be suitable if traffic is distributed evenly across the peak hour, further details are required to evidence that this is the case and justify the approach for the specific junctions modelled.
- 6.30 SCC's consultation response (CDHW1) also requested that detailed geometry plans for each of the modelled junctions which informed the geometry inputs for the junction modelling should be submitted for review. This is to enable an assessment of how the inputted junction geometries were determined as junction geometry affords the potential to materially impact model outputs. For example, larger road widths could increase the capacity at a junction and fail to highlight capacity issues if falsely inputted.

SITE ACCESS PROPOSALS:

Signalised Junction – Humber Doucy Lane (opposite Inverness Road)

- 6.31 As set out above, junction models underpinning the model outputs for the proposed site accesses have not been submitted for review and subsequently, SCC is not able to advise on the robustness of the modelling (other than the trip distribution concerns which I have detailed at paragraphs 6.7 – 6.20 above).

- 6.32 As set out above, traffic flows are a key input within junction models and subsequently, any underlying concerns associated with trip distribution generate concern around junction modelling.
- 6.33 Further, as discussed within Paragraph 6.18 above, the introduction of a signalised junction affords the potential to influence route choice for background traffic due to increased journey times on Humber Doucy Lane. Given that the traffic flows presented within the submitted Transport Assessment (CDAD37.1) are a product of the initial traffic flows attained within the 2023 traffic surveys – which do not currently have the signalised junction in place – the Transport Assessment (CDAD37.1) failed to assess the impacts of potential traffic re-distribution resultant of the proposed signalised junction.
- 6.34 Therefore, SCC does not consider that the proposed site access junctions (CDAD2(4)) (or any of the off-site junctions modelled) have been adequately assessed and cannot be satisfied that the location of the signalised access would not present an unacceptable impact on highway safety or that cumulative impacts on the road network would not be severe without mitigation.
- 6.35 Based on the submitted Traffic Flow Diagrams, the signalised junction opposite Inverness Road is anticipated to accommodate approximately 82 percent of the total development flows (two-way) in the peak hours. This translates into 260 two-way traffic flows in the AM peak and 253 in the PM peak when the development is fully occupied. These additional trips resultant of the Appeal site afford the potential to intensify the use of Inverness Road, which currently serves residential use.
- 6.36 It is necessary to assess the potential impacts of increasing traffic demand on Inverness Road as part of the wider assessment of the development proposal and establish whether mitigation, such as traffic calming measures, is required. This has not been undertaken and subsequently, SCC is unable to establish potential impacts on Inverness Road and whether mitigation is required. One option could be to permanently close Inverness Road to motorised traffic at its junction with Humber Doucy Lane; however, consideration would need to be given to re-routing the existing bus route (number 59 Village Links) which currently uses Inverness Road, which may require land within the Appellants control.
- 6.37 Aside from the modelling associated with the signalised junction, as detailed within 2.3 of the Highways SoCG (DCSoCG4), SCC requires evidence to demonstrate that suitable forward visibility and onward connectivity for walking and cycling can be achieved before it can conclude that the proposed signalised junction design would be acceptable from a highway safety perspective. SCC requires details of the following, which were not provided with the application:
- Forward visibility for motorists approaching the traffic signals – Guidance presented within Chapter 6 of the DfT's Traffic Signs Manual (Guidance for traffic authorities on the use of traffic signs and road markings) (CDHW7) at Table 2-1 recommends visibility distances based on 85th percentile speeds (the speed at or below which 85 percent of all vehicles are observed to travel under). Suitable visibility is imperative to highway safety.

No forward visibility splays were presented to support the proposed signalised junction proposal (Drawing Number 0003 Revision P02) (CDAD2(4)). In accordance with DfT guidance (CDHW7), forward visibility of 40m is required where 85th percentile speeds are

30mph, increasing to 52m where 85th percentiles are 35mph and 80m where 85th percentiles are 40mph.

SCC maintains concerns that visibility may not be achievable for south-east bound traffic (approaching from Tuddenham Road) due to the bend in the carriageway north-west of Inverness Road. Dependent on measured 85th percentile speeds, visibility splays may be required to pass through third-party land (Westerfield House Cottage), which would require agreement with the landowner to reasonably secure through condition. If measured speeds illustrated that visibility splays could be provided within land controlled by the Appellant, the LPA would need to consider the implications of measures required to secure the visibility, such as the removal of vegetation.

SCC would expect the Appellant to demonstrate 85th percentile speeds at the location of the proposed signalised junction and demonstrate that suitable forward visibility is achievable, in the interests of highway safety. Without this information, SCC cannot be satisfied that the location of the signalised access would not present an unacceptable impact on highway safety.

- The proposed signalised junction (CDAD2(4)) proposes a crossing for pedestrians and cyclists, which would offer onward connectivity to the proposed segregated walking and cycling facility within the Appeal site. The proposed junction design fails to provide onward connectivity for cycling on the south side of Humber Doucy Lane. The proposed pedestrian and cycle crossing feeds into a 2.0m crossing of Inverness Road and the ongoing footway on Humber Doucy Lane which does not cater for cyclists, and the existing footway on Inverness Road, which does not cater for cyclists. While this element could likely be secured through condition, the general principal of the signalised junction has not yet been evidenced and a holistic approach to mitigating potential impacts on Inverness Road should be undertaken.
- Design alterations, including alterations to the proposed tactile paving, confirmation that there is no intention to provide a push button within the island (the crossing should be a straight over crossing without the need for pedestrians and cyclists to wait within the island) and a reduction to the width of the crossing from 5.0m to 4.0m, in accordance with requirements outlined by the SCC Streetlighting team.

Priority Junction – Tuddenham Road:

- 6.38 As outlined within Paragraph 7.6.1.1 of the submitted Transport Assessment (CDAD37.1), no detailed junction modelling was undertaken for the proposed priority junction from Tuddenham Road due to the access serving the smaller parcel of development of 49 dwellings. SCC is content with this approach based on the number of trips anticipated at this junction.
- 6.39 SCC's consultation response (CDHW1) stated concerns surrounding the proposed visibility splays associated with the proposed junction. As shown on Drawing Number 002 Revision P02 (CDAD2(4)), visibility splays of 2.4m by 136m (southbound) and 43m (northbound) are proposed. No speed data was submitted with the application in support of the road; however, SCC has access to internal data for this section of Tuddenham Road which demonstrates 85th percentiles of approximately 40mph (ranging between 38.2 – 40.4mph). Therefore, it was recommended that the northbound visibility splay was increased from 43m (which is suitable for 85th percentile speeds of 30mph) to 82m, which correlates with 85th percentile speeds of 40mph in accordance with MfS 2 (CDHW9) (calculation within Section 10.1.5).

- 6.40 While the visibility requirement outlined above may be achievable within land controlled by the Appellant or within highway maintainable at public expense, it remains uncertain as no detailed assessment has been undertaken, presenting concerns around the suitability of the access and its impacts on highway safety.
- 6.41 Due to the measured 85th percentile speeds on Tuddenham Road (40mph), SCC recommends that the existing 30mph speed limit which currently terminates north of the access to the Tuddenham Road Business Centre (approximately where the proposed priority junction will be) should be extended to ensure that the visibility splays are fully situated within the 30mph zone. The speed limit extension should extend north of the junction with Church Lane to ensure that this junction is included within the 30mph zone. The ambition is to reduce vehicle speeds and increase the overall safety of the proposed new residential vehicular access which will intensify use on this section of the network.
- 6.42 In preparation of this PoE, I have discussed the extension of the 30mph speed limit on Tuddenham Road with Suffolk Constabulary's Traffic Management Officer and have received confirmation that there is no objection in principle. Previous discussions with local councillors have also provided assurance that this proposal is supported. Therefore, SCC considers there to be reasonable prospect that an extension to the 30mph speed limit on Tuddenham Road could occur and has recommended a condition and planning obligation for its delivery on a non-prejudice basis.
- 6.43 SCC's consultation response (CDHW1) raised concerns surrounding the proposed 2.0m footways associated with the access terminating short of Tuddenham Road, providing no onward connectivity between the footways and the carriageway. It was advised that one of the footways should be designed as a 3.0m shared walking and cycling facility which provides onward walking and cycling connectivity into the site and that a suitable transition point is provided. It appears this is achievable, subject to design.

Bus Access – Humber Doucy Lane (opposite Sidegate Lane):

- 6.44 SCC's consultation response (CDHW1) outlined required design revisions which would be required to the proposed bus access (CDAD2(4)) to reduce the width of the bus only access to 3.25m to facilitate one-way movement and to reduce the junction radii to as close to 6.0m as possible, subject to vehicle tracking. It appears this is achievable, subject to design.

Priority junction - Humber Doucy Lane (serving the eastern parcel):

- 6.45 SCC's consultation response (CDHW1) outlined required design revisions that would be required to the priority junction serving the eastern parcel (CDAD2(4)) ensure that the proposed segregated walking and cycling facility on the southern boundary of the eastern parcel is integrated into the design of the junction, maintaining a continuous level which prioritises pedestrian and cycle movement. It appears this is achievable, subject to design.

Summary:

- 6.46 In summary, by reason of the matters I have set out above in connection with the Transport Assessment (CDAD37.1); vehicular access proposals relating to visibility and design; a lack of confidence in the Appellants' anticipated trip distribution for

development related traffic; and the impacts the development may present on background traffic (traffic not associated with the development site) it is not considered that the Appellants have suitably assessed the impacts that the development may present on the local highway network. Subsequently, I cannot conclude that the proposals in their current form are suitable and would not present an unacceptable impact on highway safety, or that the residual cumulative impacts on the road network, following mitigation, would not be severe taking into account all reasonable future scenarios, contrary to Paragraph 116 of the NPPF.

ACTIVE TRAVEL AND SUSTAINABLE – WALKING, CYCLING AND PUBLIC TRANSPORTATION:

- 6.47 The need for promoting sustainable transport to and from, and within, new development is clearly outlined within national policy and guidance. Notably, Section 9 of the NPPF outlines the need for transport to be considered from the earliest stages of development proposals to ensure that opportunities to promote walking, cycling and public transport use are identified and pursued.
- 6.48 The DfT has issued Gear Change (CDHW10), which is the Government's cycling and walking plan for England. This sets the Government's vision for cycling and walking to be the natural first choice for many journeys with half of all journeys in towns and cities being cycled or walked by 2030.
- 6.49 National policies and visions relating to active and sustainable modes of travel, which are reflected within IBC's (CDDP1) and ESC (CDDP2) Local Plans, are a key consideration for SCC, and it is not considered that the Appellant has demonstrated that appropriate opportunities to promote sustainable transport modes have been taken up, that safe and suitable access to the site is achieved for all users or that priority is given first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport.

Walking and Cycling:

- 6.50 SCC outlined expectations at both pre-application stage and in response to the formal planning consultation for the Appellants to consider the key destinations and facilities for future residents and determine the key active and sustainable travel routes between the application site and those destinations in the form of a walking and cycling strategy. This was to include reviewing accessibility to walking and cycling between the Appeal site and key destinations.
- 6.51 Once those key routes had been established, SCC would have expected the Appellants to undertake an audit of those routes to establish if there was any substandard infrastructure and determine necessary improvements to prioritise and incentivise active and sustainable modes of travel.
- 6.52 Whilst SCC advised that a walking and cycling strategy was submitted, no strategy was submitted with the application and the Appellants have not proposed any off-site improvements beyond the frontage of the development site, contrary to local and national planning policies.
- 6.53 Whilst the Appellants did undertake a pedestrian audit, I consider the information to be limited, with no recommendations made to improve the routes and little consideration

given to cycling accessibility and compliance with design guidance, such as MfS (CDHW4), the DfT's Inclusive Mobility Guidance (CDHW5) or LTN 1/20 (CDHW3). Notable conclusions from the audit include that there is an absence of footways to the north of Tuddenham Road and sections of Humber Doucy Lane; however, generally it appears that the Appellant considers footway provision on other routes to be of good quality (Section 4.2.2 of the submitted Transport Assessment (CDAD37.1)).

- 6.54 Both SCC (CDHW1) and Active Travel England (Section 4.4 of Active Travel England's consultation response) recommended that the Appellants should undertake a more thorough review of key routes and determine improvements for pedestrian movement, but also consider cycling in line with LTN 1/20 (CDHW3) standards, with key destinations including Ipswich Town Centre, local shops and education facilities.
- 6.55 Delivery of a development of this scale without the provision of safe and suitable walking and cycling infrastructure is not only considered to contravene policies relating to incentivising, prioritising and maximising accessibility to sustainable modes of travel, but also to policies surrounding highway safety. The Appeal site is located in a location which will generate demand for walking and cycling and appropriate infrastructure is essential both for achieving a suitable and ambitious mode share for active and sustainable modes, and to ensure those routes are safe and suitable. As outlined above, a walking and cycling strategy was not submitted with the application, contrary to the advice given by SCC.
- 6.56 A key destination from the Appeal site is Ipswich Town Centre. The distance between the Appeal site and the town centre is 1.9 miles. This is measured from the main pedestrian and cycle access opposite Sidegate Lane (CDAD2(10)) to the Sailmakers Bus Station, with the route being Sidegate Lane, Cemetery Lane, Tuddenham Road, Bolton Lane, Soane Street and Crown Street (see **Appendix A**).
- 6.57 SCC considers it necessary to ensure safe and suitable walking and cycling is provided to the town centre, in accordance with IBC's Local Plan (CDDP1) (Policy ISPA 4), which outlines that walking and cycling infrastructure should link the site to key social and economic destinations including the town centre.
- 6.58 SCC has designed a scheme of walking and cycling improvements between Ipswich Town Centre and the junction of Colchester Road and Cemetery Lane and the Appellant is expected to pay a financial contribution for its delivery. The improvement scheme is on Cemetery Lane, Tuddenham Road, Bolton Lane and Soane Street.
- 6.59 The scheme consists of formalised crossings and buildouts on Tuddenham Road and Westerfield Road, traffic calming measures along the route, footway improvements and lining improvements along the route. The purpose of the scheme is to provide a safe and suitable walking and cycling route to the town centre, and providing the Appellant delivers improvements on Sidegate Lane (discussed at Paragraphs 6.62 – 6.71 below), the scheme would provide safe and suitable walking and cycling connectivity between the Appeal site and Ipswich Town Centre.
- 6.60 It is recognised that this route improvement would directly mitigate the Appeal site but also provide a strategic improvement which would benefit the wider community. Therefore, SCC considers any planning obligation associated with this route to contribute to the wider Ipswich Strategic Planning Area (ISPA) Mitigation Strategy, which seeks to influence a modal shift to create headroom on the network for wider growth.

- 6.61 SCC notes that Policy DM21 (k) of IBC's Local Plan (CDDP1) outlines that to promote sustainable growth in Ipswich and reduce the impact of traffic congestion, development shall contribute as required to other mitigation measures and the ISPA Transport Mitigation Strategy, with Policy ISPA4 of IBC's Local Plan (CDDP1) specifically outlining that the Appeal site should provide appropriate transport mitigation measures that arise from demand created by the development, in line with the ISPA Transport Mitigation Strategy.
- 6.62 SCC remains of the view that Sidegate Lane will form a key route between the Appeal site and key destinations (notably Northgate High School and Sports Centre) and strategic walking and cycling infrastructure on the A1214 corridor, which offer onward connectivity to key destinations to the east and west of Ipswich, as well as Ipswich Town Centre.
- 6.63 Accordingly, it is essential to ensure that safe and suitable infrastructure is provided on Sidegate Lane and without any mitigation, SCC is concerned that the route will not provide safe and suitable access to the site for all users or that policy requirements relating to active and sustainable travel will be satisfied. It is noted that the walking and cycling audit presented within the Transport Assessment (CDAD37.1) provided little information relating to the suitability of Sidegate Lane for walking and cycling, other than highlighting a zebra crossing near Northgate High School and Sports Centre (Figure 4.10).
- 6.64 In terms of walking, while Sidegate Lane does benefit from existing footways, it appears there are many instances where the footways do not meet the minimum 2.0m width requirement outlined within MfS (CDHW4) (Section 6.3.22), the DfT's Inclusive Mobility Guidance (CDHW5) (Section 4.2) and the Suffolk Design: Streets Guide (CDDG1) (Section 3.4 and Appendix H), which offers sufficient space for pedestrians to pass and for wheelchair users to pass, even where they are using larger mobility scooters.
- 6.65 Furthermore, it is apparent that multiple junctions do not benefit from suitable tactile paving (blister paving). These junctions include the junction of Sidegate Lane and: Inverness Road, Lanark Road, Fairlight Close, Sherborne Avenue, Wincanton Close, Alma Close and Ely Road. The only junction which benefits from tactile paving is the junction with Sidegate Lane West.
- 6.66 As per the DfT's Guidance on the Use of Tactile Paving Surfaces (CDHW8), the use of tactile paving surfaces is important because these surfaces convey vital information to vision impaired and other people about their environment, including hazard warning and directional guidance, thereby supporting independent mobility. Chapter 6 of the DfT's Traffic Signs Manual (CDHW7) (also referred to within the DfT's Inclusive Mobility Guidance (CDHW5)) outlines that tactile paving should always be provided at all crossing points, to the layouts and colours recommended in the Guidance on the Use of Tactile Paving Surfaces (Section 11.5).
- 6.67 The requirement to ensure suitable tactile paving is provided in the interests of safe and inclusive mobility is clear and SCC would have expected any pedestrian audit to have highlighted the lack of tactile paving on Sidegate Lane, alongside deficiencies with the existing footway widths.
- 6.68 Sidegate Lane does not benefit from any cycling infrastructure, which is not considered to comply with the guidance presented within LTN 1/20 (CDHW3). Figure 4.1 of the LTN 1/20 (CDHW3) outlines the appropriate protection for cyclists from motor

traffic on highways, classifying each form of cycle infrastructure in three categories: “provision suitable for most users”, “provision not suitable for all people and will exclude some potential users and/or have safety concerns” and “provision suitable for few people and will exclude most potential users and/or have safety concerns”.

- 6.69 Two factors are used to determine the suitability of cycle infrastructure in line with Figure 4.1 of LTN 1/20 (CDHW3); traffic volumes (24 hour) and the speed limit. SCC has access to traffic counts from Automatic Traffic Counters used for the SCTM and it is clear that average 7-day traffic volumes exceed 4,000 (5,585). Based on Sidegate Lane having a nominal speed limit of 30mph, in terms of Figure 4.1 of LTN 1/20 (CDHW3), mixed-traffic (on-carriageway) cycle is considered to be “provision suitable for few people and will exclude most potential users and/or have safety concerns”, while mandatory or advisory cycle lanes falls between “provision suitable for few people and will exclude most potential users and/or have safety concerns” and “provision not suitable for all people and will exclude some potential users and/or have safety concerns”.
- 6.70 Considering the above, it is my view that protected space for cycling is required to ensure that provision is suitable for most users. As a minimum, a 3.2m shared use walking and cycling facility is required to suitably accommodate both walking and cycling requirements and provide safe and suitable accessibility between the Appeal site and the strategic walking and cycling infrastructure on the A1214 corridor.
- 6.71 Improvements to this route will need to be secured if permission is to be granted for the Appeal site and delivered prior to first occupation of the development. If the development is permitted, SCC recommends that a condition to secure details of a scheme to improve walking and cycling infrastructure on Sidegate Lane between the development and Colchester Road is included. These improvements would need to be completed through a suitable Section 278 Agreement.
- 6.72 SCC considers the Selkirk Local Centre to be another key facility for the Appeal site. The Selkirk Road Local Centre is approximately 0.3 miles from the eastern parcel (at its boundary with Humber Doucy Lane opposite Ayr Road) and 0.4 miles from the western parcel (at its boundary with Humber Doucy Lane opposite Sidegate Lane) and it is anticipated that there will be demand for walking and cycling.
- 6.73 While it is accepted that on-carriageway cycling could be appropriate on the residential streets between the Appeal site and the Local Centre, there are some concerns relating to footway widths and lack of tactile paving, similar to those outlined above relating to Sidegate Lane, to potential routes to the Local Centre. SCC would have expected a comprehensive assessment of the routes between the Appeal Site and the Selkirk Road Local Centre and for these issues to have been flagged and suitably mitigated.
- 6.74 Improvements to this route will need to be secured if permission is to be granted for the Appeal site and delivered prior to first occupation of the development. If the development is permitted, SCC recommends that a condition to secure details of a scheme to improve walking and cycling infrastructure between the development and the Selkirk Road Local Centre is included. These improvements would need to be completed through a suitable Section 278 Agreement.
- 6.75 SCC considers Rushmere Hall Primary school to be another key facility for the Appeal site, as it is the closest primary school to the site and no primary school provision is proposed on-site. Rushmere Hall Primary school is approximately 0.2 miles from the

eastern parcel (at its boundary with Humber Doucy Lane opposite Ayr Road) and 0.3 miles from the western parcel (at its boundary with Humber Doucy Lane opposite Sidegate Lane) and it is anticipated that there will be demand for walking and cycling to the school.

6.76 It is essential that a safe and suitable walking and cycling route is provided to ensure facilities are suitable for primary school aged children and SCC would have expected a comprehensive assessment of the routes between the Appeal Site and Rushmere Hall Primary School to have been undertaken which identified necessary improvements to deliver a safe and suitable route to the school.

6.77 Improvements to this route will need to be secured if permission is to be granted for the Appeal site and delivered prior to first occupation of the development. If the development is permitted, SCC recommends that a condition to secure details of a scheme to improve walking and cycling infrastructure between the development and Rushmere Hall Primary School is included. These improvements would need to be completed through a suitable Section 278 Agreement.

6.78 The walking and cycling infrastructure between the eastern and western parcels detailed within submitted Drawing Number 0004 Revision B (CDAD2(10)) are generally acceptable; however, the proposed “zebra walking and cycling crossing” serving the eastern parcel is not considered suitable as it is intended to provide connectivity on a proposed cycle route, where Rule 64 of the Highway Code states that cyclists must dismount and wheel their bicycles across zebra crossings. SCC would expect the zebra crossing currently proposed to be designed as a parallel crossing to ensure that cyclists have free and unimpeded movement on the route.

6.79 Alongside the crossing points proposed on Humber Doucy Lane included within Drawing Number 0004 Revision B (CDAD2(10)), SCC’s consultation response (CDHW1) highlighted the need to consider additional pedestrian and cycle accessibility to the eastern parcel. As proposed, there is no direct pedestrian or cycle accessibility to Ayr Road or Kinross Road, which offer ongoing connectivity to the Selkirk Road Local Centre. I remain of the view that improvements are required to the walking and cycling infrastructure between the Appeal Site and the Selkirk Local Centre, which includes the provision of suitable crossing facilities on Humber Doucy Lane.

Public Transportation:

6.80 While SCC supports the intention to enable bus penetration into the Appeal site, it is understood that the Appellant has had no discussions with local bus operators to establish a public transportation strategy. SCC has engaged with Ipswich Busses to discuss options and understands that Ipswich Buses would seek to extend its existing service (service number 6) into the Appeal Site, providing the site is designed with an internal carriageway network which accommodates a loop and does not require buses to turn around within the site through a reserving manoeuvre.

6.81 The Chartered Institution of Highways and Transportation (CIHT) released its Buses in Urban Developments guidance in 2018 (CDHW6) to provide professionals involved in urban policymaking, master planning, development management and transport planning with practical advice on measures that local authorities can put in place to support the provision of bus services. The guidance (CDHW6) offers useful information in relation to recommended bus frequencies and the maximum walking distance for users to bus stops, which are based on the frequency bus services those bus stops serve.

- 6.82 Table 4 of the CIHT guidance (CDHW6) – which is replicated within the Suffolk Design: Streets Guide (CDDG1) – outlines the maximum walking distances to bus stops on the basis that people are more likely to walk longer distances for bus stops which offer more frequent services. The following distances are recommended: Core bus corridors with two or more high-frequent services (500m), single high-frequency routes (every 12 minutes or better) (400m) and less frequent routes (300m).
- 6.83 Section C1.1 of the CIHT guidance (CDHW6) outlines that to attract a high mode share of trips, and to meet the sustainability objectives set out in planning policy, the aim should be to provide a service pattern with 7-days-a-week service with early mornings and late evenings covered, stating a frequency minimum every 20 minutes in urban areas, with 10 minutes the target.
- 6.84 Considering the CIHT guidance (CDHW6), any service below a 12-minute frequency constitutes a less frequent route and subsequently, maximum walking distances of 300m should apply. The closest bus stops to the Appeal site are situated on Humber Doucy Lane, east of the rugby club access, and Sidegate Lane, between Humber Doucy Lane and Inverness Road. None of these bus stops are located within 300m, or even within 500m, for the majority of the Appeal site. Subsequently, SCC supports the Appellants' proposal to allow for a bus service to penetrate the Appeal site to offer residents with convenient access to public transportation, in accordance with Policy DM21 of IBC's Local Plan (CDDP1) and 117 (a) of the NPPF.
- 6.85 Based on the CIHT guidance (CDHW6) outlined above, SCC considers it necessary to provide a 7-day-a-week service with a minimum frequency of 20 minutes and subsequently, a planning obligation which covers the initial costs of providing a service (pump priming) in line with this service requirement has been requested.
- 6.86 The obligation associated with the passenger transport improvements have been included within Section 7 of this PoE.

Public Rights of Way:

- 6.87 The Appellant has not proposed any improvements to the local public rights of way (PRoW) network. SCC's consultation response (CDHW1) listed a range of improvements to the local PRoW network raised by the SCC PRoW team to improve connectivity for future residents of the application site and take appropriate opportunities to enhance the PRoW network, in accordance with Policy DM21 of IBC's Local Plan (CDDP1), which are summarised below. See **Appendix B** for an overview of the PRoW routes detailed below.
- Footpath 45: signage improvements will be required to facilitate increased footfall associated with the application site. This would improve pedestrian movement between the western parcel of Appeal site to Tuddenham Lane, which offers ongoing connectivity Tuddenham via Green Lane to the north and Rushmere via Lamberts Lane to the east.
 - Footpath 48: signage improvements will be required to facilitate increased footfall associated with the application site. This would improve pedestrian movement between the eastern parcel of Appeal site (central within the parcel) to Tuddenham via Green Lane to the north and Rushmere via Lamberts Lane to the east.
 - Tuddenham Bridleway 001: surfacing improvements will be required to facilitate increased walking and cycling demand associated with the application site. This would

improve pedestrian and cycle movement between the Appeal site to Tuddenham and the wider countryside through providing ongoing connectivity from Tuddenham Lane.

- 6.88 The obligations associated with the PRow improvements are discussed in Section 7 of this PoE.

NON-INCLUSION OF THE IPSWICH RUGBY CLUB LAND:

- 6.89 The preceding comments relate to the development as proposed and it should be recognised that SCC considers that non-inclusion of the rugby club land does have implications in terms permeability for walking, cycling and wheeling, as well as the potential for the main site access serving the western parcel being situated opposite Sidegate Lane instead of Inverness Road, as currently proposed.
- 6.90 A segregated walking and cycling facility is proposed within the site boundary on the northern side of Humber Doucy Lane, for both the eastern and western parcels. Non-inclusion of the Ipswich Rugby Club land results in the need for the route to transition into a shared use facility on the southern side of Humber Doucy Lane, between the junction of Sidegate Lane to the proposed zebra crossing west of Ayr Road, resulting in a less direct and coherent route when compared with a fully segregated route within the development site which would be achievable with inclusion of the Rugby Club land.
- 6.91 While the above is not considered to comply with the principles of coherence and directness outlined within LTN1/20 (CDHW3), SCC acknowledges that there is reasonable certainty that the proposed walking and cycling route between the eastern and western parcels could be designed in a manner which does not present an unacceptable impact on highway safety.
- 6.92 An additional issue which arises as a result of the rugby club land not being included in the Appeal site is the constraint this presents on vehicular access. The main vehicular access for the western parcel (CDAD2(10)) – which is anticipated to cater for most of the allocated residential units – is proposed to be located opposite Inverness Road due to the existing access serving the rugby club rendering it unsuitable to provide this access opposite Sidegate Lane. As outlined previously, SCC is unable to confirm that the proposed signalised junction opposite Inverness Road would not present an unacceptable impact on highway safety or that cumulative impacts would not be severe due to additional information required to support the design and concerns associated with the Transport Assessment (CDAD37.1).

REASON FOR REFUSAL 1 – MASTERPLAN:

- 6.93 RfR 1 of both IBC's (CDDD6) and ESC's (CDDD5) refusal letters relate to the Appellants not having submitted a masterplan. SCC did not raise this in its consultation response (CDHW1) and, as set out in SCC's Statement of Case, SCC does not understand that these reasons for refusal directly resulted from its consultation response (CDHW1). I would reiterate that some of the points of concern raised in its consultation response (CDHW1), and which I have addressed above, could have been resolved in the event of a masterplan being produced which incorporated the land associated with Ipswich Rugby Club.

REASON FOR REFUSAL 3 – HUMBER DOUCY LANE:

- 6.94 RfR 3 of IBC's refusal letter (CDDD6) relates to the proposed main access at Humber Doucy Lane / Inverness Road (CDAD2(10)). As outlined within SCC's consultation response (CDHW1), and discussed at Paragraphs 6.31 – 6.37 above, it has not been evidenced that a suitable signalised junction design can be delivered at this location.
- 6.95 It is also considered that the main site access could be better served opposite Sidegate Lane as it would provide more direct accessibility to the A1214 corridor and reduce the likely intensification of Inverness Road, where the highway impacts of intensifying this route have not been assessed, as discussed at Paragraphs 6.35 – 6.36 above.
- 6.96 Furthermore, positioning the signalised site access opposite Sidegate Lane could result in less motorists travelling towards Tuddenham and to Church Lane which provides an alternative route to the A1214 corridor for vehicles traveling east-west. This would be advantageous as the desire should be to minimise intensifying the rural road network within the proximity of the Appeal Site, where the highway safety implications of this outcome have not been assessed, as discussed at Paragraph 6.17 above, and to encourage motorists to route to the A1214 corridor.
- 6.97 Notwithstanding comments relating to locating the primary access opposite Sidegate Lane, traffic modelling associated with providing the main site access opposite Sidegate Lane has not been undertaken and the wider highway impacts resultant of this option are not understood. Subsequently, SCC is unable to conclude a preferable strategy. SCC has detailed its concerns around design and acceptability in response to RfR 2 and does not comment upon character and visual impact which would be a matter for the LPAs.

REASON FOR REFUSAL 13 (IBC) AND 11 (ESC) – HUMBER DOUCY LANE:

- 6.98 RfR 13 of IBC's refusal letter (CDDD6) and RFR 11 of ESC's refusal letter (CDDD5) states that at the time of decision no Section 106 Legal Agreement has been agreed and therefore, policies which relate to the provision of infrastructure are not complied with. SCC has sought to discuss infrastructure requirements and planning obligations with the Appellants to agree matters through the Highways Statement of Common Ground (CDSocG4). It is understood that the Appellant has agreed to the routes between the Appeal site and key destinations but has not yet agreed to improving these routes. Furthermore, it is understood that the Appellant has agreed to the principle of the S106 Heads of Terms but have not yet agreed on the figures. I address the contributions sought in respect of highway mitigation in Section 7 of this PoE.

7 Required Highways Mitigation

PLANNING CONDITIONS

7.1 As set out in SCC's Statement of Case, in the event that planning permission is granted for the development (despite the concerns I have addressed in Section 6 of this PoE) then a number of improvements will need to be secured through a suitably worded condition. An overview is provided in the Schedule of Recommended Conditions at Appendix 2 to the Statement of Case but I understand that there is likely to be further discussion between the parties to provide a comprehensive list of conditions for consideration at the Inquiry.

Access

7.2 The highway matters that would need to be secured by condition include:

- The proposed signalised junction on Humber Doucy Lane
- The proposed bus access on Humber Doucy Lane
- The proposed priority junction on Humber Doucy Lane
- The proposed priority junction on Tuddenham Road
- The proposed pedestrian and cycling access onto Seven Cottages Lane and Tuddenham Lane

7.3 As set out within Section 6 of this PoE, owing to concerns surrounding measured speeds on Tuddenham Road and the visibility splays presented with the application, it is considered necessary to extend the existing 30mph speed limit on Tuddenham Road which currently terminates north of the access to the Tuddenham Road Business Centre (approximately where the proposed priority junction will be) to ensure that the visibility splays are fully situated within the 30mph zone. The speed limit extension should extend north of the junction with Church Lane to ensure that this junction is included within the 30mph zone. The ambition is to reduce vehicle speeds and increase the overall safety of the proposed new residential vehicular access which will intensify use on this section of the network.

7.4 A suitably worded condition will be required to ensure that the speed limit extension is implemented prior to first use of the priority junction from Tuddenham Road, to enhance the safety of the access and to mitigate concerns associated with insufficient visibility (as detailed within Section 6 of this PoE).

7.5 In addition, a suitable condition is required to secure these details of proposed construction accesses, to ensure that any proposals do not present an unacceptable impact on highway safety. The condition will be required to secure details prior to commencement of the parcel of development the access is planned to serve, with a pre-commencement trigger for delivery linked to the parcel of development the access is planned to serve.

7.6 The proposed cycle and pedestrian access from Seven Cottages Lane and Tuddenham Lane will need to be delivered. A suitable planning condition will be required to secure details of the accesses prior to commencement, with a trigger to secure their delivery which is linked to the occupation of development phase they will serve.

- 7.7 Improvements are required to the junction of Tuddenham Road and Humber Doucy Lane due to substandard visibility. A suitable planning condition will be required to secure details of the improvement prior to commencement, with a trigger to secure its delivery which is linked to the occupation of the development, to ensure the junction is improved prior to any intensification resultant of the development.
- 7.8 Both IBC's (ISPA4.1) (CDDP1) and ESC's (SCLP12.24) (CDDP2) Local Plans outline the need for the development to identify and improve highways and junctions on Humber Doucy Lane. The development is expected to improve the junction of Humber Doucy Lane and Tuddenham Road, to ensure suitable intervisibility between motorists at the junction and motorists on Tuddenham Road and to reduce the radius.
- 7.9 Currently, visibility is substandard, with SCC measuring splays of approximately 20m from the centreline of the junction to the south of (for northbound traffic), due the alignment of the junction which encourages left turners from Humber Doucy Lane to hug the kerb line and the presence of vegetation which appears to be within land controlled by the Appellant. Visibility of 43m would be expected for a carriageway with measured 85th percentile speeds of 30mph. While measured 85th percentile speeds could be higher at this location, increased visibility to 43m would represent an improvement to the existing junction and would be considered acceptable. Furthermore, it is anticipated that alterations to the existing speed limit on Tuddenham Road would assist in reducing speeds.
- 7.10 The requirement to improve visibility at the junction relates to the intensification directly related to the development and it is understood that this parcel was included to facilitate potential improvements to the junction should they be necessary, as per Section 2.4 of the submitted Planning Statement (CDAD33). As above, a planning condition will be required to secure this improvement prior to first occupation of the development.

Connectivity (cycle and pedestrian improvements):

- 7.11 The proposed internal segregated walking and cycling facility adjacent to Humber Doucy Lane in both the eastern and western parcels will need to be delivered. A suitable condition is required to secure this provision.
- 7.12 The proposed external walking and cycling facility on Humber Doucy Lane which will connect the eastern and western parcels will need to be delivered. A suitable condition is required to secure this, given the importance of providing sufficient connectivity between the eastern and western parcels.
- 7.13 The Appellant is expected to enhance walking and cycling infrastructure on Sidegate Lane between the Appeal site and the A1214 Colchester Road (which would include accessibility to Northgate High School) due to the importance of this route for active travel, and concerns associated with existing infrastructure, which have been outlined within Section 6 of this PoE. Again, a suitable condition is required to secure this. These improvements should correlate with the pedestrian and cycle link proposed on Humber Doucy Lane to ensure suitable connectivity is provided between the site and these improvements.
- 7.14 The Appellant is expected to enhance walking and cycling infrastructure between the Appeal site and the Selkirk Local Centre due to the likely demand for residents to walk and cycle to this destination, and concerns associated with existing infrastructure, which have been outlined within Section 6 of this PoE. A suitable condition is required to secure this.

- 7.15 The Appellant is expected to enhance walking and cycling infrastructure between the Appeal site and Rushmere Hall Primary School, given that this is the closest primary school to the site and the likely demand for walking and cycling to this destination. A suitable condition is required to secure this, given the importance of providing safe and suitable accessibility to primary school provision.
- 7.16 The determination that there will be a significant demand for walking and cycling between the Appeal site and Rushmere Primary School comes from National Travel Survey data (Table NT0614a) which shows that 82 percent of primary school students living under 1 mile of the school will walk or cycle. The Appeal site is situated 0.3 miles from Rushmere Primary School, and it is envisaged that with safe and suitable walking and cycling infrastructure this mode share could and should be greater.
- 7.17 The above lists the main conditions which will be required relating to infrastructure requirements. SCC would require, in addition, the standard highway conditions which are usually included on planning permissions for developments of this type and scale: Travel Planning, a Construction Management Plan, details of the internal layout (including internal bus infrastructure), details of vehicle and electric vehicle parking provision, details of bin storage and presentation areas, surface water drainage measures and a highway condition survey.

PLANNING OBLIGATIONS:

Speed Management Contribution (Tuddenham Road 30mph extension):

- 7.18 As I have set out earlier in this PoE the need to extend the existing 30mph speed limit on Tuddenham Road relates to concerns surrounding measured speeds on Tuddenham Road and the visibility splays presented with the application, as summarised within Section 6 of this PoE. The physical works to sign the reduced speed limit will be secured by the planning condition that covers the delivery of the proposed access on Tuddenham Road (CDAD2(10)) and would be delivered under a Section 278 agreement. With regard to the new speed limits (which would need to be delivered by SCC under their legal powers), SCC would require the planning obligation secure the payment of its legal costs to carry out this work. The cost of this is **£15,000**.

Bus Service Contribution:

- 7.19 The reason for the bus service contribution relate to the need to provide residents with suitable accessibility to public transport provision, as summarised within Section 6 of this PoE. The contribution will be used to pump prime an extension to an existing service to penetrate the appeal site and increase the frequency from 30 minutes to 20 minutes.
- 7.20 The cost of the bus service contribution has been calculated based on the current costs of providing bus services, the frequency needed for new services to be an attractive alternative to the private car, and the penetration of bus services into the site needed to ensure that future residents have access to good quality frequent services, a reasonable distance from each property. These costs have been discounted by likely commercial revenues to ensure that the contribution only covers the revenue gap in the early years of the scheme buildout. Ticket revenues from bus patrons on the rest of the route have also been factored into the calculation.
- 7.21 Section 7.3 of the submitted Transport Assessment (CDAD37.1) outlines that it is anticipated that the development will be fully built out between 2026 and 2032. SCC

would expect the bus service to be operational from the occupation of the 50th dwelling and pump primed until the development is fully occupied. Therefore, based on a build out period of 6 years, it is anticipated that a 6-year period of pump priming from the occupation of the 50th dwelling would cater for a bus service to be pump primed for 1 year after full occupation of the site.

7.22 The above is considered reasonable and necessary due to the need to provide residents with accessibility to high quality public transportation within a reasonable walking distance from an early stage of the development where habits are formed and to maximise the chances of the bus service remaining viable beyond the period of the pump priming.

7.23 The following assumptions were made when determining the cost of the obligation:

- The cost of an additional bus to retain (and in this case, improve as a byproduct) the frequency of the service being £200,000 per year.
- Additional 10 daily bus trips for off-site users following the increase in frequency from 30 minutes to 20 minutes (used for income generation and discounting).
- £2.00 bus fare for off-site trips to calculate revenue.
- Daily bus trips for the Appeal site residents is based on quantum of dwellings and a bus trip rate per dwelling of 0.058 (as per the submitted Transport Assessment (CDHW2)).
- The Appeal site being built-out in 6 years (as per the submitted Transport Assessment (CDAD37.1)).
- 312 bus service days (excluding Sundays).

7.24 The total cost to pump prime a bus service extension for a 6-year period at £200,000 per year would be £1,200,000. However, consideration has been given to the income generated through the service when calculating the required contribution based on the assumptions above a total revenue of £86,299 was determined. Therefore, the cost of the contribution is **£1,113,700.80**.

Public Rights of Way Contribution:

7.25 As summarised within Section 6 of this PoE, a planning contribution is required to cover the Council's costs to make the following improvements to the PRow network:

- **Footpath 45:** SCC had previously requested improvements to Footpath 45 to improve pedestrian movement; however, upon a site visit it was determined that surface improvements are not required due to condition of the existing surface and improvements should be focused on signing the route to ensure pedestrians clearly understand the route and aware of opportunity for access.

Signage improvements will be required to facilitate increased footfall associated with the application site. This would improve pedestrian movement between the western parcel of Appeal site to Tuddenham Lane (Tuddenham Bridleway 001), which offers ongoing connectivity Tuddenham via Green Lane to the north and Rushmere via Lamberts Lane to the east. The cost of the signage is **£951**.

- **Footpath 48:** SCC had previously requested improvements to Footpath 48 to improve pedestrian movement; however, upon a site visit it was determined that surface improvements are not required due to condition of the existing surface and

improvements should be focused on signing the route to ensure pedestrians clearly understand the route and aware of opportunity for access.

Signage improvements will be required to facilitate increased footfall associated with the application site. This would improve pedestrian movement between the eastern parcel of Appeal site (central within the parcel) to Tuddenham via Green Lane to the north and Rushmere via Lamberts Lane to the east. The cost of the signage is **£29,443**.

- **Footpath 49:** SCC had previously requested improvements to Footpath 45 to improve pedestrian movement; however, upon a site visit it was determined that surface improvements are not required due to condition of the existing surface. Subsequently, this has been omitted from SCC's request.
- **Tuddenham Bridleway 001:** Tuddenham Bridleway 001 provides ongoing connectivity between the Appeal site and Tuddenham St Martin from Tuddenham Lane, where a pedestrian and cycle access is proposed. It is anticipated that there will be demand for walking and cycling to Tuddenham and the surrounding countryside and subsequently, SCC considers it necessary to enhance the existing surfacing on Tuddenham Bridleway 001 – which is unbound and unsuitable for walking and cycling – to facilitate increased walking and cycling demand on the route.

The cost to improve the surfacing on Bridleway 001 to 3.0m to accommodate walking and cycling is **£79,755**.

Travel Plan Contribution:

- 7.26 A Travel Plan would be subject to planning condition to secure a suitable travel plan and implement measures which seek to reduce car dependency. SCC would require an annual monitoring contribution of **£1,300 per annum**, from the date of the submission of the baseline survey (to be outlined within the Travel Plan condition) for a minimum of 5-years or until 1-year has passed from the anniversary of the occupation of the final dwelling, whichever is longer.

Ipswich Strategic Planning Area (ISPA) Contribution:

- 7.27 As set out within Section 6 of this PoE, the reason for the ISPA contribution relates to the need to ensure safe and suitable walking and cycling infrastructure between the Appeal site and Ipswich Town Centre, in accordance with IBC's Local Plan (CDDP1). Furthermore, the contribution meets the policy requirements presented within IBC's Local Plan (CDDP1), which outlines that the Appeal site should contribute towards mitigation measures within the ISPA Mitigation Strategy, which this is considered to do through offering suitable walking and cycling infrastructure to the town centre for the wider community, as well as the Appeal site.

- 7.28 The scheme of improvements on Cemetery Lane, Tuddenham Road, Bolton Lane and Soane Street is anticipated to cost **£493,160.90**.

SUMMARY OF PLANNING HIGHWAY CONDITIONS AND OBLIGATIONS			
Ref:	Description	Mitigation Source	Sum Request(\$106)

1	Site Access Junction (Humber Doucy Lane) Signalised junction from Humber Doucy Lane serving the western parcel (opposite Inverness Road)	Planning Condition	
2	Bus Access Junction (Humber Doucy Lane) Priority bus access from Humber Doucy Lane (opposite Sidegate Lane)	Planning Condition	
3	Site Access Junction (Humber Doucy Lane) Priority junction from Humber Doucy Lane serving the eastern parcel	Planning Condition	
4	Site Access Junction (Tuddenham Road) Priority junction from Tuddenham Road	Planning Condition	
5	30 mph TRO contribution To extend the 30mph speed limit on Tuddenham Road north of the junction with Church Lane	Condition (delivery) S106 (legal costs)	£15,000 – legal process
6	Cycle and pedestrian access from Seven Cottages Lane	Planning Condition	
7	Improvements to the Tuddenham Road and Humber Doucy Lane junction To enhance the currently substandard visibility in response to the intensification of the junction resultant of the development	Planning Condition	
8	Cycle and pedestrian access from Tuddenham Lane	Planning Condition	
9	Internal segregated walking and cycling facility adjacent to Humber Doucy Lane	Planning Condition	
10	External walking and cycling infrastructure (Humber Doucy Lane) Walking and cycling infrastructure connecting the eastern and western parcels	Planning Condition	
11	Scheme to improve walking and cycling on Sidegate Lane Between the Appeal site and the A1214 Colchester Road	Planning Condition	
12	Scheme to improve walking and cycling the Selkirk Local Centre Between the Appeal site and the Selkirk Local Centre on a suitably direct route	Planning Condition	
13	Scheme to improve walking and cycling Rushmere Hall Primary School Between the Appeal site and Rushmere Hall Primary School on a suitably direct route	Planning Condition	
14	Bus Service Contribution Pump-priming contribution to fund redirected existing bus service into the new development and to increase the existing frequency	S106	£1,113,701
15	Public Rights of Way Contribution <ul style="list-style-type: none"> Improved signage on Footpath 45 Improved signage on Footpath 49 Improved surfacing to 3.0m to accommodate walking and cycling 	S106	£110,149

	connectivity between the Appeal site and Tuddenham and ongoing countryside		
16	Travel Plan measures and incentives, and monitoring contribution	Planning Condition S106: Monitoring	£1,300 per annum from the date of the submission of the baseline survey (to be outlined within the Travel Plan condition) for a minimum of 5-years or until 1-year has passed from the anniversary of the occupation of the final dwelling, whichever is longer.
17	ISPA contribution To provide safe walking and cycling infrastructure between the Appeal site and Ipswich Town Centre	S106	£493,161

8 Summary and conclusions

8.1 SCC in its capacity as the Local Highway Authority has engaged with the LPAs and the Appellants throughout Pre-Application discussions and the planning application process. The expectation that the development is assessed using strategic highway modelling to ensure a robust assessment of highway impacts is undertaken and the required mitigation is identified and delivered has been outlined throughout.

8.2 Further, the expectation that the site delivers a comprehensive walking and cycling strategy, both within the site and off-site, between the site and key destinations and facilities, has been outlined throughout. This requires a comprehensive assessment of the key routes between the site and the key destinations and facilities, considering current design guidance and best practice, to ensure that the site delivers safe and suitable access for all users, and to facilitate a suitable mode shift to sustainable modes of travel.

8.3 It is my view that due to the inadequacies of the submitted Transport Assessment (CDAD37.1) and the failure to produce a walking and cycling strategy, the offsite impacts of the development have not been suitably assessed and SCC is unable to determine that the development as proposed (with consideration given to mitigation proposed with the application) would not present an unacceptable impact on highway safety, or that the residual cumulative impacts on the road network, following mitigation, would not be severe taking into account all reasonable future scenarios, contrary to Paragraph 116 of the NPPF.

8.4 The key outstanding matters between SCC and the Appellants are the deficiencies of the Transport Assessment, particularly the need to assess the sites impacts using strategic highway modelling, and the off-site mitigation measures. It is understood that the Appellants agree to the principle of each of the contributions that SCC has recommended (outlined within Section 4.1 of the Highways SoCG (CDSocG4); however, requires further clarity on the sums before they are agreed). SCC has set out evidence in this PoE that the mitigation (secured by condition or obligation) are justified with relevance to local and national policy, and for highways is necessary to avoid a severe impact or an unacceptable impact on road safety, as set out in paragraph 116 of the NPPF.

APPENDICIES

Appendix A – ISPA Contribution Route to Town Centre:

Appendix B – PRow Contribution Routes.