

Planning Application by
HANSON SERVICES LTD

In respect of
**Hillcrest & Tussocks,
THE CAUSEWAY, THERFIELD**

Transport Statement

June 2024



Document Management

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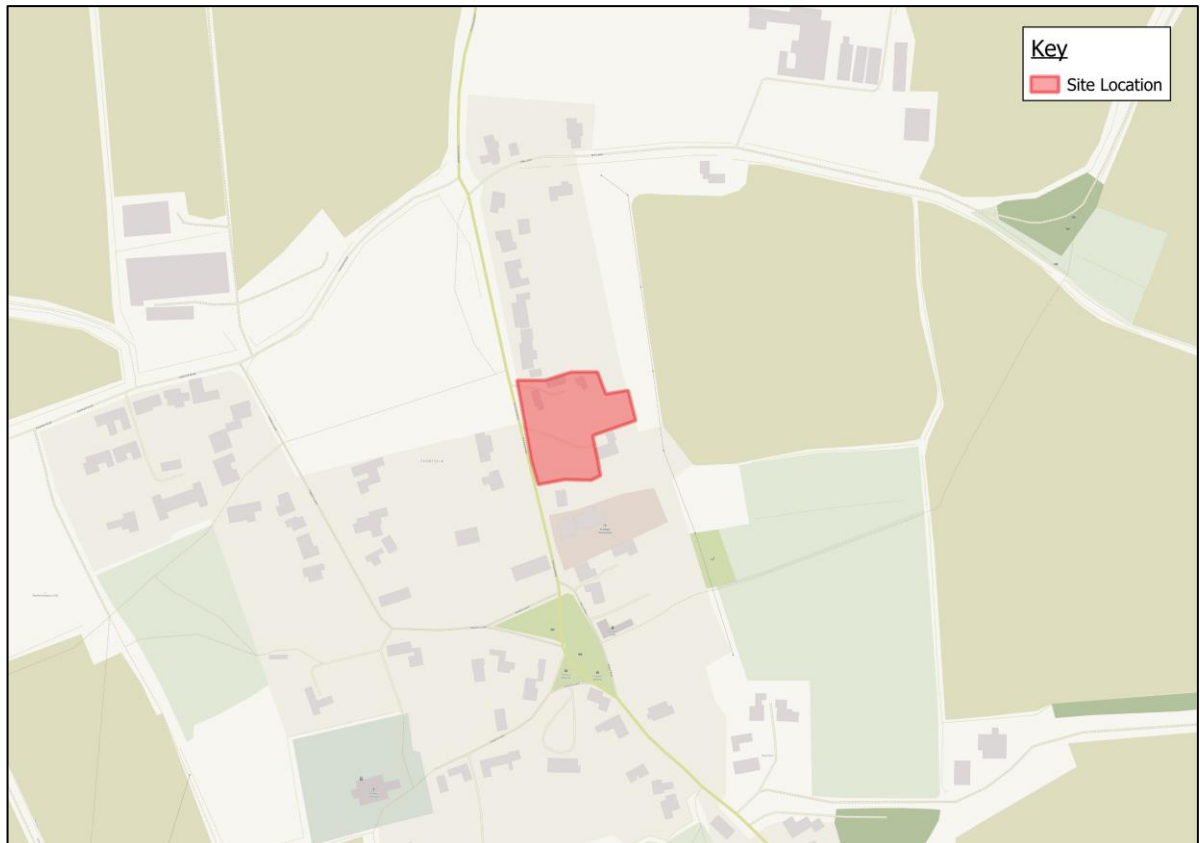
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1 Introduction

- 1.1 Transport Planning Associates has been commissioned by Hanson Services Limited to provide transport planning consultancy services in relation to the proposed development of land in the village of Therfield south of Royston to the east of The Causeway in Hertfordshire. The location of the site and its position within the broader context of Therfield is shown in **Figure 1.1**.

Figure 1.1 Site Location



Source: © OpenStreetMap contributors

- 1.2 The proposed development will include 7 dwellings for varying sizes, with associated parking and landscaping. The full development proposals can be seen in Chapter 3 later in this Transport Statement (TS).

Planning History

- 1.3 A previous planning application (NHCC Ref: 23/02417/FP)¹ was submitted on 23rd October 2023 for the:

"Erection of 10 residential dwellings (1 x 2-bed, 7 x 3-bed, 1 x 4-bed and 1 x 5-bed) including creation of vehicular access, parking, landscaping, and associated works following demolition of dwelling and outbuildings."

- 1.4 The application was withdrawn subsequent to comments from the local Highway Authority received on the 14 November 2023, which expressed concerns regarding the application's considerations to the principles of sustainable development and the provision of suitable pedestrian and cyclist infrastructure. The full response is represented at **Appendix A**

"The Highway Authority under the current submission cannot support the application due to the application has failed to demonstrate a satisfactory policy and design-led approach to the development contrary to Hertfordshire's Local Transport Plan (LTP4) policies 5 and 6 and also contrary to the principles of sustainable development contained in the NPPF, therefore the proposals represent a risk to highway safety for all road users"

"The HA has reviewed the TS and whilst the HA would acknowledge the proposal is not expected to have any significant/detrimental impact on the operation of the local highway network and the centrally located new vehicle access achieves the required visibility splays and provisions, however given the extensive references to the NPPF and local plan policies concerning developments being safely accessible by pedestrians and cyclists, the TS has not been able to demonstrate that the site is accessible and safe for pedestrians and cyclists to access."

"This housing development is proposed in an area with 2 very short sections of substandard width footways and no street lighting along any of the areas roads, and expecting residents to walk along the carriageway of The Causeway is not acceptable for a new build development. As outlined in the national and local policies housing should be delivered in the most sustainable locations where connectivity is maximised, the need to travel by car is minimised, and safe and direct walking and cycling routes are provided."

- 1.5 It is understood that comments made in reference to planning application 23/02417/FP are largely applicable to the proposed development as it comprises a rearranged site layout of the same

¹ [23/02417/FP | Erection of 10 residential dwellings \(1 x 2-bed, 7 x 3-bed, 1 x 4-bed and 1 x 5-bed\) including creation of vehicular access, parking, landscaping, and associated works following demolition of dwelling and outbuildings. | Tussocks The Causeway Therfield Royston Hertfordshire SG8 9PP \(north-herts.gov.uk\)](#)

development site, to deliver the same land use (Use Class C2), albeit with a reduction in the number of units.

Sustainability

- 1.6 The Hertfordshire Local Transport Plan (2018) outlines environmental sustainability as one of its focuses, with Figure 5.6² of the HLTP stating the following objective and issues:

“Objective: Make journeys and their impact safer and healthier

Key Issues: High levels of obesity among population and variable levels of physical activity a factor in health problems, lower life expectancy and quality of life. • Air quality, noise and harmful emissions from transport a factor in poor health and premature death • Road safety problems resulting in a high human cost but also economic costs and network disruption. • Safety and security on the network impacting on accessibility and potentially reducing the propensity to walk, cycle and use passenger transport.”

- 1.7 On the grounds of sustainability, the NPPF (2023)³ states the following regarding carbon emissions:

“116 e). Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible, and convenient locations.

157. The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”

- 1.8 Currently, the closest EV charging bay is located 4,000m north of the site, adjacent to Baldock Road in Royston. The proposal includes the provision of new EV charging facilities for each dwelling, encouraging the use of electrical vehicles, in turn encouraging the reduction in carbon emissions from private vehicles.

² [LTP4 Transport Plan 2018 \(hertfordshire.gov.uk\)](https://www.hertfordshire.gov.uk/ltp4)

³ [National Planning Policy Framework \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/115192/nppf-2023.pdf)

Cyclist and Pedestrian Infrastructure

- 1.9 Although the development does not propose changes and improvements to cycling infrastructure, the proposal has been amended to include a 2m footway along the site frontage, providing safer pedestrian infrastructure and provides cycle parking for each dwelling.

- 1.10 This means that the site proposal complies with Policy 5 of the HLTP, which states.

"The county council will to work with development promoters and the district and borough councils to: a) Ensure the location and design of proposals reflect the LTP Transport User Hierarchy and encourage movement by sustainable transport modes and reduced travel demand. b) Ensure access arrangements are safe, suitable for all people, built to an adequate standard and adhere to the county council's Highway Design Standards. c) Consider the adoption of access roads and internal road layouts where they comply with the appropriate adoption requirements and will offer demonstrable utility to the wider public. Where internal roads are not adopted the county council will expect suitable private management arrangements to be in place. d) Secure developer mitigation measures to limit the impacts of development on the transport network, and resist development where the residual cumulative impact of development is considered to be severe. e) Require a travel plan for developments according to the requirements of 'Hertfordshire's Travel Plan Guidance'. f) Only consider new accesses onto primary and main distributor roads where special circumstances can be demonstrated in favour of the proposals. g) Resist development that would either severely affect the rural or residential character of a road or other right of way, or which would severely affect safety on rural roads, local roads and rights of way especially for vulnerable road users. This should include other routes which are important for sustainable transport or leisure".

- 1.11 The proposal encourages active modes of travel and will improve infrastructure for sustainable transport modes through the introduction of a new footway which will service the public and not only site residents, complying with sections a, b and c of HLPT Policy 5. While the improvement is limited in scale, it is considered to be of a scale that is commensurate with the scale of development.

- 1.12 The development will also not have any substantial impact on the safety or characteristic of local roads, with no severe generation of vehicle transit in the area as accepted by the HA:

"The HA has reviewed the TS and whilst the HA would acknowledge the proposal is not expected to have any significant/detrimental impact on the operation of the local highway network and the centrally located new vehicle access achieves the required visibility splays and provisions".

- 1.13 The proposal therefore also complies with the National Planning Policy Framework (NPPF) (2023) paragraph 115 which states that:

"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"⁴.

- 1.14 Further comments were made regarding site access to public transport and cycling opportunities.

"Accordingly, the development cannot be described as well served by public transport, walking, and cycling opportunities, and the site's situation is not conducive to accessing the development and surrounding area except predominantly by private car."

- 1.15 The proposed site, however, is within a 15-minute cycle range from Royston, giving it access to services, public transport, and other amenities through cycling. Therefore, it is considered that the proposal is compliant and does align with current criteria for active travel methods and accessibility through non-private car modes of transport.

- 1.16 The proposal is therefore in alignment with Policy 6 of the HLPT stating that:

"The county council will seek to increase the ease with which people, particularly disadvantaged groups, can access key services, by: a) Working in partnership with key stakeholders such as bus and rail operators, community transport operators, the voluntary sector and public service providers. b) Supporting transport services which could include providing resource for bus and other transport services. c) Addressing the barriers to accessibility particularly regarding active modes and for people with impaired mobility. d) Promoting travel options and facilitating accessible travel information provision, including open data initiatives. e) Improving travel choices and options, including support for the provision of shared mobility initiatives"

Impact of additional dwellings on retention of local amenities

- 1.17 There is a common acceptance that local amenities in villages such as Therfield are at risk of closure if population numbers decrease and even if they do not increase. The addition of new dwellings in the centre of the village will contribute to amenities such as the primary school being able to continue to operate, therefore the proposed development in this established village location will play an important role in maintaining local amenities, ensuring that they are not lost, which would result in the area

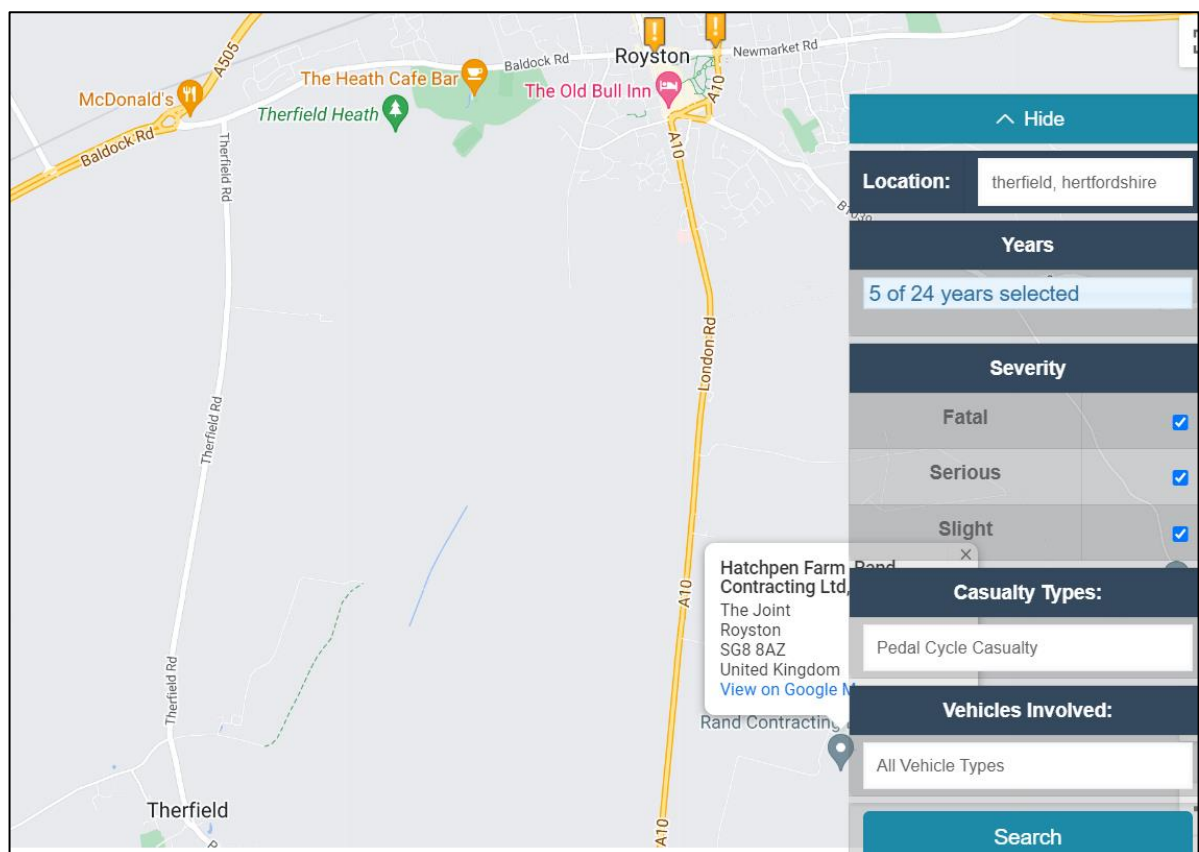
⁴ Paragraph 115 of the National Planning Policy Framework (2023)

becoming less sustainable for all residents and an associated increase in vehicle based trips out of the village.

Pedestrian and cyclist safety

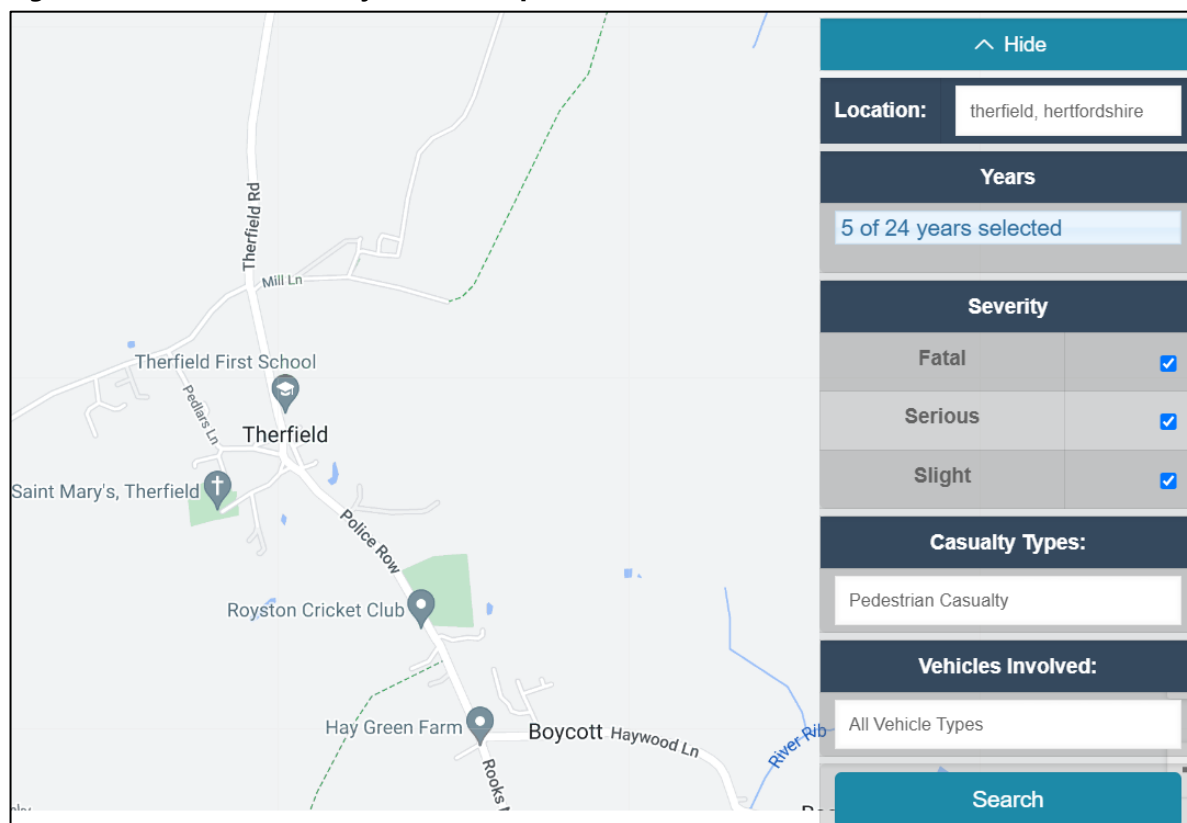
- 1.18 A highway safety review is provided in chapter 2 for the area immediately surrounding the site, however in response to the highway authority's comments that pedestrians and cyclists would not be safe using the roads around the site, a review of highway safety records across the wider highway network has been undertaken, to understand if there is any history of pedestrian or cycle related incidents. **Figure 1.2** shows results from a Crashmap search for cycle related incidents, covering the route from Therfield to Royston, indicating that there have been no incidents recorded in Therfield or on the route between Therfield and Royston in the 5 year study period (2018 – 2022), other than two 'slight' incidents in the centre of Royston.

Figure 1.2 – Cycle safety record (map)



Source: www.CrashMap.co.uk/

- 1.19 A similar exercise has been undertaken for pedestrian safety records, with a focus on Therfield. The results are presented in map form in **Figure 1.3** and show that there has not been a single pedestrian casualty on the roads in Therfield in the 5 year study period.

Figure 1.3 – Pedestrian safety record (map)

Source: www.CrashMap.co.uk/

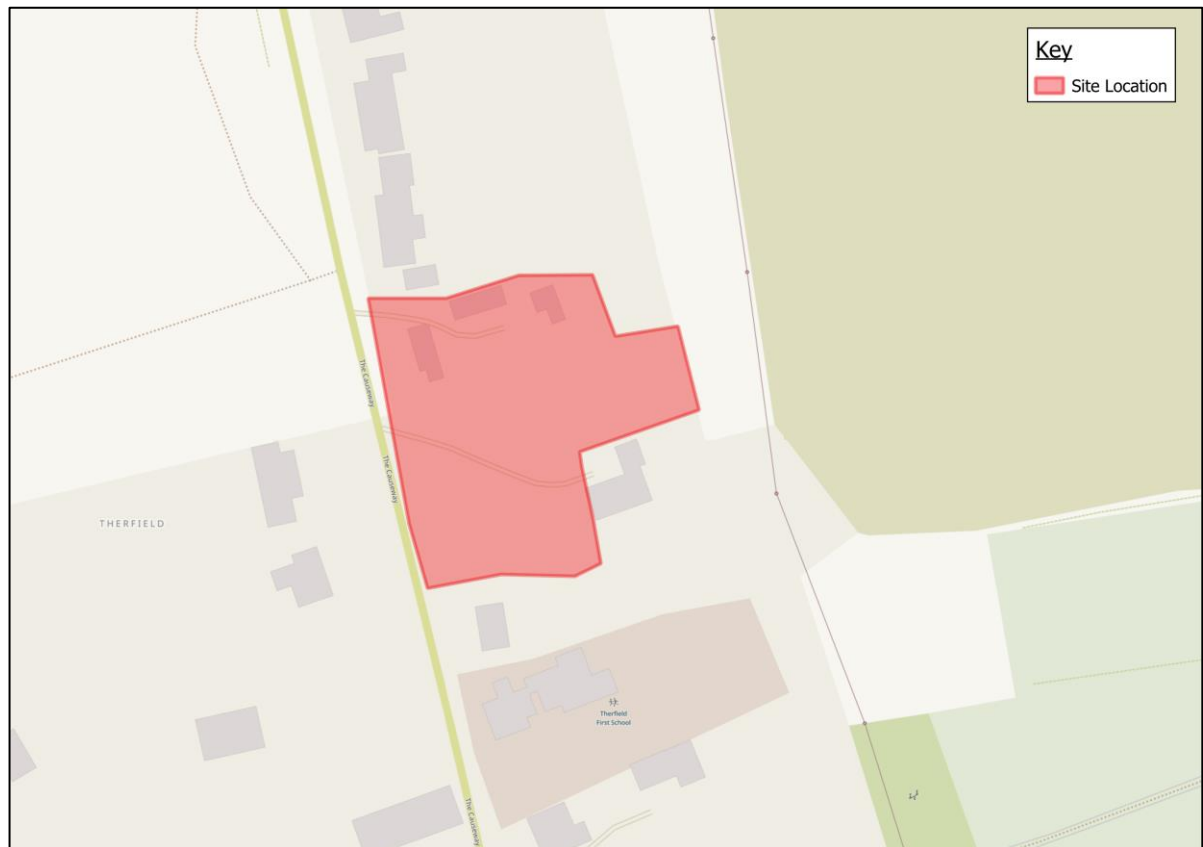
- 1.20 Highway safety records therefore indicate that there is no safety issue for cyclists or pedestrians on the local highway network.

2 Transport Baseline

Site

- 2.1 The site is located to the east of The Causeway and is bounded to the south by Therfield First School. The wider context for the site is provided in **Figure 1.1**, with a local context shown in **Figure 2.1**.

Figure 2.1 Site Location – Local Context



Source: © OpenStreetMap contributors

- 2.2 The majority of site is currently garden space for Tussocks which is a detached house with a garage, to the north is Hillcrest which is a house with outbuildings and an allotment area. To the east of the proposed development parcel are open fields and green open space.

Local Amenities

- 2.3 In relation to acceptable walking distances, Manual for Streets (MfS) offers the following guidance in Section 4.4 *"The walkable neighbourhood"*

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and ... walking offers the greatest potential to replace short car trips, particularly under 2 km. MfS encourages a reduction in the need to travel by car through the creation of mixed-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents."

- 2.4 An alternate reference, the (then) Institution of Highways & Transportation (IHT) publication *'Providing for Journeys on Foot'* identifies the desirable, acceptable and preferred maximum walking distances to various amenities. While this would typically apply to residential developments, it is considered that it would be a good proxy for estimating the walking accessibility to/from a site. The distances in Table 2.1, taken from that publication, set out the thresholds considered appropriate for local services and amenities.

Table 2.1 IHT suggested Walking Distance Thresholds

	Town Centres (m)	Commuting / School / Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred maximum	800	2,000	1,200

Source: Table 3.2 of *Providing for Journeys on Foot* (IHT)

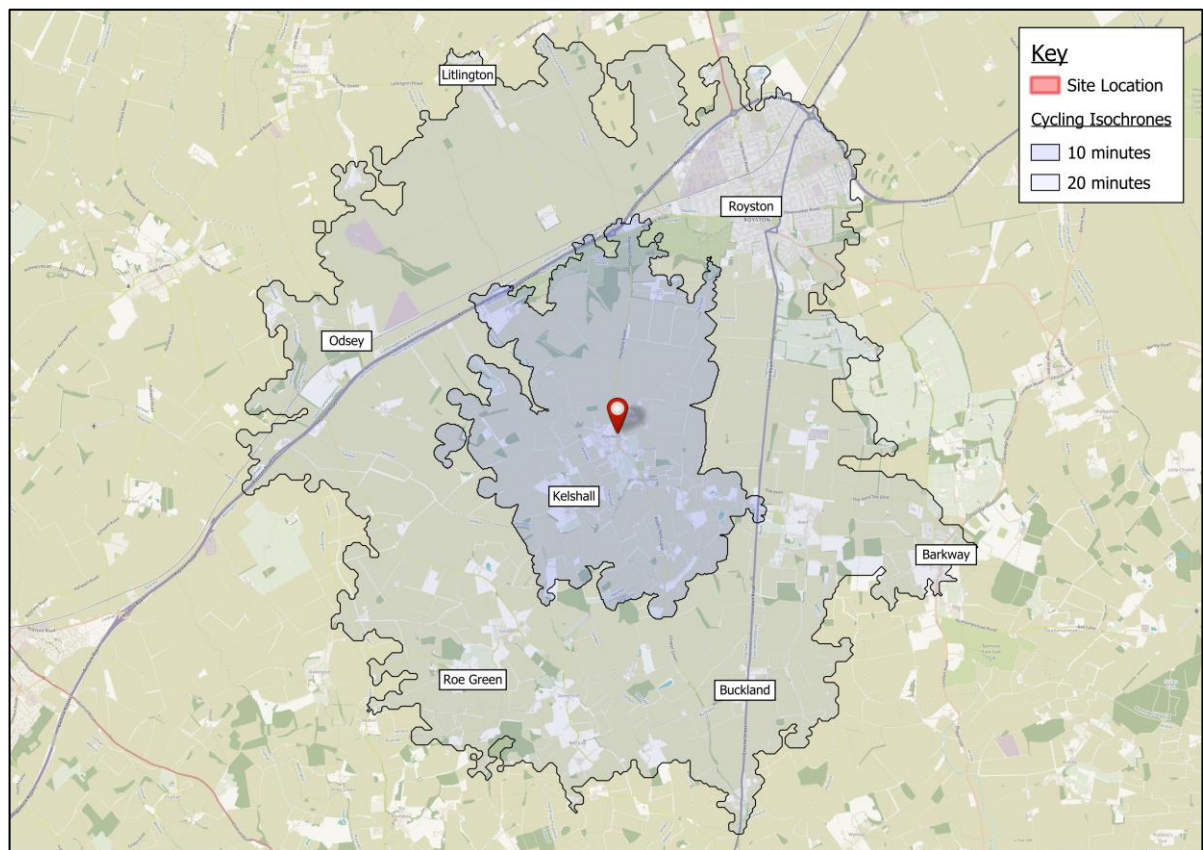
- 2.5 In addition, and more recently, *'Building Sustainable Transport into New Developments'* (DfT, 2008) gives the following advice on pedestrian catchment areas: *"Walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800 metres)"*. That concept is expanded further in other documents such as CIHT's guidance *'Planning for Walking'* (2015), in addition to the *'Manual for Streets'* (2007).
- 2.6 Based on the evidence, it is deemed that the IHT's preferred maximum walking distances remain applicable. Within a reasonable walking distance from the proposed site, a first school, public house, cricket club, pre-school, chapel, and a church can be reached.

Existing Pedestrian Infrastructure

- 2.7 The closest pavements to the site are situated on the east side of The Causeway, just outside Therfield First School, approximately 20m to the south of the development site's boundary. This pavement extends southward to Police Row, where it gradually fades away and resumes again past The Fox and Duck. It then continues along Police Row, leading to the southern part of the village on the eastern roadside.
- 2.8 In villages of this size, it's common to encounter limited pedestrian infrastructure. Due to the relatively low traffic volume, pedestrians tend to utilise the roads to travel by foot.

Existing Cycling Infrastructure

- 2.9 The local highway network's nature provides a favourable environment for cyclists, with the centre of Royston being accessible from the site by cycle in approximately 14 minutes (according to Google maps directions).
- 2.10 When evaluating cycling accessibility from the site, we have taken into account cycle times of 20 minutes at an average speed of 15 km/h, amounting to a distance of 5 km. This assessment indicates that Kelshall, Buckland, Roe Green, Odsey, Litlington, Barkway and Royston can all be reached within a 20-minute cycling journey from the site. This is illustrated in **Figure 2.2**.

Figure 2.2 Cycling Isochrones

Source: © OpenStreetMap contributors

Public Transport Access

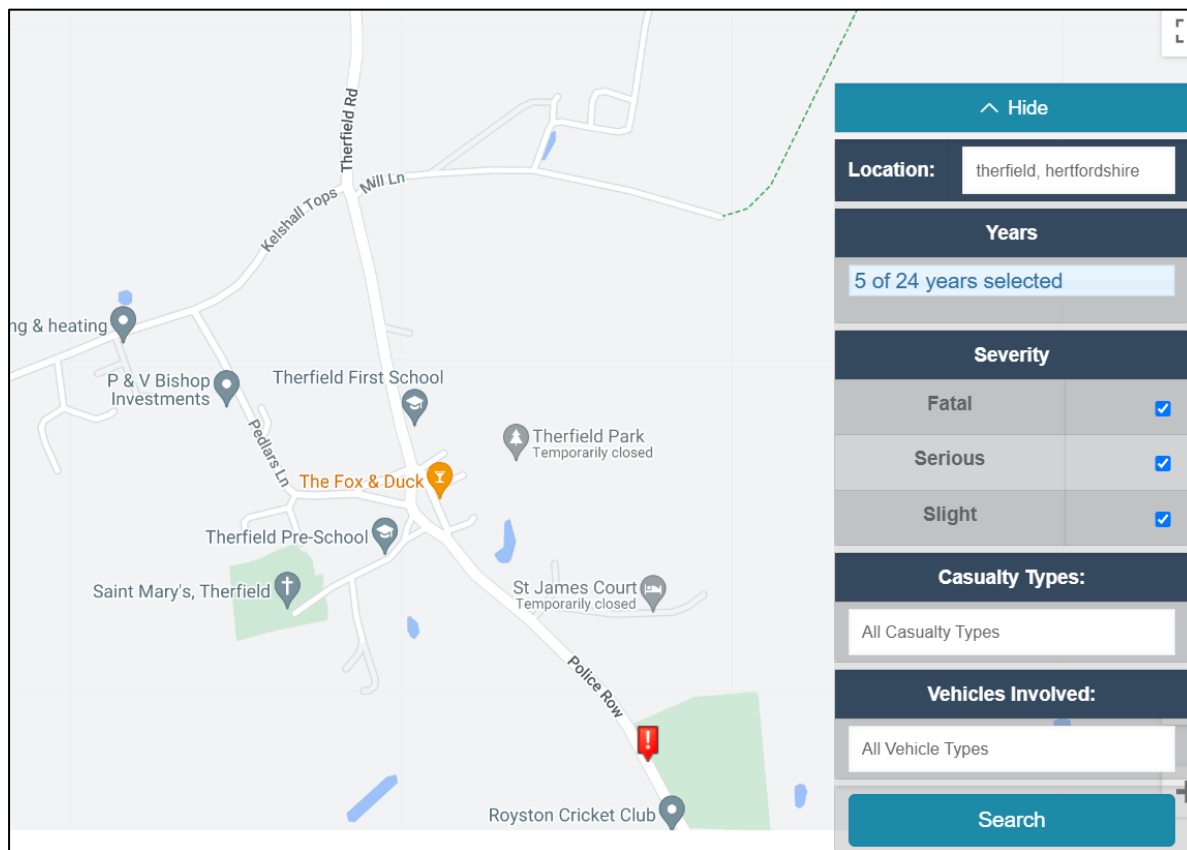
- 2.11 Due to the proposed site's location, bus services do not operate in close proximity. However, Royston provides frequent rail services, with the station positioned on the Cambridge line. Notably, Royston functions as a commuter town for London, accessible in approximately 40 minutes. The station facilitates direct train services to London King's Cross, with travel times varying based on specific train schedules. Additionally, Cambridge stands as another significant destination reachable from Royston. Thameslink and Great Northern manage train operations for this station.
- 2.12 Access to the station from the site can be achieved within 15 minutes by bicycle, or via an 8-minute car journey. For cyclists, the station supplies cycle parking options, providing 178 spaces that are monitored by CCTV. The station also provides 517 car parking spaces, subject to charges, including 9 accessible spaces. Notably, the station is well-equipped to cater to individuals with mobility challenges, ensuring that all platforms offer step-free access.

Local Highway Access

- 2.13 As previously mentioned, the site's western boundary abuts The Causeway, a single-carriageway route with a speed limit of 30mph. Roughly 230m to the north, this road intersects with Therfield Road at the Kelshall Tops/ Mill Lane crossroad. The road extending northward connects with Baldock Road, positioned near the A505. Baldock Road directs eastward to Royston town centre, whereas the A505 curves around the northern vicinity of Royston and continues further into Cambridgeshire. To the west, the A505 provides access to Baldock, Letchworth Garden City, and the A1(M).
- 2.14 As previously noted, Police Row lies to the south. This road also maintains a 30mph speed limit and leads in the southern direction. The junction of Police Row and Haywood Lane provides access to the A10. The A10 route spans northward to Royston and Cambridge, while heading south leads to the M25 and the northern parts of London.

Road Safety

- 2.15 A review of the most recently available five-year personal injury collision (PIC) data was undertaken utilising information obtained from the CrashMap web facility. The data obtained for the review, which spanned the 2018-2022 period, is shown in **Figure 2.3**.

Figure 2.3 Personal Injury Collision Data

Source: www.crashmap.co.uk

- 2.16 As can be seen in **Figure 2.3**, only one collision was recorded near to the proposed site, approximately 500m to the south, on Police Row. The lack of any cluster of incidents suggests that there is no fundamental highway design flaw on the roads in the vicinity of the site.

3 Development Proposals

- 3.1 As set out in the introduction, the proposed development is for 7 residential dwellings. The proposed scheme is shown at **Appendix B**. The accommodation will include 4 x 3-bedroom houses and 3 x 4 bedroom houses.

Pedestrian and Cycle Access

- 3.2 Pedestrian and cycle access will be taken via a shared surface access from The Causeway. The two northern most plots fronting The Causeway will benefit from direct pedestrian access with paths leading to The Causeway. A new section of footway will be provided along the southern end of the site frontage, enhancing pedestrian accessibility to the nearby school and centre of the village.

Vehicular Access and Parking

Access

- 3.3 Highway access to the site will be taken from a new priority junction to be formed on The Causeway, approximately 100m from the junction with Pedlar Lane/ Police Row/ The Causeway junction to the south.
- 3.4 The Causeway is subject to a 30 mph, on that basis, a 43 m splay length, based upon a 30 mph design speed (using Manual for Streets 2) is considered to be suitable. The visibility splays are shown in **Appendix C**.

Car Parking

- 3.5 A total of 14 allocated spaces will be provided for the 7 dwellings. Vehicle tracking for a large car can be found in **Appendix D**. Each dwelling will be provided with electric vehicle charging facilities. . Additionally, two visitor parking spaces will be located on either side of the proposed road entering the site.

Cycle parking

- 3.6 Two covered and secure cycle parking spaces will be provided for each dwelling.

Refuse Collection Deliveries and servicing

- 3.7 Domestic refuse will be collected by the municipal waste collection team. Suitable turning areas are provided within the site for the refuse vehicle this can be seen in **Appendix E**. The turning areas will also be available for the use of delivery & service vehicles. Refuse collection points are provided close to the turning head, to ensure that collections can be made efficiently.

4 Transport Policy

4.1 This Chapter of the Transport Statement provides a policy context to the development proposals, focusing on both national and local planning transport policy and guidance. The documents, which have been reviewed in relation to this planning application, include:

- National Planning Policy Framework;
- National Planning Practice Guidance;
- Hertfordshire's Local Transport Plan;
- North Hertfordshire District Council, Local Development Framework; and
- North Hertfordshire Vehicle Parking at New Development Supplementary Planning Document.

4.2 The key policies that have an influence upon the development proposals from a transport perspective are set out below, with other policies dealt with elsewhere in the supporting documentation.

National Policy and Guidance

National Planning Policy Framework

4.3 The National Planning Policy Framework (NPPF), which has been the subject of two updates in 2019, sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other developments can be produced.

4.4 NPPF describes a sustainable transport mode as:

"Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra-low emission vehicles, car sharing and public transport." (annex 2, p. 76)

4.5 With regards to achieving sustainability, the document states that:

"The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs." (para 7)

4.6 When considering development proposals, the NPPF notes that it should be ensured that:

- *"Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*

- *Safe and suitable access to the site can be achieved for all users; and*
- *Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.” (para 114)*

4.7 The following paragraph concludes, advising that:

“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” (para 115).

Local Policy and Guidance

Hertfordshire’s Local Transport Plan⁵

- 4.8 This plan sets out how transport can help to deliver a positive future for Hertfordshire. The plan covers the period up to 2031. The overall approach plans to *‘accelerates the transition from a previous transport strategy that was largely car based to a more balanced approach which caters for all forms of transport and seeks to encourage a switch from the private car to sustainable transport (e.g. walking, cycling and passenger transport) wherever possible.’*
- 4.9 The document sets out how it plans to cope with the growing demand for housing and expresses how transport plays a pivotal role in facilitating economic growth and delivering sustainable housing development.

North Hertfordshire District Council, Local Development Framework

Parking

- 4.10 As part of the Local Development Plan, the District Council has published a Supplementary Planning Document (SPD): *“Vehicle Parking standards at New Development”⁶*
- 4.11 In relation to new development, it states that:

“Where new roads are adopted and off-street parking is provided in new development, the Council will work with developers and Hertfordshire County Council to ensure that the detailed design of new development does not create unnecessary parking overspill onto

⁵ <https://www.hertford.net/issues/ltp4-local-transport-plan-draft.pdf>

⁶ https://www.north-herts.gov.uk/sites/default/files/files/vehicle_parking_at_new_development_spd_sept_2011.pdf

existing streets, especially in areas where there is pressure for parking space. The Council will consider the availability of existing on and off-street parking space in determining planning applications.”⁷

- 4.12 In considering parking for new development, the SPD sets out minimum residential parking standards, which are reproduced in Table 4.1 below.

Table 4.1 Residential Vehicle and Cycle Parking Standards

Use Class (C3)	Car Parking Standards	Cycle Parking Standards
1 bedroom	1 Space per dwelling minimum	1 secure covered space per dwelling. None if garage or secure area provided within curtilage of dwelling.
2+ bedroom	2 spaces per dwelling minimum	

Source: Hertfordshire New Development Supplementary Planning Document & Bedford Borough Council - Parking Standards for Sustainable Communities 2014

- 4.13 As part of the cycle parking standards, an allowance for adapted cycle parking has been highlighted:

“Provision of well-located, safe and secure cycle parking is a key factor in encouraging people to cycle as an alternative to using the private car. Standards for cycle parking that differentiate between long and short stay so that the appropriate type of provision is made are crucial. Accordingly, provision will be made within the development for the storage of adapted cycles.”⁸

⁷ 1.15 https://www.north-herts.gov.uk/sites/default/files/files/vehicle_parking_at_new_development_spd_sept_2011.pdf

⁸ 3.10 https://www.north-herts.gov.uk/sites/default/files/files/vehicle_parking_at_new_development_spd_sept_2011.pdf

5 Traffic Impact

- 5.1 To determine the likely traffic generation associated with the proposed development, the TRICS database (v7.10.2) was reviewed using privately owned houses for sites located in suburban and neighbourhood centre with the regions of South East, South West, East Anglia, East Midlands and West Midlands on weekdays. A minimum of six and a maximum of 40 dwellings were selected for the parameter range of dwellings selected. This provided a total of 10 separate site surveys. Reference was made to the same database in a previously submitted transport statement in support of the aforementioned previous planning application (HCC Ref: NH/18654/2023), which the local Highway Authority has accepted and recognised as suitable for the development.
- 5.2 The resulting trip rates and traffic generation, based on 7 dwellings, is set out in the following table, while the resulting TRICS output is reproduced at **Appendix F**.

Table 5.1 Traffic generation of proposed development (7 dwellings)

Peak period	Trip rate/dwelling		Traffic generation (7 units)		
	In	Out	In	Out	Total
AM peak (08:00 – 09:00)	0.126	0.325	1	2	3
PM peak (15:00 – 16:00)	0.281	0.225	2	2	4
Daily	2.177	2.26	15	16	31

- 5.3 As can be seen, the proposed development of 7 dwellings is predicted to generate a two-way flow of three vehicles during the AM peak hour and a two-way flow of four vehicles in the PM peak hour. This level of traffic flow would be readily accommodated by the proposed site access and is unlikely to have any noticeable impact on the local highway network.

6 Summary and Conclusions

Summary

- 6.1 Transport Planning Associates has been commissioned by Hanson Services Ltd to provide transport planning consultancy services in relation to the proposed redevelopment of land at Hillcrest and Tussocks on The Causeway in Therfield.
- 6.2 The scheme would encompass the construction of 7 houses to be accessed from The Causeway. The proposed scheme will include car parking and cycle parking spaces in accordance with the standards set by North Hertfordshire District Council.
- 6.3 A new priority junction will be established on The Causeway, along with a new footway that connects to the south. This new junction will facilitate vehicular access, including bicycles, refuse vehicles, deliveries, and services. Visibility splays have been drawn, demonstrating ample visibility in both directions.
- 6.4 The proposal includes the provision of a new footway along the site's frontage, improving the existing pedestrian infrastructure and allowing for safe pedestrian movement along The Causeway.
- 6.5 Regarding road safety, five-year PIC data was acquired from CrashMap for the period 2018 to 2022. No collisions were reported within the area. Given the absence of collisions, there is no fundamental highway design flaw on the roads near the site. A further review has been undertaken, with a focus on pedestrian and cycle safety, which shows that there is no pedestrian or cycle safety issue on the roads surrounding the site.
- 6.6 According to analysis conducted using the TRICS database, the proposed development is projected to generate flows of up to four vehicles during the AM peak and five vehicles during the PM peak. This level of traffic generation is unlikely to have a significant impact on the highway network.
- 6.7 HCC have raised concerns with respect to the sustainability of the site. The proposals include pedestrian infrastructure improvements which are considered to be commensurate with the scale of development, cycle parking in accordance with local planning policy guidance and electric vehicle charging points for each new dwelling. The proposals therefore provide sustainability enhancements and features that will encourage sustainable travel choices.
- 6.8 The introduction of new dwellings in this village location will also have a positive impact on sustainability, in supporting the viability of the existing local amenities.

Conclusions

- 6.9 The proposed development is not predicted to result in a significant or noticeable impact on the local highway network and will not have any negative impact upon highway safety. Based on the above, there are no transport or highway reasons why the proposed development should not be granted planning consent, especially when considering paragraph 115 of the National Planning Policy Framework, which advises:

“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”

APPENDIX A



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Response to Planning application from Hertfordshire County Council (T and CP GDP Order 2015)

Director of Planning

North Hertfordshire Council
Council Offices
Gernon Road
Letchworth Garden City
Hertfordshire
SG6 3JF

District ref: 23/02417/FP
HCC ref: NH/18654/2023
HCC received: 23 October 2023
Area manager: Manjinder Sehmi
Case officer: Senober Khan

Location

Tussocks, The Causeway, Therfield, Royston, SG8 9PP

Application type

Full Application

Proposal

Full Planning Permission : Erection of 10 residential dwellings (1 x 2-bed, 7 x 3-bed, 1 x 4-bed and 1 x 5-bed) including creation of vehicular access , parking, landscaping, and associated works following demolition of dwelling and outbuildings

Recommendation

Notice is given under article 22 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 that Hertfordshire County Council as Highway Authority recommends that permission be refused for the following reasons:

The Highway Authority under the current submission cannot support the application due to the application has failed to demonstrate a satisfactory policy and design-led approach to the development contrary to Hertfordshire's Local Transport Plan (LTP4) policies 5 and 6 and also contrary to the principles of sustainable development contained in the NPPF, therefore the proposals represent a risk to highway safety for all road users.

Brief description in support of proposed development by the applicant:

A Transport Statement dated October 2023 has been submitted in support of a full planning application for erection of 10 No. dwellings at two existing residential properties known as Hillcrest and Tussocks, to the east of The Causeway within the village of Therfield.

The proposals would demolish the existing dwelling and ancillary outbuildings at Hillcrest and develop the part of the garden area surrounding Tussocks. The existing house at Tussocks will be retained and which falls outside of the red line of the application site.

The application site falls within the settlement boundary and Conservation Area of the Therfield, which is a Category A village located to the south west of Royston. The village has a first school and pre-school, public house, village hall and churches.

The majority of site is currently garden space for Tussocks which is a detached house with a garage.

CIHT's Planning for Walking (2015) quotes the Department for Transport's (DfT) document "Building Sustainable Transport into New Developments" (2008), which states:

"Walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800 metres). However, the propensity to walk or cycle is not only influenced by distance but also the quality of the experience; people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating. Developers should consider the safety of the routes (adequacy of surveillance, sight lines and appropriate lighting) as well as landscaping factors (indigenous planting, habitat creation) in their design"

Within a reasonable walking distance from the proposed site, a first school, public house, cricket club, pre-school, chapel, and a church can be reached.

The closest pavements to the site are situated on the east side of The Causeway, just outside Therfield First School, approximately 20m to the south of the development site's boundary. This pavement extends southward to Police Row, where it gradually fade away and resumes again past The Fox and Duck. It then continues along Police Row, leading to the southern part of the village on the eastern roadside.

In villages of this size, it's common to encounter limited pedestrian infrastructure. Due to the relatively low traffic volume, pedestrians tend to utilise the roads to travel by foot.

Due to the nature of the village in its rural environment cycling infrastructure is sparse, albeit the local highway network's nature provides a favourable environment for cyclists.

Due to the proposed site's location, bus services do not operate in close proximity.

The Causeway, a single-carriageway route with a speed limit of 30mph. A new priority junction will be established on The Causeway, along with a new footway that connects to the existing provision to the south. This new junction will facilitate vehicular access, including bicycles, refuse vehicles, deliveries, and services. Visibility splays have been generated, demonstrating ample visibility in both directions.

A review of the most recently available five-year personal injury collision (PIC) data was undertaken utilising information obtained from the CrashMap web facility. The data obtained for the review, which spanned the 2017-2021 period.

No collisions were recorded near to the proposed site. The lack of a significant cluster of incidents suggests that there is no fundamental highway design flaw on the roads in the vicinity of the site.

The proposed development is for 10 residential dwellings. The proposed scheme consists of 1 x 2-bedroom house, 7 x 3 bedroom houses and 1 x 4 bedroom house and 1 x 5 bedroom house

Pedestrian and cycle access will be taken via a shared surface access from The Causeway.

Vehicular access will continue to be from The Causeway, but has been relocated to the centre of the site for improved highway visibility to create a safer access and egress to and from the main road. Providing access to all of the 10 new properties as well as the existing house at Tussocks.

The Causeway is subject to a 30 mph, on that basis, a 43 m splay length, based upon a 30 mph design speed (using Manual for Streets 2) is considered to be suitable.

A total of 20 spaces will be provided for the 10 dwellings. Provision is also made for two covered and secure cycle parking spaces will be provided for each dwelling along with electrical charging points for vehicles.

Domestic refuse will be collected by the municipal waste collection team. Suitable turning areas are provided within the site for the refuse vehicle. The turning areas will also be available for the use of delivery & service vehicles. Refuse collection points are provided close to the turning head, to ensure that collections can be made efficiently.

To determine the likely traffic generation associated with the proposed development, the TRICS database (v7.10.2) was reviewed.

The proposed development of 10 dwellings is predicted to generate a two-way flow of four vehicles during the AM peak hour and a two-way flow of five vehicles in the PM peak hour. This level of traffic flow would be readily accommodated by the proposed site access and is unlikely to have any noticeable impact on the local highway network.

Planning statement:

In 2018, a pre-application submission was made to the Council for the development of Tussocks for 7 No. dwellings including a new access and closure of the existing driveway (LPA reference 18/02701/PRE). 6 No. the new dwellings were proposed across the full width of the front the site in two terraces of three properties. The seventh dwelling was proposed towards the rear and north of the existing dwelling at Tussocks.

The overall conclusion of the Area Planning Officer at the time of the 2018 pre-application submission, was that the harmful impact of amount, layout and size of dwellings proposed on the open character of this part of the Conservation Area, outweighed the benefits of delivering housing within the village.

The Council adopted the new Local Plan 2011-2031 on 8th November 2022 and replaces the previous saved 2007 policies. Policies contained in the 2022 Adopted Local Plan are therefore a primary material consideration in determining this application.

The following Adopted Local Plan policies are relevant to the consideration of this planning application and include:

Policy SP1: Sustainable development in North Hertfordshire – This principle policy highlights that the Local Plan supports the principles of sustainable development within North Herts.

Policy SP6: Sustainable transport – This policy seeks to promote the use of sustainable transport modes insofar as reasonable and practicable. Part e) of the policy requires developments to be assessed against the Plan's parking standards, and, part f) require applicants to provide assessments, plans and supporting documents to demonstrate the safety and sustainability of their proposals.

Policy T1: Assessment of transport matters – This policy requires major development (10 units +) to demonstrate how a proposed scheme would be served by public transport and provide safe, and

provide direct and convenient routes for pedestrian and cyclists. A Transport Statement has been undertaken for the site assessing the sustainability credentials of the scheme and demonstrating the safe access and egress from the site.

Policy T2: Parking – Policy T2 sets out the need to provide parking for residential developments in accordance with the minimum standards set out in Appendix 4 of the Plan.

Appendix 4: Car Parking Standards – This sets out a minimum of 1 space per 1 bed dwellings and 2 spaces for 2+ beds, with 1 secure covered cycle space. Visitor spaces should be between 0.25 and 0.75 spaces per dwelling. Garages should be 7m x 3m to count towards parking. The proposed development provides parking that is in compliance with the requirements of Policy T2 and Appendix 4.

A revised National Planning Policy Framework (NPPF) was published in September 2023, setting out the Government's planning policies for England and how they are expected to be applied.

At the centre of the adopted NPPF, which sets out Central Government's overarching national strategic planning objectives is a presumption in favour of sustainable development:

"So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development...For decision-taking this means approving development proposals that accord with an up-to-date development plan without delay..." (NPPF, para. 10 and 11)

Paragraph 79 goes on to state:

"To promote sustainable development in rural areas, housing should be located where it will enhance or maintain the vitality of rural communities."

Paragraph 130 of the NPPF advises that both planning policies and decisions should aim to ensure that developments:

- create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.

Highways comments:

The proposals involve demolishing the existing dwelling and ancillary outbuildings and the building of 10 residential dwellings consisting of 1 x 2-bedroom house, 7 x 3 bedroom houses and 1 x 4 bedroom house and 1 x 5 bedroom house, each dwelling with 2 car parking spaces, cycle storage for 2 cycles and EV charging points.

The proposed car parking provision and layout is the responsibility of the LPA to determine the level and suitability of the car parking proposals, however, it is essential that it is operated in efficient and safe manner to minimise the impact on the local highway network which is the responsibility of the HCC HA.

The HA has reviewed the TS and whilst the HA would acknowledge the proposal is not expected to have any significant/detrimental impact on the operation of the local highway network and the centrally located new vehicle access achieves the required visibility splays and provisions, however given the extensive references to the NPPF and local plan policies concerning developments being safely accessible by pedestrians and cyclists, the TS has not been able to demonstrate that the site is accessible and safe for pedestrians and cyclists to access.

Whilst the TS accentuates the distance element of the guidance, however the TS does not address the issue of “propensity to walk or cycle is not only influenced by distance but also the quality of the experience; people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating. Developers should consider the safety of the routes (adequacy of surveillance, sight lines and appropriate lighting)”

Instead, reference is made that such facilities are not common in such village locations whilst ignoring the main aims of the policies that such developments must be in locations where street lighting, footways and public transport exist or can be provisioned.

Cycling and walking are a key part of HCC/NPPF plans, and provision of safe and lit footways is one of the key issues identified in HCC/NPPF to encourage active sustainable transport choices.

This housing development is proposed in an area with 2 very short sections of substandard width footways and no street lighting along any of the areas roads, and expecting residents to walk along the carriageway of The Causeway is not acceptable for a new build development. As outlined in the national and local policies housing should be delivered in the most sustainable locations where connectivity is maximised, the need to travel by car is minimised, and safe and direct walking and cycling routes are provided.

Policies encourage active travel, which is about ‘living locally’ and giving people the ability to access most of their needs within an easy walk or cycle from their home, with safe access to cycling and local public transport options.

Walking or cycling to and from the site would therefore be neither particularly appealing nor safe. This is likely to discourage occupiers of the proposed dwelling from walking and cycling to local services, also the site is not served by public transport and so no public transport options exist for occupants of the site that could easily access. Accordingly, the development cannot be described as well served by public transport, walking, and cycling opportunities, and the site’s situation is not conducive to accessing the development and surrounding area except predominantly by private car.

The limited alternative transport options available mean that occupiers of the proposed development would be likely to be highly reliant on one mode of transport, the private car, for a significant majority of their journeys and to serve their daily needs. Consequently, although vehicle movements would only be associated with 10 units of accommodation in this instance and may therefore not be particularly significant, the site and appeal of the proposal cannot reasonably be described as sustainable in relation to accessibility considerations.

With the lack of realistic transport alternatives and occupants of the development thus having little choice other than to rely on driving to and from the site, neither could the development be regarded as promoting sustainable transport choices and having no adverse environmental impact.

The adjoining main road, The Causeway is unlit and except for 2 relatively small sections has no pedestrian footways. This would likely result in treacherous conditions for any future occupiers navigating the roads by foot or cycling during the evenings, winter months or adverse weather fronts, there is no nearby bus stops, or acceptable walking distances to access public transport, services and facilities. On this basis, the proposed development would not enhance or maintain the vitality of the rural community and would lead to the use of unsustainable travel modes and likely to heavily rely on the private car.

Residential developments should be delivered in the most sustainable locations, connectivity is maximised, the need to travel is minimised, and safe and direct walking and cycling routes are provided.

Consequently, the site and its access without the provision of safe and lit footway connectivity with established settlements and public transport are not considered acceptable for residential development in such an isolated location because it is not viable for access by non-car transport modes contrary to all policies and guidance's, in particular NPPF which seeks new development to provide safe and suitable access for all, and to create safe and secure layouts minimising conflicts between traffic and pedestrians.

Furthermore, permitting the development would set an undesirable precedent for similar schemes elsewhere.

Conclusion:

The onus is on the applicant to provide detailed explanation, information, plans that demonstrate how all the aspects of the proposals are compliant with the appropriate guidance's and policies for the HA to fully understand and assess the viability of the proposal to make an informed decision, it is not for the HA to make assumptions or undertake detailed measurements of the layout/assessment on behalf of the applicant.

It should be noted that with new builds the planning process seeks/provides the opportunity to improve conditions for both development and highway safety by applying current higher standards of design, build and safety to new developments, and not to retain and/or continue with past obsolete standards.

It is not acceptable for a new build development to not provide safe access by all modes of transport, in particular non-car modes, thereby resulting in continuation of developments reliant on car borne access only, this is contrary to both local and national policies and guidance's.

Recommendation:

The Highway Authority under the current submission cannot support the application due to the application has failed to demonstrate a satisfactory policy and design-led approach to the development contrary to Hertfordshire's Local Transport Plan (LTP4) policies 5 and 6 and also contrary to the principles of sustainable development contained in the NPPF, therefore the proposals represent a risk to highway safety for all road users.

Informatives:

Current policies, both national and local, focus on active travel and walking; therefore, pedestrian facilities need to be provided at the new build delivery stage, the HA would seek 2m wide footways to be provided along the sites full frontage with The Causeway. Such a provision would not only allow safe facilities but also potential to provision footways in any future development of land either side of the above site.

The HA will seek the developer to dedicate to the HA for adoption sufficient strip of the site's frontage along Police Row needed to provide at least 2m wide footway. The applicant will be liable for the cost of making the footway along the length of the site's frontage and its associated commuted maintenance payment.

Consequently, an audit is required between the site and key destinations to ensure there are no barriers or obstructions for vulnerable road users to access the adjacent facilities. Such an audit should include a route map for example toward all primary destinations, highlight any barriers that are proposed to be mitigated to encourage use of more sustainable modes of transport, and or improve access to users such as the visually and mobility impaired. Any issues should be picked up in a

highway audit, with suitable mitigation being proposed to cater for the additional demand created by the proposed development (dropped kerb/tactile paving, etc).

Furthermore, Hertfordshire's Planning Obligations Toolkit (2021) sets out that in order for the County to be able to support the very significant amount of new development coming forward over the next few years, a very significant amount of new and improved sustainable transport infrastructure is needed. In high level principle therefore, each new development should make a contribution towards this infrastructure to mitigate its own impact (subject of course to meeting the 3 CIL tests). The headline figure as stated in our Toolkit is £6826 per dwelling (i.e., the average amount each new dwelling across the county needs to pay in order for the necessary new infrastructure to be delivered). Multiply this by 10 dwellings = £68,260.

A Stage 1 Road Safety Audit (RSA) will need to be submitted as part of the application with particular attention to pedestrian and cyclist routes and safety.

Signed

Senober Khan

14 November 2023

APPENDIX B



APPENDIX C

A3
ORIGINAL
PLOT SIZE

2.4m x 43m Visibility Splay



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NOTES:

Visibility Splay for 30mph (2.4m x 43m)

Visibility splay based on Manual for Streets requirement for 30mph speeds.

References
Drawing "Hillcrest and Tussock site plan AutoCAD 03-06-24"
Based on OS Mapping

A	07/06/24	Updated to "Hillcrest and Tussock site plan AutoCAD 03-06-24"	GKO	NH	NH
Rev	Date	Details	Drawn by	Checked by	Approved by

Bristol
Cambridge
London
Welwyn Garden City



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CLIENT:
HANSON SERVICES LTD

PROJECT:
**HILLCREST & TUSOCKS
THE CAUSEWAY
THERFIELD**

TITLE:
**2.4M X 43M VISIBILITY SPLAY
OF PROPOSED ACCESS**

STATUS:
FOR INFORMATION

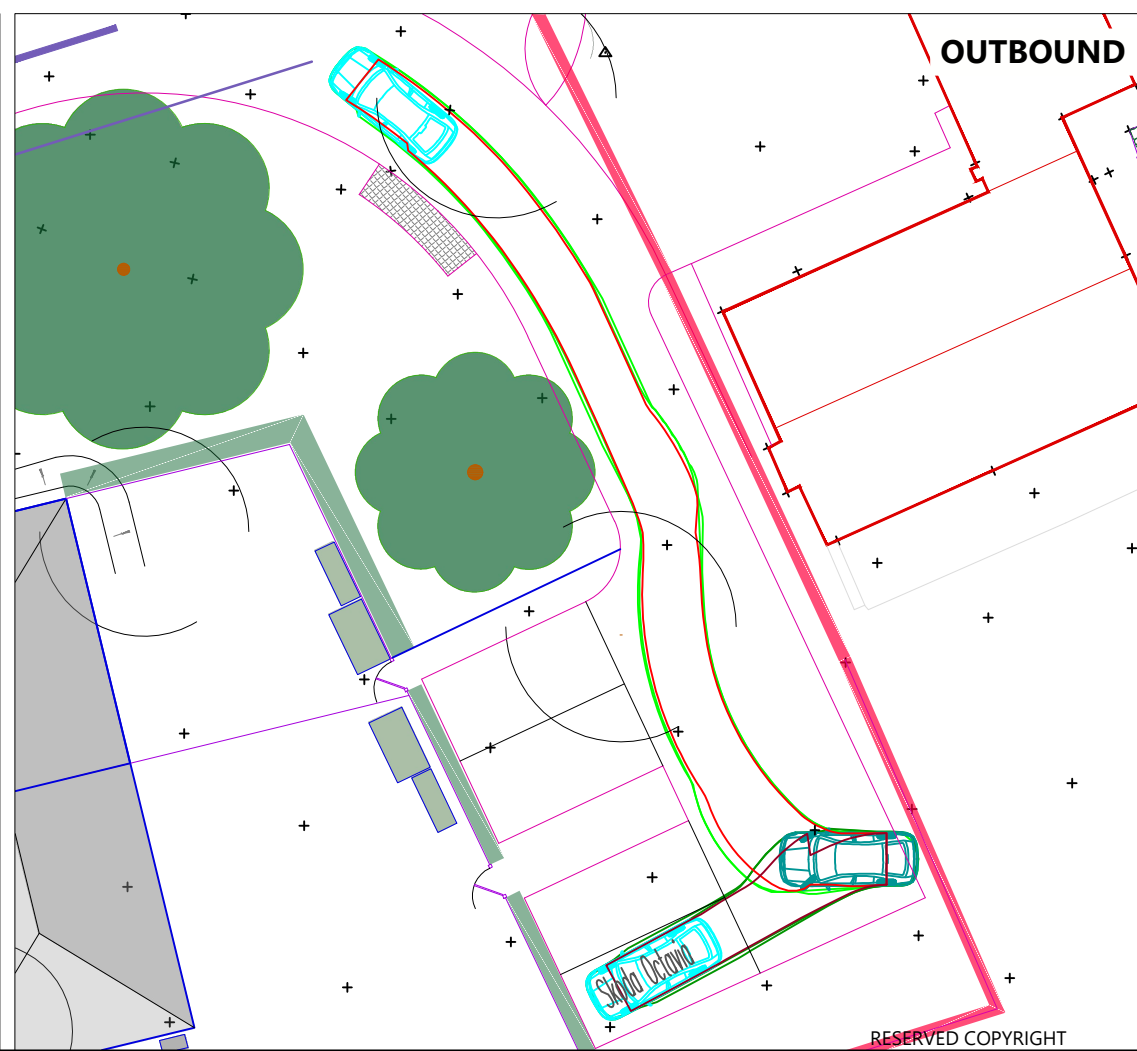
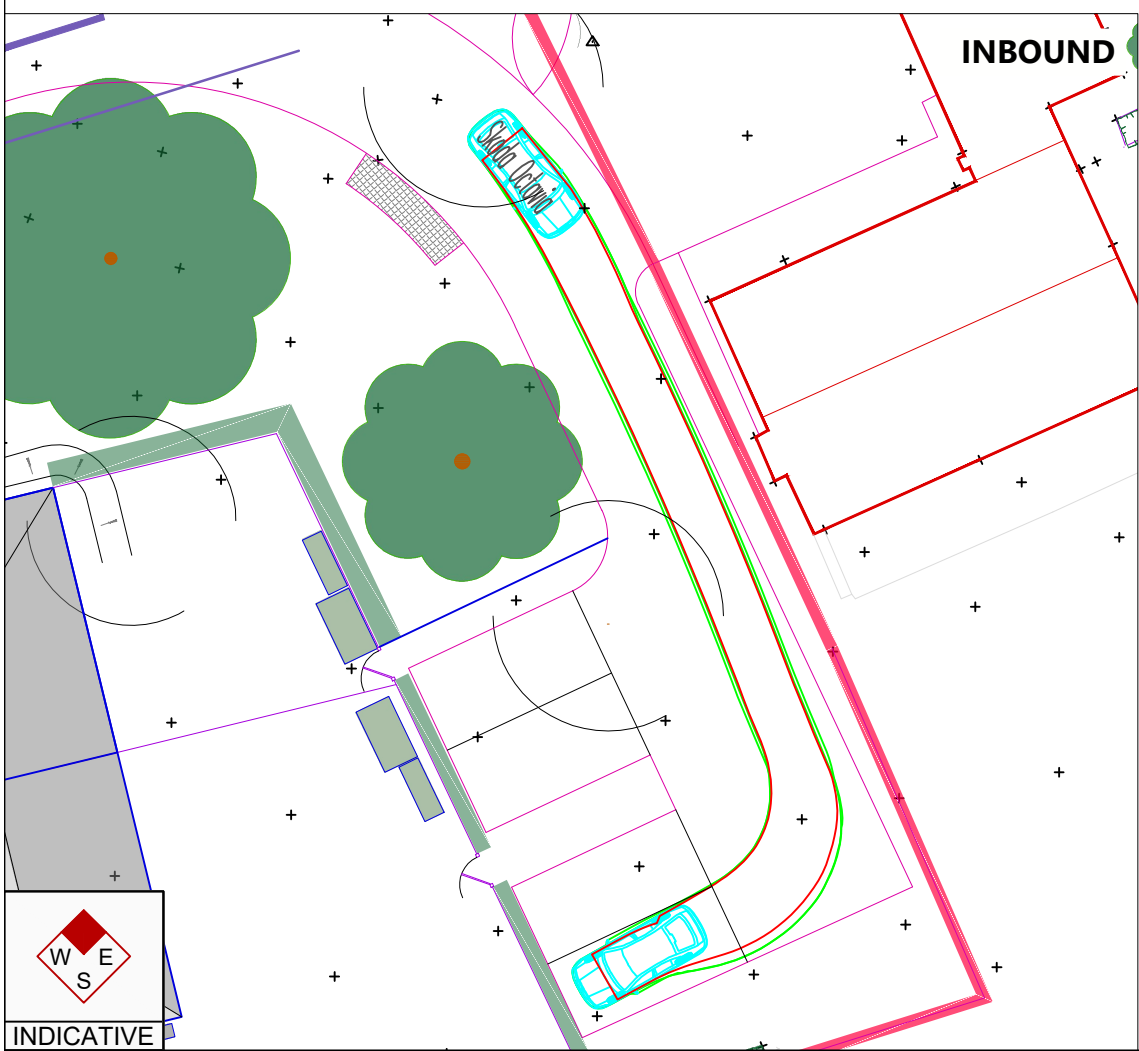
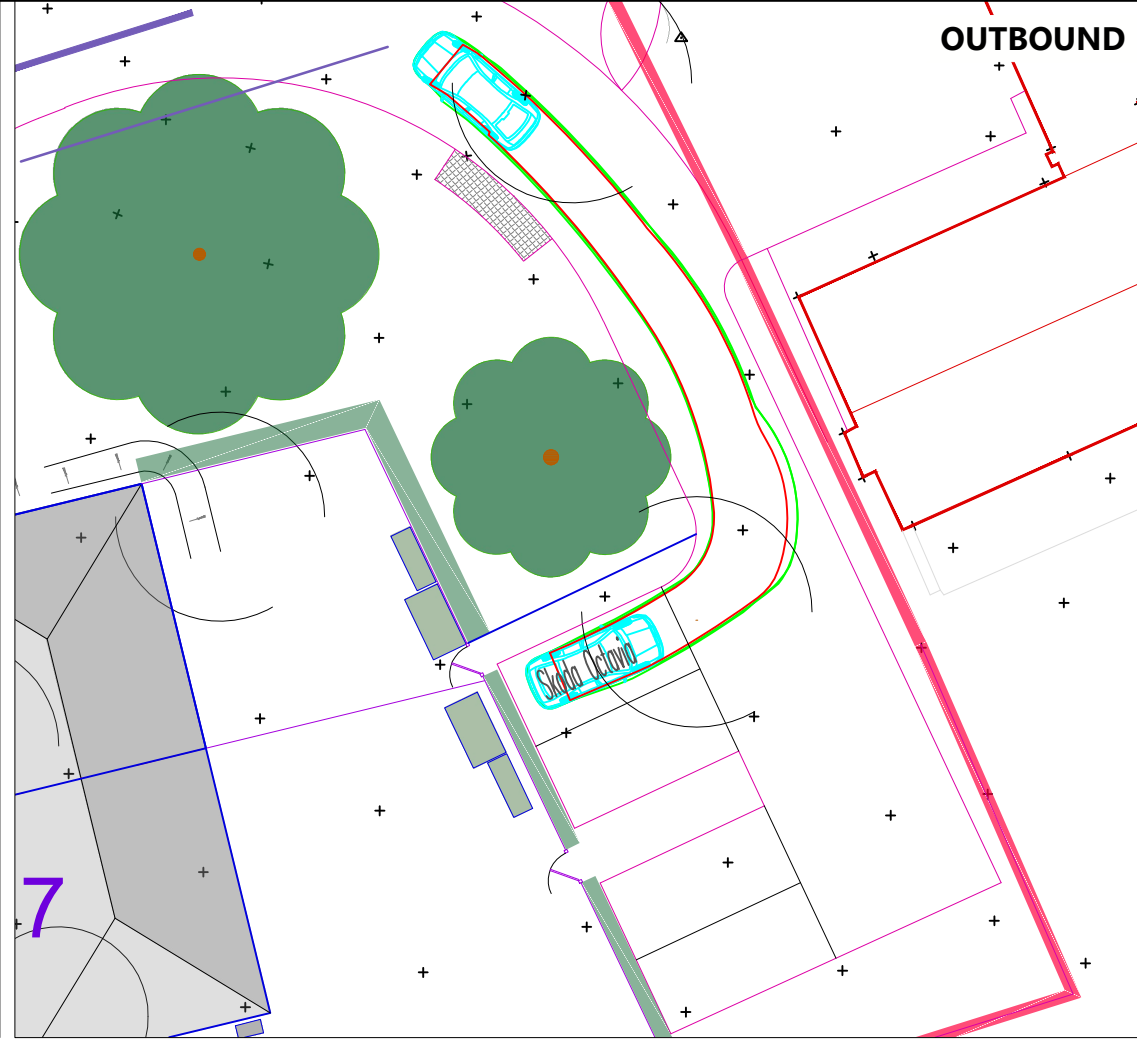
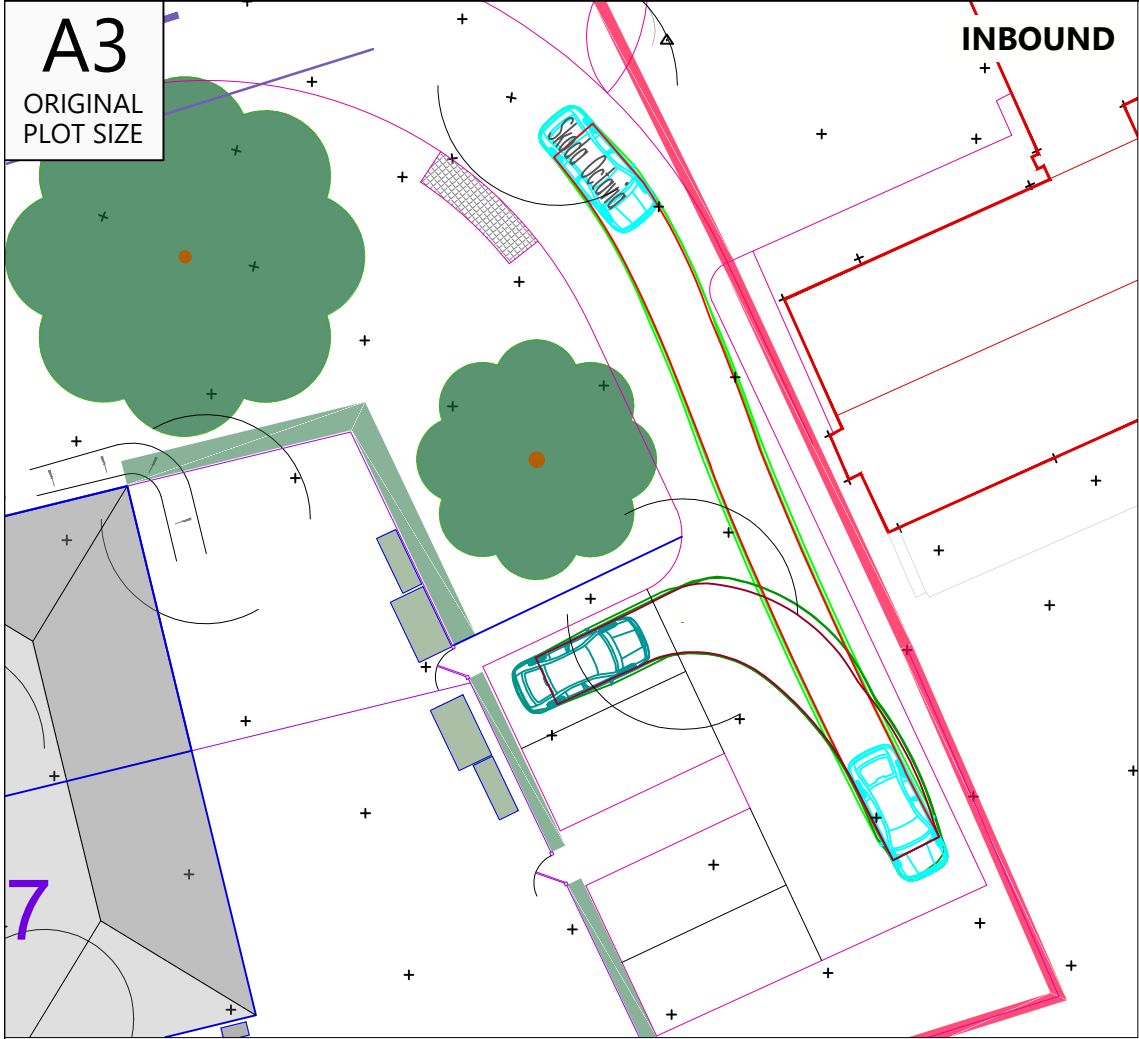
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JOB NO: 2212-005	DRAWING NO: VS04	REVISION: -		



INDICATIVE

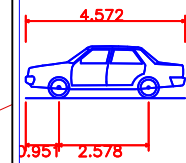
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APPENDIX D



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NOTES: Based on plan "Hillcrest and Tussock site plan AutoCAD 03-06-24"



Skoda Octavia
Overall Length 4.572m
Overall Width 1.769m
Overall Body Height 1.488m
Min Body Ground Clearance 0.249m
Max Track Width 1.713m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.100m

A	07/06/24	Updated plans to "Hillcrest and Tussock site plan AutoCAD 03-06-24"	GKO	NH	NH
Rev	Date	Details	Drawn by	Checked by	Approved by

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CLIENT:
HANSON SERVICES LTD

PROJECT:
**HILLCREST & TUSOCKS
THE CAUSEWAY
THERFIELD**

TITLE:
**SWEPT PATH ANALYSIS OF
A SKODA OCTAVIA TO
KEY PARKING SPACES**

STATUS:
FOR INFORMATION

SCALE: 1:500	DATE: 08/05/24	DRAWN: GKO	CHECKED: NH	APPROVED: NH
JOB NO: 2212-005	DRAWING NO: SP04	REVISION: -		



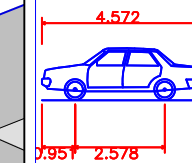
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ORIGINAL
PLOT SIZE

OUTBOUND

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NOTES: Based on plan "Hillcrest and Tussock site plan AutoCAD 03-06-24"



Skoda Octavia	
Overall Length	4.572m
Overall Width	1.769m
Overall Body Height	1.488m
Min Body Ground Clearance	0.249m
Max Track Width	1.713m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.100m

A	07/06/24	Updated to newest plan "Hillcrest and Tussock site plan AutoCAD 03-06-24"	GKO	NH	NH
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PROJECT:

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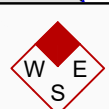
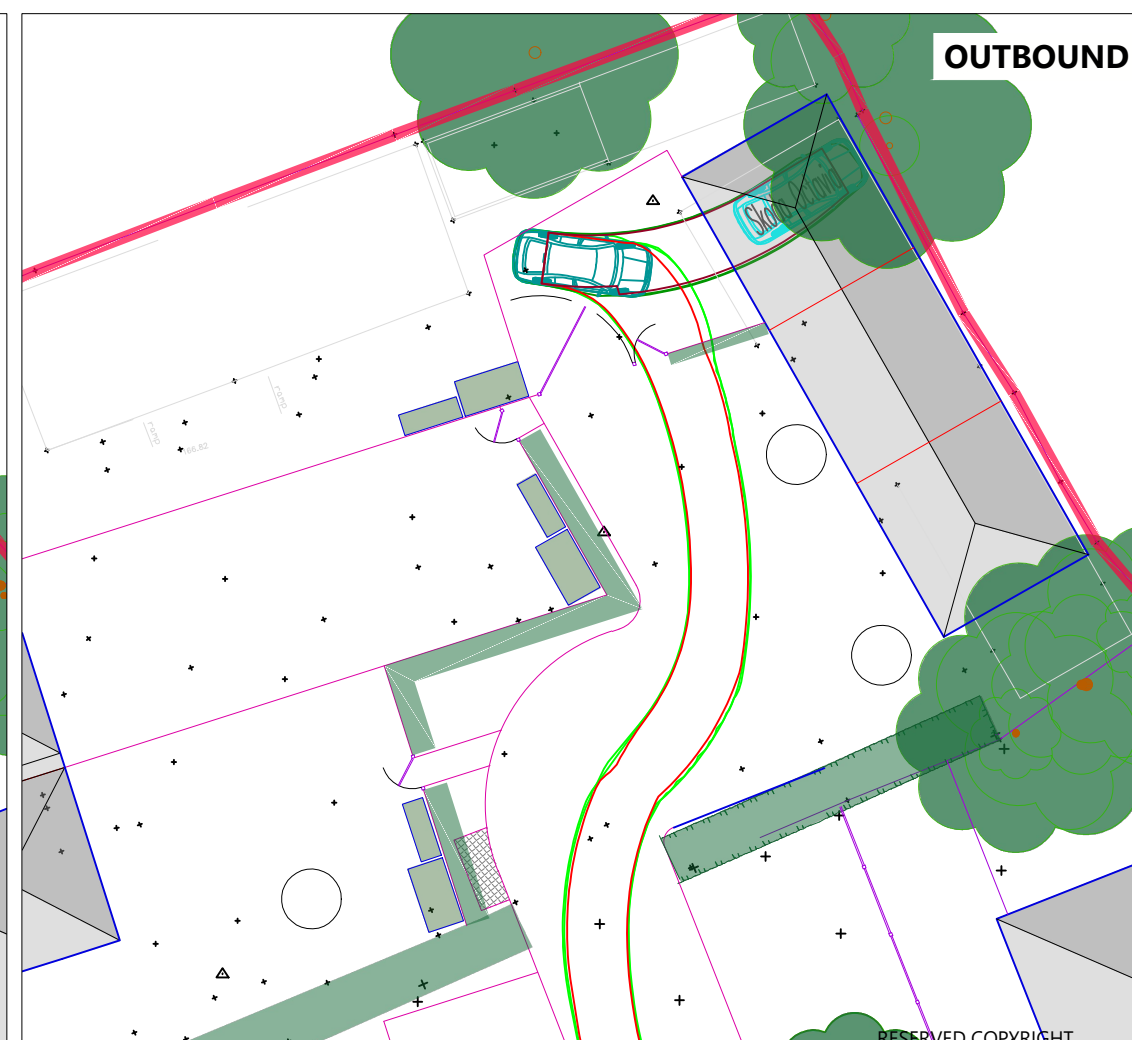
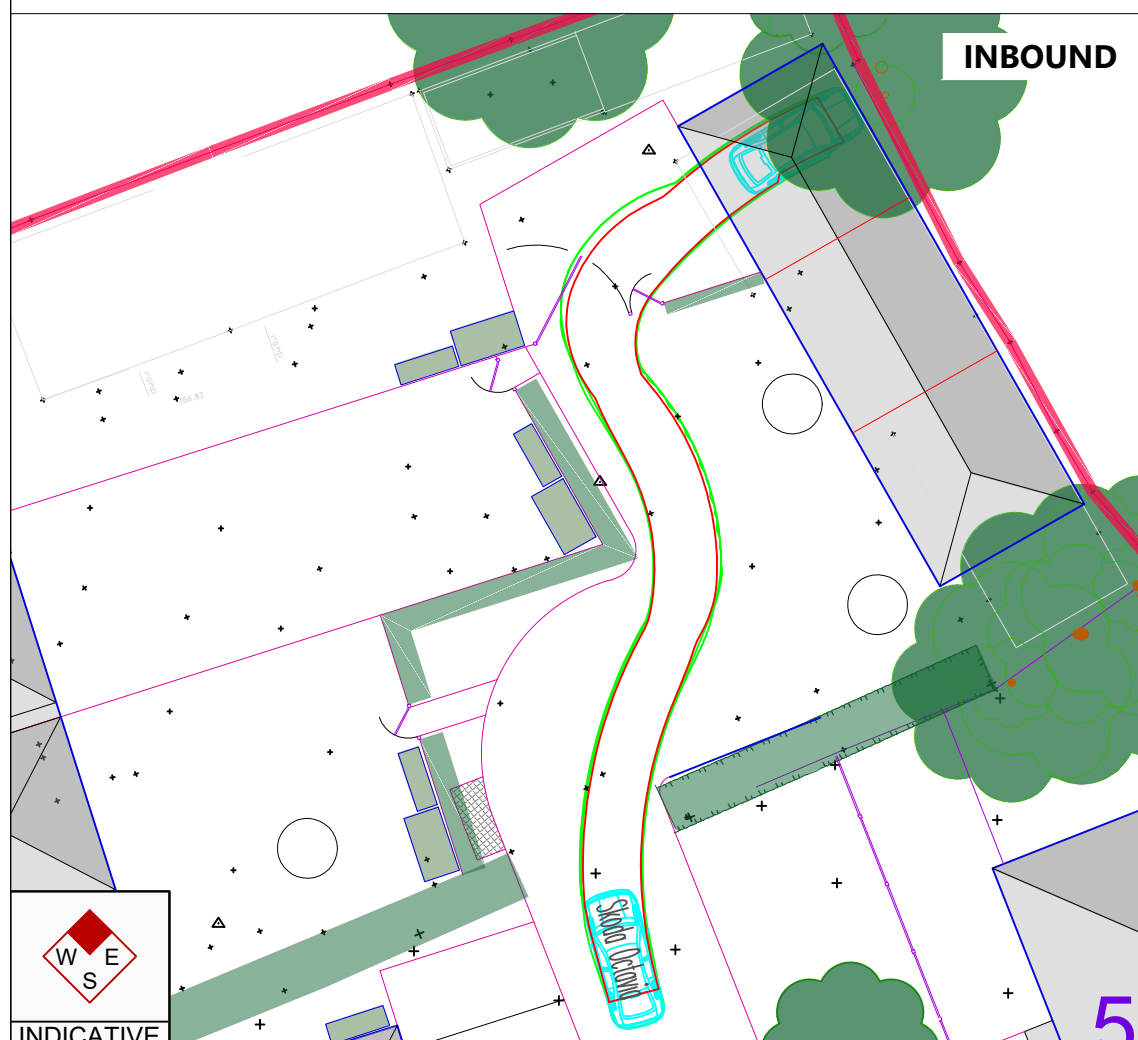
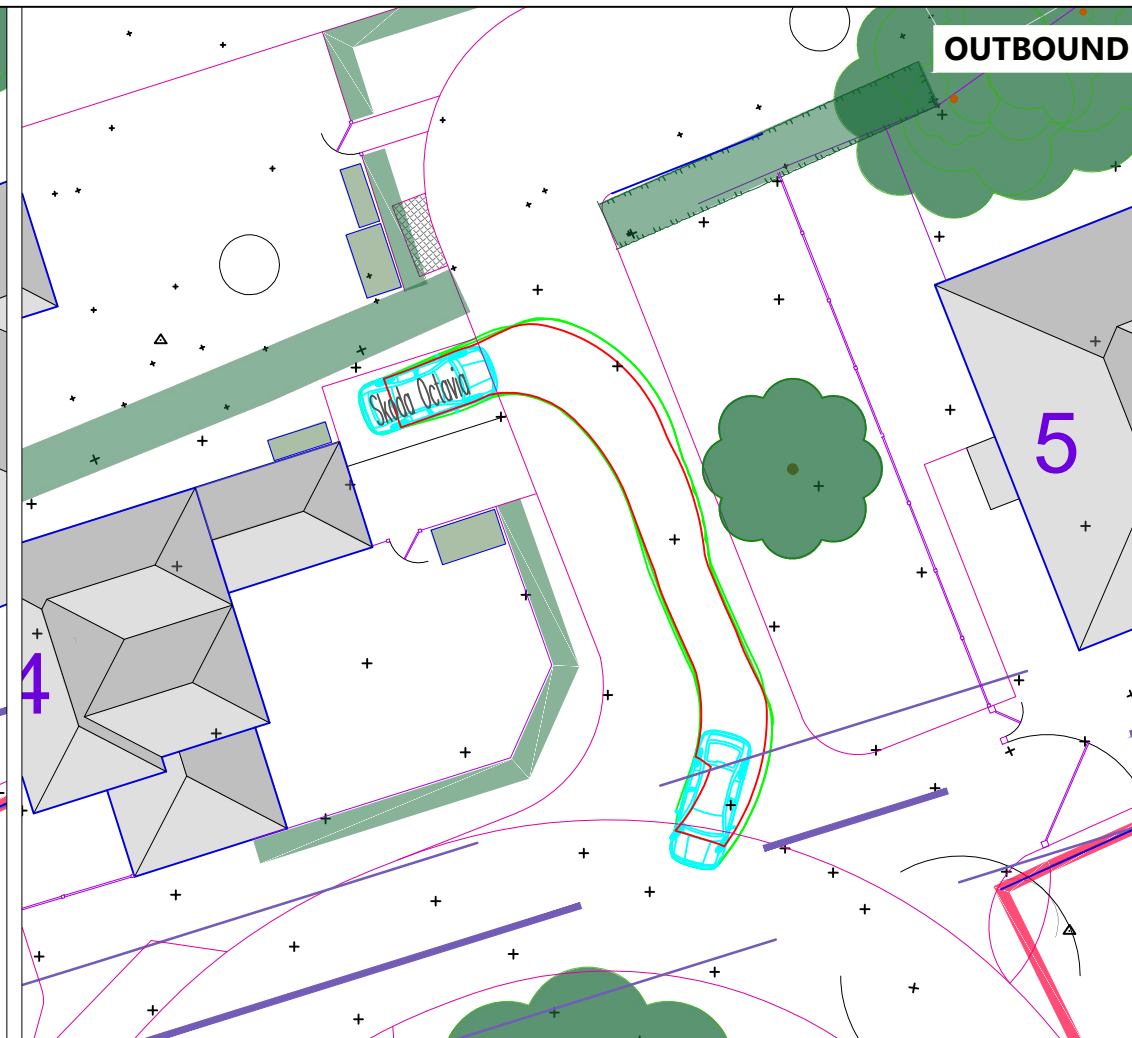
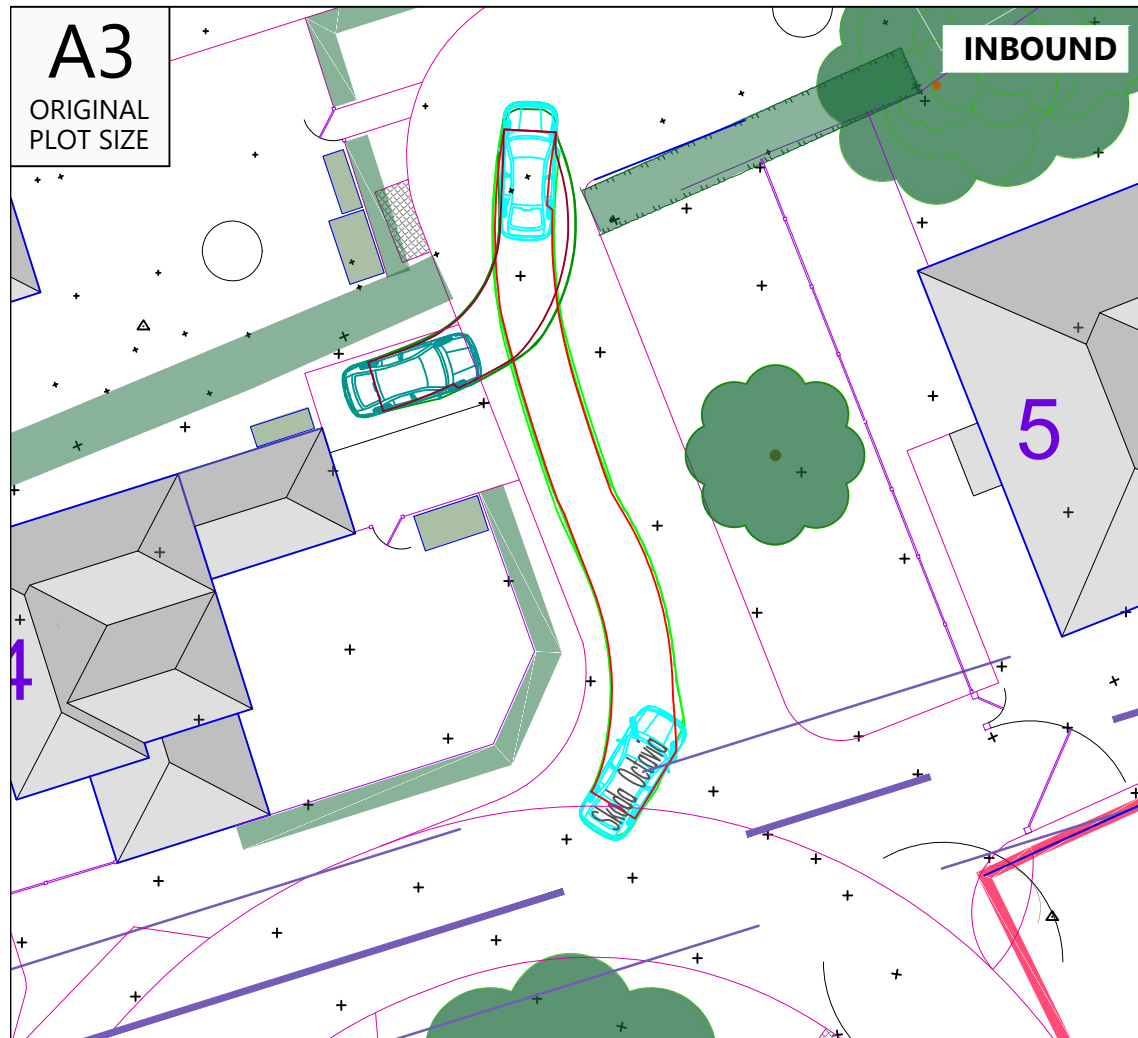
TITLE:

SWEPT PATH ANALYSIS OF A SKODA OCTAVIA TO KEY PARKING SPACES

STATUS:

FOR INFORMATION

SCALE: 1:250	DATE: 08/05/24	DRAWN: GKO	CHECKED: NH	APPROVED: NH
JOB NO: 2212-005		DRAWING NO: SP05		REVISION: -



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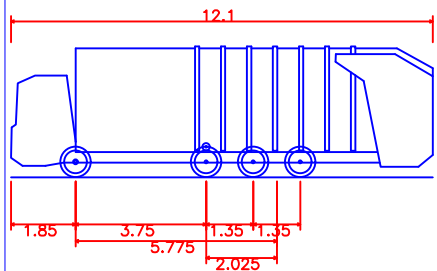
APPENDIX E

A3
ORIGINAL
PLOT SIZE

INBOUND

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NOTES: Based on drawing 'Hillcrest and Tussock site plan AutoCAD 03-06-24



12.1m Mercedes Econic 3233LL 8x4 chassis)
Overall Length 12.100m
Overall Width 2.490m
Overall Body Height 3.750m
Min Body Ground Clearance 0.302m
Track Width 2.490m
Lock to lock time 4.00s
Max Wheel Angle 44.40°

A	07/06/24	Updated to plans "Hillcrest and Tussock site plan AutoCAD 03-06-24"	GKO	NH	NH
Rev	Date	Details	Drawn by	Checked by	Approved by

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PROJECT:
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THERFIELD

TITLE:
SWEPT PATH ANALYSIS OF
A 12.1M REFUSE VEHICLE TO
REFUSE COLLECTION POINTS

STATUS:
FOR INFORMATION

SCALE: 1:500	DATE: 08/05/24	DRAWN: GKO	CHECKED: NH	APPROVED: NH
JOB NO: 2212-005	DRAWING NO: SP06	REVISION: -		

OUTBOUND



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APPENDIX F

Calculation Reference: AUDIT-219602-230824-0838

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
	MW MEDWAY	1 days
	SC SURREY	1 days
03	SOUTH WEST	
	SD SWINDON	1 days
	TB TORBAY	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	PB PETERBOROUGH	1 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 8 to 40 (units:)
 Range Selected by User: 6 to 40 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 09/11/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	3 days
Thursday	2 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Neighbourhood Centre (PPS6 Local Centre)	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	1 days - Selected
Servicing vehicles Excluded	13 days - Selected

Secondary Filtering selection:

Use Class:

C3	10 days
----	---------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	3 days
10,001 to 15,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	6 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	2 days
No	8 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	10 days
-----------------	---------

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	HC-03-A-17 CANADA WAY LIPHOOK	HOUSES & FLATS	HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 36 Survey date: THURSDAY 12/11/15 Survey Type: MANUAL		
2	MW-03-A-01 ROCHESTER ROAD NEAR CHATHAM BURHAM	DETACHED & SEMI-DETACHED	MEDWAY
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 8 Survey date: FRIDAY 22/09/17 Survey Type: MANUAL		
3	NF-03-A-51 CITY ROAD NORWICH LAKENHAM	SEMI-DETACHED	NORFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 34 Survey date: TUESDAY 13/09/22 Survey Type: MANUAL		
4	PB-03-A-04 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES	PETERBOROUGH
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 17/10/16 Survey Type: MANUAL		
5	SC-03-A-10 GUILDFORD ROAD ASH	MIXED HOUSES	SURREY
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 32 Survey date: WEDNESDAY 14/09/22 Survey Type: MANUAL		
6	SD-03-A-01 HEADLANDS GROVE SWINDON	SEMI DETACHED	SWINDON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 27 Survey date: THURSDAY 22/09/16 Survey Type: MANUAL		
7	SF-03-A-06 BURY ROAD KENTFORD	DETACHED & SEMI-DETACHED	SUFFOLK
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 38 Survey date: FRIDAY 22/09/17 Survey Type: MANUAL		
8	TB-03-A-01 BRONSHILL ROAD TORQUAY	TERRACED HOUSES	TORBAY
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 37 Survey date: WEDNESDAY 30/09/15 Survey Type: MANUAL		

LIST OF SITES relevant to selection parameters (Cont.)

9	WK-03-A-03	DETACHED HOUSES	WARWICKSHIRE
	BRESE AVENUE		
	WARWICK		
	GUY'S CLIFFE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	23	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL
10	WM-03-A-04	TERRACED HOUSES	WEST MIDLANDS
	OSBORNE ROAD		
	COVENTRY		
	EARLSDON		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	39	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
CA-03-A-07	27/05/21	covid
ES-03-A-06	16/06/21	covid
GS-03-A-02	23/04/21	covid
SF-03-A-08	16/09/20	covid

Transport Planning Associates Ltd 1 Giltspur Street London EC1A 9DD

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	30	0.070	10	30	0.222	10	30	0.292
08:00 - 09:00	10	30	0.126	10	30	0.325	10	30	0.451
09:00 - 10:00	10	30	0.139	10	30	0.136	10	30	0.275
10:00 - 11:00	10	30	0.172	10	30	0.169	10	30	0.341
11:00 - 12:00	10	30	0.156	10	30	0.136	10	30	0.292
12:00 - 13:00	10	30	0.146	10	30	0.179	10	30	0.325
13:00 - 14:00	10	30	0.166	10	30	0.189	10	30	0.355
14:00 - 15:00	10	30	0.169	10	30	0.199	10	30	0.368
15:00 - 16:00	10	30	0.281	10	30	0.225	10	30	0.506
16:00 - 17:00	10	30	0.275	10	30	0.172	10	30	0.447
17:00 - 18:00	10	30	0.265	10	30	0.179	10	30	0.444
18:00 - 19:00	10	30	0.212	10	30	0.129	10	30	0.341
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.177			2.260			4.437

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 8 - 40 (units:)
 Survey date range: 01/01/15 - 09/11/22
 Number of weekdays (Monday-Friday): 14
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.