

**Land at Colney Heath,
St Albans**

Transport Assessment

Final



Transport Planning Consultants

Land at Colney Heath,
St Albans

Transport Assessment

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1.0 INTRODUCTION

1.1 David Tucker Associates (DTA) have been commissioned by Tarmac to provide highways and transport advice to support a planning application for up to 45 residential dwellings on Land at Colney Heath, St Albans. The concept masterplan is attached as **Appendix A**.

1.2 This Transport Assessment has been prepared in accordance with the National Planning Policy Framework (NPPF) (July 2021). The revised framework states the following:

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

All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.”

1.3 This report includes the following headings:

Chapter 2:	Existing Transport Conditions
Chapter 3:	Development Proposals
Chapter 4:	Traffic Generation and Impacts
Chapter 5:	Summary and Conclusions

1.4 The site is in an accessible location and within easy walking distance of the primary school, convenience store and village hall. Employment areas at Alban Park are within 2km of the site. The nearest doctor's surgery, secondary school, dental practice and further employment are within 5km of the site. It is also located with close proximity to bus services and the strategic road network.

1.5 This report considers the traffic impact of the development proposals on the adjacent highway network. The traffic generation of the site confirms that the site will generate



modest vehicular movements and would not result in a detrimental impact on the local highway network.

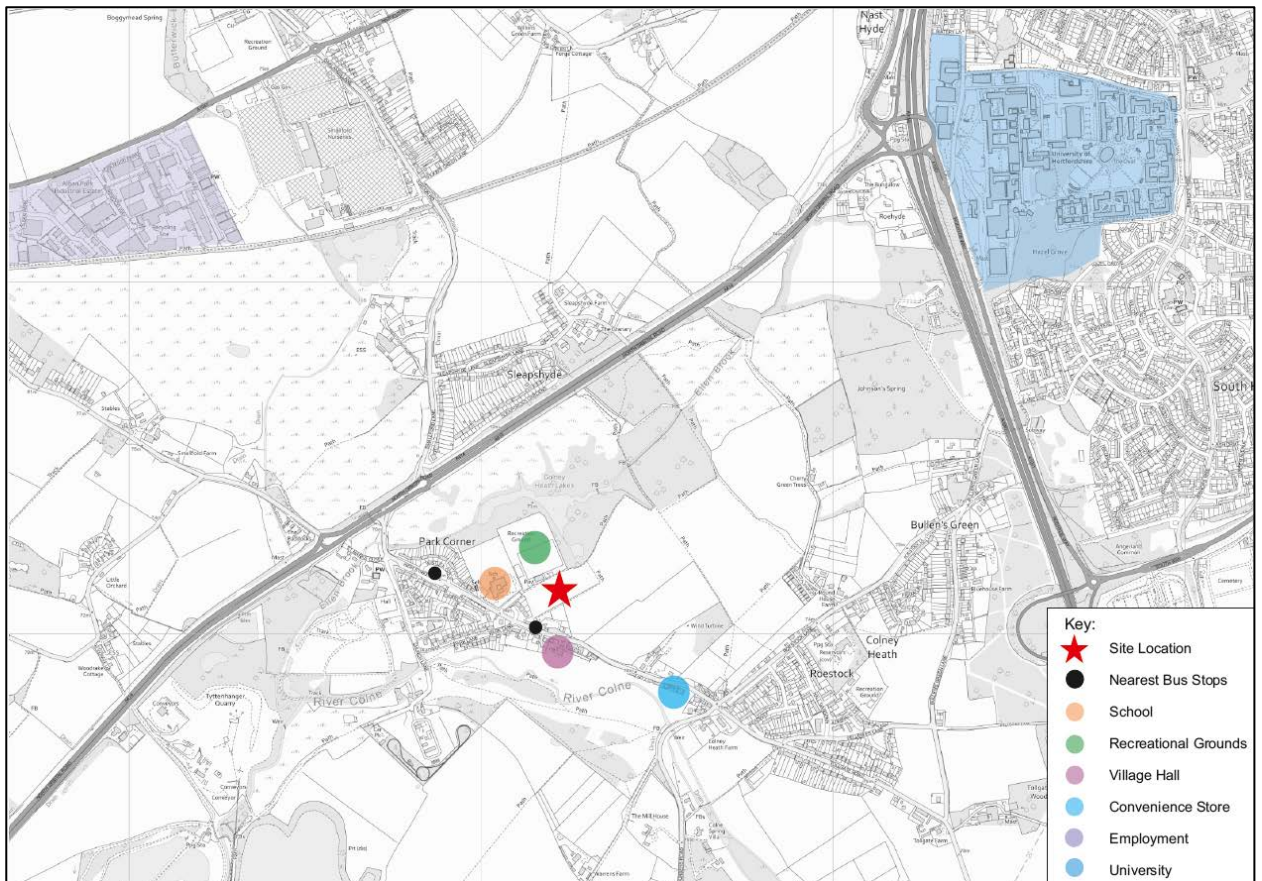


2.0 EXISTING TRANSPORT CONDITIONS

2.1 Site Location

2.1.1 The development site is located approximately 5.9km east of St Albans City Centre. It is bound by the A414 North Orbital Road to the north, the A1 (M) to the east, agricultural land to the south and residential dwellings to the west. The location of the site is shown on **Figure 1**.

Figure 1 – Site Location



2.2 Surrounding Road Network

2.2.1 High street is a single carriageway around 6.5m in width and subject to a 30mph speed limit. The road provides access to existing residential dwellings and local amenities on both sides.

2.2.2 The High Street connects to the A414 North Orbital Road via a signalised junction



arrangement. North Orbital Road is a dual carriageway and routes in an east-southwest direction connecting to Junction 2 of the A1 (M) via a grade separated roundabout and the A405 North Orbital Road via a roundabout. The road is around 24m in width and subject to a 60mph speed limit.

2.2.3 The A405 North Orbital Road connects to Junction 21a of the M25 via a roundabout interchange and further southwest Junction 6 of the M1 via a non-standard interchange.

2.2.4 The A1 (M), M25 and M1 all form part of the Strategic Road Network. The A1 routes between London and Edinburgh, the M25 encircles Greater London and the M1 links London to Leeds.

2.3 Traffic Data

2.3.1 An automatic traffic count was undertaken on High Street from Monday 6th September to Sunday 12th September 2021 recording vehicular flows and speeds. A copy of the data is attached at **Appendix B**. The five-day average vehicular flows and the average speeds and 85th percentile speeds are summarised in the tables below.

Table 1 – Five Day Average Vehicle Flows – High Street

Time Period	Northwestbound	Southeastbound	Total
AM Peak (0800-0900)	352	312	664
PM Peak (1700-1800)	342	298	640
AADT	3,800	3,567	7,367

Table 2 – Average Speeds and 85th Percentile Speeds (mph)

Speeds	Northwestbound	Southeastbound
Average Speeds	26.7	26.0
85th Percentile Speeds	31.6	30.5

2.3.2 In addition to the ATC, a manual classified turning count was undertaken at the A414 North Orbital Road/ High Street junction on Tuesday 7th September 2021. A copy of the data is attached at **Appendix B**.



2.4 Personal Injury Collision Data

- 2.4.1 Personal injury collision data has been obtained from Hertfordshire Council for the latest five-year period from 1st July 2016 to 30th June 2021. A copy of the data and study area is attached at **Appendix C**.
- 2.4.2 There were 25 collisions in the study area of which one was fatal, four serious and the remaining slight in severity.
- 2.4.3 There were no collisions along the site frontage.
- 2.4.4 The fatal collision occurred on the A414 North Orbital Road at junction with Smallford Lane. The collision occurred in 2016 and involved one car and one casualty.
- 2.4.5 Of the five serious collisions two occurred on A414 London Colney Longabout St Albans Junction with Smallford Lane, one occurred on A414 North Orbital Road approx. 50m northeast of junction with A414 London Colney, one occurred on A414 London Colney Longabout St Albans junction with A414 North Orbital Road, and one occurred on A414 North Orbital Road St Albans approx. 100m southwest of junction with A414 London Colney Longabout.

2.5 Pedestrian and Cycle Access

- 2.5.1 High Street has lit footways on both sides of the carriageway and approximately 60m north of the site access there is a zebra crossing.
- 2.5.2 To the north High Street connects to the A414 North Orbital Road via a signalised toucan crossing or footbridge. The A414 has a wide footway along the northern side of the carriageway. To the south the High Street links to Tollgate Road which has footways on both sides of the road.
- 2.5.3 The nearest off-road cycleway is a shared-use pedestrian and cycle path along the northern side of North Orbital Road which continues to the A1001 Comet Way in the northeast and stops at London Colney Roundabout in the west.



2.5.4 There is one nationally designated cycle route within 5km of the site, National Route 61 (NR61). The route is accessed northwest of the site on Colney Heath Lane and runs from Maidenhead to Hatfield, Welwyn Garden City and Hertford.

2.6 Public Transport Provision

Bus Services

2.6.1 Bus stops are located on High Street, approximately 100m from the site access. These bus stops are served by 4 services and a summary of the bus services are shown in **Table 3**.

Table 3 – Bus Services – High Street

Service	Route	Frequency		
		Monday - Friday	Saturday	Sunday
230	St Albans - Welwyn Garden City	1 service	No Services	No Services
305	Sandridge - Tyttenhanger	5 services	5 services	No Services
	Colney Heath - New Greens	5 services	No Services	No Services
312	Hatfield - Bell Bar	1 service	No Services	No Services
355	Nicholas Breakspear School - Carterhatch Lane	1 service	No Services	No Services

Rail Services

2.6.2 Welham Green Railway Station is located approximately 4.5km east of the site. The station is managed by Great Northern Rail and lies on the East Coast Main Line. It has a car park for 35 spaces including 1 accessible space, 10 cycling spaces, ticket office and machines, customer help points and step free access.

2.6.3 A summary of the railway services and frequencies from Welham Green Railway Station are summarised in **Table 4** below.



Table 4 – Welham Green Railway Services and Frequencies

Destination	Average Journey Time (minutes)	Frequency		
		Monday - Friday	Saturday	Sunday
Welwyn Garden City	9	2-4	2	2
New Barnet	12	2-4	2	2
Moorgate	43	2-4	2	2

2.6.4 St Albans City Railway Station is located approximately 5.1km west of the site. The station is managed by Thames Link and lies on the Midland Main Line. It has a car park for 606 spaces including 4 accessible spaces, 1150 cycling spaces, ticket office and machines, customer help points, ATMs, toilets, waiting rooms, step free and ramp access.

2.6.5 A summary of the railway services and frequencies from St Albans City Rail Station are summarised in **Table 5** below.

Table 5 – St Albans City Railway Services and Frequencies

Destination	Average Journey Time (minutes)	Frequency		
		Monday - Friday	Saturday	Sunday
Luton	15	6	6	6
Bedford	39	4	4	4
St Pancras International	34	10	10	6-8
Rainham (Kent)	132	2	2	No Services
Sutton (London)	90	4	4	2
Gatwick Airport	86	4	4	4
Brighton	117	2	2	2

2.7 Local Amenities and Facilities

2.7.1 It is generally considered that for distances under 2km, walking offers the greatest potential to replace short car trips. For distances under 5km, cycling has the potential to substitute for short car trips.

2.7.2 Accessibility by foot to local amenities was determined by measuring the distances from the centre of the development site to the local amenity and then calculating the time it would take to walk that distance using an average walk speed of 1.4m/s. A similar



approach was taken with regard to cycle accessibility, using an average cycle speed of 4.2m/s.

Education

- 2.7.3 The nearest primary school is Colney Heath School and Nursery located west of the sites pedestrian access.
- 2.7.4 The nearest secondary school and sixth form is Nicholas Breakspear Catholic School located to the northwest of the site in St Albans. It is accessed via High Street and Colney Heath Road.
- 2.7.5 University of Hertfordshire is located within comfortable cycling distance of the site and is accessed via the A414 North Orbital Road.

Employment

- 2.7.6 The site is well located in respect of employment opportunities with two business estates located to the north and north-west of the site. These include Hatfield Business Park and Alban Park.

Retail and Leisure

- 2.7.7 The nearest convenience store is Colney Heath News which includes post office services and is located southeast of the site.
- 2.7.8 Colney Fields Shopping Park is located southwest of the site and includes a Marks & Spencer, Sainsbury's, Argos, Next, Boots and TK Maxx.

Health Practices

- 2.7.9 Colney Medical Centre is the nearest medical practice to the site and is located in London Colney. The nearest dental practice is Hilltop Dental Surgery located to the north-east of the site in South Hatfield.



2.8 Summary

2.8.1 **Table 6** summarises the local services, facilities and schools in the local area.

Table 6 – Summary of services and facilities and the walk and cycle times

Facility	Distance	Walk Time (1.4 m/s)	Cycle Time (4.2 m/s)
Colney Heath School and Nursery	90m	1 minute	<1 minute
Colney Heath News	550m	7 minutes	2 minutes
Nicholas Breakspear Catholic School	2.1km	25 minutes	8 minutes
University of Hertfordshire	2.4km	29 minutes	10 minutes
Hatfield Business Park	2.4km	29 minutes	10 minutes
Hilltop Dental Surgery	2.8km	33 minutes	11 minutes
Alban Park	3.0km	36 minutes	12 minutes
Colney Medical Centre	3.3km	39 minutes	13 minutes
Colney Fields Shopping Park	4.6km	55 minutes	18 minutes

2.9 **Table 6** shows that the development would be well served by existing local facilities and amenities.



3.0 DEVELOPMENT PROPOSALS

3.1 Overview

3.1.1 The development proposals comprise of a residential development of up to 45 dwellings.

3.2 Site Access

3.2.1 There is an existing access into the site that serves as an access to the primary school and football club. It is proposed to enhance the access by creating a bellmouth junction with a 5.5m wide road and 2.0m wide footways on both sides of the carriageway. The proposed site access is shown on **Drawing 23356-03b**. Visibility splays of 2.4m x 43m are achievable based on the 30mph posted speed limit.

3.3 Pedestrian Access

3.3.1 The site will be served by 2.0m wide footways connecting the site to High Street.

3.4 Car and Cycle Parking

3.4.1 Car and cycle parking would be provided in accordance with the local standards.



4.0 TRAFFIC GENERATION AND IMPACT

4.1 Traffic Generation

4.1.1 To assess the potential traffic movements of the unit the TRICS database was interrogated (TRICS 2021 v7.8.4 online) for ‘houses privately owned’, as this is considered a worst-case of traffic generation. This database contains surveys of the vehicle and multimodal trip generation of a wide variety of sites which are classified by land use and various other attributes.

4.1.2 The resulting TRICS outputs are attached at **Appendix D** and the trip rates and traffic generation is summarised in **Table 7** below.

Table 7 – Residential Trip Rates and Traffic Generation – 45 dwellings

Time Period	Trip Rates			Traffic Generation		
	In	Out	Total	In	Out	Total
08:00-09:00	0.133	0.383	0.516	6	17	23
17:00-18:00	0.352	0.153	0.505	16	7	23
12 Hour	2.32	2.35	4.67	104	106	210

4.1.3 It can be seen in **Table 7** that the development is forecast to generate 23 two-way trips during the morning and evening peak. Over a 12-hour period the site is forecast to generate 210 two-way trips.

4.2 Traffic Distribution

4.2.1 The residential development trip distribution has been based on the 2011 Census journey to work data for the Middle Super Output Area (MSOA) of St Albans 015.

4.2.2 A breakdown of trips from this output area to employment destinations is summarised in **Table 8** below and attached at **Appendix E**.



Table 8 – 2011 Census Journey to Work – St Albans 015

Destinations	Percentage
Barnet	3%
Camden	2%
City of London	5%
Dacorum	3%
East Hertfordshire	1%
Enfield	1%
Harrow	1%
Hertsmere	5%
Hillingdon	1%
Islington	2%
Luton	2%
North Hertfordshire	1%
Southwark	1%
St Albans	34%
Stevenage	1%
Three Rivers	2%
Tower Hamlets	2%
Watford	3%
Welwyn Hatfield	13%
Westminster	5%
Other	12%
Total	100%

4.2.3 The traffic has been assigned to the local road network using the most direct route (shortest journey time) informed by the Google journey planner. It is however noted that there are various alternative connecting roads that would likely be used by local traffic to avoid congestion issues.

4.2.4 The traffic has been distributed to the following routes set out in **Table 9**.

Table 9 – Traffic Distribution

Destination	Percentage	Trips AM Peak Two-Way	Trips PM Peak Two-Way
High Street North	79%	18	18
• A414 North Orbital Road North	32%	7	7
• A414 North Orbital Road South	47%	11	11
High Street South	21%	5	5

4.2.5 **Table 9** shows that the development is forecast to generate 18 two-way vehicle trips on the High Street North during the morning and evening peaks, and 5 two-way vehicles trips on the High Street South.



4.3 Traffic Impact

4.3.1 The impacts of the development proposals have been tested at the High Street/ A414 North Orbital Road junction. An assessment of the junction has been undertaken for the following scenarios:

- 2021 Base.
- 2026 Future Year.
- 2026 Future Year Plus Development.

4.3.2 The junction has been modelled using the following time period of AM Peak 07:45-08:45 and PM Peak 17:00-18:00 in line with the recorded peak periods from the traffic count survey.

4.3.3 A future year assessment of 2026 has been undertaken which is five years following submission of the planning application. Local TEMPRO growth factors have been used for St Albans 015. The factors for the AM and PM peak for principal roads in urban areas are set out in **Table 10** below.

Table 10 – TEMPRO Growth Rates – St Albans 015

2021-2026	AM Peak	PM Peak
Trunk Road	1.0177	1.0180

4.3.4 The High Street/ A414 North Orbital Road junction has been modelled in Linsig. The results of the junction modelling is summarised in **Table 11** below and the outputs are attached at **Appendix F**.



Table 11 – High Street/ A414 North Orbital Road Junction Modelling Results

Road Link	AM Peak		PM Peak	
	% Sat	MMQ	% Sat	MMQ
2021 Base				
A414 North Orbital Road (Northeast) Left Ahead	89.0%	27.2	82.8%	22.2
A414 North Orbital Road (Northeast) Ahead	84.1%	24.0	78.3%	20.8
High Street Right Left	93.5%	15.0	87.9%	9.9
A414 North Orbital Road (Southwest) Ahead	77.8%	21.0	69.3%	16.2
A414 North Orbital Road (Southwest) Ahead	78.6%	21.2	70.2%	16.5
2026 Base				
A414 North Orbital Road (Northeast) Left Ahead	91.1%	30.0	84.1%	23.7
A414 North Orbital Road (Northeast) Ahead	86.3%	26.0	79.9%	21.7
High Street Right Left	92.8%	14.5	89.2%	10.5
A414 North Orbital Road (Southwest) Ahead	79.8%	21.8	70.5%	16.8
A414 North Orbital Road (Southwest) Ahead	80.6%	22.0	71.5%	17.2
2026 Base Plus Development				
A414 North Orbital Road (Northeast) Left Ahead	93.0%	32.3	85.5%	24.8
A414 North Orbital Road (Northeast) Ahead	88.0%	27.5	81.0%	22.9
High Street Right Left	94.5%	16.4	89.9%	10.8
A414 North Orbital Road (Southwest) Ahead	81.4%	22.7	71.5%	17.2
A414 North Orbital Road (Southwest) Ahead	82.2%	23.2	72.5%	17.3

4.3.5 The results of the junction modelling have shown that the proposed development would have minimal impacts on the degree of saturation and queuing at the junction.



5.0 SUMMARY AND CONCLUSION

- 5.1 This Transport Statement considers the traffic impact of the development proposals for 45 dwellings on land off High Street, Colney Heath.
- 5.2 The site is in an accessible location and within easy walking distance of the primary school, convenience store and village hall. Employment areas at Alban Park are within 2km of the site. The nearest doctor's surgery, secondary school, dental practice and further employment are within 5km of the site. It is also located with close proximity to bus services and the strategic road network.
- 5.3 The development site will be accessed off High Street via an existing access to the school and football club. The access will be enhanced to facilitate the development proposals.
- 5.4 The traffic generation has been estimated and distributed onto the local network. It confirms the development would generate modest vehicular movements during the morning and evening peak. Nearby junctions have been modelled and are forecast to operate within capacity during the morning and evening peaks.
- 5.5 Parking on site will be provided in general accordance with parking standards set by the Local Authority.
- 5.6 Overall, the impact of the development will not have a significant impact on the operation of the local road network. The revised NPPF advises that development proposals should only be refused where the impact is severe. This is not the case here, indeed the proposals are considered to be fully compliant with current transport policies.