Figure 11: Sauncey View Lodge site and possible Green Belt boundaries

9.0 CONCLUSIONS

9.1 This report is submitted in response to the Call for Sites on behalf of the owners of the land at Sauncey View Lodge. The site is being promoted for residential development.

9.2 There is an evident and urgent need for additional housing sites within St Albans district. 8 Broad Locations were previously identified by the Council's Green Belt consultants as capable of being released without harming Green Belt purposes. The Sauncey View Lodge site falls within the North East of Harpenden Broad Location and as such is sequentially preferable to other potential development sites not within an identified Broad Location. This should be the starting point for work on a new Local Plan.

9.3 This site is ideally located and could easily be incorporated into the urban area as a stand-alone site, causing almost no harm to the Green Belt or local amenity. In doing so it could boost the supply of housing land in a sustainable way. The site already has a number of buildings on it and the impact on the Green Belt of additional built form is minimal.

9.4 In addition, the site lies adjacent to a larger area of land, also identified by the Council's Green Belt consultants, and now being promoted as an urban extension to Harpenden. The Sauncey View Lodge site could be developed consistently with this wider site and, although not dependent on it, would appear as part of the same masterplanning area.

9.5 The site is unconstrained (apart from the Green Belt) and could be delivered quickly to meet identified housing need. The fact that it is in separate ownership from the wider site means it could be delivered more quickly and start to meet the urgent housing need in the local area.

9.6 Furthermore, this site is directly adjacent to a recently built secondary school. This proposal, with its multi-storey buildings, has dramatically changed the nature of the countryside and the function of the Green Belt in this area. This development, together with the recently approved four dwellings opposite the site, renders even less significant the minimal impact on the Green Belt caused by redevelopment of the Sauncey View Lodge site.

9.7 The Sauncey View Lodge site is consistent with the Council's previous strategy and evidence base and this work forms a solid foundation on which to construct a new Local Plan. On this basis, the site should be allocated for housing and removed from the Green Belt in the next iteration of the Local Plan.

10.0 APPENDIX A – HIGHWAYS TECHNICAL REPORT

Land at Sauncey View Lodge, Common Lane, Harpenden AL5 5DN

Pre-Application Technical Report

Prepared on behalf of

[redacted]

February 2021

MILESTONE TRANSPORT PLANNING

Land at Sauncey View Lodge, Common Lane, Harpenden AL5 5DN

Project No: MTP Ref: 21-059

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-	26/02/2021	First Issue for Client Comment	M. Stevens	M. Stevens	M. Stevens
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Tables

Appendices

1. Executive Summary

1.1 Milestone Transport Planning Ltd (MTP) have been instructed by Mr C & Mrs A Mitchell to prepare this pre-Application Technical Report to Hertfordshire County Council (HCC) as highway authority and key consultee of any emerging planning application. The purpose of the Technical Report is to demonstrate that land at Sauncey View Lodge, Common Lane, Harpenden *(referred to heron in as the "subject site")* is capable of accommodating residential development (under Use Class C3) of up to 40 dwellings from a highways and transport perspective.

1.2 In the preparation of the Technical Report, due regard is given to Policy 1 of HCC's latest Local Transport Plan 4 (LTP4) (May 2018) that requires development proposals to prioritise the hierarchy of users where emphasis is placed on:

- Opportunities to reduce travel demand and the need for travel;
- Vulnerable road user needs (pedestrians and cyclists);
- Passenger Transport user needs;
- Powered two-wheeler (mopeds and motorbikes) user needs;
- Other motor vehicle needs.

1.3 In accordance with LTP4 this Technical Report will demonstrate that the subject site can:

- Promote smarter travel choices, improve accessibility and ensure integration with the local transport network, to promote healthier lifestyle choices and wider social / community benefits and to assist in minimising environmental impacts;
- Deliver enhanced permeability for pedestrians through extension of the existing footpath on the western side of Common Lane from property No. 43 through to the northern boundary of the subject site that can also accommodate modification to incorporate off-carriageway cycle facilities should further residential development (circa. 250 residential dwellings) be released off Common Lane, north of the subject site;
- Enhance safety for all road users through reduction in the number of permitted vehicular crossovers onto Common Lane along site frontage;
- Be accessible to key local amenities by foot and cycle as well as frequent public transport services serving a wide range of destinations;
- Deliver cycle and vehicle parking requirements, including electric vehicle charging points to current and emerging standards;
- Provide vehicular access arrangements that safely accommodate the requisite visibility splay requirements that reflect the speed of approaching vehicles on Common Lane and operationally accommodate the turning requirements of all traffic movements, including servicing & delivery vehicles; and
- Deliver estate access roads in accordance with the Roads in Hertfordshire (RiH) Design Guide (2011).

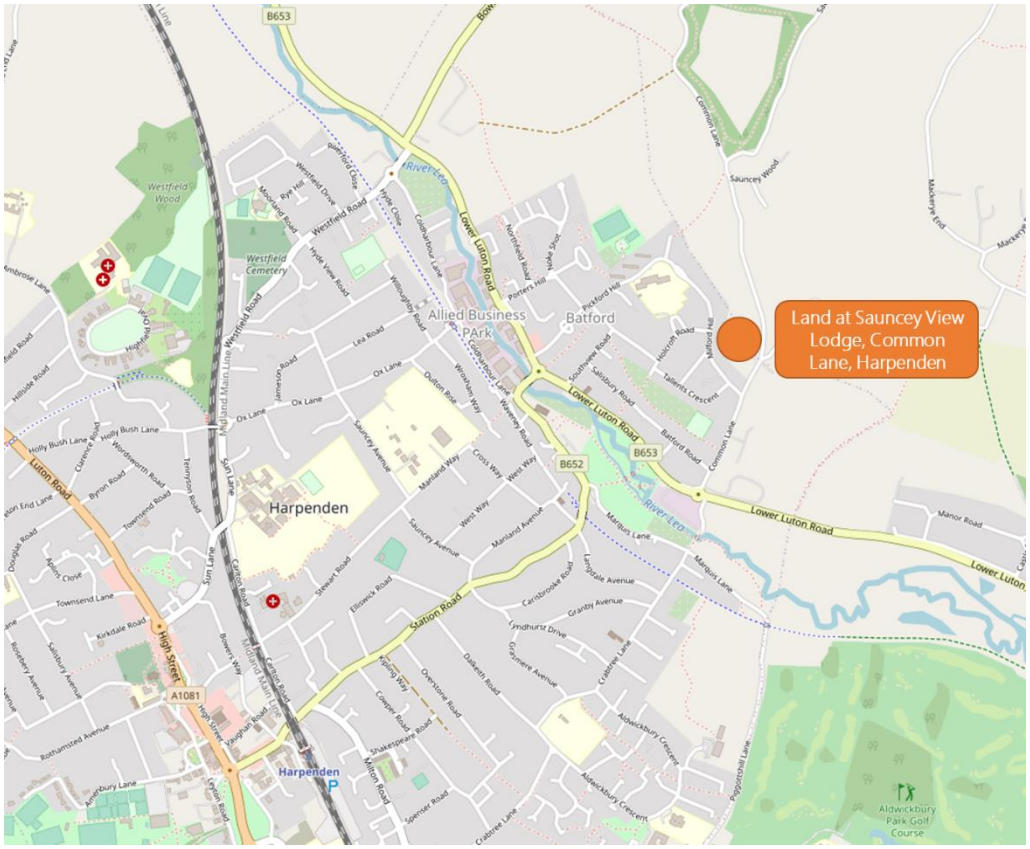
1.4 The Technical Report will also demonstrate that the level of person trip generation by all modes of travel, will have a minimal impact on the operational and safety characteristics of the surrounding highways and transport networks.

2. Baseline Site Analysis

Site Location

2.1 The general location of the subject site is shown in Figure 1.

Figure 1 Site Location



Proximity of Local Amenities

2.2 The subject site is located within easy walking and cycling distance of a wide range of local amenities, as summarised in Table 2.1 and illustrated in Figure 2.

Table 2.1 Summary of Local Amenities

Destination	Distance	Walk Time	Destination	Distance	Walk Time
Batford Memorial Hall	400m	5min	Sauncey Wood Primary School	650m	8min
Katherine Warington School	450m	6min	The Gibraltar Castle PH	700m	9min
Batford Nursery School	450m	6min	Porters Hill Park	900m	11min
Batford Springs Nature Reserve	550m	7min	Tesco Express (Esso)	950m	12min
Marquis of Granby PH	650m	8min	Co-Op Batford	1.0km	12min

Figure 2 Local Amenities

Accessibility by Foot & Cycle

2.3 Common Lane is provided with a continuous footway of at least 2.0m in width on the western side of the carriageway from the mini-roundabout junction with the B653 Lower Luton Road, northwards through to property No. 43, on the south-eastern corner of the subject site. Beyond No. 43, Common Lane transitions to a rural lane and there is no footway provision at present on either side of the carriageway.

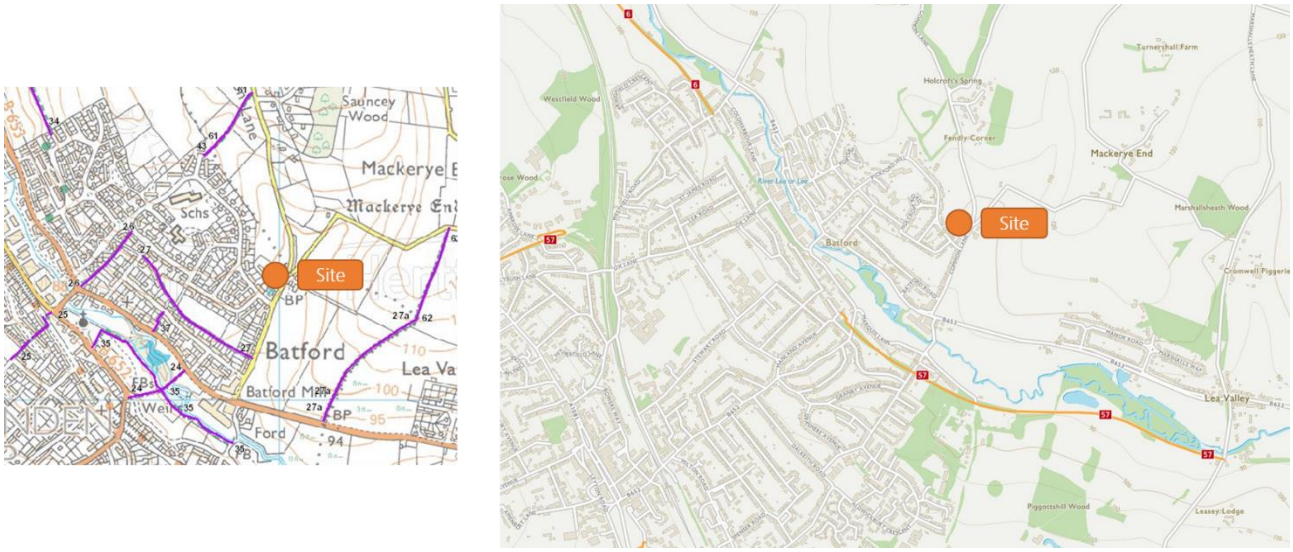
2.4 The B653 Lower Luton Road has footways on both sides of the carriageway, west from the mini-roundabout junction with Common Lane, through towards the centre of Batford and footway provision on the northern side of the carriageway, eastwards towards Marshall's Heath.

2.5 At present, all crossing facilities along Common Lane are uncontrolled. There is a traffic signal controlled crossing on the B653 Lower Luton Road, west of its junction with Batford Road for access to Batford Springs Local Nature Reserve.

2.6 The package of off-site highway works associated with the recently constructed Katherine Warington School (KWS) deliver enhanced informal crossings over Common Lane and Milford Hill with dropped kerbs / tactile paving, a widened footway / cycleway on the B653 Lower Luton Road and an additional traffic signal controlled crossing to the east of the mini-roundabout.

2.7 As shown in Figure 3, there is an extensive network of public footpaths in the vicinity of the subject site including Footpath 35, on the southern bank of the River Lea, that forms part of the Sustrans National Cycle Network (Route 57) and locally provide a traffic-free path connecting the B652 Station Road with Cherry Tree Lane in Marshall's Heath.

Figure 3 PROW & Local Cycle Routes



Accessibility by Public Transport

Buses

2.8 The subject site is currently served by three regular bus services with bus stop infrastructure located within 180m walk distance (2 min walk time) for Route 357 and within 450m walk distance (6 min walk time) for Routes 366 and 610.

2.9 Route 357 operates between Harpenden and Elstree & Borehamwood Station via Wheathampstead, St Albans and London Colney on an hourly frequency in both directions during daytime hours, Monday to Saturday. On Sundays Route 357 provides four return services per day between Redbourn and St Albans via Harpenden and Wheathampstead.

2.10 Route 366 operates between Luton and Welwyn Garden City via Harpenden and Wheathampstead on a frequency of 1 bus every 2 hours in both directions during daytime hours, Monday to Friday. Route 610 operates between Luton and Potters Bar via Harpenden, Wheathampstead, Hatfield, Welham Green and Brookmans Park on an hourly frequency in both directions during daytime hours, Monday to Saturday. Table 2.2 provides journey times by bus to key destinations served by Routes 357, 366 and 610).

Table 2.2 Journey Times to Key Destinations (Bus)

Destination	Journey Time	Destination	Journey Time
Harpenden (all 3 services)	6 mins.	St Albans (357)	26 mins.
Wheathampstead (all 3 services)	7 mins.	Potters Bar (610)	56 mins.
Welwyn Garden City (366)	19 mins.	London Colney (357)	70 mins.
Luton (366 & 610).	22 mins.	Borehamwood (357)	90 mins.
Hatfield (610)	24 mins.		

Rail

2.11 Harpenden rail station is the nearest to the subject site, located 2.2kms (10 min cycle time) to the south-west and also directly served by bus route 610. Harpenden rail station is located on the Midland Main Line and is managed by GoVia Thameslink. The station provides step-free access, 548 secure cycle parking spaces and 674 car parking spaces.

2.12 Train services on the Thameslink route directly serve Luton Airport Parkway, St Albans City and St Pancras International. There are 6 trains per hour in both directions, as detailed below:

- 4tph (semi-fast service) between Bedford and Gatwick Airport (2tph continue to Brighton)
- 2tph (stopping service) between Luton and Rainham

Surrounding Highway Network

2.13 The subject site benefits from a dropped kerb access onto the rural section of Common Lane located 105m north of the Common Lane / Milford Hill junction. The dropped kerb is approx. 6.5m wide at the carriageway edge reducing to less than 4.0m wide at the gated access to the existing property that is set back 4.0m from Common Lane.

2.14 The remainder of the site frontage to Common Lane is bounded by a 2.0m fence and overgrown vegetation that limits sightlines in both directions from the current access and also adds to the perception of narrowness along this section of Common Lane.

2.15 Planning permission has been granted for an additional dropped kerb crossover access to the subject site, located south of the existing access. This planning permission has not been completed.

2.16 The rural section of Common Lane is typically 3.5m – 4.5m in width with soft verges / hedgerows and field boundaries on either side of the carriageway. At the pinch point in the south-eastern corner of the subject site, Common Lane narrows to 2.65m over a short section of less than 6.0m. From the subject site, Common Lane continues northwards towards the B652 Kimpton Bottom.

2.17 Informal passing places are accommodated along its length to allow vehicles to pass. The rural section of Common Lane is unlit and is subject to the national speed limit (60mph), albeit the physical characteristics of Common Lane result in much lower speeds than the posted limit.

2.18 South of the subject site, Common Lane changes in character to an urban street where the carriageway widens to 6.2m – 6.5m allowing for two-way traffic. It is a bus route, and a footway is provided on at least one side of the carriageway.

2.19 Direct access is provided to residential properties on the western side of Common Lane and there is a recently constructed access to KWS on the eastern side of the carriageway. To the south of the subject site, Common Lane is lit and is subject to a 30mph speed limit.

2.20 Approx. 390m south of the existing access to the subject site, Common Lane forms a mini-roundabout junction with the B653 Lower Luton Road that, in turn, continues south-eastwards towards Wheathampstead and Welwyn Garden City and north-westwards towards Luton.

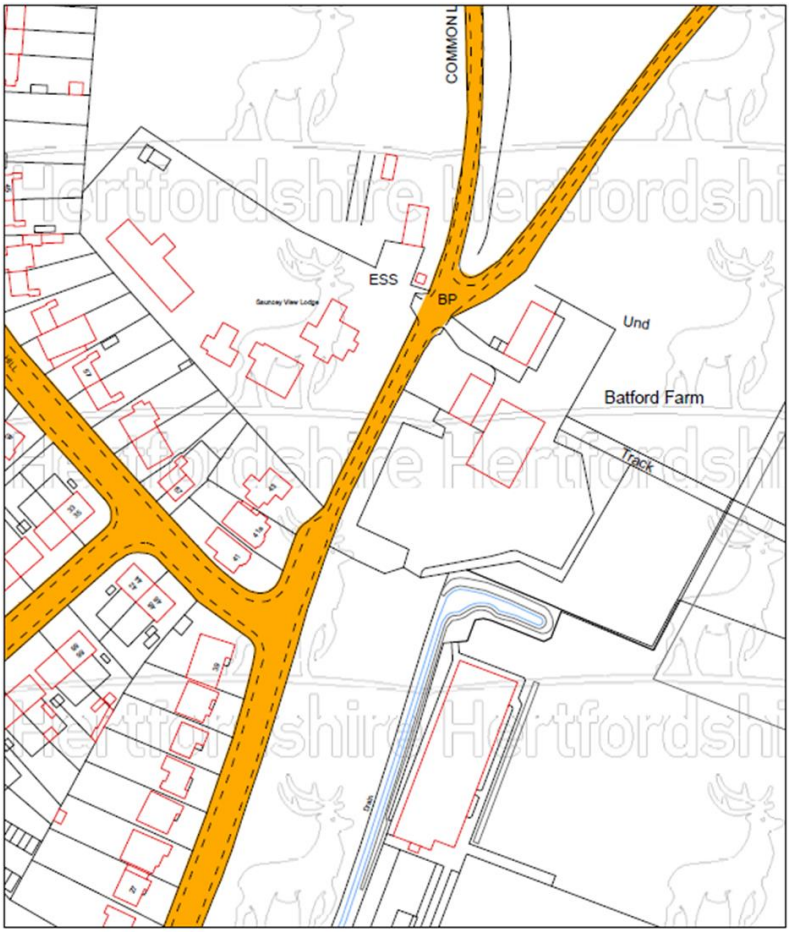
2.21 In the centre of Batford, the B653 Lower Luton Road forms another mini-roundabout junction with the B652 Station Road that in turn leads south-westwards towards Harpenden town centre.

2.22 In conjunction with KWS, footway widening, and additional crossing works have recently been implemented on the B653 Lower Luton Road to the east of the junction with Common Lane.

2.23 From a review of road safety characteristics, as published on *'Crashmap'*, it is noted that there have been no recorded Personal Injury Accidents (PIAs) on Common Lane or at its junction with the B653 Lower Luton road within the most recent 5-year period.

2.24 Figure 4 illustrates the extent of publicly maintained highway in the vicinity of the subject site, as provided by HCC.

Figure 4 Extent of Public Highway – Common Lane



3. The Development Opportunities

3.1 The subject site falls within the north-east Harpenden *'Broad Location'* that is proposed to be removed from Green Belt within the draft St Albans City & District Local Plan. The site is generally bounded by Common Lane to the east, No. 43 Common Lane and other residential properties fronting Milford Hill to the south and west and open agricultural fields (also part of the *'Broad Location'*) to the north.

3.2 For the purposes of this Technical Report, it is assumed that the site could accommodate up to 40 dwellings in total.

Pedestrians & Cycles

3.3 The subject site will be supported by a comprehensive Movement & Access Strategy that seeks to deliver a good quality environment for all modes of travel that is:

- Attractive.
- Well-connected and permeable to encourage walking and cycling to local destinations.
- Able to encourage activity thereby improving personal security and safety.

3.4 Pedestrian routes will lead off Common Lane and the vehicular access directly to residential frontages.

3.5 The main street and access routes within the subject site will be multi-functional spaces with a much higher 'place' function and where pedestrians and cyclists are, in general, afforded greater priority than vehicular traffic.

Passenger Transport

3.6 The subject site is not of sufficient size to accommodate direct public transport, but it will be demonstrated that there are three regular bus services providing direct access to a wide range of local and regional destinations within 450m walk distance (6 min. walk time).

Internal Site Layout

3.7 The access road within the subject site will be flanked either side by a mix of houses and flats and minor accessways leading to off-street driveways / parking courts.

3.8 The access road will be designed in accordance with the RiH Design Guide and provided to a maximum width of 5.5m with a 2.0m footway on at least one side of the carriageway (with a service margin in lieu of footway if not provided). Where access is provided to perpendicular parking bays a minimum 6.0m manoeuvring space will be provided for turning. The target maximum speed of the access road will be 20mph.

3.9 The access road will extend north-westwards to an adoptable turning head that allows for refuse and delivery vehicles to manoeuvre such that they can enter and exit the site in a forward gear.

Parking Provision

3.10 Parking provision will be in accordance with the St Albans City & District Revised Parking Policies and Standards (2002) or any such revision published by the Council, potentially linked to the draft Local Plan or its adoption.

3.11 For cycle parking, the subject site will deliver 1 space per unit. For houses, cycle parking will be located in a safe and secure location within the curtilage of each dwelling, possibly in a shed or garage, and for flats, parking will be securely located within communal stores.

3.12 For vehicle parking, a combination of on and off-street parking arrangements will be provided through a mix of garages, driveways, bays and parking courts that seek to provide a balance between the need to retain active street frontages whilst ensuring that the presence of parked cars is not intrusive.

3.13 In quantum terms, the subject site will deliver a combination of allocated and unallocated parking totalling 1.5 spaces per dwelling for 1-bed units, 2.0 spaces per dwelling for 2-bed units and 2.5 spaces per dwelling for 3-bed units in accordance with the St Albans City & District Revised Parking Policies and Standards (2002).

3.14 Each car parking space will be provided to minimum dimensions of 2.4m x 4.8m and garages will be provided with minimum internal dimensions of 3.0 x 6.0m. Where private driveways / garages are provided, driveway lengths will be a minimum of 5.5m in length to ensure a parked vehicle does not obstruct other road users. The scheme will incorporate a generous and appropriate level of Electric Vehicle (EV) Charging Points, both active and passive, in accordance with current standards.

Vehicular Access

3.15 The proposed development on the subject site will be served from a single point of access off Common Lane located 105m north of its existing junction with Milford Hill and 390m north of its mini-roundabout junction with the B653 Lower Luton Road.

3.16 Plan 21059/001 included as Appendix 1, illustrates an all-movements give-way controlled priority junction located midway along the sites' frontage through the widening of the existing carriageway on the site side and that can be wholly delivered within publicly maintainable highway land.

3.17 It is noted that at the south-eastern corner of the subject site there is a pinch-point in the width of publicly maintained highway where the total corridor width is circa. 5.9m wide and the carriageway width is 2.65m wide. In the context of HCC's LTP4 Policy 1, the access strategy for the subject site places greater priority on the need to provide a continuous footway connection into existing infrastructure rather than to widen the carriageway to accommodate unfettered two-way vehicular access.

3.18 Plan 21059/001 there outlines a strategy to formalise the carriageway narrowing with one-way priority shuttle working, supplemented by changes to surface treatment and associated road markings / signage.

3.19 The site access junction is provided with a tapered approach to Common Lane and 6.0m radii on both sides of the bell-mouth to accommodate the turning requirements of an HCC-spec large refuse vehicle. Swept path analysis demonstrating the turning manoeuvres of the refuse vehicle are shown on Plan 21059/TK01, also included as Appendix 1.

3.20 It is proposed that Common Lane would be widened to 5.5m along the site frontage that enables two-way traffic past the site access and, in the interim, would deliver a passing place for traffic on the rural section of Common Lane. In the long term, the works delivered by the development of the subject site could act as a first phase for further widening on Common Lane to the north in conjunction with the release of further land parcels for residential development through the Local Plan process.

3.21 In the same way, dwelling units within the proposed development will be set back a minimum of 4.0m from the edge of Common Lane. This will enable the subject site to deliver a 2.0m wide footway and 2.0m wide verge along the entire site frontage, providing a continuous link northwards from the existing footway on the western side of Common Lane. In the long term, the 4.0m wide zone could be adapted, if required to provide cycleway facilities, should this be required as part of the release of further land parcels, referred to above.

3.22 A further benefit of the 4.0m wide zone is that clear, unobstructed visibility can be provided in both directions from the site access. Plan 21059/001 shows 2.4m x 43m visibility splays in both directions for vehicles emerging from the site access which is reflective of approaching vehicles travelling at 30mph. Plan 21059/001 also demonstrates that clear visibility of 2.4m x 56m can be delivered from the site access to the proposed give-way line on the formalised one-way shuttle working at the carriageway narrowing.

3.23 Notwithstanding the posted speed limit is 60mph, the localised characteristics of Common Lane dictate that vehicle speeds are considerably lower. With any subsequent planning application submission, a detailed survey of vehicle speeds will be conducted to confirm the acceptability of the visibility splays shown on Plan 21059/001.

3.24 Plan 21059/001 shows that the 4.0m wide zone would require the relocation of the existing electricity sub-station located in the north-eastern corner of the subject site. This electricity sub-station is limited to serving buildings within the existing site and can be relocated to a more appropriate location as part of the development of the site.

4. Potential Trip Generation & Operational Characteristics of Site Access

Calculation of Potential Trip Generation

4.1 An exercise has been undertaken to determine the potential weekday daily and peak hourly person trip generation arising from the proposed residential development on the subject site using the TRICS database sub-category *'Houses Privately Owned'* which is considered to be robust as any emerging development on the site would deliver an appropriate level of affordable housing.

4.2 A copy of the TRICS output is provided as Appendix 2 that shows, over a daily basis, the proposed development has the potential to generate a total of 8.204 person trips per dwelling unit. The TRICS output also shows that the proposed development has the potential to generate 0.955 person trips per unit during the weekday AM peak hourly period and 0.905 person trips per unit during the weekday PM peak hourly period.

4.3 Based on a development of up to 40 residential units on the subject site, this equates to a total of 328 person trips over a daily period, 38 total person trips during the weekday AM peak hour and 36 total person trips during the weekday PM peak hour.

4.4 Using 2011 Census Method of Travel to Work data for Lower Layer Super Output Area (LSOA) St Albans 002C, within which the subject site is located, Table 4.1 provides a summary of estimated person trip by mode of travel for the proposed residential uses.

Table 4.1 Person Trips by Mode of Travel

Mode of Travel	Percentage	No. Trips		
		Daily	AM Peak	PM Peak
Public Transport	13.9%	46	5	5
Car Driver	67.2%	220	26	24
Car Passenger	3.4%	11	1	1
Motorcycle	0.6%	2	1	1
Cycle	2.8%	9	1	1
Foot	11.5%	38	4	4
Other (incl. Taxi)	0.6%	2	-	-
TOTALS	100.0%	328	38	36

Preliminary Analysis of Development-Related Traffic Impact

Development Trip Distribution

4.5 Initial modelling has been carried out to assess the potential operational characteristics of the vehicular access arrangements based on a give-way controlled priority junction as well as the formalised one-way shuttle working carriageway narrowing, as described in Section 3 of the Technical Report. To carry out this exercise, the proposed development vehicle trips have been distributed across the study area based on the 2011 O-D *'location of usual residence and place of work'* data for the MSOA St Albans 002. A copy of the output is included as Appendix 3 and summarised in Table 4.2

Table 4.2 Potential Development Distribution

Link	% Distribution	AM Peak Hour			PM Peak Hour		
		To	From	Total	To	From	Total
Common Lane (north towards B652)	1.9%	1	-	1	-	1	1
B653 Lower Luton Road (towards Wheathampstead)	42.9%	9	2	11	3	7	10
B653 Lower Luton Road (towards Luton)	18.5%	4	1	5	1	3	4
B652 Station Road (towards Harpenden Town Centre)	36.8%	7	2	9	3	6	9

4.6 The routing assignment has been based on peak hour journey times and distances and where similar times and / or distances for multiple routes are available for a destination this has been assigned accordingly to reflect driver choice. It is therefore considered that the distribution represents a robust approach where driver choice has been considered.

Derivation of Traffic Flows for Assessment

4.7 In the absence of available traffic data, currently limited due to COVID-19 restrictions, baseline traffic flows for this preliminary assessment of development-related impact have been derived from the Transport Assessment (TA) that accompanied the KWS planning application and approved by HCC.

4.8 Within the approved TA, details are provided of predicted 2025 weekday AM and PM peak hourly turning movements at the B653 Lower Luton Road / Common Lane mini-roundabout junction with school traffic added. Two scenarios for turning movements are provided; those based on baseline modal splits; and those based on revised modal splits with Travel Planning measures being successfully implemented. For the purpose of this preliminary assessment, the scenario based on baseline modal splits has been used to provide a worst case assessment.

4.9 Furthermore, the approved KWS TA did not include turning movements at the junction of Common Lane and Milford Hill.

4.10 The approach taken within this preliminary assessment is therefore to ignore any traffic turning into / out of Milford Hill and assume that all flows on Common Lane at the junction with the B653 Lower Luton Road would continue past the subject site. Clearly this is an extremely robust assessment.

4.11 Finally, this preliminary assessment also includes a sensitivity test whereby, using the same trip rates adopted within this Technical Note, additional traffic flow movements associated with the release of further land parcels for residential development through the Local Plan process to the north of the subject site are added to the through movements on Common Lane. The sensitivity test assumes a further 250 residential dwellings come forward in the future on land to the north of the subject site.

4.12 The resultant 2025 weekday AM & PM peak hour flows used for this preliminary assessment of development-related impact at the site access and the carriageway narrowing on Common Lane, are summarised in matrix form in Table 4.3, noting that these are expressed as total flows with HGVs in (brackets).

Table 4.3 Traffic Flows for Assessment

2025 AM Peak

From / To	Common Lane (south)	Site Access	Common Lane (north)
Common Lane (south)	-	5 (0)	97 (4)
Site Access	20 (0)	-	1 (0)
Common Lane (north)	126 (1)	0 (0)	-

2025 PM Peak

From / To	Common Lane (south)	Site Access	Common Lane (north)
Common Lane (south)	-	16 (0)	65 (3)
Site Access	7 (0)	-	0 (0)
Common Lane (north)	85 (3)	1 (0)	-

2025 AM Peak (Sensitivity Test)

From / To	Common Lane (south)	Site Access	Common Lane (north)
Common Lane (south)	-	5 (0)	127 (4)
Site Access	20 (0)	-	1 (0)
Common Lane (north)	256 (1)	0 (0)	-

2025 PM Peak (Sensitivity Test)

From / To	Common Lane (south)	Site Access	Common Lane (north)
Common Lane (south)	-	16 (0)	170 (3)
Site Access	7 (0)	-	0 (0)
Common Lane (north)	131 (3)	1 (0)	-

Junction Operation

4.13 Junctions9 PICADY software has been used to undertake a preliminary assessment of operational capacity at the vehicular site access, the results of which are summarised in Table 4.4 and included as Appendix 5 to the Technical Report.

Table 4.4 Common Lane / Site Access Junction Assessment

Arm	2025 AM Peak		2025 PM Peak		2025 AM Peak – Sensitivity Test		2025 AM Peak – Sensitivity Test	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Site Access	0.05	0.1	0.02	0.0	0.05	0.1	0.02	0.0
Common Lane (right turn)	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0

4.14 From the results presented in Table 4.4 it is noted that the preliminary assessment of operational capacity at the site access junction shows it will operate well within capacity (RFC value of 0.85) with minimal queues on all approaches, even based upon the robust derivation of traffic flows and the sensitivity test results.

4.15 Junctions9 PICADY software has also been used to undertake a preliminary assessment of operational capacity at the carriageway narrowing where, as shown on Plan 21059/001 (Appendix 1) it is assumed that northbound traffic gives way to southbound traffic. The results are summarised in Table 4.5 and included as Appendix 5 to the Technical Report.

Table 4.5 Common Lane – Carriageway Narrowing Assessment

Arm	2025 AM Peak		2025 PM Peak		2025 AM Peak – Sensitivity Test		2025 AM Peak – Sensitivity Test	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Common Lane (south)	0.22	0.3	0.17	0.2	0.30	0.4	0.40	0.7

4.16 From the results presented in Table 4.5 it can be seen that the northbound queue at the give-way line of the carriageway narrowing is less than 1.0 vehicle and will not block back as far as Milford Hill, even based upon the robust derivation of traffic flows and the sensitivity test results.

5. Summary

5.1 This pre-application Technical Report has been prepared on behalf of Mr C & Mrs A Mitchell to demonstrate that land at Sauncey View Lodge, Common Lane, Harpenden is capable of accommodating residential development (under Use Class C3) of up to 40 dwellings from a highways and transport perspective, with particular regard given to Policy 1 of HCC's latest Local Transport Plan 4 (LTP4) (May 2018).

5.2 A summary of the report's findings is outlined below:

- The subject site is well connected to a wide range of local amenities including local schools, shops and recreational facilities;
- The subject site offers good connections to a network of pedestrian / cycle infrastructure including the Public Rights of Way and SUSTRANS networks. Enhanced pedestrian and cycle infrastructure has recently been delivered with the KWS scheme in proximity to the subject site;
- There are three regular bus routes with connections to Welwyn, Luton, Hatfield and St Albans within easy walking access of the subject site. Harpenden rail station is also easily accessible by cycle and bus and delivers high frequency services to Luton Airport Parkway, St Albans and St Pancras International;
- The subject site is currently accessed off the rural, narrowed section of Common Lane and permission exists for a second point of access that has not been implemented;
- The opportunity exists to deliver a comprehensive Movement & Access Strategy with the subject site that is a good quality environment, attractive, well-connected / permeable, and encourages personal security / safety;
- The internal site layout will be designed in accordance with RiH Design Guide principles and will accommodate requisite cycle and car parking provision, including EV charging points, as well as the turning requirements for refuse, servicing and delivery vehicles;
- The subject site will be served by a single point of vehicular access, wholly delivered within publicly maintainable land;
- The access arrangements prioritise pedestrian access through implementing a continuous extension of the existing footway on Common Lane, incorporating a 4.0m wide zone that allows flexibility to include off-carriageway cycle facilities in the event that further land is released for residential development (c. 250-units), north of the subject site off Common Lane;
- The access arrangements facilitate the widening of Common Lane along the site frontage to 5.5m, enabling turning movements into and out of the subject site as well as accommodating two-way traffic on the main carriageway;
- The access arrangements facilitate the formalisation of the existing carriageway narrowing on Common Lane in the south-eastern corner of the subject site. These measures will include one-way priority shuttle working supplemented by changes to surface treatment and associated road markings / signage;
- The subject site has the potential to generate circa. 328 total person trips per day by all modes of travel and 36-38 person trips by all modes during morning and evening peak hourly periods;

- A preliminary assessment of development-related traffic impact at the proposed site access and formalised carriageway narrowing on Common Lane reveals that both would operate well within capacity with minimal queues and delays, even accounting for the full impact of traffic associated with KWS and the potential release of further residential land north of the subject site.

5.3 On the basis of the findings within this Technical Report, it is considered that the proposed development site is more than capable of being released to accommodate residential development of up to 40 dwellings under Use Class C3 from a highways and transport perspective.

Appendix 1

INDICATIVE

2.4 x 43m Visibility Splay.

Land reserved for future widening of Common Lane.

Sauncey View Lodge

BP

Min. extent of adoption limit.

Priority over oncoming vehicles

Sign to Diag. 811 with plate Diag. 811.1.

2.4 x 43m Visibility Splay.

Land reserved for future widening of Common Lane.

Give way to oncoming vehicles

Sign to Diag. 615 with plate 615.1.

Proposed surface treatment at carriageway narrowing.

2.4 x 56m Visibility Splay.

43

41a

41

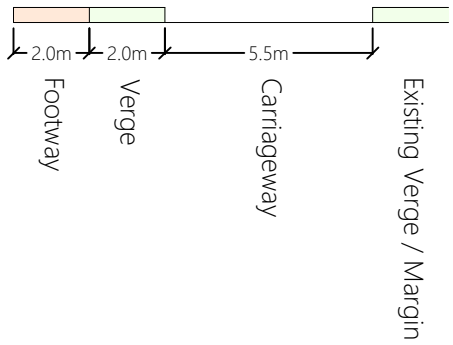
39

KEEP CLEAR

Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
2. This drawing has been based upon Ordnance Survey information produced by others and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Site Access - Cross Section



Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	ZM	23/02/2021	First issue	MS
A	ZM	01/03/2021	Revised layout	MS

Client

Mr C & Mrs A Mitchell

Project

Land at Sauncey View Lodge, Common Lane, Harpenden

Title

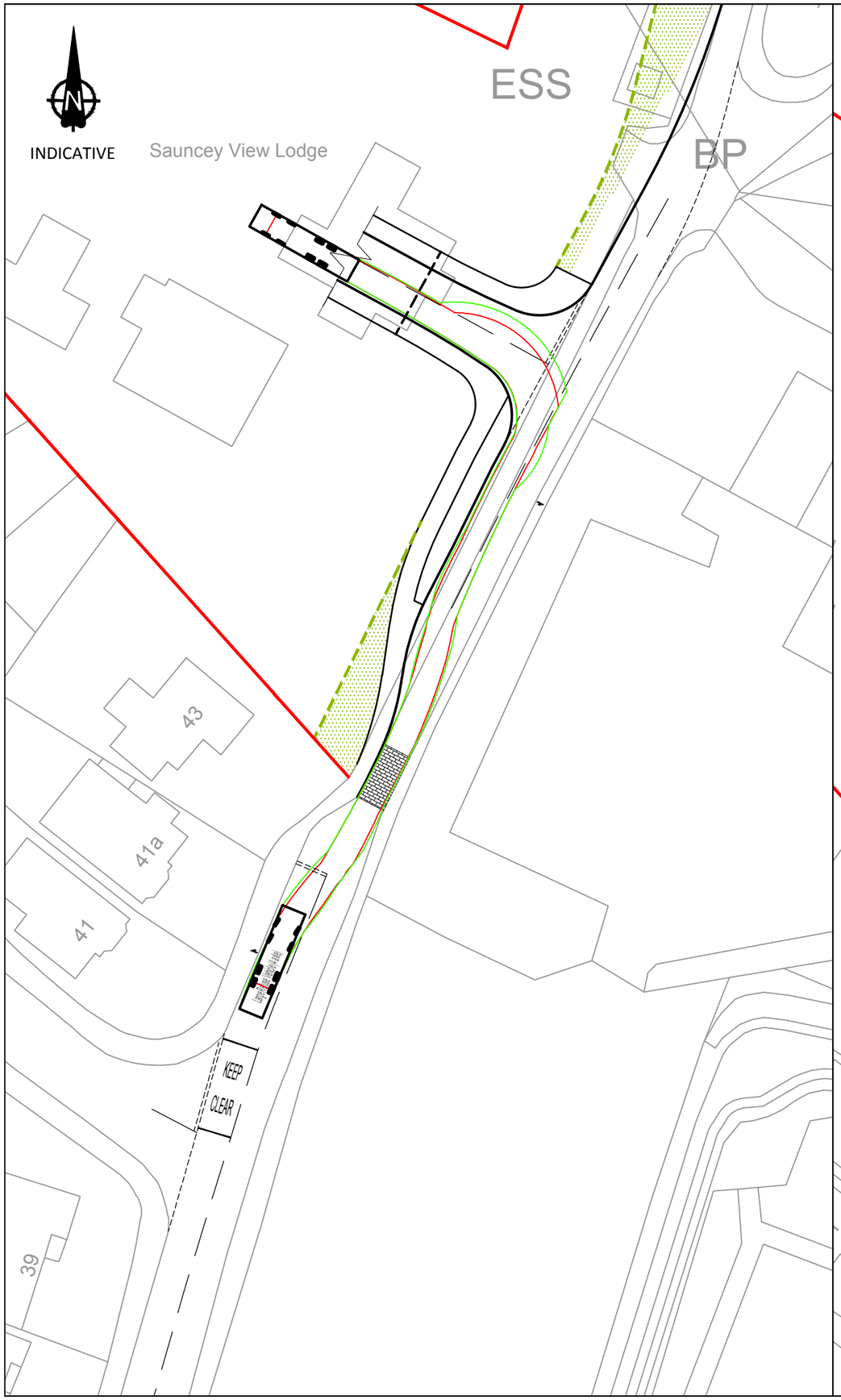
Potential Site Access Arrangements

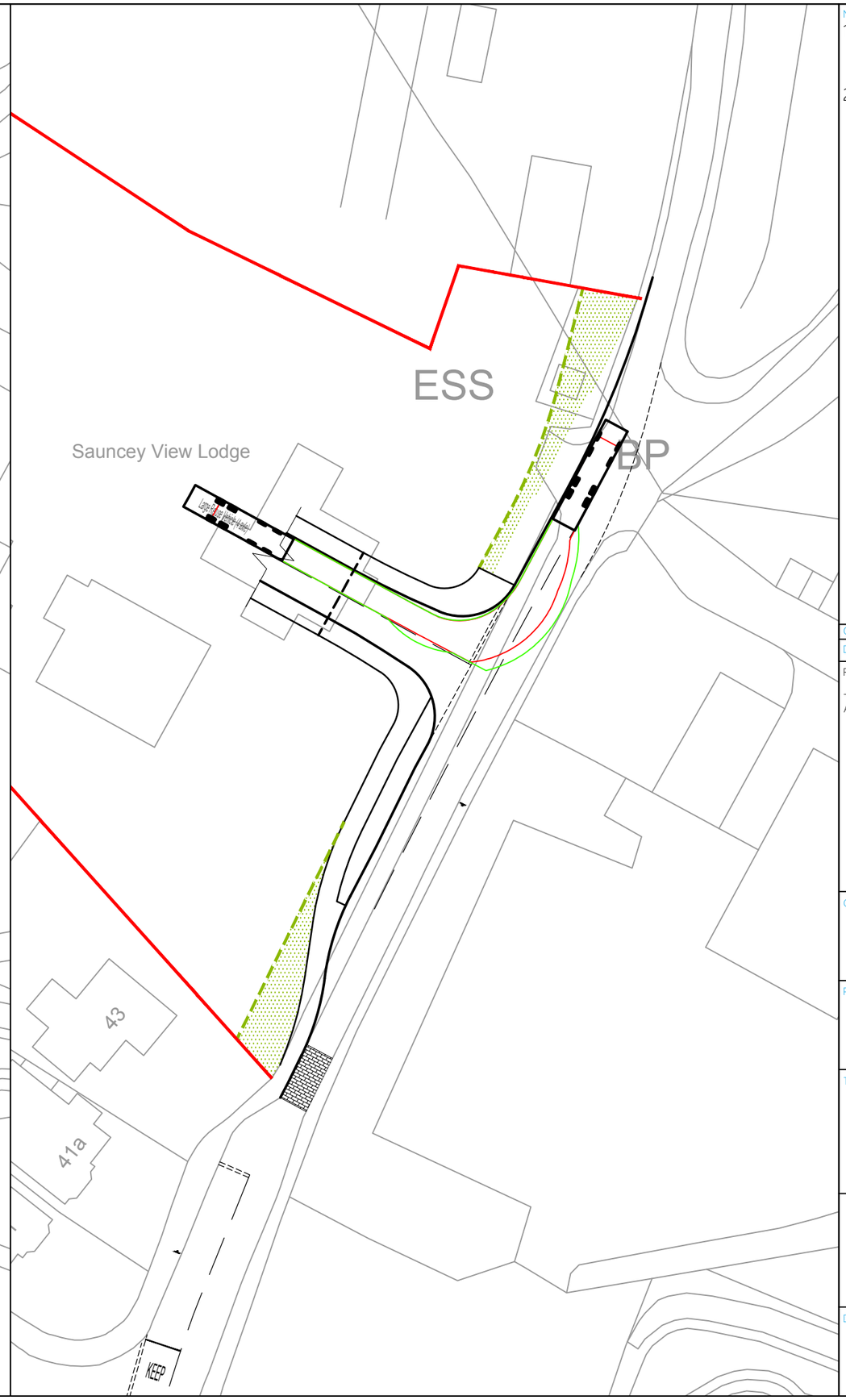
MILESTONE TRANSPORT PLANNING
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220

Drawing Number: 21059 / 001

Scale: 1:500 @ A3

Revision: A





Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
2. This drawing has been based upon Ordnance Survey information produced by others and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	ZM	23/02/2021	First issue	MS
A	ZM	01/03/2021	First issue	MS

Client

Mr C & Mrs A Mitchell

Project

Land at Sauncey View Lodge, Common Lane, Harpenden

Title

Swept-Path Analysis: Refuse Vehicle

MILESTONE TRANSPORT PLANNING
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN
Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number:

21059 / TK01

Scale:

1:500 @ A3

Revision:

A

Appendix 2

Calculation Reference: AUDIT-740101-210222-0230

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	2 days
	HC	HAMPSHIRE	3 days
	KC	KENT	2 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	2 days

Primary Filtering selection:

Parameter: No of Dwellings
Actual Range: 8 to 99 (units:)
Range Selected by User: 8 to 100 (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: 01/01/10 to 19/11/19

Selected survey days:

Tuesday	2 days
Wednesday	4 days
Thursday	2 days
Friday	2 days

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

Selected Location Sub Categories:

Residential Zone	9
Village	1

Secondary Filtering selection:

Use Class:

C3	10 days

Population within 500m Range:
All Surveys Included
Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	2 days
15,001 to 20,000	5 days
20,001 to 25,000	1 days

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days

Secondary Filtering selection (Cont.):

Car ownership within 5 miles:

1.1 to 1.5	9 days
1.6 to 2.0	1 days

Travel Plan:

Yes	6 days
No	4 days

PTAL Rating:

No PTAL Present	10 days

LIST OF SITES relevant to selection parameters

1 ES-03-A-02 PRIVATE HOUSING EAST SUSSEX
SOUTH COAST ROAD
PEACEHAVEN

Edge of Town
Residential Zone
Total No of Dwellings: 37
Survey date: FRIDAY *18/11/11* *Survey Type: MANUAL*

2 ES-03-A-05 MIXED HOUSES & FLATS EAST SUSSEX
RATTLE ROAD
NEAR EASTBOURNE
STONE CROSS
Edge of Town
Residential Zone
Total No of Dwellings: 99
Survey date: WEDNESDAY *05/06/19* *Survey Type: MANUAL*

3 HC-03-A-21 TERRACED & SEMI-DETACHED HAMPSHIRE
PRIESTLEY ROAD
BASINGSTOKE
HOUNDMILLS
Edge of Town
Residential Zone
Total No of Dwellings: 39
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

4 HC-03-A-22 MIXED HOUSES HAMPSHIRE
BOW LAKE GARDENS
NEAR EASTLEIGH
BISHOPSTOKE
Edge of Town
Residential Zone
Total No of Dwellings: 40
Survey date: WEDNESDAY *31/10/18* *Survey Type: MANUAL*

5 HC-03-A-23 HOUSES & FLATS HAMPSHIRE
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 62
Survey date: TUESDAY *19/11/19* *Survey Type: MANUAL*

6 KC-03-A-03 MIXED HOUSES & FLATS KENT
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

7 KC-03-A-05 DETACHED & SEMI-DETACHED KENT
ROCHESTER ROAD
NEAR CHATHAM
BURHAM
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 8
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

8 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total No of Dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 WS-03-A-05 TERRACED & FLATS WEST SUSSEX
UPPER SHOREHAM ROAD
SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 48
Survey date: WEDNESDAY *18/04/12* *Survey Type: MANUAL*

10 WS-03-A-10 MIXED HOUSES WEST SUSSEX
TODDINGTON LANE
LITTLEHAMPTON
WICK
Edge of Town
Residential Zone
Total No of Dwellings: 79
Survey date: WEDNESDAY *07/11/18* *Survey Type: MANUAL*

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
IW-03-A-01	Wrong type of housing
WS-03-A-07	Wrong type of housing

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	53	0.088	10	53	0.423	10	53	0.511
08:00 - 09:00	10	53	0.112	10	53	0.399	10	53	0.511
09:00 - 10:00	10	53	0.159	10	53	0.178	10	53	0.337
10:00 - 11:00	10	53	0.120	10	53	0.184	10	53	0.304
11:00 - 12:00	10	53	0.161	10	53	0.172	10	53	0.333
12:00 - 13:00	10	53	0.161	10	53	0.150	10	53	0.311
13:00 - 14:00	10	53	0.197	10	53	0.195	10	53	0.392
14:00 - 15:00	10	53	0.146	10	53	0.180	10	53	0.326
15:00 - 16:00	10	53	0.277	10	53	0.193	10	53	0.470
16:00 - 17:00	10	53	0.346	10	53	0.155	10	53	0.501
17:00 - 18:00	10	53	0.397	10	53	0.155	10	53	0.552
18:00 - 19:00	10	53	0.309	10	53	0.157	10	53	0.466
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.473			2.541			5.014

Parameter summary

Trip rate parameter range selected:	8 - 99 (units:)
Survey date date range:	01/01/10 - 19/11/19
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	2

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	53	0.006	10	53	0.011	10	53	0.017
08:00 - 09:00	10	53	0.000	10	53	0.021	10	53	0.021
09:00 - 10:00	10	53	0.000	10	53	0.004	10	53	0.004
10:00 - 11:00	10	53	0.004	10	53	0.006	10	53	0.010
11:00 - 12:00	10	53	0.004	10	53	0.004	10	53	0.008
12:00 - 13:00	10	53	0.004	10	53	0.002	10	53	0.006
13:00 - 14:00	10	53	0.006	10	53	0.002	10	53	0.008
14:00 - 15:00	10	53	0.006	10	53	0.000	10	53	0.006
15:00 - 16:00	10	53	0.009	10	53	0.000	10	53	0.009
16:00 - 17:00	10	53	0.006	10	53	0.002	10	53	0.008
17:00 - 18:00	10	53	0.009	10	53	0.000	10	53	0.009
18:00 - 19:00	10	53	0.000	10	53	0.004	10	53	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.054			0.056			0.110

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	53	0.096	10	53	0.506	10	53	0.602
08:00 - 09:00	10	53	0.142	10	53	0.569	10	53	0.711
09:00 - 10:00	10	53	0.191	10	53	0.230	10	53	0.421
10:00 - 11:00	10	53	0.144	10	53	0.245	10	53	0.389
11:00 - 12:00	10	53	0.202	10	53	0.217	10	53	0.419
12:00 - 13:00	10	53	0.200	10	53	0.200	10	53	0.400
13:00 - 14:00	10	53	0.243	10	53	0.232	10	53	0.475
14:00 - 15:00	10	53	0.180	10	53	0.227	10	53	0.407
15:00 - 16:00	10	53	0.444	10	53	0.257	10	53	0.701
16:00 - 17:00	10	53	0.485	10	53	0.215	10	53	0.700
17:00 - 18:00	10	53	0.528	10	53	0.202	10	53	0.730
18:00 - 19:00	10	53	0.416	10	53	0.210	10	53	0.626
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.271			3.310			6.581

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	53	0.006	10	53	0.045	10	53	0.051
08:00 - 09:00	10	53	0.034	10	53	0.122	10	53	0.156
09:00 - 10:00	10	53	0.051	10	53	0.047	10	53	0.098
10:00 - 11:00	10	53	0.022	10	53	0.032	10	53	0.054
11:00 - 12:00	10	53	0.039	10	53	0.028	10	53	0.067
12:00 - 13:00	10	53	0.024	10	53	0.026	10	53	0.050
13:00 - 14:00	10	53	0.041	10	53	0.030	10	53	0.071
14:00 - 15:00	10	53	0.045	10	53	0.045	10	53	0.090
15:00 - 16:00	10	53	0.088	10	53	0.041	10	53	0.129
16:00 - 17:00	10	53	0.060	10	53	0.032	10	53	0.092
17:00 - 18:00	10	53	0.051	10	53	0.067	10	53	0.118
18:00 - 19:00	10	53	0.054	10	53	0.022	10	53	0.076
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.515			0.537			1.052

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	53	0.000	10	53	0.062	10	53	0.062
08:00 - 09:00	10	53	0.002	10	53	0.066	10	53	0.068
09:00 - 10:00	10	53	0.009	10	53	0.034	10	53	0.043
10:00 - 11:00	10	53	0.017	10	53	0.019	10	53	0.036
11:00 - 12:00	10	53	0.009	10	53	0.004	10	53	0.013
12:00 - 13:00	10	53	0.017	10	53	0.022	10	53	0.039
13:00 - 14:00	10	53	0.004	10	53	0.002	10	53	0.006
14:00 - 15:00	10	53	0.011	10	53	0.007	10	53	0.018
15:00 - 16:00	10	53	0.030	10	53	0.013	10	53	0.043
16:00 - 17:00	10	53	0.036	10	53	0.002	10	53	0.038
17:00 - 18:00	10	53	0.045	10	53	0.002	10	53	0.047
18:00 - 19:00	10	53	0.049	10	53	0.000	10	53	0.049
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.229			0.233			0.462

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

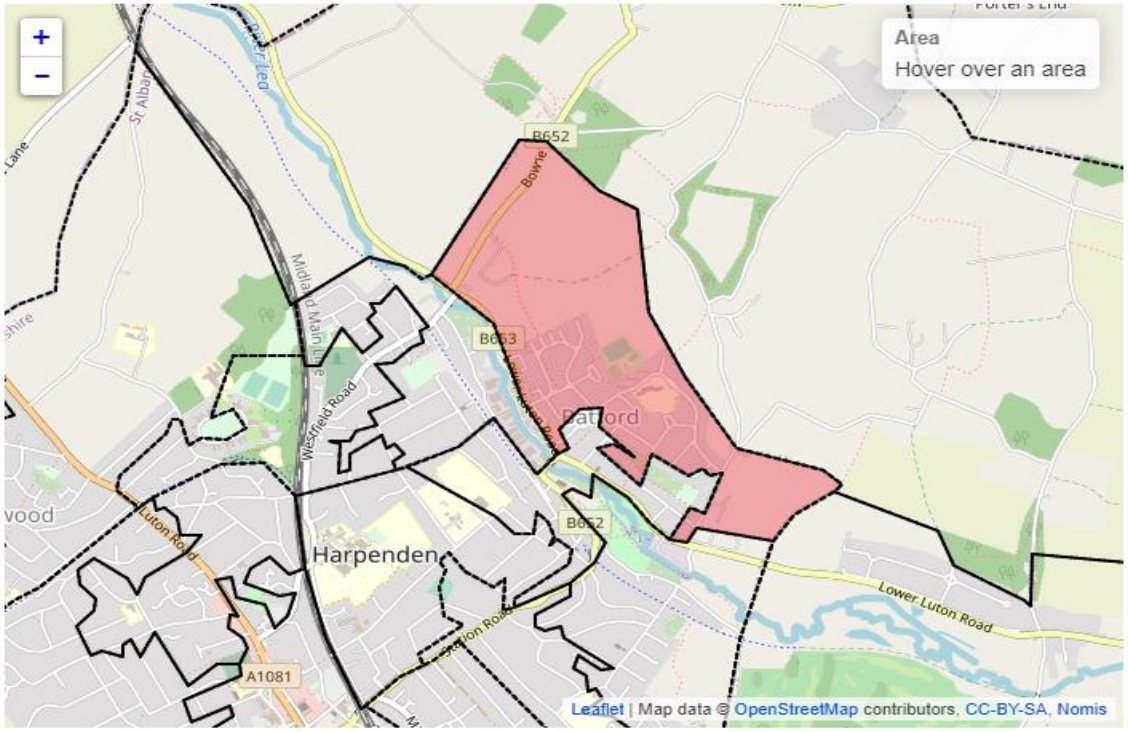
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	53	0.107	10	53	0.624	10	53	0.731
08:00 - 09:00	10	53	0.178	10	53	0.777	10	53	0.955
09:00 - 10:00	10	53	0.251	10	53	0.315	10	53	0.566
10:00 - 11:00	10	53	0.187	10	53	0.301	10	53	0.488
11:00 - 12:00	10	53	0.255	10	53	0.253	10	53	0.508
12:00 - 13:00	10	53	0.245	10	53	0.251	10	53	0.496
13:00 - 14:00	10	53	0.294	10	53	0.266	10	53	0.560
14:00 - 15:00	10	53	0.242	10	53	0.279	10	53	0.521
15:00 - 16:00	10	53	0.571	10	53	0.311	10	53	0.882
16:00 - 17:00	10	53	0.586	10	53	0.251	10	53	0.837
17:00 - 18:00	10	53	0.633	10	53	0.272	10	53	0.905
18:00 - 19:00	10	53	0.519	10	53	0.236	10	53	0.755
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.068			4.136			8.204

Appendix 3

QS701EW - Method of travel to work

population	All usual residents aged 16 to 74
units	Persons
area type	2011 super output areas - lower layer
area name	E01023687 : St Albans 002C
rural urban	Total

Method of Travel to Work	2011	
All categories: Method of travel to work	1,031	
Work mainly at or from home	42	
Underground, metro, light rail, tram	2	0.3%
Train	74	10.9%
Bus, minibus or coach	18	2.7%
Taxi	3	0.4%
Motorcycle, scooter or moped	4	0.6%
Driving a car or van	454	67.2%
Passenger in a car or van	23	3.4%
Bicycle	19	2.8%
On foot	78	11.5%
Other method of travel to work	1	0.1%
Not in employment	313	
	676	100.0%



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

place of work	usual residence E02004925 : St Albans 002	
E02004924 : St Albans 001	62	3.9%
E02004925 : St Albans 002	86	5.4%
E02004926 : St Albans 003	143	8.9%
E02004927 : St Albans 004	19	1.2%
E02004928 : St Albans 005	18	1.1%
E02004929 : St Albans 006	20	1.2%
E02004930 : St Albans 007	24	1.5%
E02004931 : St Albans 008	5	0.3%
E02004932 : St Albans 009	19	1.2%
E02004933 : St Albans 010	4	0.2%
E02004934 : St Albans 011	18	1.1%
E02004935 : St Albans 012	82	5.1%
E02004936 : St Albans 013	14	0.9%
E02004937 : St Albans 014	22	1.4%
E02004938 : St Albans 015	15	0.9%
E02004939 : St Albans 016	2	0.1%
E02004940 : St Albans 017	19	1.2%
E02004941 : St Albans 018	10	0.6%
E02004942 : St Albans 019	10	0.6%
E02004943 : St Albans 020	12	0.7%
E02003599 : Central Bedfordshire 001	0	0.0%
E02003600 : Central Bedfordshire 002	0	0.0%
E02003601 : Central Bedfordshire 003	0	0.0%
E02003602 : Central Bedfordshire 004	0	0.0%
E02003603 : Central Bedfordshire 005	0	0.0%
E02003604 : Central Bedfordshire 006	0	0.0%
E02003605 : Central Bedfordshire 007	3	0.2%
E02003606 : Central Bedfordshire 008	1	0.1%
E02003607 : Central Bedfordshire 009	1	0.1%
E02003608 : Central Bedfordshire 010	1	0.1%
E02003609 : Central Bedfordshire 011	2	0.1%
E02003610 : Central Bedfordshire 012	0	0.0%
E02003611 : Central Bedfordshire 013	0	0.0%
E02003612 : Central Bedfordshire 014	1	0.1%
E02003613 : Central Bedfordshire 015	0	0.0%
E02003614 : Central Bedfordshire 016	0	0.0%
E02003615 : Central Bedfordshire 017	0	0.0%
E02003636 : Central Bedfordshire 018	3	0.2%
E02003637 : Central Bedfordshire 019	2	0.1%
E02003638 : Central Bedfordshire 020	0	0.0%
E02003639 : Central Bedfordshire 021	1	0.1%
E02003640 : Central Bedfordshire 022	0	0.0%
E02003641 : Central Bedfordshire 023	0	0.0%
E02003643 : Central Bedfordshire 024	2	0.1%
E02003642 : Central Bedfordshire 025	0	0.0%
E02003644 : Central Bedfordshire 026	8	0.5%
E02003645 : Central Bedfordshire 027	4	0.2%
E02003646 : Central Bedfordshire 028	1	0.1%
E02003647 : Central Bedfordshire 029	9	0.6%
E02003648 : Central Bedfordshire 030	0	0.0%
E02003649 : Central Bedfordshire 031	1	0.1%
E02003650 : Central Bedfordshire 032	0	0.0%
E02003651 : Central Bedfordshire 033	16	1.0%
E02003258 : Luton 001	0	0.0%
E02003259 : Luton 002	4	0.2%
E02003260 : Luton 003	0	0.0%
E02003261 : Luton 004	0	0.0%
E02003262 : Luton 005	1	0.1%
E02003263 : Luton 006	1	0.1%
E02003264 : Luton 007	4	0.2%
E02003265 : Luton 008	1	0.1%
E02003266 : Luton 009	2	0.1%
E02003267 : Luton 010	1	0.1%
E02003268 : Luton 011	3	0.2%
E02003269 : Luton 012	3	0.2%
E02003270 : Luton 013	8	0.5%
E02003271 : Luton 014	25	1.6%
E02003272 : Luton 015	5	0.3%
E02003273 : Luton 016	3	0.2%

Common Lane (nth to B652)	1.9%
B653 Lower Luton Road (twds Wheathampstead)	42.9%
B653 Lower Luton Road (twds Luton)	18.5%
B652 Station Rd (twds. Harpenden TC)	36.8%
	100.0%

E02003274 : Luton 017	1	0.1%
E02003275 : Luton 018	41	2.6%
E02003276 : Luton 019	10	0.6%
E02003277 : Luton 020	1	0.1%
E02003278 : Luton 021	36	2.2%
E02004980 : Welwyn Hatfield 001	0	0.0%
E02004981 : Welwyn Hatfield 002	13	0.8%
E02004982 : Welwyn Hatfield 003	3	0.2%
E02004983 : Welwyn Hatfield 004	26	1.6%
E02004984 : Welwyn Hatfield 005	0	0.0%
E02004985 : Welwyn Hatfield 006	39	2.4%
E02004986 : Welwyn Hatfield 007	23	1.4%
E02004987 : Welwyn Hatfield 008	5	0.3%
E02004988 : Welwyn Hatfield 009	7	0.4%
E02004989 : Welwyn Hatfield 010	47	2.9%
E02004990 : Welwyn Hatfield 011	10	0.6%
E02004991 : Welwyn Hatfield 012	5	0.3%
E02004992 : Welwyn Hatfield 013	3	0.2%
E02004993 : Welwyn Hatfield 014	9	0.6%
E02004994 : Welwyn Hatfield 015	4	0.2%
E02004995 : Welwyn Hatfield 016	1	0.1%
Babergh	0	0.0%
Basildon	0	0.0%
Bedford	11	0.7%
Braintree	0	0.0%
Breckland	0	0.0%
Brentwood	1	0.1%
Broadland	0	0.0%
Broxbourne	11	0.7%
Cambridge	3	0.2%
Castle Point	0	0.0%
Chelmsford	2	0.1%
Colchester	0	0.0%
Dacorum	101	6.3%
East Cambridgeshire	0	0.0%
East Hertfordshire	12	0.7%
Epping Forest	3	0.2%
Fenland	0	0.0%
Forest Heath	0	0.0%
Great Yarmouth	0	0.0%
Harlow	8	0.5%
Hertsmere	36	2.2%
Huntingdonshire	1	0.1%
Ipswich	0	0.0%
King's Lynn and West Norfolk	0	0.0%
Maldon	0	0.0%
Mid Suffolk	0	0.0%
North Hertfordshire	29	1.8%
North Norfolk	0	0.0%
Norwich	0	0.0%
Peterborough	1	0.1%
Rochford	0	0.0%
South Cambridgeshire	3	0.2%
South Norfolk	1	0.1%
Southend-on-Sea	1	0.1%
St Edmundsbury	0	0.0%
Stevenage	40	2.5%
Suffolk Coastal	0	0.0%
Tendring	0	0.0%
Three Rivers	14	0.9%
Thurrock	0	0.0%
Uttlesford	1	0.1%
Watford	33	2.1%
Waveney	0	0.0%
East Midlands	7	0.4%
London	147	9.2%
North East	1	0.1%
North West	2	0.1%
Northern Ireland	2	0.1%
Scotland	0	0.0%
South East	116	7.2%
South West	3	0.2%
Wales	2	0.1%
West Midlands	7	0.4%
Yorkshire and The Humber	0	0.0%
	1,604	100.0%

Appendix 4

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

Filename: Site Access.j9
Path: P:\21 Jobs\059 Common Lane, Harpenden\Technical Assessments
Report generation date: 23/02/2021 10:04:35

Summary of junction performance

	AM + Dev				PM + Dev				AM + Dev (Sensitivity Test)				PM + Dev (Sensitivity Test)			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	2025															
Stream B-AC	0.1	8.28	0.05	A	0.0	7.86	0.02	A	0.1	8.87	0.05	A	0.0	8.53	0.02	A
Stream C-AB	0.0	0.00	0.00	A	0.0	5.98	0.00	A	0.0	0.00	0.00	A	0.0	5.93	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	Common Lane / Site Access
Site number	
Date	23/02/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	mtp\MTPGeneral
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM + Dev	ONE HOUR	08:00	09:30	15	✓
D2	2025	PM + Dev	ONE HOUR	17:00	18:30	15	✓
D3	2025	AM + Dev (Sensitivity Test)	ONE HOUR	08:00	09:30	15	✓
D4	2025	PM + Dev (Sensitivity Test)	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2025, AM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		0.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Common Lane		Major
B	Site Access		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.50			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.75	43	43

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	500	0.093	0.235	0.148	0.336
B-C	635	0.099	0.251	-	-
C-B	574	0.227	0.227	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM + Dev	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	102	100.000
B		ONE HOUR	✓	21	100.000
C		ONE HOUR	✓	126	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	5	97
	B	20	0	1
	C	126	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.05	8.28	0.1	A	19	29
C-AB	0.00	0.00	0.0	A	0	0
C-A					116	173
A-B					5	7
A-C					89	134

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	4	473	0.033	16	0.0	0.0	7.870	A
C-AB	0	0	554	0.000	0	0.0	0.0	0.000	A
C-A	95	24			95				
A-B	4	0.94			4				
A-C	73	18			73				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	5	467	0.040	19	0.0	0.0	8.038	A
C-AB	0	0	550	0.000	0	0.0	0.0	0.000	A
C-A	113	28			113				
A-B	4	1			4				
A-C	87	22			87				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	458	0.050	23	0.0	0.1	8.274	A
C-AB	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	139	35			139				
A-B	6	1			6				
A-C	107	27			107				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	458	0.050	23	0.1	0.1	8.276	A
C-AB	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	139	35			139				
A-B	6	1			6				
A-C	107	27			107				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	5	467	0.040	19	0.1	0.0	8.040	A
C-AB	0	0	550	0.000	0	0.0	0.0	0.000	A
C-A	113	28			113				
A-B	4	1			4				
A-C	87	22			87				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	4	473	0.033	16	0.0	0.0	7.877	A
C-AB	0	0	554	0.000	0	0.0	0.0	0.000	A
C-A	95	24			95				
A-B	4	0.94			4				
A-C	73	18			73				

2025, PM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		0.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	PM + Dev	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	81	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	86	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	16	65
	B	7	0	0
	C	85	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	7.86	0.0	A	6	10
C-AB	0.00	5.98	0.0	A	1	2
C-A					78	117
A-B					15	22
A-C					60	89

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	5	1	477	0.011	5	0.0	0.0	7.637	A
C-AB	0.84	0.21	603	0.001	0.84	0.0	0.0	5.979	A
C-A	64	16			64				
A-B	12	3			12				
A-C	49	12			49				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	2	472	0.013	6	0.0	0.0	7.728	A
C-AB	1	0.26	609	0.002	1	0.0	0.0	5.922	A
C-A	76	19			76				
A-B	14	4			14				
A-C	58	15			58				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	466	0.017	8	0.0	0.0	7.858	A
C-AB	1	0.32	617	0.002	1	0.0	0.0	5.847	A
C-A	93	23			93				
A-B	18	4			18				
A-C	72	18			72				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	466	0.017	8	0.0	0.0	7.858	A
C-AB	1	0.32	617	0.002	1	0.0	0.0	5.852	A
C-A	93	23			93				
A-B	18	4			18				
A-C	72	18			72				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	2	472	0.013	6	0.0	0.0	7.729	A
C-AB	1	0.26	609	0.002	1	0.0	0.0	5.928	A
C-A	76	19			76				
A-B	14	4			14				
A-C	58	15			58				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	5	1	477	0.011	5	0.0	0.0	7.637	A
C-AB	0.84	0.21	603	0.001	0.84	0.0	0.0	5.982	A
C-A	64	16			64				
A-B	12	3			12				
A-C	49	12			49				

2025, AM + Dev (Sensitivity Test)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		0.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2025	AM + Dev (Sensitivity Test)	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	132	100.000
B		ONE HOUR	✓	21	100.000
C		ONE HOUR	✓	256	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	5	127
	B	20	0	1
	C	256	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.05	8.87	0.1	A	19	29
C-AB	0.00	0.00	0.0	A	0	0
C-A					235	352
A-B					5	7
A-C					117	175

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	4	453	0.035	16	0.0	0.0	8.226	A
C-AB	0	0	548	0.000	0	0.0	0.0	0.000	A
C-A	193	48			193				
A-B	4	0.94			4				
A-C	96	24			96				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	5	443	0.043	19	0.0	0.0	8.486	A
C-AB	0	0	544	0.000	0	0.0	0.0	0.000	A
C-A	230	58			230				
A-B	4	1			4				
A-C	114	29			114				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	429	0.054	23	0.0	0.1	8.865	A
C-AB	0	0	537	0.000	0	0.0	0.0	0.000	A
C-A	282	70			282				
A-B	6	1			6				
A-C	140	35			140				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	429	0.054	23	0.1	0.1	8.867	A
C-AB	0	0	537	0.000	0	0.0	0.0	0.000	A
C-A	282	70			282				
A-B	6	1			6				
A-C	140	35			140				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	19	5	443	0.043	19	0.1	0.0	8.490	A
C-AB	0	0	544	0.000	0	0.0	0.0	0.000	A
C-A	230	58			230				
A-B	4	1			4				
A-C	114	29			114				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	16	4	453	0.035	16	0.0	0.0	8.232	A
C-AB	0	0	548	0.000	0	0.0	0.0	0.000	A
C-A	193	48			193				
A-B	4	0.94			4				
A-C	96	24			96				

2025, PM + Dev (Sensitivity Test)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		0.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2025	PM + Dev (Sensitivity Test)	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	186	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	132	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	16	170
	B	7	0	0
	C	131	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.02	8.53	0.0	A	6	10
C-AB	0.00	5.93	0.0	A	1	2
C-A					120	180
A-B					15	22
A-C					156	234

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	5	1	452	0.012	5	0.0	0.0	8.061	A
C-AB	0.90	0.22	609	0.001	0.89	0.0	0.0	5.924	A
C-A	98	25			98				
A-B	12	3			12				
A-C	128	32			128				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	2	442	0.014	6	0.0	0.0	8.254	A
C-AB	1	0.28	616	0.002	1	0.0	0.0	5.854	A
C-A	118	29			118				
A-B	14	4			14				
A-C	153	38			153				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	429	0.018	8	0.0	0.0	8.535	A
C-AB	1	0.36	626	0.002	1	0.0	0.0	5.761	A
C-A	144	36			144				
A-B	18	4			18				
A-C	187	47			187				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	8	2	429	0.018	8	0.0	0.0	8.535	A
C-AB	1	0.36	626	0.002	1	0.0	0.0	5.768	A
C-A	144	36			144				
A-B	18	4			18				
A-C	187	47			187				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	6	2	442	0.014	6	0.0	0.0	8.255	A
C-AB	1	0.28	616	0.002	1	0.0	0.0	5.862	A
C-A	118	29			118				
A-B	14	4			14				
A-C	153	38			153				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	5	1	452	0.012	5	0.0	0.0	8.063	A
C-AB	0.90	0.22	608	0.001	0.90	0.0	0.0	5.928	A
C-A	98	25			98				
A-B	12	3			12				
A-C	128	32			128				

Appendix 5

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

Filename: Common Lane Shuttle Working.j9
Path: P:\21 Jobs\059 Common Lane, Harpenden\Technical Assessments
Report generation date: 23/02/2021 14:06:04

Summary of junction performance

	AM + Dev				PM + Dev				AM + Dev (Sensitivity Test)				PM + Dev (Sensitivity Test)			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	2025															
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.3	8.91	0.22	A	0.2	8.28	0.17	A	0.4	10.60	0.30	B	0.7	11.70	0.40	B

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	Common Lane Priority Working
Site number	
Date	23/02/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	mtp\MTPGeneral
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM + Dev	ONE HOUR	00:00	01:30	15	✓
D2	2025	PM + Dev	ONE HOUR	00:00	01:30	15	✓
D3	2025	AM + Dev (Sensitivity Test)	ONE HOUR	00:00	01:30	15	✓
D4	2025	PM + Dev (Sensitivity Test)	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2025, AM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		3.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Common Lane North		Major
B	Dummy arm		Minor
C	Common Lane South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.50			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.75	43	43

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	500	0.093	0.235	0.148	0.336
B-C	635	0.099	0.251	-	-
C-B	574	0.227	0.227	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM + Dev	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	146	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	102	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	146
	B	0	0	0
	C	0	102	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	0	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.22	8.91	0.3	A	94	140
C-A					0	0
A-B					0	0
A-C					134	201

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	515	0.000	0	0.0	0.0	0.000	A
C-AB	77	19	528	0.146	76	0.0	0.2	7.961	A
C-A	0	0			0				
A-B	0	0			0				
A-C	110	27			110				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	506	0.000	0	0.0	0.0	0.000	A
C-AB	92	23	523	0.175	92	0.2	0.2	8.341	A
C-A	0	0			0				
A-B	0	0			0				
A-C	131	33			131				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	494	0.000	0	0.0	0.0	0.000	A
C-AB	112	28	516	0.217	112	0.2	0.3	8.897	A
C-A	0	0			0				
A-B	0	0			0				
A-C	161	40			161				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	493	0.000	0	0.0	0.0	0.000	A
C-AB	112	28	516	0.217	112	0.3	0.3	8.908	A
C-A	0	0			0				
A-B	0	0			0				
A-C	161	40			161				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	506	0.000	0	0.0	0.0	0.000	A
C-AB	92	23	523	0.175	92	0.3	0.2	8.359	A
C-A	0	0			0				
A-B	0	0			0				
A-C	131	33			131				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	515	0.000	0	0.0	0.0	0.000	A
C-AB	77	19	528	0.146	77	0.2	0.2	7.992	A
C-A	0	0			0				
A-B	0	0			0				
A-C	110	27			110				

2025, PM + Dev

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		3.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	PM + Dev	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	92	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	81	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	92
	B	0	0	0
	C	0	81	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	0	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.17	8.28	0.2	A	74	111
C-A					0	0
A-B					0	0
A-C					84	127

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	528	0.000	0	0.0	0.0	0.000	A
C-AB	61	15	531	0.115	60	0.0	0.1	7.642	A
C-A	0	0			0				
A-B	0	0			0				
A-C	69	17			69				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	522	0.000	0	0.0	0.0	0.000	A
C-AB	73	18	528	0.138	73	0.1	0.2	7.905	A
C-A	0	0			0				
A-B	0	0			0				
A-C	83	21			83				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	513	0.000	0	0.0	0.0	0.000	A
C-AB	89	22	524	0.170	89	0.2	0.2	8.275	A
C-A	0	0			0				
A-B	0	0			0				
A-C	101	25			101				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	513	0.000	0	0.0	0.0	0.000	A
C-AB	89	22	524	0.170	89	0.2	0.2	8.282	A
C-A	0	0			0				
A-B	0	0			0				
A-C	101	25			101				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	521	0.000	0	0.0	0.0	0.000	A
C-AB	73	18	528	0.138	73	0.2	0.2	7.914	A
C-A	0	0			0				
A-B	0	0			0				
A-C	83	21			83				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	528	0.000	0	0.0	0.0	0.000	A
C-AB	61	15	531	0.115	61	0.2	0.1	7.661	A
C-A	0	0			0				
A-B	0	0			0				
A-C	69	17			69				

2025, AM + Dev (Sensitivity Test)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		3.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2025	AM + Dev (Sensitivity Test)	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	276	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	132	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	276
	B	0	0	0
	C	0	132	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	0	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.30	10.60	0.4	B	121	182
C-A					0	0
A-B					0	0
A-C					253	380

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	485	0.000	0	0.0	0.0	0.000	A
C-AB	99	25	506	0.196	98	0.0	0.2	8.818	A
C-A	0	0			0				
A-B	0	0			0				
A-C	208	52			208				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-AB	119	30	497	0.239	118	0.2	0.3	9.498	A
C-A	0	0			0				
A-B	0	0			0				
A-C	248	62			248				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	450	0.000	0	0.0	0.0	0.000	A
C-AB	145	36	485	0.300	145	0.3	0.4	10.576	B
C-A	0	0			0				
A-B	0	0			0				
A-C	304	76			304				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	449	0.000	0	0.0	0.0	0.000	A
C-AB	145	36	485	0.300	145	0.4	0.4	10.603	B
C-A	0	0			0				
A-B	0	0			0				
A-C	304	76			304				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-AB	119	30	497	0.239	119	0.4	0.3	9.535	A
C-A	0	0			0				
A-B	0	0			0				
A-C	248	62			248				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	485	0.000	0	0.0	0.0	0.000	A
C-AB	99	25	506	0.196	100	0.3	0.2	8.866	A
C-A	0	0			0				
A-B	0	0			0				
A-C	208	52			208				

2025, PM + Dev (Sensitivity Test)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Common Lane / Site Access	T-Junction	Two-way		6.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2025	PM + Dev (Sensitivity Test)	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	138	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	186	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	138
	B	0	0	0
	C	0	186	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	0	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.40	11.70	0.7	B	171	256
C-A					0	0
A-B					0	0
A-C					127	190

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	500	0.000	0	0.0	0.0	0.000	A
C-AB	140	35	523	0.268	139	0.0	0.4	9.325	A
C-A	0	0			0				
A-B	0	0			0				
A-C	104	26			104				

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	488	0.000	0	0.0	0.0	0.000	A
C-AB	167	42	519	0.322	167	0.4	0.5	10.217	B
C-A	0	0			0				
A-B	0	0			0				
A-C	124	31			124				

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	471	0.000	0	0.0	0.0	0.000	A
C-AB	205	51	512	0.400	204	0.5	0.7	11.643	B
C-A	0	0			0				
A-B	0	0			0				
A-C	152	38			152				

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	471	0.000	0	0.0	0.0	0.000	A
C-AB	205	51	512	0.400	205	0.7	0.7	11.698	B
C-A	0	0			0				
A-B	0	0			0				
A-C	152	38			152				

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	488	0.000	0	0.0	0.0	0.000	A
C-AB	167	42	519	0.322	168	0.7	0.5	10.284	B
C-A	0	0			0				
A-B	0	0			0				
A-C	124	31			124				

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	500	0.000	0	0.0	0.0	0.000	A
C-AB	140	35	523	0.268	140	0.5	0.4	9.418	A
C-A	0	0			0				
A-B	0	0			0				
A-C	104	26			104				

St Albans Call for Sites March 2021

Land at Common Lane, Harpenden

On behalf of the Trustees of the GA Simons Trust we submit 2 sites which front Common Lane, Harpenden and are shown edged red on the attached plan, noted A and C and identified on the location plan.

Site A has an area of approximately 0.54 hect

Site B has an area of approximately 0.33 hect

0.87 hect (as measured by Google Earth)

Since Site A and B (SHLAA-GB-H-442) were considered in the SHLAA 2016 update, the Katherine Warington School has been constructed and the Site Assessment summary is factually now incorrect.

The site is in part severed from the wider countryside by the Katherine Warington Secondary School buildings and the former farm buildings immediately to the north have approvals for change of use and conversion to 4 dwellings (5/20/3142 and 5/20/3143). The sites no longer perform any of the 5 purposes for including land within the Green Belt and should now be excluded from the Green Belt as a) they are no longer necessary to keep open, b) can usefully provide a small housing site to meet objectives in the NPPF and c) is effectively integrated into the urban framework by the surrounding developments and the site approvals for residential use.

Originally this site formed part of larger fields farmed along with the agricultural buildings. The fields were acquired by Herts County Council under a resolution to use Compulsory Powers of acquisition for the new school. The site is no longer viable for agriculture and has become disused. As part of the management of the site the hedgerow to the front which is overgrown is to be reduced in height later this year after the bird nesting season. The previous review referred to the land as being a mix of woodland and grass land. This is incorrect there is a hedge along the Common Lane frontage

The play areas and sports pitches for the school are positioned on the other side of the school buildings. The site has a minimum depth of 37 metres and fronts Common Lane meaning it can be developed in the most efficient and effective way as new roads and footpaths are not needed and the existing infrastructure and services can be used. The site would be highly suitable for small /medium enterprise housebuilders or potentially self- build. The land is under single control, is available and can be delivered as soon as a planning permission has been granted and in the couple of the years of the Plan Adoption, thus assisting in the Housing Trajectory in the early years of the plan.

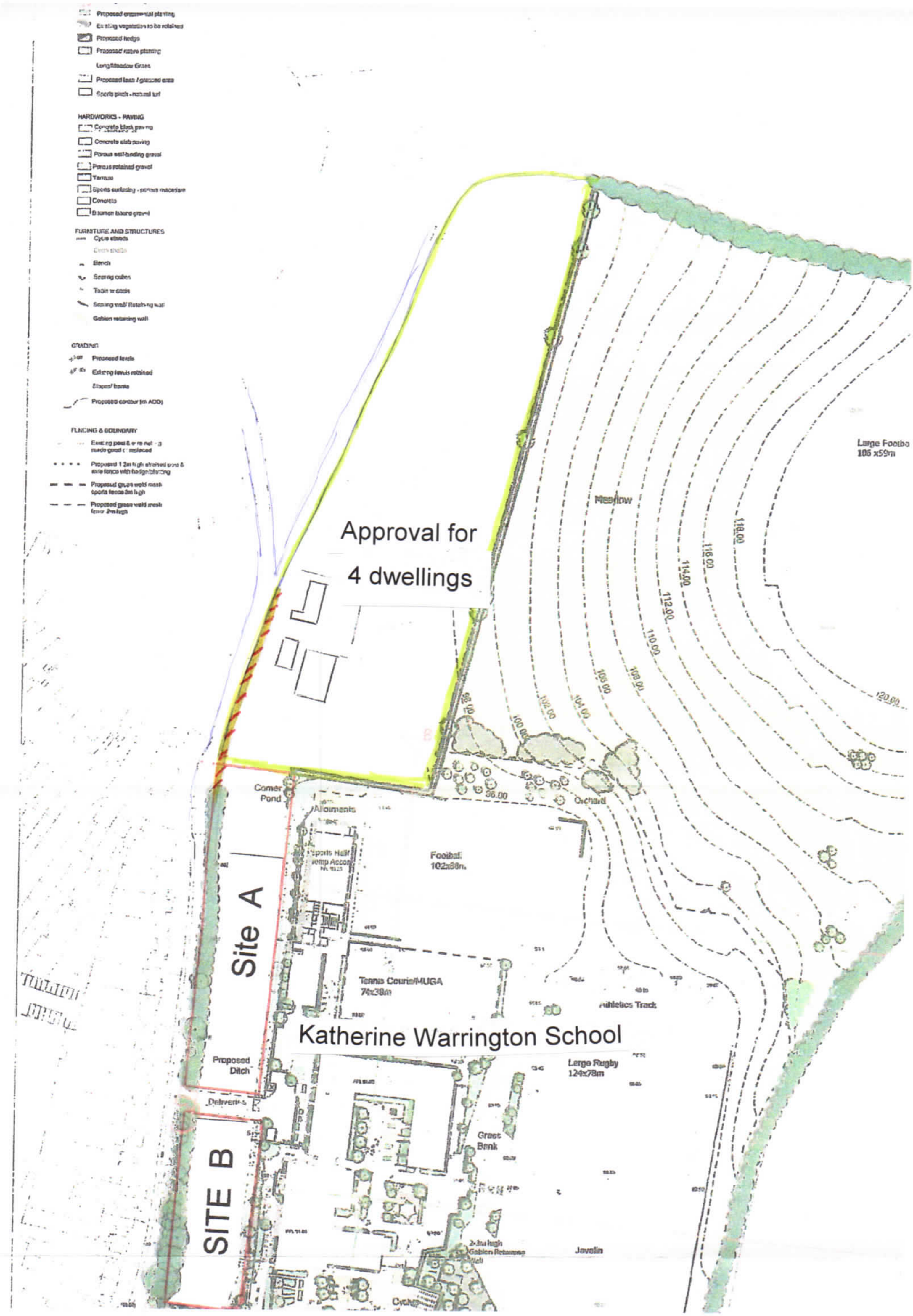
The site is in a sustainable location, in addition to the secondary school, it is within walking distance of Batford Nursery and Early Years schools Sauncey Wood Primary school, shops, petrol filling station, pubs and other local facilities. Common Lane is on a bus route.

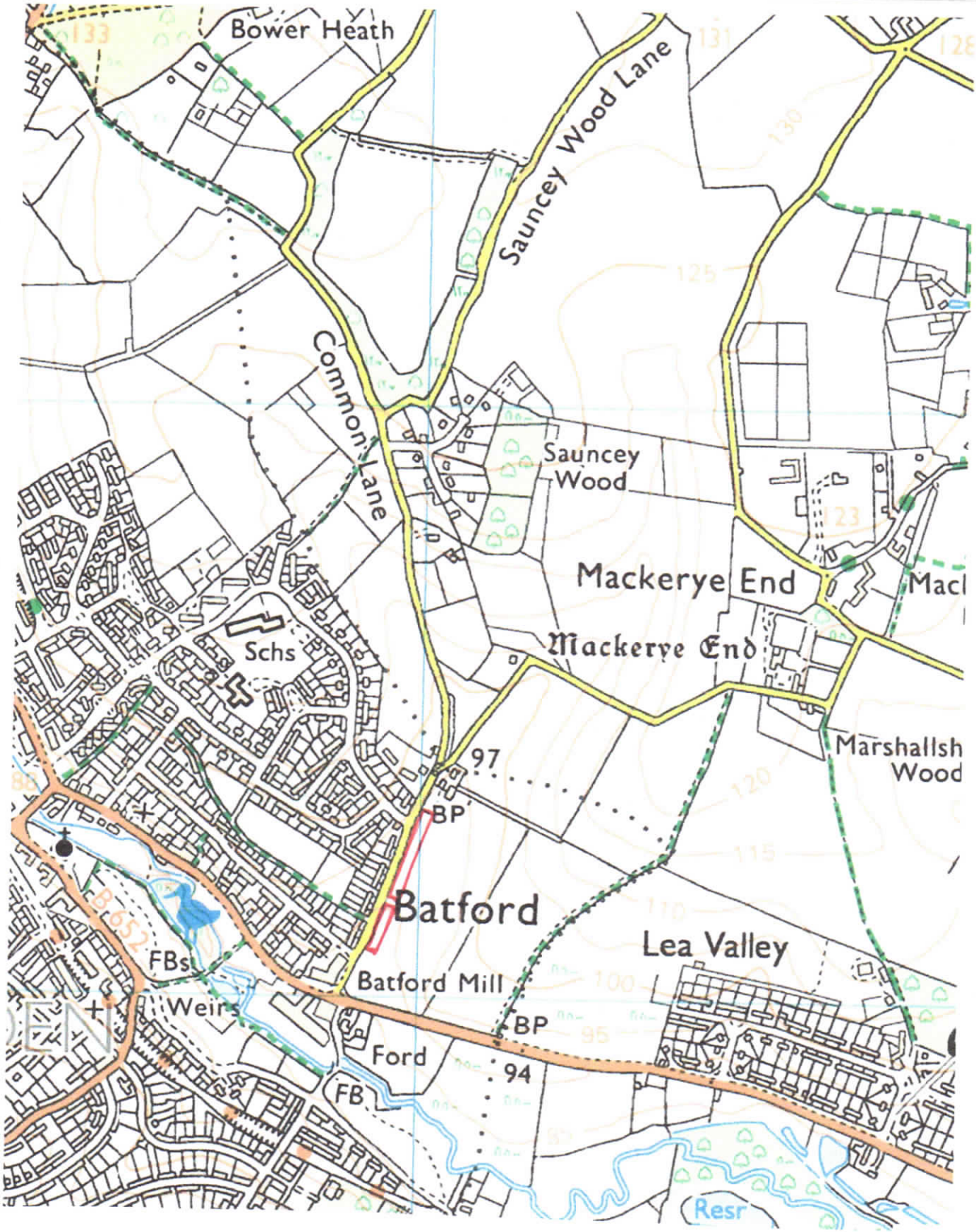
In summary this is an infill development of land surrounded by built forms which means visually it reads as part of the urban framework; it no longer performs any of the purposes for including land within the Green Belt neither any of the functions which may be attributed to Green Belt. The site should be removed from the Green Belt and allocated for housing in the new Local Plan as part of a mix and range of sites identified by the Council to meet housing needs.

Derek Bromley

Bidwells, John Ormond House, 899 Silbury Boulevard, Milton Keynes, MK9 3XJ

Email [redacted] Mob [redacted]


Proposed hedge
Sports pitch - natural turf
HARDWORKS - PAVING
Concrete slab paving
Porous retained gravel
Concrete
FURNITURE AND STRUCTURES
Bench
Seating cubes
Gabion retaining wall
Proposed levels
FENCING & BOUNDARY
Approval for
4 dwellings
Meadow
Large Footbo
106 x59m
118.00
116.00
114.00
112.00
110.00
108.00
106.00
104.00
102.00
100.00
120.00
Corner
Pond
Allotments
Orchard
Sports Hall
Football
102x66m
Site A
Tennis Courts/MUGA
74x38m
Athletics Track
Katherine Warrington School
Proposed
Ditch
Large Rugby
124x78m
Deliveries
Grass
Bank
SITE B
Javelin


Bower Heath
Sauncey Wood Lane
Common Lane
Sauncey Wood
Mackerye End
Mackerye End
Schs
97
BP
Batford
Lea Valley
FBs
Batford Mill
Weirs
BP
Ford
94
FB
Marshallsh Wood
Resr
B652

St Albans Call for Sites March 2021

Land at Common Lane, Harpenden

On behalf of the Trustees of the GA Simons Trust we submit a site which fronts Common Lane, Harpenden and is shown edged red on the attached plan, noted A and C and identified on the location plan. The site overlaps a separate submission made on behalf of our clients which should be considered independently and cumulatively.

Site A has an area of approximately 0.54 hect

Site C has an area of approximately 0.40 hect

0.94 hect (as measured by Google Earth)

Since Site A (SHLAA-GB-H-442) was considered in the SHLAA 2016 update the Katherine Warington School has been constructed and the Site Assessment summary is factually now incorrect.

The site is in part severed from the wider countryside by the Katherine Warington Secondary School buildings. The former farm buildings on Site C have approvals for change of use and conversion to 4 dwellings (5/20/3142 and 5/20/3143). The site no longer performs any of the 5 purposes for including land within the Green Belt and should now be excluded from the Green Belt as it a) is no longer necessary to keep open, b) can usefully provide a small housing site to meet objectives in the NPPF and c) is effectively integrated into the urban framework by the surrounding developments and the site approvals for residential use.

Originally this site formed part of larger fields farmed along with the agricultural buildings. The fields were acquired by Herts County Council under a resolution to use Compulsory Powers of acquisition for the new school. The site is no longer viable for agriculture and has become disused. As part of the management of the site the hedgerow to the front which is overgrown is to be reduced in height later this year after the bird nesting season. The previous review referred to the land as being a mix of woodland and grass land. This is incorrect there is a hedge along the Common Lane frontage

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The site is in a sustainable location, in addition to the secondary school, it is within walking distance of Batford Nursery and Early Years schools Sauncey Wood Primary school, shops, petrol filling station, pubs and other local facilities. Common Lane is on a bus route.

In summary this is an infill development of land which already has residential approvals on part and surrounded on the remainder by built forms which means visually it reads as part of the urban framework; it no longer performs any of the purposes for including land within the Green Belt neither any of the functions which may be attributed to Green Belt. The site should be removed from the Green Belt and allocated for housing in the new Local Plan as part of a mix and range of sites identified by the Council to meet housing needs.

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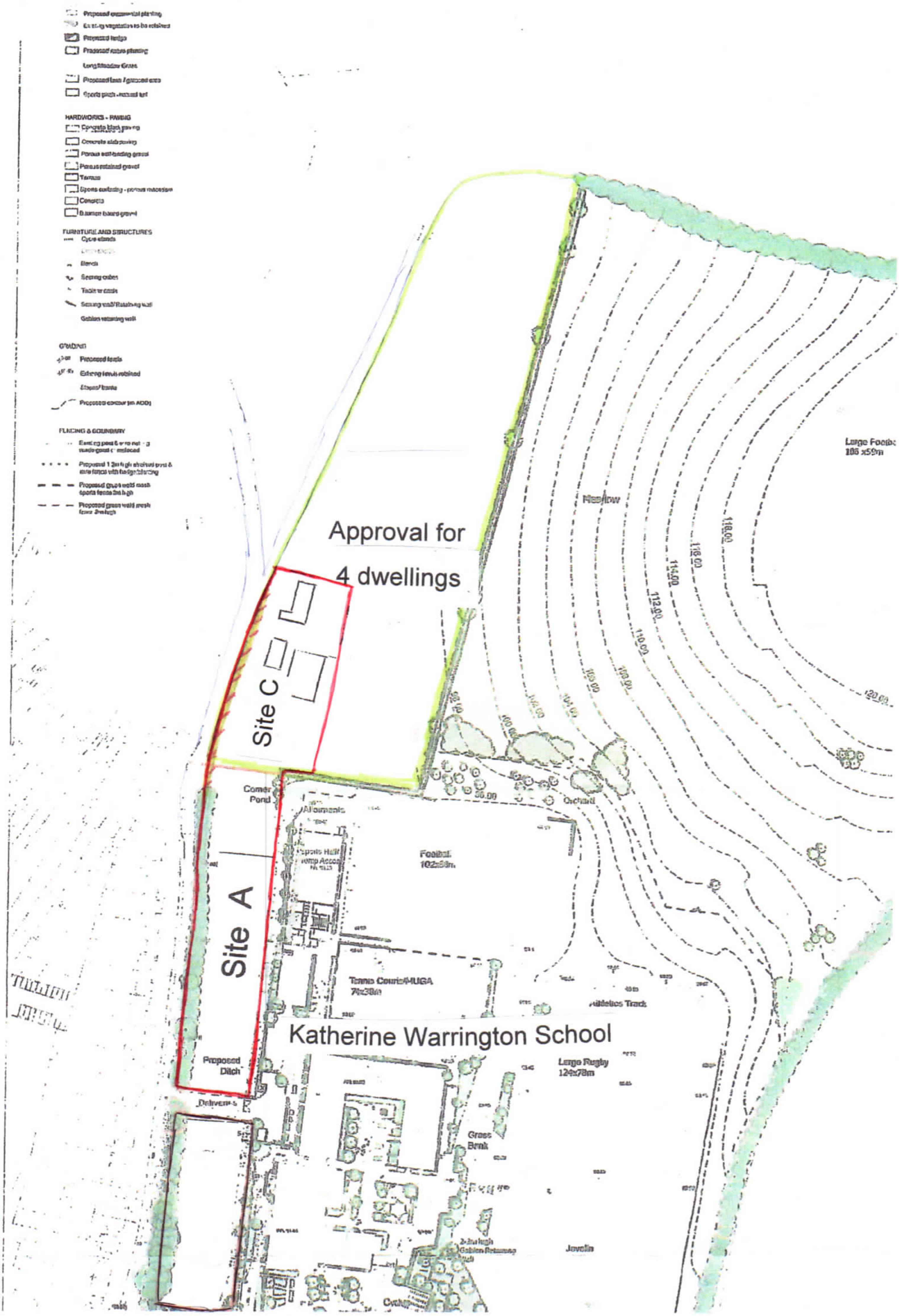
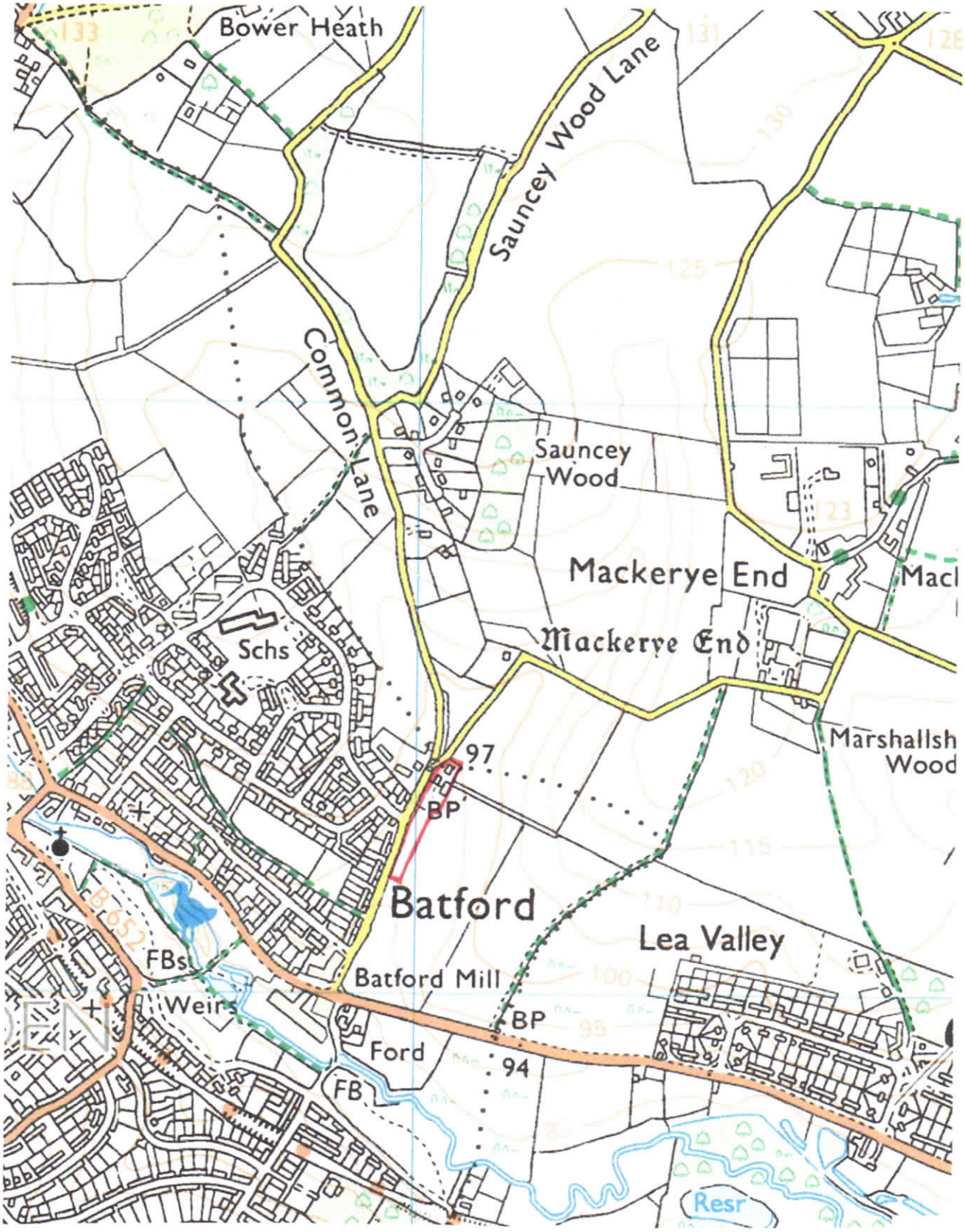


Approval for
4 dwellings
Site C
Site A
Katherine Warrington School
Corner Pond
Allotments
Football
Tennis Courts/MUGA
Athletics Track
Large Rugby
Proposed Ditch
Deliveries
Grass Bank
Javelin
Orchard
Meadow
Large Football
106 x59m


Bower Heath
Sauncey Wood Lane
Common Lane
Sauncey Wood
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97
BP
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Lea Valley
FBs
Batford Mill
Weirs
BP
Ford
94
FB
Resr
Marshallsh Wood
B652

BIRMINGHAM
BRISTOL
CAMBRIDGE
CARDIFF
EDINBURGH
GLASGOW
KINGS HILL
LEEDS
LONDON
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Chris Briggs
Spatial Planning Manager
St Albans City and District Council
Civic Centre
St. Peter's Street
St Albans, AL1 3JE

BY EMAIL

24101/A3/DM/sjo

02 March 2021

Dear Mr Briggs

ST ALBANS CITY AND DISTRICT – NEW LOCAL PLAN
CALL FOR SITES/SUSTAINABILITY APPRAISAL SCOPING REPORT (25 JAN – 08 MAR 2021)
REPRESENTATIONS ON BEHALF OF CREST NICHOLSON

1.0 Introduction

We are acting on behalf of Crest Nicholson with regard to land at Lower Luton Road, Harpenden. The Crest site forms part of the wider Broad Location at North-East Harpenden, as identified in the recently withdrawn (Nov 2020) Local Plan for SACDC.

Since the withdrawal of the Local Plan from Examination, SACDC has published a Local Development Scheme (Jan 2021). This sets out a timetable for work on a new Local Plan, as follows:

Table 1: New Local Plan timetable

Stage	Date
Reg 18 Local Plan Consultation	Jan/Feb 2022
Reg 19 Pre-Submission Local Plan Consultation	Nov/Dec 2022
Submission of Local Plan	Spring/Summer 2023
Examination of Local Plan	Summer/Autumn 2023
Adoption of Local Plan	End of 2023

We broadly support the above steps, and in this regard, we note of recent Government guidance on the requirement for up-to-date Local Plans to be in place by December 2023.

This letter relates to the current consultation undertaken by SACDC (25 Jan – 08 Mar 2021), with regard to:

a) Call for Sites; and
b) Sustainability Appraisal – Scoping Report.

We note the objective of the Call for Sites exercise in seeking the submission of new sites only – i.e. those not previously considered/assessed by SACDC.

Given that our client's site was the subject of previous extensive assessments as part of SACDC's SHLAA and "Development Site and Strategy Options Evaluation" (DSSOE) processes, we provide only a brief update on the site proposals below.

We also comment upon the published Sustainability Appraisal – Scoping Report having regard to the guidance set out in the National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG).

2.0 Call for Sites

Crest continues to promote land at Lower Luton Road, Harpenden. As above, the Crest land forms part of the wider Broad Location at North-East Harpenden which also contains 3no. other landholding parcels.

We can confirm the commitment of Crest to continue to work collaboratively with other landowners in bringing forward comprehensive proposals for the NE Harpenden Broad Location. Equally, Crest is also committed to working cooperatively, proactively, and productively with SACDC (and all relevant partners) in bringing the site forward.

This commitment was set out in a signed Statement of Common Ground (between the landowner parties and SACDC – 12 Dec 2019) and we can confirm that Crest remains committed to the terms of the SOCG.

The withdrawn Local Plan identified the Broad Location at NE Harpenden at Policy S6 (vii). Our previous representations provided a thorough overview of the technical considerations for the site, as included in our Vision Document (Feb 2018). The Masterplan options contained within the Vision Document sought to meet the aspirations of Policy S6 (vii), as follows:

- Ability of the site to deliver approx. 760 dwellings – as secured within 60% built-form coverage of the site at an average density of 40 dph;
- The remaining 40% of the site provided as open space/green infrastructure largely within the northern part of the site, in accordance with the SKM (2013) Green Belt Review;
- 40% affordable homes, including potential for Starter Homes;
- Approximately 3% plots for Self and Custom-Build opportunities;
- Local Centre including retail/pharmacy and community uses;
- 2 FE Primary School (encompassing Early Years provision);
- Flexi-care development for older people (60 units);
- Specialist residential accommodation (10 units);
- Potential for GP/medical care space to be accommodated along with Flexi-care development;
- Significant areas of public open space;
- Sports pitches and children's play facilities; and
- Extensive pedestrian and cycle links through the site into Harpenden town and to nearby local facilities.

Crest reiterates its commitment towards the delivery of the proposals as above in collaboration with other site landowners. As set out in our previous submissions, Crest considers that the site is unencumbered by large-scale/strategic infrastructure requirements (e.g. road/rail) and could come forward (delivering the above) in the short-medium term.

3.0 Sustainability Appraisal – Scoping Report

The SA Scoping Report is a "high-level" document. It seeks to set out a methodology for detailed SA work at the relevant Local Plan stages. The proposed SA methodology is helpfully summarised at Figure 2 of the document, as consisting of the following:

- ***Interim SA*** (Reg 18 Local Plan consultation) – The Interim SA will test various options for growth as against 12no. proposed socio-economic and environmental indicators; and

- ***Final SA*** (Reg 19 Pre-Submission consultation) – The Final SA will demonstrate the effectiveness of the selected/preferred option for growth in sustainability terms, as against other options for growth.

The above work will be required to demonstrate the iterative process of the Local Plan/SA in shaping the spatial strategy for the City/District. In this context, the SEA Regulations (2004) require the Plan to ensure that *"reasonable alternatives"* are addressed at the relevant plan-making stage.

The document (Para 1.16) refers that the Local Plan will seek to secure both Broad Locations as well as site allocations. This commitment is supported, and it will ensure that housing needs are meet in the City/District area both in the short and longer term.

SA Objectives

The SA proposes the provision of 16no. objectives to underpin the strategy for the Local Plan. These are summarised (at page 52 of the document) and relate to topic matters including, biodiversity, population, climate change, etc. The 16no. objectives are supported in broad terms.

We do however refer to objective "SO3" which obligates SACDC to:

> **Provide a sufficient amount of good quality housing which meets the needs of all sections of society in sustainable locations**

Whilst we recognise that the above objective complies with the NPPF (para 20), we consider that the objective could be re-worded to plan more positively for meeting housing needs. To provide a "sufficient" amount of housing suggests that just targeted need will be met without an additional buffer – we note that the withdrawn Local Plan sought to provide over and above identified need with an additional buffer of c. 10%. Providing a buffer would enhance choice and competition in the housing market as well as improve affordability issues in SACDC.

We would therefore recommend the following wording for "SO3", which we note is set out elsewhere in the SA (Table 4.2):

> **Provide a ~~sufficient~~ ~~amount~~ wide range of good quality housing which meets the needs of all sections of society in sustainable locations**

This objective will provide the framework for SACDC to meet the need for homes in the City/District area. The current need in St Albans amounts to 893dpa (Standard Method – Dec 2020), thus c. 15,000 units over a 15-year plan period.

Through recent discussions, SACDC has indicated that this will likely be met through:

- c. 5,000 units – urban/brownfield sites; and
- c. 10,000 units – within the Green Belt.

We recognise the recent attempts of SACDC to respond positively to housing need in the withdrawn Local Plan. The new Local Plan should continue in this vein, and in this context, our client's site/wider

NE Harpenden Broad Location provides a "suitable", "available", "achievable" and "deliverable" opportunity to respond positively to meeting housing needs in the Green Belt.

We trust that the above information is helpful and please let me know should you have any queries. If it would assist further, we would welcome the opportunity of meeting with you to discuss the content of these representations.

Yours sincerely

[redacted]

DAVID MAHER
Planning Associate