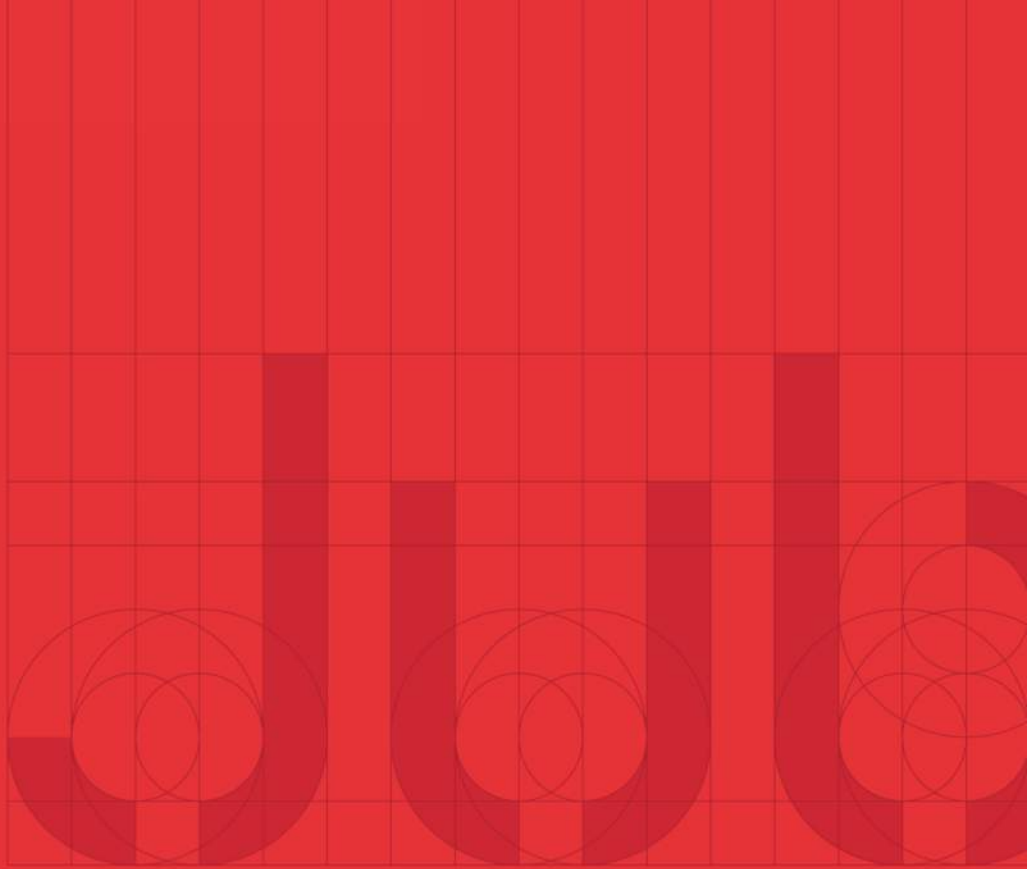




Land North of A507 and West of Buntingford

East Hertfordshire

Jubb

Contents

1	Project Information.....	3
1.1	Project Information.....	3
1.2	Project Details.....	3
1.3	Report Details	3
1.4	Project Authorisation.....	3
2	Introduction	4
2.1	Brief.....	4
2.2	Development Proposals	4
2.3	Scope of Report	5
3	Transport Planning Policy and Guidance	6
3.1	Introduction.....	6
3.2	National Planning Policy Framework (NPPF)	6
3.3	National Planning Practice Guidance (NPPG).....	7
3.4	Hertfordshire's Local Transport Plan 2018-2031.....	8
3.5	East Hertfordshire District Plan (2018)	8
3.6	Buntingford Community Area Neighbourhood Plan 2014-2031.....	10
3.7	Conclusion.....	10
4	Existing Conditions	12
4.1	Introduction.....	12
4.2	Site Location.....	12
4.3	Accessibility to Local Facilities and Services	14
4.4	Pedestrian Accessibility	16
4.5	Cycling Accessibility	17
4.6	Active Travel Improvements.....	18
4.7	Bus Accessibility	19
4.8	Local Highway Network.....	20
4.9	Review of Personal Injury Collision Data.....	21
4.10	Existing Traffic Data	23
5	Development Proposals	24
5.1	Introduction.....	24
5.2	Proposed Vehicular Access.....	26
5.3	Proposed Walking and Cycling Access	28
5.4	Public Transport Access	30
5.5	Mobility Hubs.....	30
5.6	Off-site Highway Works	31
5.7	Vehicle Parking Provision.....	34
5.8	Cycle Parking Provision	35

5.9	Conclusion	35
6	Development Trip Generation	37
6.1	Introduction	37
6.2	Development Multi-Modal Trip Rates and Generation	37
6.3	Adjustments to Residential Vehicle Trips	41
6.4	Adjustments to Other Land Uses Vehicle Trips	46
6.5	Forecast Residual External Traffic Generation	46
6.6	Adjustments to Trip Generation for Walking, Cycling and Public Transport	47
6.7	Vehicle Trip Distribution	48
7	Traffic Analysis	50
7.1	Introduction	50
7.2	Scope of Assessment	50
7.3	Assessment Scenarios	50
7.4	Analysis Period	50
7.5	Background Growth	50
7.6	Introduction to Junction Capacity Assessments	51
7.7	Junction Assessments	53
7.8	Summary	59
8	Summary and Conclusions	60
8.1	Summary	60
8.2	Existing Conditions	60
8.3	Preliminary Review on Highway Safety	60
8.4	Proposed Development	60
8.5	Traffic Generation, Distribution and Assignment	61
8.6	Impact on the Local Highway Network	62
8.7	Overall Conclusion	62
	Appendix A: Application Boundary Plan	63
	Appendix B: Traffic Survey Data	64
	Appendix C: Land Use Components Plan	65
	Appendix D: Proposed Site Access Layout	66
	Appendix E: Swept Path Analysis at Proposed Roundabout Junction	67
	Appendix F: Public Right of Way Improvement	68
	Appendix G: Proposed Off-Site Highway Improvements (Combined Residential and Employment Applications)	69
	Appendix H: Proposed Off-Site Highway Improvements (B1038 Baldock Road)	70
	Appendix I: Full TRICS Outputs	71
	Appendix J: National Travel Survey Data	72
	Appendix K: Vehicle Traffic Diagrams	73
	Appendix L: Modelling Outputs	74

1 Project Information

1.1 Project Information

Client Hallam Land Management

1.2 Project Details

Project Name Land North of A507 and West of Buntingford

Location Buntingford, East Hertfordshire

Jubb Project Number 23161

1.3 Report Details

Version 4

Status For Planning

Date May 2024

1.4 Project Authorisation

ISSUE HISTORY:

Version	Date	Detail
1	Feb 2024	Draft
2	Mar 2024	Final
3	Apr 2024	Final Revised
4	May 2024	For Planning

AUTHORISATION:

Prepared By	Approved By
R. Morant	J. Duffy
R. Morant	J. Duffy
R. Morant	J. Duffy
R. Morant	J. Duffy

2 Introduction

2.1 Brief

2.1.1 Jubb has been commissioned by Hallam Land Management to provide transport and highways advice in relation to a proposed residential led development on land to the west of Buntingford and within the District of East Hertfordshire.

2.1.2 It is understood, for a development of the scale that is envisaged at the site, that a comprehensive assessment of the potential impacts of the proposals is required. This is in line with Paragraph 117 of the National Planning Policy Framework (NPPF, 2023) which states:

"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."

2.1.3 This Transport Assessment (TA) has been prepared to provide support to an 'Outline planning application for development of up to 600 dwellings (C3), elderly accommodation (C3), Mixed Use Local Centre (including flexible use E, F and Sui Generis), First School, informal and formal open space, associated works and infrastructure including a new access from the A507 and pedestrian bridge over the A10, with all matters reserved save for access'.

2.1.4 This TA has outlined and assessed any transport issues in relation to the site and has considered the proposed development in context with regard to local and national planning policy. It has assessed the traffic generation of the development and potential impact on the surrounding transport network, with any required mitigation measures outlined, which will ensure highly sustainable credentials for the residents, employees and visitors associated with the development.

2.1.5 A sustainability review of the site has also been undertaken with regard to access by non-car modes of transportation including walking, cycling, and public transport.

2.1.6 A framework Travel Plan (TP) has also been prepared in support of the proposed residential development and should be read in conjunction with this TA.

2.1.7 A second planning application has been proposed to the south of the A507 Baldock Road. This is proposed as employment land and a solar farm element, which whilst capable of being delivered independently, can complement the extensive sustainable measures proposed as part of this application. It is however noted that each proposal has been designed to also be deliverable as an appropriate development both individually and in combination.

2.2 Development Proposals

2.2.1 The proposed development is for up to 600 dwellings (C3), elderly accommodation (C3), Mixed Use Local Centre (including flexible use E, F and Sui Generis), First School, informal and formal open space, associated works and infrastructure including a new access from the A507 and pedestrian bridge over the A10, with associated works and infrastructure. The application will also include provision for affordable housing in accordance with the Adopted Local Plan.

2.2.2 The proposals include two main vehicular access points to the site accessed off the A507 Baldock Road on the southern boundary, and off Throcking Lane on the northern boundary, and which have been designed in accordance with relevant local and national standards.

- 2.2.3 The layout design for the site is a reserved matter, although the approach taken in developing this layout will serve to maximise movement via active modes of travel. The inclusion and proximity of high-quality pedestrian and cycle routes to the development will play an important role in connecting the development to the surroundings.

2.3 Scope of Report

- 2.3.1 The structure of this TA is as follows:

- **Section 3:** Considers the development in the context of relevant national and local planning and transport policies and guidance.
- **Section 4:** Examines the local transport conditions in the vicinity of the site and the accessibility by non-car modes of travel.
- **Section 5:** Provides a detailed description of the development proposals and access strategy.
- **Section 6:** Quantifies the trip generation and impact of the development proposals in the study area.
- **Section 7:** Sets out the Traffic Analysis undertaken to assess the capacity of the junctions within the study area to accommodate the proposed development.
- **Section 8:** Provides a summary and conclusions of the Transport Assessment.

3 Transport Planning Policy and Guidance

3.1 Introduction

- 3.1.1 This section of the TA provides a review of the existing and emerging planning and transport policies relevant to the proposed development at the national, regional and local level.
- 3.1.2 The following documents set out the relevant policy framework that guides the transport strategy for the proposed residential led development in Buntingford:
- National Planning Policy Framework (2023);
 - National Planning Practice Guidance (first published in 2014);
 - Hertfordshire's Local Transport Plan 2018-2031;
 - East Hertfordshire District Plan (2018); and
 - Buntingford Community Area Neighbourhood Plan 2014-2031.
- 3.1.3 The development proposals have been prepared with due consideration for this planning policy framework, appropriate to the level of the application.

National Planning Policy

3.2 National Planning Policy Framework (NPPF)

- 3.2.1 The National Planning Policy Framework (NPPF) sets out the central government's planning policies for England and how these are expected to be applied at a local level. It provides a framework within which locally prepared plans for housing and other development are produced. Originally published in March 2012, the NPPF has had numerous revisions, with the most recent being (at the time of writing) in December 2023.
- 3.2.2 In terms of transport, planning states that:
- "Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes".*
- 3.2.3 In relation to 'Considering Development Proposals', paragraph 114 requires determining authorities to ensure that:
- *"...appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - *safe and suitable access to the site can be achieved for all users;*
 - *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
 - *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*
- 3.2.4 Paragraph 116 states that development should:
- *"...give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public*

transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

- *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

3.2.5 Paragraph 115 states that:

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

3.2.6 Paragraph 117 states that all development expected to generate significant amounts of movements should be required to provide a Travel Plan and the planning application should be supported by a Transport Assessment or Transport Statement.

3.2.7 The proposed access arrangements will integrate with off-site provision to facilitate take-up of sustainable modes and will ensure that safe and suitable access can be achieved for all future users. The TA demonstrates that the transport impact of the scheme will not be 'severe' under the terms set out in the NPPF.

3.3 National Planning Practice Guidance (NPPG)

3.3.1 The NPPF is supplemented by the NPPG in relation to the preparation of TAs, Transport Statements (TS) and TPs. The guidance states that these are required for all developments that generate significant amounts of movements, and that the development of these is an iterative process, as each may influence the other.

3.3.2 The guidance states that producing these documents provides a means to assess, and mitigate, the negative transport impacts of development; in this way, sustainable development can be achieved. The guidance sets out that whilst TPs promote the implementation of sustainable travel into the planning process, TAs / TSs assess the potential transport implications of developments and propose mitigation measures where these are necessary to avoid unacceptable or 'severe' impacts.

3.3.3 Hence, the NPPG refers to the need to reduce adverse impacts on climate change from new developments. Climate change is one of the core land use planning principles and the NPPG states that:

"...the distribution and design of new development and the potential for servicing sites through sustainable transport solutions, are particularly important considerations that affect transport emissions."

3.3.4 The NPPG states that a well-designed space promotes ease of movement, and that this will need to show the ability to move safely, conveniently and efficiently to and within a place.

County Council Policy

3.4 Hertfordshire's Local Transport Plan 2018-2031

- 3.4.1 The Local Transport Plan (LTP4) for Hertfordshire covers the period up to 2031 and looks to provide a transition from a car dominant transport strategy to a higher focus on sustainable modes of transport. The Plan, however, looks ahead to 2050 and sets out how transport can help deliver a positive future vision of Hertfordshire.
- 3.4.2 It is considered that transport has a major input into wider policies such as economic growth, meeting housing needs, improving public health, and reducing environmental damage.
- 3.4.3 One of the main objectives of LTP4 is the reduction in travel demand and change in travel behaviour, the need to travel and the improvement of conditions for vulnerable road users and sustainable modes such as walking, cycling and passenger transport. In this sense, the Plan provides a transition from the previous transport strategy that was largely car based to a more balanced approach catering for all forms of transport and promoting a change from the private car to more sustainable modes of transport wherever possible.
- 3.4.4 Policy 1 'Transport User Hierarchy' states that:
- "To support the creation of built environments that encourage greater and safer use of sustainable transport modes, the county council will in the design of any scheme and development of any transport strategy consider in the following order:*
- a) Opportunities to reduce travel demand and the need to travel;
- b) Vulnerable road user needs (such as pedestrians and cyclists);
- c) Passenger transport user needs;
- d) Powered two wheeler (mopeds and motorbikes) user needs; and
- e) Other motor vehicle user needs
- 3.4.5 Policy 5 'Development Management' states that the location and design of development proposals should encourage movement by sustainable transport modes and reduced travel demand; and that it should also ensure access arrangements are safe, suitable for all people and built to an adequate standard.

District Council Policy

3.5 East Hertfordshire District Plan (2018)

- 3.5.1 The East Hertfordshire District Plan was adopted by the Council in October 2018 and sets out the Council's planning framework for the district for the period 2011-2033.
- 3.5.2 The document identifies key issues and challenges facing the district, with the following referring to transport:

"The District is predominantly rural with a dispersed population which creates challenges in providing a comprehensive public transport network. Many local communities are reliant on the

private car as their only transport option. This impacts on carbon dioxide emissions, air quality, noise, public safety and the quality of the environment in towns and villages. The challenge is to ensure that development is directed to sustainable locations, to reduce the need to travel and, where journeys need to be made, the distance of those trips. Sustainable modes of transport are also encouraged to both reduce reliance on the car and promote healthier lifestyles."

3.5.3 One of the strategic objectives from the Local Plan refers to the improvement of: "*access opportunities, minimise the need to travel, and encourage necessary journeys to be made by sustainable means to ease congestion and help reduce East Herts' carbon footprint*".

3.5.4 There are 3 policies that the District Plan refers to:

3.5.5 Policy TRA1 'Sustainable Transport' states that, in order to achieve accessibility improvements and promote sustainable transport, development proposals should:

- be located in places which enable sustainable journeys to be made to key services and facilities;
- where relevant, take account of the provisions of the Local Transport Plan;
- ensure the availability of transport options to occupants or users;
- prioritise the provision of modes of transport other than the car at the site layouts;
- for major schemes, allow for the early implementation of sustainable travel infrastructure or initiatives;
- protect existing rights of way, cycling and equestrian routes; and
- ensure provision for the long-term maintenance of any of the above measures.

3.5.6 Policy TRA2: 'Safe and Suitable Highway Access Arrangements and Mitigation' states that:

"Development proposals should ensure that safe and suitable access can be achieved for all users. Site layouts, access proposals and any measures designed to mitigate trip generation produced by the development should:

(a) Be acceptable in highway safety terms;

(b) Not result in any severe residual cumulative impact; and

(c) Not have a significant detrimental effect on the character of the local environment."

3.5.7 Finally, Policy TRA3 'Vehicle Parking Provision' states the following:

- I. Vehicle parking provision to be assessed on a site-specific basis taking into account the provisions of the adopted SPD document 'Vehicle Parking Provision at New Development'.
- II. Provision of sufficient secure, covered and waterproof cycle and, where appropriate, powered two-wheeler storage facilities for users of developments to be determined on a site-specific basis.
- III. Car parking to be integrated as a key element of design in development layouts to ensure good quality, safe, secure and attractive environments.
- IV. Assess whether a private car park for non-domestic use being proposed, should also be available for shared public use having particular regard to the needs of the primary user.
- V. For proposals involving major developments, provision should be made for charging points for low and zero carbon vehicles, to be assessed on a site-specific basis.

3.5.8 The proposed development will promote the use of alternative modes of transport to the private car and extensive pedestrian, cycling and public transport improvements are proposed as part of the scheme. The TA provides a robust assessment of the proposed development on the main public highway network

affected by the scheme. Finally, the proposed parking for the development will accord with local standards in agreement with the LHA.

3.6 Buntingford Community Area Neighbourhood Plan 2014-2031

3.6.1 The Neighbourhood Plan for Buntingford provides a vision for the future of the BCA and sets out clear policies and objectives to realise this vision. The Neighbourhood Plan must be in general conformity with the strategic policies contained in the development plan.

3.6.2 Some of the main aims of the Neighbourhood Plan are relevant to the proposed development and include:

- Seek to reduce traffic and parking impacts from development and encourage sustainable transport, especially bus services, cycle routes and footpaths.
- Support opportunities for increased employment both within Buntingford Town and the five other parishes and ensure adequate places for children to attend local schools.
- Meet the need for new housing for the Buntingford Community Area including an appropriate contribution to the housing needs for East Hertfordshire District by providing a mix of housing that reflects identified need and respects and reinforces the character of its setting.
- Make the most of the BCA's rural aspect by protecting views, providing good access, enhancing facilities and enhancing and maintaining biodiversity.
- Foster and promote a thriving healthy community with plentiful opportunities for education, training and employment for people young and old.

3.6.3 The transport objectives of the Neighbourhood Plan are mostly focused on the provision of modes of transport that provide alternatives to the use of the private car and reduce the reliance and impact of car travel.

3.6.4 Regarding the Transport Policies included within the Neighbourhood Plan:

- Policy T1: The proposed parking will be agreed with the LHA, ensuring that there is sufficient parking for residents without resulting in an overprovision that could encourage the unnecessary use of the private car.
- Policy T2: Parking will be designed appropriately and in compliance with the relevant standards.
- Policy T3: Existing rights of way will be protected and improved as part of the proposed scheme where feasible and appropriate.
- Policy T4: The proposed development will provide high-quality connections to the existing pedestrian, cycle and PRow network that will facilitate access to and from Buntingford.
- Policy T5: The proposed development will not result in the loss of existing public parking provision.
- Policy T6: The proposed development comprises the potential extension of regular bus services that also serve Buntingford Town Centre. The proposals also include the provision of new bus stops.

3.7 Conclusion

3.7.1 It is clear from this review that the proposed residential led development to the west of Buntingford is compliant with the overarching national policy framework and local transportation policies in that the site is located within a sustainable location with the potential to promote the use of more sustainable modes of transport.

- 3.7.2 **Section 5** of this Transport Assessment shows that the proposed scheme can be adequately accommodated within the existing highway network with the proposed access strategy, which has been designed in accordance with current design guidelines and standards.

4 Existing Conditions

4.1 Introduction

- 4.1.1 This section provides a description of the site location and examines the level of accessibility to and from the site for all modes. The accessibility audit is in keeping with current national, regional and local planning policies which highlight the importance of integrating land-use, transport and planning decisions to address the needs of both present and future communities to create developments with good access to local infrastructure.
- 4.1.2 This section also includes a review of access to local facilities and amenities, a study of the existing local highway network and traffic conditions along with a preliminary study of collision data and a review of traffic data collected for the purposes of the TA.
- 4.1.3 The sustainability of the site is considered regarding the provision of alternative modes of transport to the car, including walking, cycling and public transport.

4.2 Site Location

- 4.2.1 The site as proposed development is located to the west of Buntingford, East Hertfordshire. The site is bounded by the A10 to the east, the A507 Baldock Road to the south and by open land to the west and north. An 'Application Boundary Plan', prepared by David Lock Associates, is shown in **Figure 4.1**. This is also included as **Appendix A** to this TA.
- 4.2.2 The A507 Baldock Road bounds the site to the south and is the main distributor road providing access to Buntingford from the west. The A507 runs on an east-west alignment providing access to Baldock, Shefford and up to the M1 at Ridgmont Interchange. To the east, the A507 finishes at the Baldock Road Roundabout junction with the A10. The B1038 Baldock Road keeps running on an eastbound direction towards the town centre.
- 4.2.3 Throcking Lane is a local road that bounds the site to the north and connects Throcking (to the west) with the A10 (to the east).

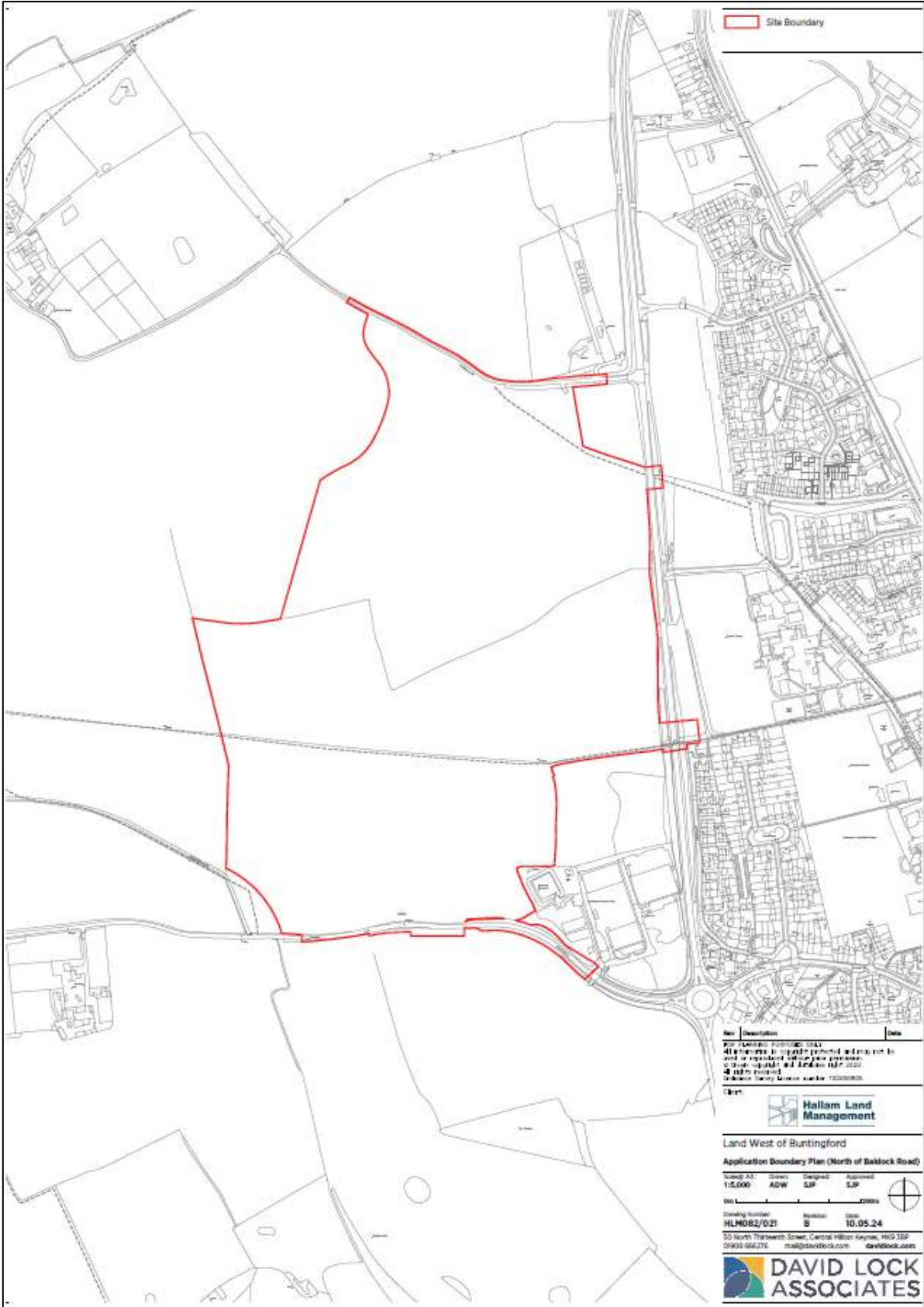


Figure 4.1 – Application Boundary Plan

4.3 Accessibility to Local Facilities and Services

4.3.1 This section provides a comprehensive review of the sustainability credentials of the site, encompassing a review of accessibility to existing services and facilities as well as opportunities for trips to and from the site to be made by sustainable modes.

4.3.1 The site is located in close proximity to a selection of the existing local facilities and services both within and surrounding the town centre. **Figure 4.2** presents a non-exhaustive overview of the range of facilities and services that are located within 2km from the site, reflecting the distance identified in Manual for Streets, which is referred to as "(...) walking offers the greatest potential to replace short car trips, particularly those under 2 km (...)" in paragraph 4.4.1.

4.3.2 **Figure 4.2** also demonstrates that, while most or all of the local facilities and services are located well within 2km from the site, there are several local facilities located within close proximity and which include the MFG Howegreen grocery store, a Costa Coffee, a Greggs bakery, a car dealership, petrol station, several EV charging spaces, the veterinary surgery accessed off the B1038 Baldock Road, and the Norfolk Road Playing Field on Bowling Green Lane that bounds Freman College to the south.

4.3.3 It is worth noting that these distances are taken from the centre of the site. Due to the size of the application site, a significant percentage of the distance within the 2km isochrone is included within the application site. In reality, the facilities shown in **Figure 4.2** are within close proximity to the application boundary.

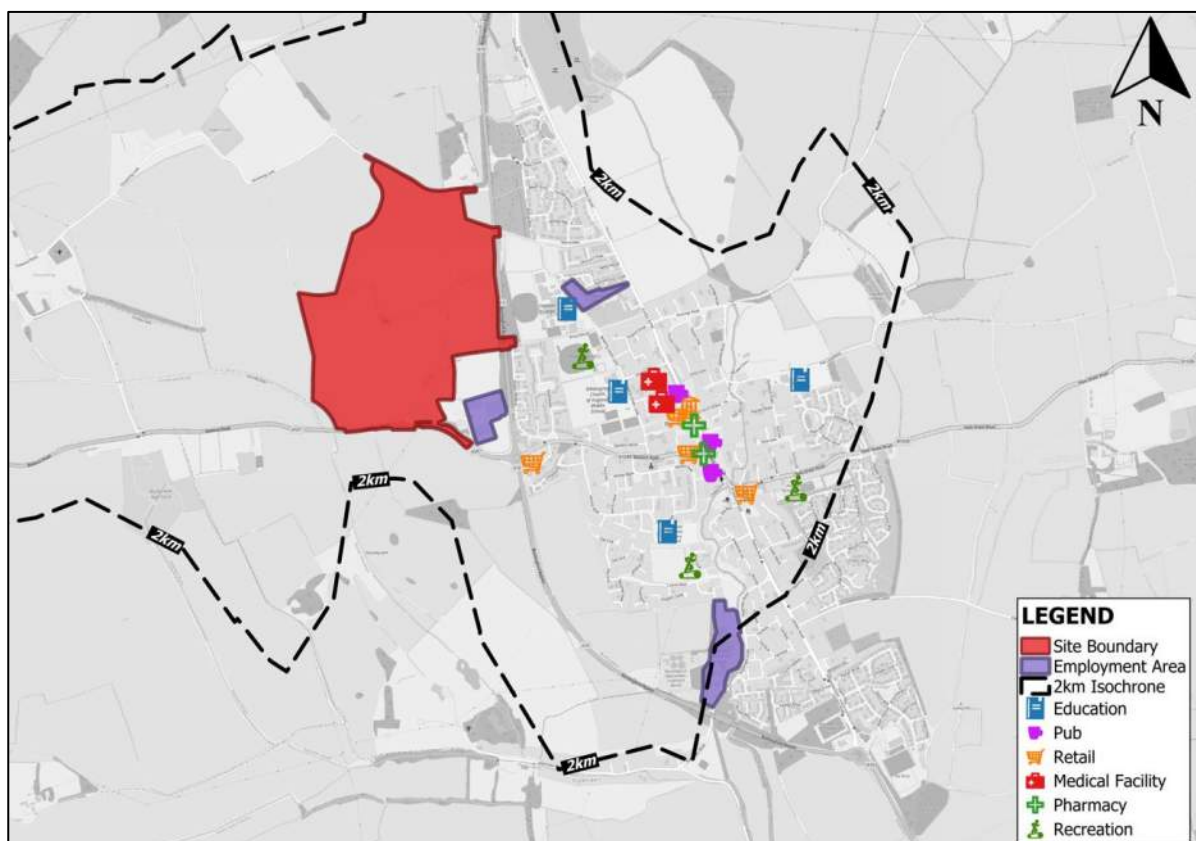


Figure 4.2 – 2km Isochrones with Existing Services and Facilities

4.3.4 **Table 4.1** summarises the walking distance from the centre of the site to these provisions and follow the existing walking routes.

- 4.3.5 Also included in the table are the estimated walking journey times calculated using a walking speed of 1.4 meters per second (abstracted from Institution of Highways and Transportation's [IHT] *Guidelines for Providing for Journeys on Foot*, 2000), and a cycling speed of 4 metres per second.

Service / Facility	Location		Distance (m)		
				Time (min)	Time (min)
Employment					
Buntingford Business Park	A507 Baldock Road	SG9 9ER	700	9	3
Park Farm Industrial Estate	Ermine St, Buntingford	SG9 9AZ	1050	13	4
Watermill Industrial Estate	The Firs	SG9 9JS	2200	28	9
Retail					
MFG Howegreen	A10, Buntingford	SG9 9EG	1000	13	4
Sainsbury's Local	65-67 High St	SG9 9AE	1450	18	6
McColl's	Baldock Rd	SG9 9BL	1600	20	7
Co-op Food	Station Rd	SG9 9HT	1900	24	8
Education					
Freman College	The Causeway	SG9 9BT	1000	13	4
Edwinstree Middle School	Norfolk Rd	SG9 9AW	1050	13	4
Millfield Primary and Nursery School	Monks Walk	SG9 9DT	1700	21	7
Layston Primary School	The Causeway	SG9 9EU	1900	24	8
Public House					
The Falcon Buntingford	69 High St	SG9 9AE	1450	18	6
Black Bull	16 High St	SG9 9AG	1700	21	7
The Crown	17 High St	SG9 9AB	1800	23	8
Medical Facility					
Buntingford Medical Centre	White Hart Cl	SG9 9DQ	1350	17	6
Dr M Partington - The Medical Centre	The White Hart Cl	SG9 9DQ	1350	17	6
Dr NSP Handysides - Orchard Surgery	Baldock Rd	SG9 9DL	1400	18	6
Buntingford Dental Clinic	23 High St	SG9 9AB	1700	21	7
Pharmacy					
K & M Shah Chemist	55 High St	SG9 9AD	1550	19	6
Lloyds Pharmacy	29 High St	SG9 9AB	1700	21	7
Leisure					
Norfolk Road Playing Field	Bowling Green Lane	SG9 9BT	1000	13	4
Seth Ward Community Centre	Monks Walk	SG9 9DT	1700	21	7
Hare Street Road Recreation Ground	Station Rd	SG9 9HT	1900	24	8

Table 4.1: Distances to Services and Facilities

- 4.3.6 As shown in **Table 4.1** above, the whole of the town lies within a 2km walk of the site. As a result, the nearest education, health, employment, retail and leisure facilities can be reached within a 20-minute walk of the site. Many of these destinations are required on a day-to-day basis, notably the education and retail facilities, and as such walking offers an alternative to the use of the car for journeys to these locations.
- 4.3.7 Given this assessment it is reasonable to conclude that the site presents the opportunity for the creation of a sustainable development, being well-related to the existing town of Buntingford and the amenities located within, and as a result there will by no means be a reliance on the use of the private car for day-to-day trips to these destinations. It is considered that the information contained within this TA demonstrates that the site presents the opportunity for the creation of a sustainable development.

4.4 Pedestrian Accessibility

- 4.4.1 There is a shared cycle-footway that connects Buntingford to Buntingford Business Park with a crossing on the A10 and which runs on the northern side of the A507 Baldock Road. This 3m wide shared cycle-footway provides dropped kerbs and tactile paving on the crossing of the A10 and the splitter island of the Baldock Road Roundabout operates as a pedestrian/cycle refuge.
- 4.4.2 In addition to these, a number of Public Rights of Ways are located within 2km of the site, of which Cottered Footpath 040 and Cottered Footpath 041 cross the site and provide connections to Buntingford. **Figure 4.3** shows a plan of the footpaths and bridleways within the vicinity of the site along with pedestrian facilities including crossing facilities.

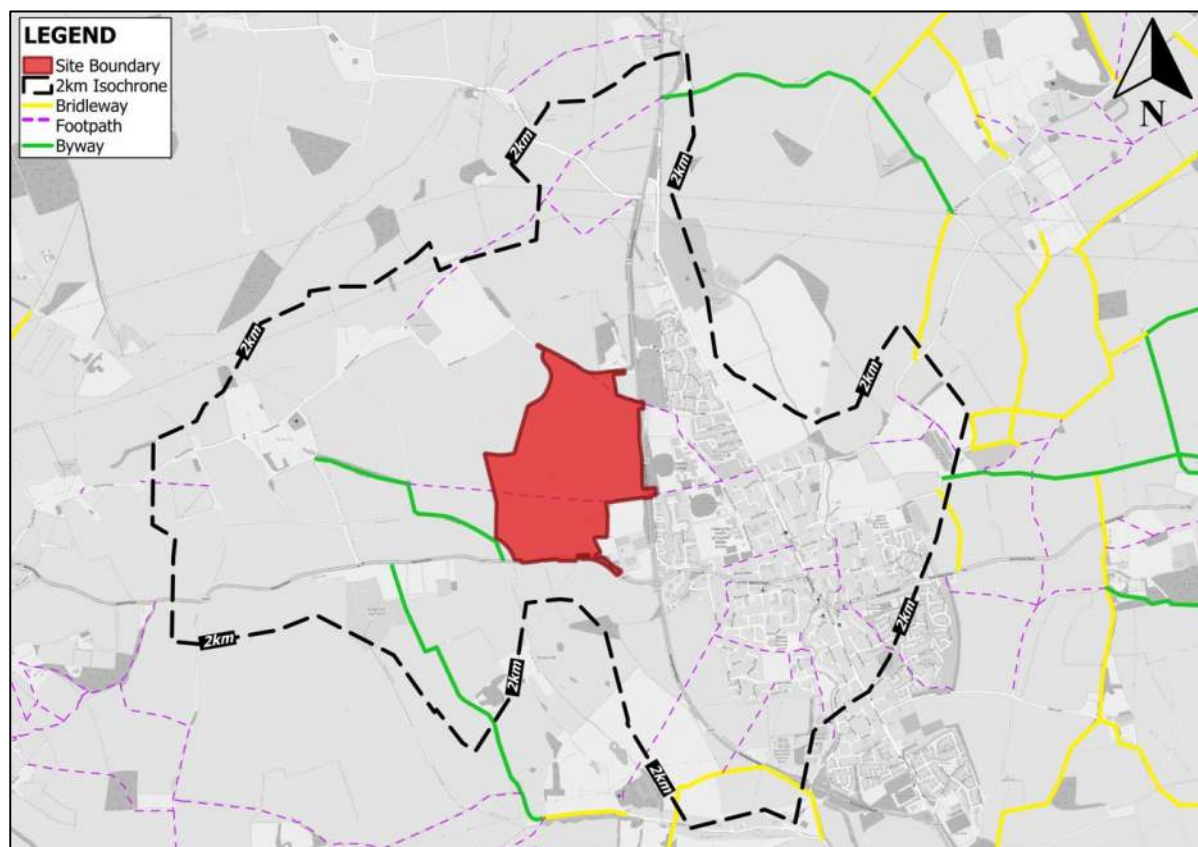


Figure 4.3 – Public Rights of Way within 2kms from the Site

- 4.4.3 As shown in **Figure 4.3**, there is a well-established network of Public Rights of Ways (PRoWs) surrounding the area of Buntingford which could be used for leisure walks, while Footpaths 40 and 41 provide direct connections to Buntingford.
- 4.4.4 Furthermore, as part of the development proposals for the site, additional facilities are also proposed, including a Local Centre with retail and First School. It is anticipated that these facilities would serve the future residents of the site, as well as existing residents of Buntingford, and would reduce the volume of vehicle traffic in and out of the site.

4.5 Cycling Accessibility

- 4.5.1 Cycling is recognised as one of the most sustainable modes of transport, with it generally acknowledged as having the potential to replace car trips for journeys up to 5km. This is supported by Manual for Streets 2 (MfS2), which clearly identifies the contribution that cycling can make to transport sustainability and accessibility, identifying this mode of travel as a good substitute for short car trips, particularly those under 5km.
- 4.5.2 As discussed in **Section 4.4**, a shared cycle-footway measuring approximately 3m in width is provided on the northern boundary of the A507 Baldock Road and connects the Buntingford Business Park with Buntingford. Towards the town centre, once the cyclists have crossed the A10, the shared cycle-footway continues for approximately 50m before rejoining the B1038 Baldock Road carriageway. **Figure 4.4** shows the route of this shared cycle-footway.
- 4.5.3 Cycling improvements are taking place in Buntingford. **Figure 4.4** shows an additional shared cycle-footway that Hertfordshire County Council (HCC) have provided along London Road as part of Active Travel England's funding for improving active travel connections in the County (further discussed in the following **Section 4.6**).
- 4.5.4 Furthermore, the Buntingford local highway network is comprised of residential streets with 30mph vehicle speed limits and surrounded by quiet country roads and lanes which are considered safe for cycling.

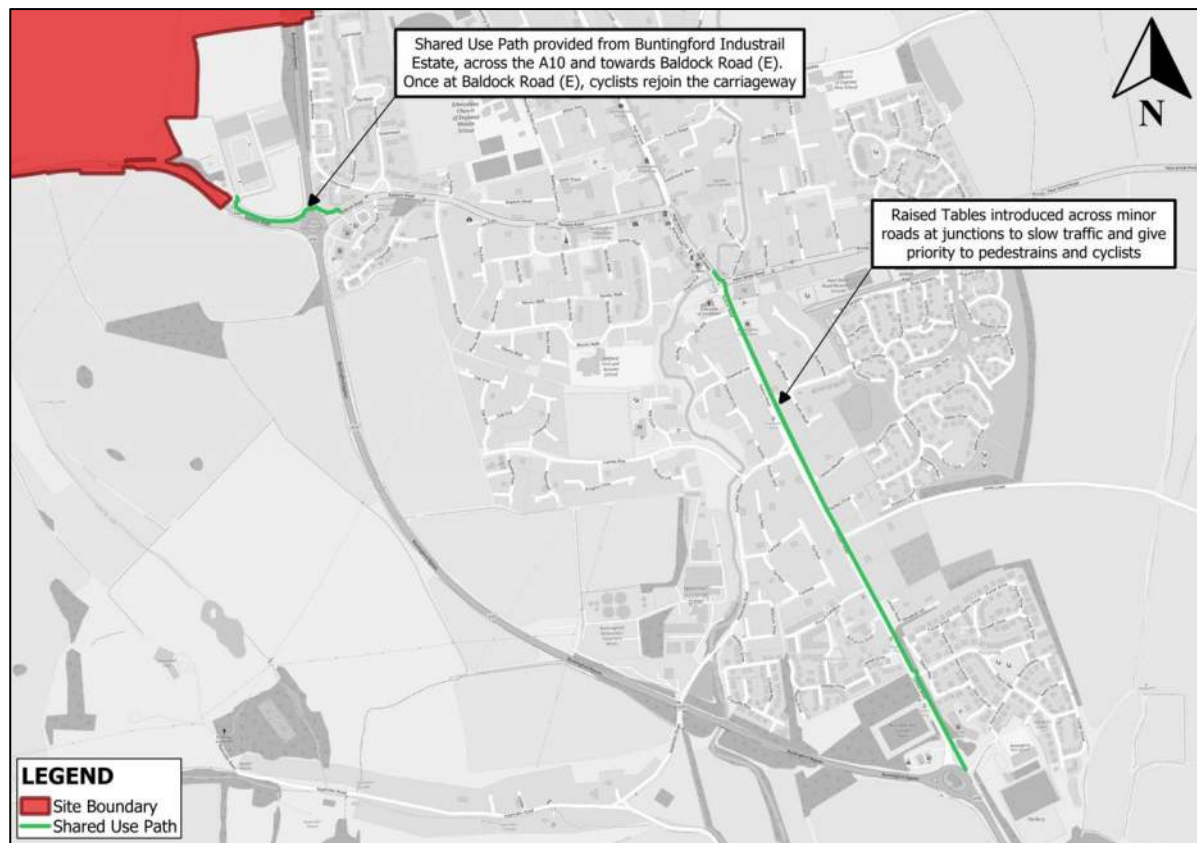


Figure 4.4 – Existing Local Cycle Network

- 4.5.5 Whilst there are no National Cycle Routes within the area, almost all of Buntingford falls within 2km of the site (**Figure 4.2**), with the remaining areas and some neighbouring settlements including Cottered, Westmill and Buckland falling within 5km of the site (21-minute cycle).
- 4.5.6 As discussed, this distance is widely recognised as a reasonable cycling distance and therefore facilities, services, and employment opportunities within these villages lie within a reasonable cycling distance of the site.
- 4.5.7 It can therefore be concluded that the local facilities are situated within a reasonable cycling distance to the site resulting in a lesser use of local trips made by vehicles.
- 4.5.8 As part of the scheme, it is also proposed to extend the existing shared cycle-footway available along the A507 Baldock Road to serve the site. It is therefore expected that the existing accessibility for cyclists will be improved as this scheme is progressed.

4.6 Active Travel Improvements

- 4.6.1 Since November 2020, Active Travel England's active travel fund awarded HCC funds to improve the active travel connections around the County making it easier and safer to walk and cycle thus improving the health, air quality, road safety, the local economy and traffic congestion within Hertfordshire.
- 4.6.2 Within Buntingford, improvements along London Road started in October 2022. These improvements include:
- The provision of a shared use path for walking and cycling along the eastern side of London Road/ Station Road/ High Street;

- Provision of raised tables installed across minor roads at junctions to slow traffic approaching London Road and give priority to pedestrians and cyclists;
- Provision of a new raised Zebra crossing at Hare Street;
- Provision of five additional raised crossing points along London Road to better connect the neighbourhoods on either side of the main road;
- Provision of five additional parking spaces opposite Downhall Ley;
- Introduction of a 30mph speed limit along the entirety of London Road;
- Realignment of the Aspenden Road junction by narrowing the carriageway and modifying the central island to improve the pedestrian crossing experience;
- Provision of a pair of bus stops to both sides of the road near the A10 roundabout along with a new footway along the western side of the road and a zebra crossing. These facilities will serve a new first school development close to the roundabout.

4.7 Bus Accessibility

- 4.7.1 The site is located in close proximity to the routes of the existing bus services that pass through Buntingford, and as a result the site is well-placed to access these existing bus services for day-to-day journeys to and from the site.
- 4.7.2 **Figure 4.5** identifies the location of the bus routes within close proximity to the application site and which also travel through Buntingford.

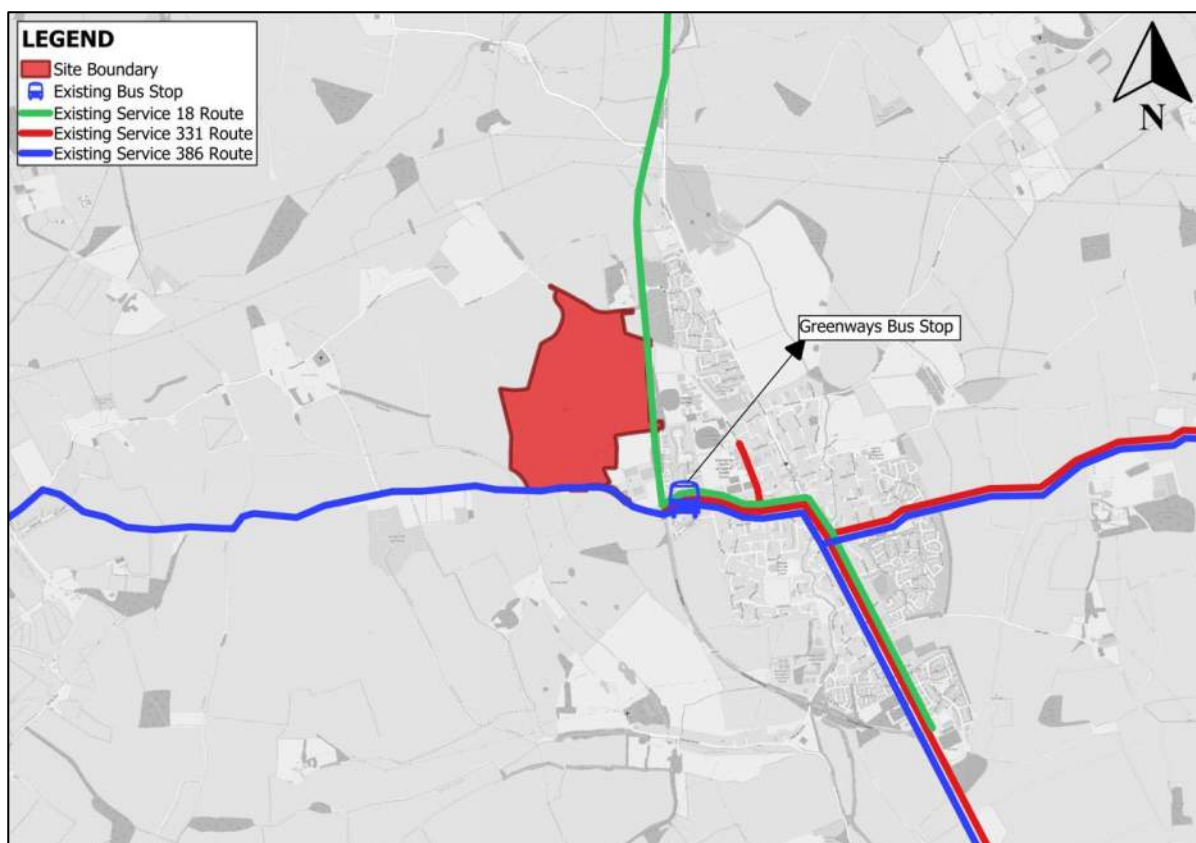


Figure 4.5 – Existing Bus Routes

- 4.7.3 As **Figure 4.5** illustrates, the closest pair of bus stops, named 'Greenway', are located on the B1038 Baldock Road and well within walking distance from the centre of the site.

- 4.7.4 Three regular bus routes (their routing has been identified in **Figure 4.5**) serve the 'Greenway' bus stops and an initial review of existing bus services has been carried out and is provided in **Table 4.2**.

Service	Route	Operating Days	Operator	Approximate Frequency
18	Royston Sassoon Drive (W) - Buntingford London Rd opp Kingfisher Park	Monday - Saturday	Richmond's Coaches	Every 2 hours
331	Hertford - Buntingford	Monday - Saturday	Arriva Hert and Essex	Hourly
386	Bishops Stortford - Stevenage	Monday - Saturday	Central Connect	Five times a day

Table 4.2 - Summary of Bus Services

- 4.7.5 There are additional services provided on Bowling Green with two additional bus services operating on schooldays only with one daily service on each direction to serve students on their daily education trips.
- 4.7.6 It is evident from the above review that Buntingford is connected to nearby towns in the surrounding area including Hertford, Royston and Letchworth via public transport. As a result, there is an opportunity to encourage the use of the existing bus services for day-to-day journeys to and from the site.
- 4.7.7 It can therefore be concluded that there is a regular bus service provision accessible from the site within the recommended walking distance to a bus stop (community facility) of 800m as set out in Manual for Streets (MfS). The proposed scheme also proposes improvements in this regard to encourage and facilitate the use of bus services.

4.8 Local Highway Network

- 4.8.1 The A507 Baldock Road is a two-way principal road that bounds the application site to the south, and which connects the A10 with the towns of Baldock, Hitchin, Letchworth and Stevenage. It has the national speed limit by the section bounding the site.
- 4.8.2 Throcking Lane is a single carriageway two-way road subject to national speed limit that bounds the application site to the north and has a priority junction with the A10. From this junction, it runs on a westbound direction providing access to the residential settlement of Throcking and follows on to Cottered with a priority junction with the A507 Baldock Road.
- 4.8.3 The A10 is a single carriageway two-way road subject to national speed limit that bounds the application site to the east. This runs northbound to Cambridge via Royston and southbound to London passing by within close proximity to Hertford and Ware.
- 4.8.4 Ermine Street provides an access to Buntingford from the A10 to Buntingford town centre. This is a two-way single-carriageway road that is subject to national speed limit up to the junction Hummerston Close and 30mph further south.
- 4.8.5 High Street starts from the mini-roundabout with Ermine Street to the north and runs on a southbound direction and up to the mini-roundabout with Hare Street. High Street crosses the town centre and has a number of traffic calming features to encourage drivers to keep low vehicle speed limits.

- 4.8.6 High Street meets the B1038 Baldock Road at a priority junction. Baldock Road provides access to the A10 from the town centre on a westbound direction. It has a 30mph vehicle speed limit up to the junction with Greenways and has a national speed limit further west.

4.9 Review of Personal Injury Collision Data

- 4.9.1 An assessment of Personal Injury Collision (PIC) data has been undertaken for the local highway network for a study area surrounding the application site. PIC collision data has been assessed for a five-year period comprising from the 1st of January 2018 to the 31st of December 2022, extracted from the DfT's THINK Map website, which is based on real incident data from the Department for Transport. The study area is shown in **Figure 4.6** along with the recorded results. This has investigated the location and nature of PIC data in the following study area:

- A10, between the junction with Ermine Street to the junction with London Road to the south;
- Throcking Lane, between the settlement of Throcking to the west and the junction with the A10 to the east;
- A507 Baldock Road, between the access road to Throcking to the west and the roundabout junction with the A10 to the east;
- B1038 Baldock Road; and
- B1038 High Street.

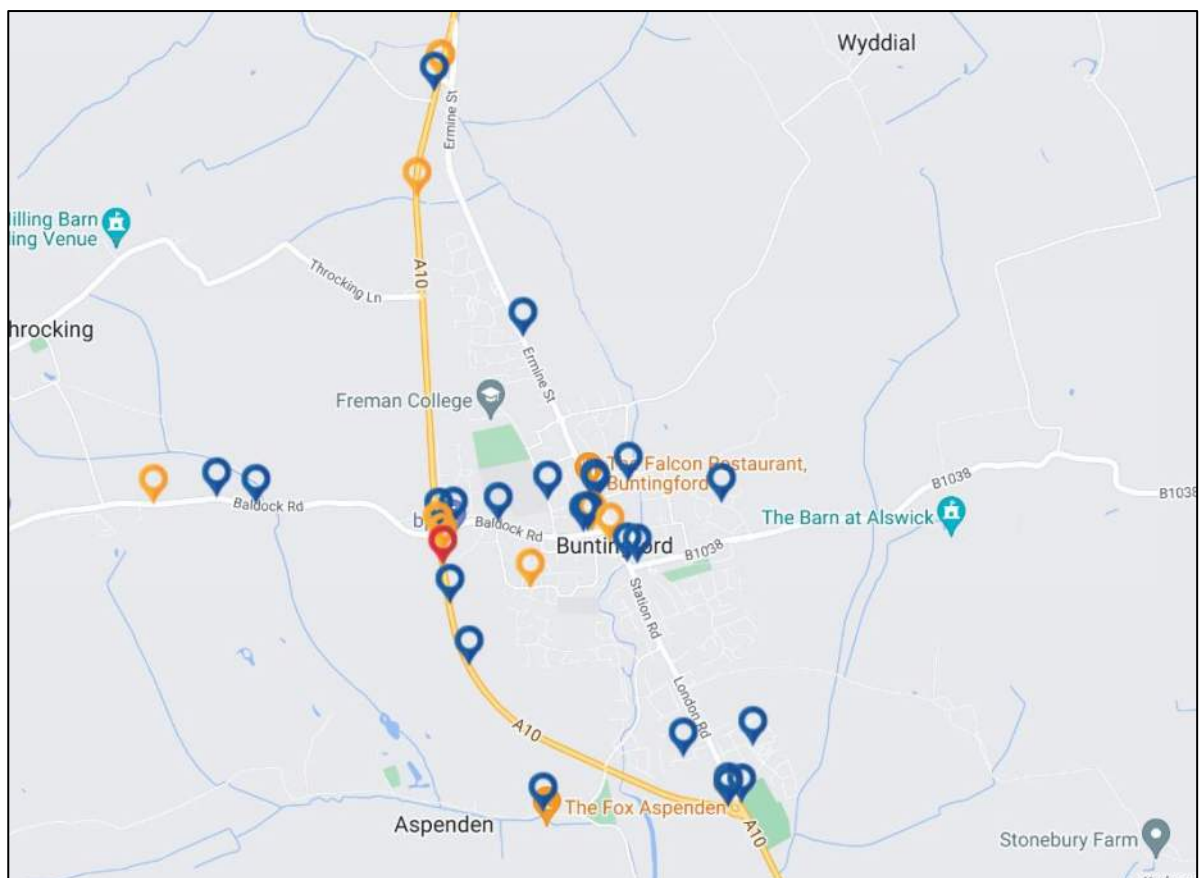


Figure 4.6: PIC Collision Map

4.9.2 **Table 4.3** shows a summary of the PIC collisions per year on the study area.

Year / Severity	Slight	Severe	Fatal	Total
2018	4	4	0	8
2019	2	0	0	2
2020	1	2	0	3
2021	4	2	0	6
2022	4	1	1	6

Table 4.3 – PIC Collision Results

- 4.9.3 The number of collisions is relatively low on such a wide study area, and which include sections of the A10 and the A507 Baldock Road.
- 4.9.4 The total number of PIC collisions was 25 during the 5-year period, which translates to an average of just 5 PIC collisions per year.
- 4.9.5 In terms of PIC collision clusters, it is worth noting that only the A10 roundabout junction with London Road has got 5 PIC collisions during the 5-year period with an average of 1 single collision per year. However, three of them took place in 2018 and there have only been two additional slight collisions from 2019 to 2021.
- 4.9.6 It is also worth noting that there have only been 3 PIC collisions at the Baldock Road Roundabout junction for the 5-year period. This will provide the main access to the site from the A10.
- 4.9.7 Furthermore, no PIC collisions have been recorded along the section of the A507 Baldock Road between the Baldock Road Roundabout junction and proposed access to the site. Likewise, no PIC collisions have been recorded along Throcking Lane, including the junction with the A10, which would provide access to the site from the north.
- 4.9.8 Finally, it is also worth noting that HCC did not raise any issues in terms of highway safety for planning application 3/23/1447/OUT, which also provided a highway safety assessment for a wide area that included both the Baldock Road Roundabout junction and the A10/London Road Roundabout junction. For planning application 3/22/1030/OUT, proposed to the north of Baldock Road Roundabout junction, no highway safety assessment was provided in the transport report, and this was not raised as an issue.
- 4.9.9 Thus, given the overall dispersed nature of collisions, both in terms of geographical location and timescale, it is reasonable to conclude that the highway network surrounding the proposed development site does not include any geometric features that can be specifically linked to recorded collisions.
- 4.9.10 It is therefore concluded that there are no existing highway safety concerns to mitigate.

4.10 Existing Traffic Data

4.10.1 In order to assess the operating condition of the highways included within the study area at the present condition traffic count surveys were undertaken on the following highways:

- Junction 1: A10/Ermine Street;
- Junction 2: A10/Throcking Lane;
- Junction 3: A10/A507 Baldock Road/B1038 Baldock Road;
- Junction 4: B1038 Baldock Road/High Street/B1038 High Street;
- Junction 5: B1038 High Street/B1038 Hare Street Road/Station Road; and
- Junction 6: A10/London Road.

4.10.2 The traffic surveys were undertaken by an independent traffic survey company and took place on Tuesday the 03rd of October 2023. The results of these traffic counts are shown as **Appendix B** to this report.

5 Development Proposals

5.1 Introduction

- 5.1.1 This TA relates to the proposals for the provision of a residential led development at the application site, accessed off the A507 Baldock Road to the south and Throcking Lane to the north, to the west of Buntingford. This section of the TA outlines the development proposals with particular consideration given to access to and from the site onto the surrounding public highway network.
- 5.1.2 The proposed development is for up to 600 dwellings (C3), elderly accommodation (C3), Mixed Use Local Centre (including flexible use E, F and Sui Generis), First School, informal and formal open space, associated works and infrastructure including a new access from the A507 and pedestrian bridge over the A10, with associated works and infrastructure, with all matters reserved save for access. A 'Land Use Components Plan', prepared by David Lock Associates, is shown in **Figure 5.1** below. This is also included as **Appendix C** to this report.

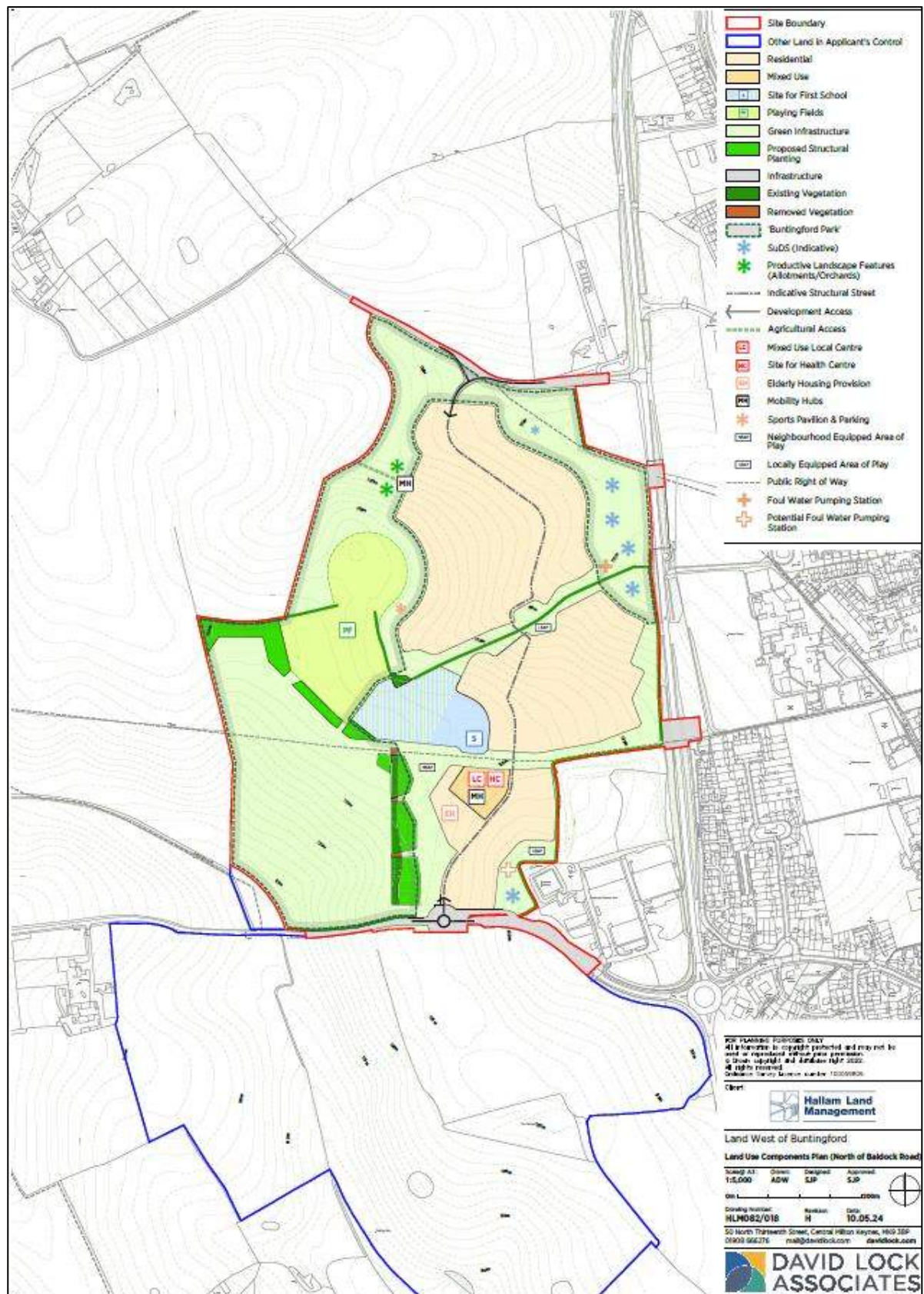


Figure 5.1 – Land Use Components Plan

- 5.1.3 Although layout is a reserved matter, the scheme design to date including detailed access and indicative internal road layout provides a framework to deliver a high quality layout and environment maximising transport sustainability and integration. The internal road network is to be engineered to accomplish the standards specified in the MfS Guidance with particular emphasis on the creation of safe routes around the site facilitating easy access by foot and cycle.
- 5.1.4 As such, extensive pedestrian, cycle and public transport improvements have been proposed as part of the application to connect the site with the rest of Buntingford without the need to use the private car. Whilst designed to provide appropriate access in isolation, these proposed measures would be complemented by the proposals for employment-led development to the south of the A507 Baldock Road and which would form part of a separate application.

5.2 Proposed Vehicular Access

- 5.2.1 The application site is proposed to be accessed off the A507 Baldock Road from the south, and off Throcking Lane from the north. It is proposed to provide an internal link road crossing the site and connecting the two points of access. The access to the site off the A507 Baldock Road is proposed to take place via a roundabout junction, while the access off Throcking Lane is proposed via a priority junction.
- 5.2.2 The proposed site access layout is shown in **Figure 5.2** (southern access off the A507 Baldock Road) and **Figure 5.3** (northern access off Throcking Lane). These are included as **Appendix D** to this report.

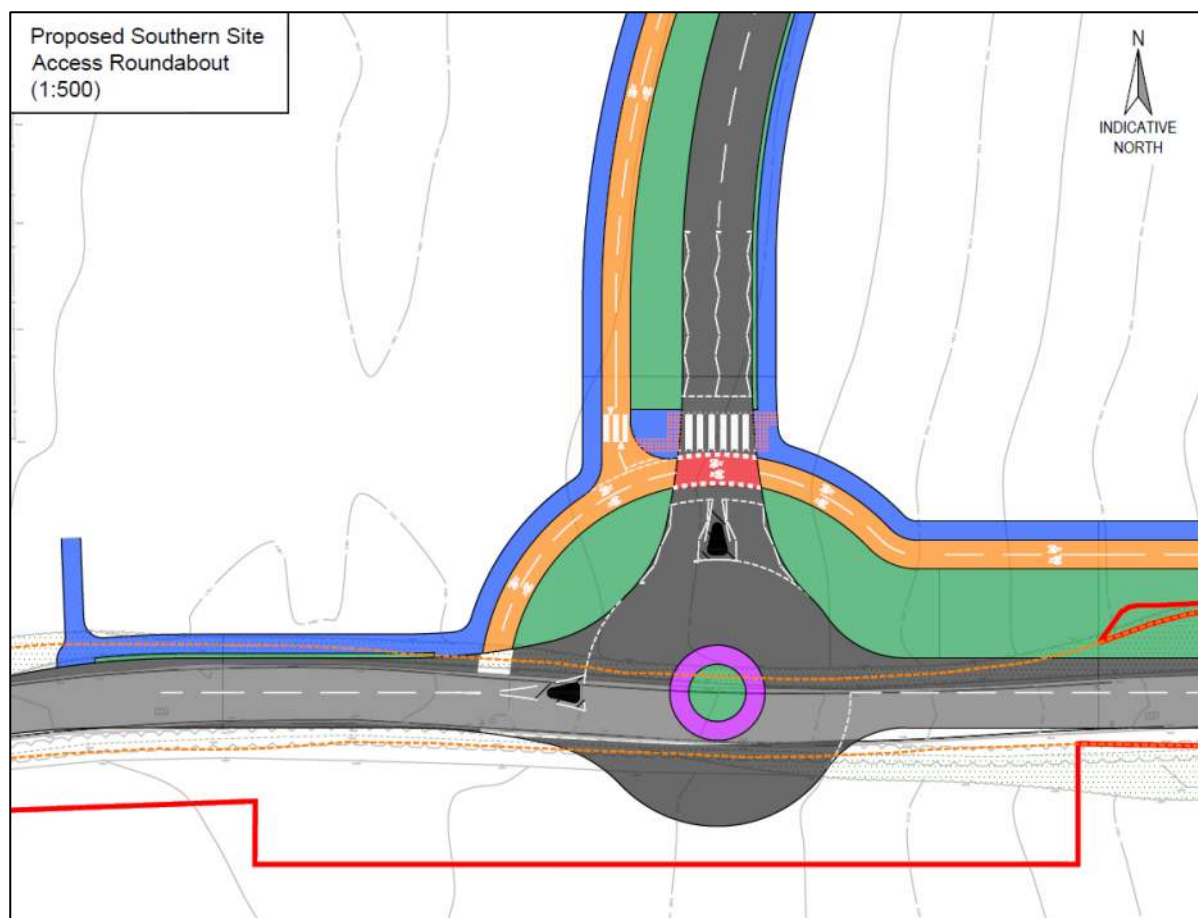


Figure 5.2 – Proposed Southern Access off A507 Baldock Road

- 5.2.3 The proposed access off the A507 Baldock Road will consist of a continental roundabout junction that will provide access to the site. The roundabout junction has been designed in compliance with DMRB standards.
- 5.2.4 It is proposed to include segregated footways and cycle paths on the eastern and northern approaches to the roundabout junction, with a formal crossing and parallel cycle crossing on the northern arm of the junction. The crossing will include dropped kerbs, tactile paving and zig zag lines on its approach to the junction. These have been designed in accordance with the LTN 1/20 'Cycle Infrastructure Design' guidance.
- 5.2.5 It is clear from the access design layout proposed, that priority has been placed on the provision of high-quality pedestrian and cycle infrastructure to access the proposed development.
- 5.2.6 The proposed layout will place priority to pedestrians and cyclists in compliance with Manual for Streets, and will encourage and promote the use of more sustainable modes of transport to and from the site, reducing the need to use the private car and, hence, the traffic impact on the surrounding public highway network.
- 5.2.7 **Appendix E** to this report shows a swept path analysis for a bus accessing and egressing the site safely and adequately.
- 5.2.8 The A507 Baldock Road will also see a number of traffic calming features to encourage lower vehicle speeds on its eastern section. It is proposed that a 30mph vehicle speed limit is introduced along the A507 for the section between the A10 to the east, and the western approach to the site access roundabout junction to the west.

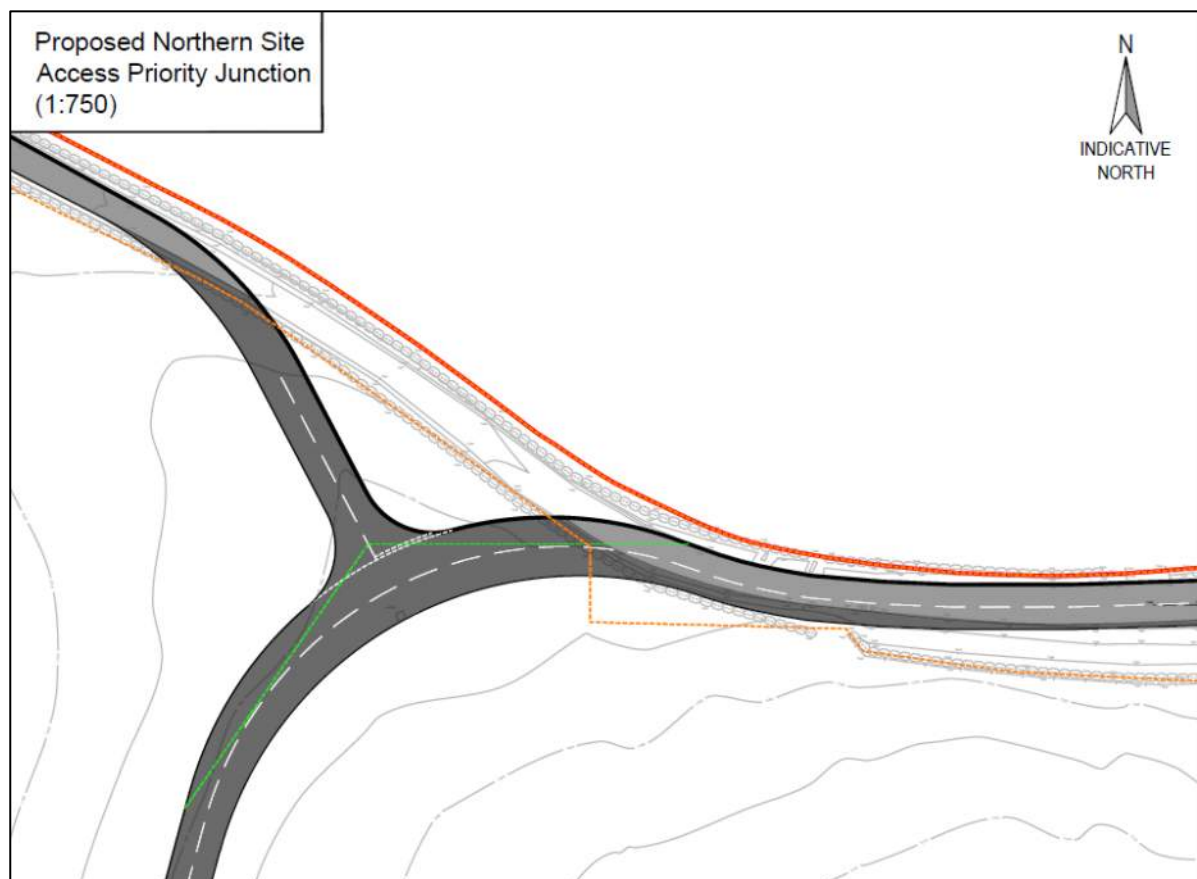


Figure 5.3 – Proposed Northern Access off Throcking Lane

- 5.2.9 The northern access off Throcking Lane is proposed to provide a realignment with the main road. The access junction will establish the north-south route as the priority route with the western section of Throcking Lane joining as a minor link.
- 5.2.10 It is also proposed to reduce the vehicle speed limit to 30mph for the section of Throcking Lane between the junction with the A10 and for the whole section leading to the site and along the link road. In addition, the 30mph speed designation would also extend west of the Throcking Lane access (i.e. the western approach to this junction).

5.3 Proposed Walking and Cycling Access

- 5.3.1 It is considered long-standing good practice that a reasonable distance of 2km has been supported by the previous PPG13 planning policy; whilst this guidance is superseded the threshold is still widely recognised and this figure is still accepted as being suitable for walking to replace short journeys. **Table 4.1** above shows a wide number of local services and facilities that can be reached within 2km from the application site.
- 5.3.2 Cycling has the potential to replace short car journeys for distances under 5km. Manual for Streets 2 (MfS2) clearly identifies the contribution that cycling can make to transport sustainability and accessibility, identifying this mode of travel as a good substitute for short car trips, particularly those under 5km.
- 5.3.3 The proposed development provides an opportunity to extend and improve the local pedestrian and cycle network in the western area of Buntingford. This will promote walking and cycling as convenient and realistic modes of transport.
- 5.3.4 It is proposed to provide pedestrian and cycling facilities throughout the site to enhance permeability and connect directly to the existing shared cycle-footway that runs on the A507 Baldock Road between Buntingford and up to the access to Buntingford Business Park.
- 5.3.5 The pedestrian and cyclist access strategy will allow for the continuous access for pedestrians and cyclists taking advantage of the existing shared cycle-footway running on the northern section of the A507 Baldock Road.
- 5.3.6 It is proposed to widen this section of shared cycle-footway to provide segregated pedestrian and cycle routes in accordance with Local Transport Note 1/20 'Cycle Infrastructure Design' (2020) running on the northern side of the A507 Baldock Road from the crossing of the A10, which is proposed to be upgraded to a Toucan crossing in order to provide a safe and convenient access to pedestrians and cyclists.
- 5.3.7 The proposed pedestrian and cycle paths are proposed to be extended along the northern section of the A507 Baldock Road up to the proposed roundabout junction providing access to the site and will continue up to the link road, creating a high-quality sustainable infrastructure. The proposals would also include a raised parallel pedestrian and cycle crossing across the access to Buntingford Business Park and a Toucan crossing to help pedestrians and cyclists across the A10.
- 5.3.8 The site is also crossed by two Public Rights of Way, as explained in **Section 4** of this report.
- 5.3.9 Cottered Footpath 040 crosses the site in an east-west alignment. A pedestrian bridge provides access to the section of PRoW to the east of the A10 and is known as 'Broad Baulk'. This provides direct connections to Skipp's Meadow and Bowling Green Lane in the northern area of Buntingford. As part of the scheme, it is proposed to provide connections from the proposed development to this pedestrian

bridge, which would reduce journey times for pedestrians travelling to the facilities located on this area and which mainly comprise education and employment facilities.

- 5.3.10 Cottered Footpath 041 runs further north close to the northern boundary of the application site. This leads to Buntingford Footpath 035 to the east of the A10. This PRow also leads to Bowling Green Lane past the access to Freman College and provides access to the local facilities located in the northern area of Buntingford.
- 5.3.11 Currently, there is no bridge providing a connection between the two PRow's and pedestrians need to cross the A10. As part of the scheme, it is proposed to provide a pedestrian bridge connection on top of the A10 connecting the two PRow's that would also reduce journey times to the facilities located in the northern area of Buntingford. The proposed bridge connection has been designed in accordance with DMRB standards and is shown in **Figure 5.4**. This is also shown as **Appendix F** to this report.

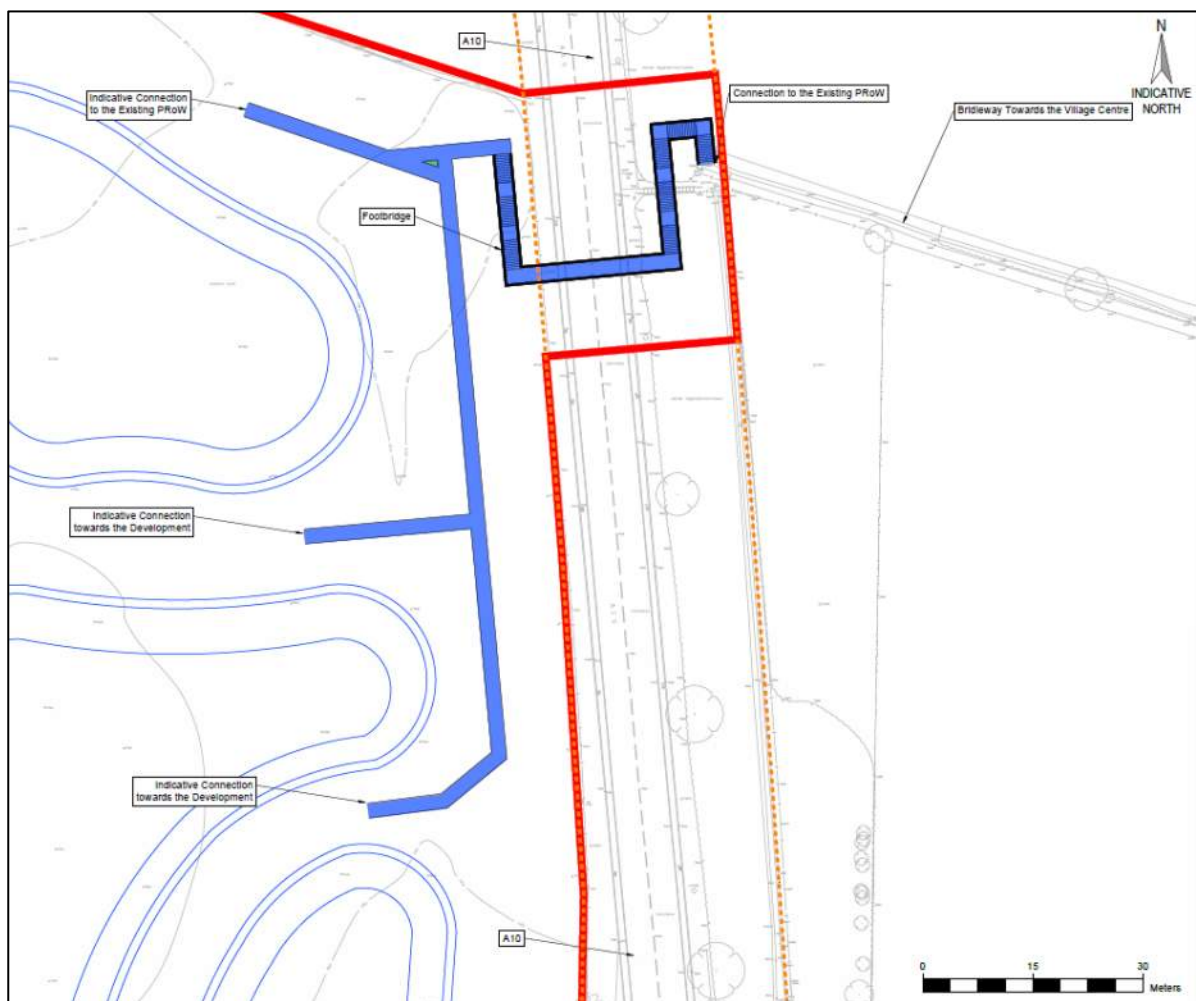


Figure 5.4 – Proposed Bridge Connection to PRow

- 5.3.12 The improvements proposed in terms of new pedestrian and cycling infrastructure mean that the town centre and many other local facilities and employment areas will be reached within convenient pedestrian and cycling distances, with the town centre located within 2kms via high-quality segregated footways and cycle tracks, which will be connected to Buntingford by a Toucan crossing ensuring the safe and quick access across the A10.

5.3.13 The proposed improvements will also provide a significant improvement to the existing conditions of pedestrians and cyclists in the local area to the west of Buntingford.

5.3.14 Furthermore, the proposed connections to Cottered Footpath 040 and the bridge connection from Cottered Footpath 041 will also reduce journeys to the existing facilities provided in the northern area of Buntingford.

5.4 Public Transport Access

5.4.1 The location for a new bus stop at the Local Centre has been proposed as a potential improvement to encourage the use of bus services to and from the development. This would be designed in accordance with the 'Roads in Hertfordshire: Highway Design Guide'. Bus services would turn around at the Local Centre and would get back to the A507 Baldock Road.

5.4.2 Conversations with Arriva Group are currently taking place and more details on the public transport improvements will be provided in due course.

5.5 Mobility Hubs

5.5.1 Two mobility hubs are proposed as part of the development. The first one would be located in the Local Centre and the second one further north and within the residential area. The proposed location is shown in **Figure 5.1** above and in **Appendix C**.

5.5.2 The mobility hub at the Local Centre would include the proposed bus stop, as well as additional pedestrian and cycle facilities, in order to foster the use of more sustainable modes of transport between the site, Buntingford, and other towns accessible by bus such as Hertford. It is proposed that this mobility hub could include the following facilities:

- Bus stops with appropriate shelters with Real Time Bus Information boards
- Electronic Information boards specifying real time transport timetable information and associated community events
- Cycle parking to allow residents to cycle to the hub and park their bikes
- Provision of electric charging facilities for electric share bikes and for private users
- Electric scooter hubs
- Electric vehicle charging points
- Seating areas
- Car Club spaces

5.5.3 The second mobility hub proposed further north could include the following:

- Cycle parking to allow residents to cycle to the hub and park their bikes
- Provision of electric charging facilities for electric share bikes and for private users
- Electric scooter hubs
- Electric vehicle charging points
- Seating areas
- Car Club spaces

5.6 Off-site Highway Works

- 5.6.1 As part of the scheme, it is also proposed to provide additional improvements along the A507 Baldock Road, the A10 and the B1038 Baldock Road, which would facilitate access along the main route connection between the site and the town centre.
- 5.6.2 The proposed measures would include the following (measures provided on a westbound direction) and up to the A10:
- Dragon's teeth traffic calming feature on the approach to the roundabout junction providing access to the site;
 - Proposal to reduce the existing vehicle speed limit on the A507 Baldock Road to 30mph to the west of the roundabout junction providing access to the site and up to the roundabout junction with the A10;
 - Extension of segregated pedestrian and cycle path infrastructure between the access to Buntingford Business Park and the site;
 - Formal parallel pedestrian and cycle crossing at the access to Buntingford Business Park;
 - Upgrade of the existing shared cycle-footway between the A10 and the access to Buntingford Business Park to segregated pedestrian and cycle path improvements; and
 - Provision of Toucan crossing on the A10 to the north of the Baldock Road Roundabout junction.
- 5.6.3 These measures would be complemented with those proposed as part of the adjacent employment proposal to the south of the A507 Baldock Road, and which would comprise a number of additional pedestrian and cycle crossings to the east and west of the proposed roundabout junction providing access to both sites. These would significantly extend the length of the segregated pedestrian and cycle network to the west of Buntingford and would promote walking and cycling as safe, efficient and convenient modes of transport between the sites and the town of Buntingford.
- 5.6.4 In this case, the proposed roundabout junction would be designed with the principles of 'Dutch' roundabouts in mind, which have been shown to significantly reduce the number of collisions involving vulnerable road users and improve the highway safety credentials of the junctions. This uses short turning radii to encourage low vehicle speeds and only one circulating vehicle lane on each approach to the junction. It will have kerb-segregated cycle lanes circulating around the outside of the roundabout and cyclists would have priority on all entry and exit lanes. It would also have pedestrian Zebra crossings across each arm, which would be parallel to those of the cycle paths. Due to the safety benefits and priority that these junctions bring to pedestrians and cyclists a number of them are being proposed in the UK, with proposals for one of them already in Hertfordshire (Hemel Hempstead).
- 5.6.5 The proposed improvements that would also be delivered along with the employment application proposed to the south of the A507 Baldock Road would comprise the following:
- Vehicle connection via a southern arm to the 'Dutch' roundabout access;
 - Pedestrian crossing to the west of the roundabout junction providing access to the site;
 - Footway to the west of the roundabout junction to connect to the pedestrian crossing;
 - Cycle crossing to the west of the roundabout junction;
 - Pedestrian crossing to the east of the roundabout junction; and
 - Parallel pedestrian and cycle crossing to the west of the access to Buntingford Business Park.
- 5.6.6 On top of these improvements, the proposed measures are also proposed east of the A10 and along the B1038 Baldock Road. These are currently provided as an indicative design and would be subject to further conversation with HCC:

- Gateway feature at the entrance to Buntingford via the B1038 Baldock Road to incorporate and extend the 30mph vehicle speed limit, which currently starts between the junctions of the B1038 Baldock Road with Deacons Place and Greenways;
- Relocation of the bus shelter on the northern section of the B1038 Baldock Road to provide for an improved pedestrian connection;
- Raised crossing to facilitate the crossing of pedestrians and people with mobility impairment between the junctions of the B1038 Baldock Road with Deacons Place and Greenways;
- Raised crossing on Monks Walk at the two approaches to the junction of the B1038 Baldock Road with Monks Walk;
- Priority narrowing on the B1038 Baldock Road to the east of the junction with Monks Walk (west);
- Change in texture/colour at The Folly by the junction with the B1038 Baldock Road to denote the crossing by pedestrians;
- Raised crossing on the B1038 Baldock Road to the east of the junction with Monks Walk (east); and
- Relocation of parking spaces on the B1038 Baldock Road opposite the junction with Bowling Green Lane to facilitate the circulation of pedestrians.

5.6.7 The proposed improvements detailed in this section have been grouped and split in **Table 5.1**, which shows what would be comprised under the proposed application, and along with the employment-led application to the south of the A507 Baldock Road:

Proposed Improvements	Proposed Residential Led Development	Residential Led and Employment Led Developments Combined
Throcking Lane	Realignment of junction / Reduction of vehicle speed limit	Realignment of junction / Reduction of vehicle speed limit
A507 Baldock Road	Continental 'Dutch' Roundabout	Continental 'Dutch' Roundabout
	Pedestrian and cycle crossings on northern approach to roundabout junction	Pedestrian and/or cycle crossings on all approaches to roundabout junction
	Reduction of vehicle speed limit	Reduction of vehicle speed limit
	Provision of footways and cycle paths on northern side of A507	Provision of footways and cycle paths on both sides of A507, along with pedestrian and cycle crossings
	Pedestrian and cycle crossing on access to Buntingford Business Park	Pedestrian and cycle crossing on access to Buntingford Business Park and across A507 to the west of the Business Park Access
	Provision of bus stops and two mobility hubs within the residential proposal	Provision of bus stops and two mobility hubs within the residential proposal and bus stops on the A507
	Upgrade of existing shared cycle-footway to segregated footway and cycle paths	Upgrade of existing shared cycle-footway to segregated footway and cycle paths
A10	Provision of Toucan crossing	Provision of Toucan crossing
B1038 Baldock Road	Proposed improvements (par. 5.6.6) (indicative at this stage)	Proposed improvements (par. 5.6.6) (indicative at this stage)
PRoW Cottered Footpath 041	Pedestrian bridge across A10	Pedestrian bridge across A10

Table 5.1 – Proposed Improvements for Proposed Development and Combined with Employment Application

5.6.8 **Figure 5.5** shows the proposed access improvements on the A507 Baldock Road proposed for the residential led development and stated in **Table 5.1** above. This is shown in **Appendix D** to this report.

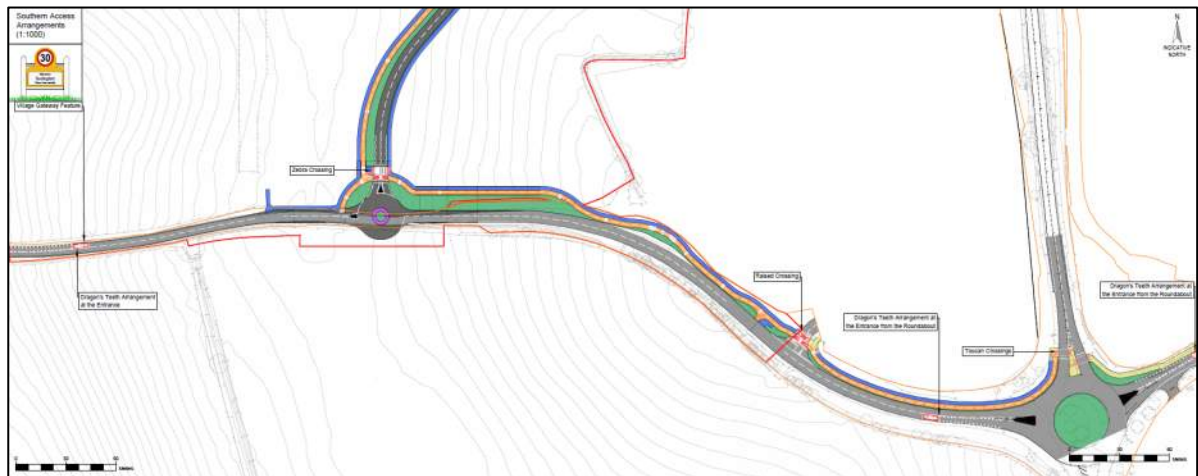


Figure 5.5 – Proposed Off-Site Improvements – A507 Baldock Road: Residential Led Development

5.6.9 **Figure 5.6** shows the proposed off-site improvements to the A507 Baldock Road proposed for the combined residential and employment led developments and stated in **Table 5.1** above. These can be achieved within the red line boundary, highway boundary and additional land within applicant's control to the south of the A507 Baldock Road and which would form part of the employment led development. This is also included as **Appendix G** to this report.

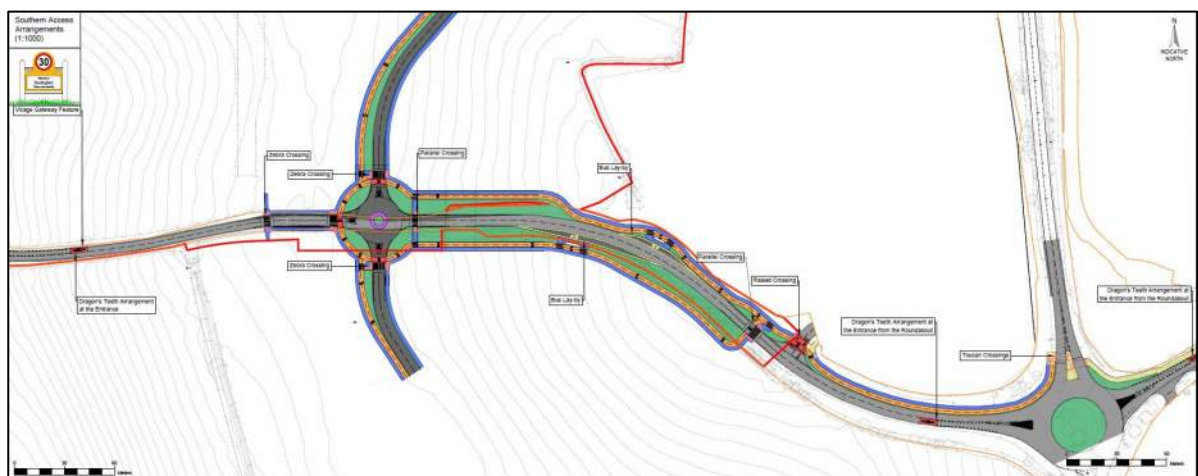


Figure 5.6 – Proposed Off-Site Improvements – A507 Baldock Road: Combined Developments

5.6.10 **Figure 5.7** and **Figure 5.8** show the proposed improvements on the B1038 Baldock Road. These are also included as **Appendix H** to this report.



Figure 5.7 – Proposed Off-Site Improvements – B1038 Baldock Road (West)



Figure 5.8 – Proposed Off-Site Improvements – B1038 Baldock Road (East)

5.7 Vehicle Parking Provision

- 5.7.1 Car parking will be provided in line with local policy, in particular the 'Updated Vehicle Parking Standards' SPD document from the East Hertfordshire Local Plan, adopted in July 2015. The updated car parking standards state that:

"There will be an initial presumption for the required car parking standard to be applied. Developers proposing car parking above or below these levels should provide robust evidence to support their case."

- 5.7.2 This approach is corroborated by Policy TRA3 'Vehicle Parking Provision' of the Local Plan, which states that:

"1. Vehicle parking provision associated with development proposals will be assessed on a site-specific basis and should take into account the provisions of the District Council's currently adopted Supplementary Planning Document 'Vehicle Parking Provision at New Development'".

- 5.7.3 The proposed provision will be discussed with the Highway Authority and the standards to be applied will be agreed. This is the approach that has been accepted by the Local Highway Authority for the neighbouring planning application 3/23/1447/OUT.

5.7.4 Electric vehicle charging points will be provided in accordance with Building Regulations 2010 Approved Document S 'Infrastructure for the Charging of Electric Vehicles' (2021 Edition).

5.7.5 The potential provision of Car Club spaces within the mobility hubs proposed as part of the development will also be considered and discussed with the Highway Authority.

5.8 Cycle Parking Provision

5.8.1 Cycle parking will also be provided in line with the 'Updated Vehicle Parking Standards' SPD document from the East Hertfordshire Local Plan and will be discussed and agreed with the Local Highway Authority.

5.8.2 The potential provision of bicycle hubs as part of the scheme and located in the proposed mobility hubs will also be considered and discussed with the Highway Authority.

5.9 Conclusion

5.9.1 The proposed development is located within 2kms from the town centre in Buntingford and most of the facilities and services provided on a local level. It is therefore located within the recommended walking distances as stated in Manual for Streets to replace short car trips.

5.9.2 Manual for Streets also makes reference to the creation of mixed-use neighbourhoods with interconnected street patterns and which provide for the daily needs within walking distance of most residents, as will be the case for the proposed development.

5.9.3 Furthermore, a wider area is comprised within 5km, which is the recommended distance for cycle trips to replace car trips. This would include the whole extent of Buntingford plus a number of additional settlements.

5.9.4 The proposed development will provide an extensive improvement to the pedestrian and cycle networks provided to the west of Buntingford which will make walking and cycling more accessible, safe and convenient for any new and existing residents. The improvements proposed comprise the following:

- **Site Access Scheme and Parking:** Access to the site will be provided by a roundabout junction off the A507 Baldock Road, designed in compliance with the standards set out in the DMRB. An additional access point will be provided to the north of the site boundary via Throcking Lane, which will be realigned to provide priority towards the site. A number of traffic calming features are proposed to reduce the existing vehicle speed limits to 30mph on the two approaches to the site.
- **Pedestrian and Cycle Facilities and Routes:** Pedestrian and cycle access to the development site will be significantly improved by the upgrading of the existing shared cycle-footway that runs on the northern side of the A507 Baldock Road up to Buntingford Business Park, to a segregated pedestrian and cycle path network and a significant extension to connect to the site. The proposed improvements also include a Toucan crossing on the A10. Mobility hubs are proposed at the Local Centre and the residential area and will include a number of facilities to encourage the use of sustainable modes to and from the site.
- **Public Transport:** It is proposed to provide a new bus stop at the local centre serving the proposed development and as part of one of the mobility hubs. The existing bus services provided are considered suitable to provide access to the town centre and main destinations in the area.

5.9.5 Therefore, the current accessibility and convenience from the site to encourage walking, cycling and public transport as main modes of transport will be significantly improved.

- 5.9.6 On top of that, the proposed development would also bring an additional pedestrian bridge crossing the A10 following the PRow Cottered Footpath 041 and potential improvements along the B1038 Baldock Road.
- 5.9.7 However, whilst the proposed development has been designed to be sustainable as an individual site, the cumulative measures associated with the introduction of the nearby employment scheme would complement those proposed as part of this application and would enhance the already significant accessibility and connectivity improvements provided to the west of Buntingford.

6 Development Trip Generation

6.1 Introduction

- 6.1.1 This section describes the traffic analysis undertaken to determine the likely effect that the proposed residential led development will have on the surrounding highway network.
- 6.1.2 The traffic analysis includes the calculation of the number of trips associated with the development and the distribution and assignment of these trips to the highway network. This is based on a proposed development comprising up to 600 dwellings (C3), elderly accommodation (C3), Mixed Use Local Centre (including flexible use E, F and Sui Generis) and a First School. The proposed development is proposed to be accessed off the A507 Baldock Road to the south and Throcking Lane to the north.
- 6.1.3 Taking into account the nature and scale of the envisaged Local Centre and First School onsite, it is considered that these proposals are purposely designed to cater for the specific requirements of the residential proposals and serve as ancillary facilities to support the core residential element. Hence, it has been assumed that these uses would not create any impact on the nearby highway network as trips relating to these uses would be internal i.e. retained within the site.
- 6.1.4 In order to apply a robust scenario, the proposed development have estimated traffic generation associated with up to 60 elderly accommodation (C3) units and a potential Doctor's Surgery (with up to 1,400sqm) that have also been quantified in the sections below:

6.2 Development Multi-Modal Trip Rates and Generation

- 6.2.1 In order to establish the predicted trip generation of the proposed development, trip rates have been established based on comparative multi-modal survey sites collated from TRICS database (using version 7.10.3) for the land categories of 'Residential – Houses Privately Owned', 'Residential – Retirement Living' and 'Health – GP Surgeries'.
- 6.2.2 Taking into account the setting of the site, and the anticipated number/scale of the proposed land-uses that would be delivered, the results were filtered as follows:
- Sites included within 'Greater London', Republic of Ireland and Northern Ireland have been excluded due to their different travel patterns associated to higher/lower accessibility to local facilities and public transport;
 - Only surveys undertaken on weekdays;
 - Pre-date Covid before 2020; and
 - 'Edge of Town' sites only.
- 6.2.3 **Table 6.1** sets out the resulting trip rates for the proposed development based on the worst case scenario of 'Private Housing' only, with no inclusion of 'Affordable/Local Authority Houses' trip rates that typically have lower vehicle trip rates. The full TRICS outputs are attached as **Appendix I** to this TA.

Time	Arrivals	Departures	Total
	Houses Privately Owned (per unit)		
AM Peak	0.142	0.380	0.522
PM Peak	0.349	0.155	0.504
	Elderly Accommodation (C3) (per unit)		
AM Peak	0.050	0.125	0.175
PM Peak	0.125	0.050	0.175
	GP Surgeries (per 100sqm)		
AM Peak	5.622	2.216	7.838
PM Peak	2.054	4.216	6.270

Table 6.1 – Vehicle Trip Rates

6.2.4 The site has also been assessed for pedestrian, cycle and public transport trip rates, and these have been set out in **Table 6.2**, **Table 6.3** and **Table 6.4**.

Time	Arrivals	Departures	Total
	Houses Privately Owned (per unit)		
AM Peak	0.035	0.099	0.134
PM Peak	0.035	0.025	0.060
	Elderly Accommodation (C3) (per unit)		
AM Peak	0.125	0.050	0.175
PM Peak	0.050	0.200	0.250
	GP Surgeries (per 100sqm)		
AM Peak	1.297	0.919	2.216
PM Peak	0.649	1.351	2.000

Table 6.2 – Pedestrian Trip Rates

Time	Arrivals	Departures	Total
	Houses Privately Owned (per unit)		
AM Peak	0.008	0.017	0.025
PM Peak	0.012	0.006	0.018
	Elderly Accommodation (C3) (per unit)		
AM Peak	0.000	0.000	0.000
PM Peak	0.000	0.000	0.000
	GP Surgeries (per 100sqm)		
AM Peak	0.054	0.000	0.054
PM Peak	0.000	0.054	0.054

Table 6.3 – Cycle Trip Rates

Time	Arrivals	Departures	Total
	Houses Privately Owned (per unit)		
AM Peak	0.002	0.033	0.035
PM Peak	0.018	0.005	0.023
	Elderly Accommodation (C3) (per unit)		
AM Peak	0.000	0.000	0.000
PM Peak	0.000	0.000	0.000
	GP Surgeries (per 100sqm)		
AM Peak	0.432	0.000	0.432
PM Peak	0.000	0.108	0.108

Table 6.4 – Public Transport Trip Rates

- 6.2.5 Applying the above, the associated trip generation for 600 residential dwellings, up to 60 elderly accommodation (C3) units and a potential GP surgery of 1400sqm are calculated below in **Table 6.5**, **Table 6.6**, **Table 6.7** and **Table 6.8**:

Vehicle Traffic	Time	Arrivals	Departures	Total
		Houses Privately Owned		
	AM Peak	85	228	313
	PM Peak	209	93	302
		Elderly Accommodation (C3)		
	AM Peak	3	8	11
	PM Peak	8	3	11
		GP Surgery		
	AM Peak	79	31	110
	PM Peak	29	59	88

Table 6.5 – Vehicle Traffic Generation

Pedestrian Trips	Time	Arrivals	Departures	Total
		Houses Privately Owned		
	AM Peak	21	59	80
	PM Peak	21	15	36
	Elderly Accommodation (C3)			
	AM Peak	8	3	11
	PM Peak	3	12	15
	GP Surgery			
	AM Peak	18	13	31
	PM Peak	9	19	28
	Total Pedestrian Trips			
	AM Peak	47	75	122
	PM Peak	33	46	79

Table 6.6 – Pedestrian Trip Generation

Cycling Trips	Time	Arrivals	Departures	Total
		Houses Privately Owned		
	AM Peak	5	10	15
	PM Peak	7	4	11
	Elderly Accommodation (C3)			
	AM Peak	0	0	0
	PM Peak	0	0	0
	GP Surgery			
	AM Peak	1	0	1
	PM Peak	0	1	1
	Total Cycling Trips			
	AM Peak	6	10	16
	PM Peak	7	4	12

Table 6.7 – Cycling Trip Generation

Public Transport Trips	Time	Arrivals	Departures	Total
		Houses Privately Owned		
	AM Peak	1	20	21
	PM Peak	11	3	14
	Elderly Accommodation (C3)			
	AM Peak	0	0	0
	PM Peak	0	0	0
	GP Surgery			
	AM Peak	6	0	6
	PM Peak	0	2	2
	Total Public Transport Trips			
	AM Peak	7	20	27
	PM Peak	11	5	15

Table 6.8 – Public Transport Trip Generation

6.3 Adjustments to Residential Vehicle Trips

Journey Purpose

- 6.3.1 It should be noted that the derived vehicle trip rates for residential development contain journeys with various purposes associated with not only employment but also leisure, shopping and education activities. As discussed earlier in this report, a host of complimentary land uses are proposed to support the core residential element and thus it is likely that a high proportion of these movements would be retained on site as residents will not need to travel offsite to access these facilities.
- 6.3.2 In light of this, an exercise has been undertaken to calculate the proportion of vehicle traffic that would be associated with typical journeys associated with the proposed mix of uses within the site. In order to disaggregate the forecast vehicle movements by journey purposes, information on journey purposes by trip starting time for England was obtained from the National Travel Survey (NTS).
- 6.3.3 The 2019 NTS is the latest available series of household data that has been released to provide a data source at a national level that sets out personal travel in England. NTS Table 502 provides details of 'Trip start time by trip purpose (Monday to Friday only)', with specific sub tables available that split these trips down into specific modes. The data provided for car/van driver is included as **Appendix J** of this report with a peak hour summary also provided as **Table 6.9**.

Journey Purpose	AM Peak	PM Peak
Commuting	31%	38%
Business	6%	5%
Education	1%	0%
Escort Education	28%	3%
Shopping	5%	13%
Personal business	23%	23%
Visiting Friends / Sport / Entertainment	5%	15%
Holiday / Day Trip	2%	3%

Table 6.9 – Summary of Peak Hour Journey Purpose – As Extracted from NTS Table 0502

Adjustment to Take Account of Employment Trips

- 6.3.4 As discussed, the proposals are located adjacent to Buntingford Business Park. Thus, it is likely that a number of employment journeys would be undertaken between the site and this business park and, given the short distance, would likely be carried out on foot. This would therefore result in a subsequent reduction in vehicle journeys.
- 6.3.5 To forecast the total number of journeys this would account for, 2011 Census data was interrogated to ascertain the number of people likely to live and work within the same area. Thus, the internal journey to work vehicle data associated with the 'East Hertfordshire 001' MSOA, which is representative of the development area, has been reviewed. This analysis demonstrates that approximately 12% of the residential population within the 'East Hertfordshire 001' MSOA that drive to work also work within this same area.
- 6.3.6 In light of this, it is proposed that a 3% reduction be applied to the work-related vehicle journeys to and from the residential development to take account of the fact that these trips would be short in distance and therefore unlikely to be carried out by car. This reduction is summarised in **Table 6.10**.
- 6.3.7 It is noted that recent control measures introduced nationally as a result of the Covid 19 pandemic appear to have resulted in major behavioural change that has resulted in more home working that is likely to result in subsequent permanent long-term changes even after these measures are lifted. These changes in travel patterns are discussed in the Royal Town Planning Institute document titled 'Plan the World We Need', which was released in June 2020. Section 3.1 states the following:
- "...In the UK during April, 39% of those in employment reported working only from home, while 6% both worked from home and travelled to work. This contrasts with 5% of the workforce who reported working mainly from home during 2019..."*
- 6.3.8 The Department for Transport (DfT), in conjunction with Ipsos MORI, published 'All Change? Travel Tracker – Wave 1 Summary for the Department for Transport' in June 2020. This summary document presents analysis and headline figures from a UK-wide survey commissioned by the DfT and undertaken during May-June 2020. The survey explored whether participants would use more sustainable travel or return to pre-lockdown travel and made the following statement in this regard:

"Thinking about the future more generally, the survey suggests that there could be some positive behavioural impacts from a sustainability perspective. There is a high degree of self-reported willingness to change behaviour in response to the long-term threat. Many say they are willing to do a range of things to reduce their contribution to climate change, reflecting a recognition that

the long-term posed by climate change is as serious as coronavirus in the long-term (63% agree, 15% disagree)".

- 6.3.9 It is also evident that there would likely be more changes in future years as technology, society and business continues to evolve. This is particularly evident for the emerging economy, which is home to an increasing number of research & development and technology companies that present more opportunity for home working than traditional industries.
- 6.3.10 To account for the impact of these innovations and the subsequent introduction of properties designed to cater for these future changes it is proposed that a reduction factor of 10% be applied to the forecast external work-related vehicle trip rates as set out in **Table 6.10**.

Time	Residential - Commuting internal		
	Arrivals	Departures	Total
AM Peak	1	3	3
PM Peak	3	1	4
Time	Residential - Commuting External		
	Arrivals	Departures	Total
AM Peak	31	82	112
PM Peak	87	39	126

Table 6.10 – Adjustment for Access to Employment

- 6.3.11 The subsequent reduction in terms of vehicle trip rates is summarised in **Table 6.11**.

Time	Residential - Commuting internal		
	Arrivals	Departures	Total
AM Peak	1	3	3
PM Peak	3	1	4
Time	Residential - Home working		
	Arrivals	Departures	Total
AM Peak	3	8	11
PM Peak	9	4	13
Time	Residential - Commuting External		
	Arrivals	Departures	Total
AM Peak	28	74	101
PM Peak	79	35	114

Table 6.11 – Vehicle Traffic Adjustments for Access to Employment Including WFH

Adjustment to Take Account of Education Trips

- 6.3.12 Based on the results from the NTS, 'Escort Education' makes up 28% of all main journeys in the AM Peak and 3% of all journeys in the PM Peak. Given the age groups associated with primary age children it is likely that these pupils would more likely require parental escort than older children attending secondary school and higher education.
- 6.3.13 The proposal will see the delivery of a First School onsite to serve the primary educational demand arising from the proposed core residential element. This will reduce the requirement to travel outside of the site by private car for escorted education journeys with these journeys being contained onsite.

- 6.3.14 The new First School would be anticipated to absorb the vast majority of primary education-related trips forecast onsite. Whilst the school would also have some staff journeys to and from the site it is considered that these would be more likely to be outside of the typical peak hours.
- 6.3.15 Notwithstanding this, guidance outlined within the 'Travel during the morning peak' section of the National Travel Survey factsheet titled 'Trip Chaining: 2002-2014', indicates that some 75% of primary school journeys are not linked with a journey to work trip. On this basis it is assumed that 75% of the Escort Education journeys would be retained within the site and can therefore accordingly be removed from the total traffic generation calculated for the residential development.

Time	Residential - Escort Education Internal		
	Arrivals	Departures	Total
AM Peak	18	48	66
PM Peak	5	2	7
Time	Residential - Escort Education External		
	Arrivals	Departures	Total
AM Peak	6	16	22
PM Peak	2	1	2

Table 6.12 – Vehicle Traffic Adjustments for Access to Education

Adjustment to Take Account of Local Centre

- 6.3.16 It can be seen from **Table 6.9** that 'Shopping/Personal Business' provides a high proportion of the main journey purpose during the reviewed peak hours, equating to 28% in the AM Peak and 36% in the PM peak. 'Personal Business' is defined within the 'Notes and Definitions' July 2018 release note relating to the NTS as:

"Visits to services, e.g., hairdressers, launderettes, dry cleaners, betting shops, solicitors, banks, estate agents, libraries, churches or for medical consultation or treatment; or for eating and drinking, unless the main purpose was entertainment or social."

- 6.3.17 It is evident that the proposed onsite Local Centre and potential GP Surgery would provide a number of these types of services and whilst not all personal business uses may be covered by these land uses, it is considered reasonable to apply a reduction to account for potential internalisation in relation to this proposed use to take account of this. In addition, it also noted that the Local Centre would also include an element of retail which also accounts for a proportion of journey purposes.
- 6.3.18 On this basis a total robust traffic reduction of 50% has been applied to the residential vehicle trip generation associated with the shopping and personal business journeys to take account of the trips associated with such purposes that could be catered for by the Local Centre. This reduction is summarised in **Table 6.13**.

Time	Residential - Retail/Personal Business Internal		
	Arrivals	Departures	Total
AM Peak	12	32	44
PM Peak	38	17	54
Time	Residential - Retail/Personal Business External		
	Arrivals	Departures	Total
AM Peak	12	32	44
PM Peak	38	17	54

Table 6.13 – Vehicle Traffic Adjustments for Access to Retail/Personal Business

Forecast External/Internal Residential Vehicle Trip Rates

- 6.3.19 Applying the above adjustments associated with employment, shopping and primary education purposes to the forecast residential vehicle trip generation as shown in **Table 6.5**, the forecast external residential vehicle traffic is subsequently established in **Table 6.14** below.

Time	Residential - Overall External		
	Arrivals	Departures	Total
AM Peak	51	137	189
PM Peak	156	69	225

Table 6.14 – Forecast Residential External Vehicle Traffic

Behaviour Change

- 6.3.20 A robust site overarching Travel Plan will also be introduced at the development to reduce the reliance on solo-car journeys and thus to accomplish a positive mode shift from car travel to other sustainable modes. This Travel Plan will include measures to encourage sustainable travel behaviour from the point of occupation.
- 6.3.21 Sustainable travel connections linking with the existing pedestrian and cycling network in the local area will be provided across the site. The link road will also include appropriate walking and cycling links along its length that will feed into the various residential streets that will also include appropriate connections for these modes. The walking and cycle routes will enhance travel via active modes thereby contributing to the wellbeing of the future occupants.
- 6.3.22 Case Studies reviewed by the Department of Transport as part of the research paper titled 'Smarter Choice Document – Changing the way we travel' published in 2005, indicates that an average 18% reduction in private car use can be delivered through an effective Travel Plan.
- 6.3.23 In light of the above, it is reasonable to assume that by delivering appropriately sustainable travel infrastructure as well as targeted Travel Plan measures, a mode shift of 15% away from car usage can be achieved.

The Forecast Residual Residential Vehicle External Trips

- 6.3.24 The forecast residual external residential vehicle traffic is established in **Table 6.15**:

Time	Residual Residential External Vehicle Trips		
	Arrivals	Departures	Total
AM Peak	44	117	161
PM Peak	132	59	191

Table 6.15 – Forecast Residual Residential Vehicle Traffic

6.4 Adjustments to Other Land Uses Vehicle Trips

6.4.1 Taking into account the nature and scale of the proposed elderly accommodation (C3) units, it has assumed that all the forecast traffic generation as shown in **Table 6.5** will be external traffic.

6.4.2 Whereas given the likely catchment area of a potential GP Surgery as well as the existing doctor establishments in Buntingford, it has assumed that a third of the forecast traffic would be made by onsite residents and therefore would be either internal or linked trips. And hence these vehicle movements can accordingly be removed from the total traffic generation calculated in **Table 6.5**. The forecast residual external vehicle traffic associated with a potential GP Surgery is established in **Table 6.16** below:

Time	GP Surgery External Vehicle Trips		
	Arrivals	Departures	Total
AM Peak	53	21	74
PM Peak	19	40	59

Table 6.16 – Forecast Residual GP Surgery Vehicle Traffic

6.5 Forecast Residual External Traffic Generation

6.5.1 In light of the above, the forecast residual development traffic generation are summarised in **Table 6.17** below:

External Residual Vehicle Traffic	Time	Arrivals	Departures	Total
		Houses Privately Owned		
	AM Peak	44	117	161
	PM Peak	132	59	191
	Elderly Accommodation (C3)			
	AM Peak	3	8	11
	PM Peak	8	3	11
	GP Surgery			
	AM Peak	53	21	74
	PM Peak	19	40	59
	Total Residual External Traffic Generation			
	AM Peak	99	145	245
	PM Peak	159	101	260

Table 6.17 – Forecast Residual Development External Traffic

6.6 Adjustments to Trip Generation for Walking, Cycling and Public Transport

6.6.1 It has assumed that the forecast deduction on vehicle trips to account for localised internalisation with employment, Local Centre and First School will mainly be made by walking and cycling. In view of this it has assumed that the 70% of the forecast overall internal vehicle trips will be transferred to walking with the remaining 30% being cyclists. Applying these assumptions to **Table 6.18**, the additional internal walking and cycling trip rates are as follows:

Time	Residential – Walking		
	Arrivals	Departures	Total
AM Peak	22	58	79
PM Peak	32	14	46
Time	Residential – Cycling		
	Arrivals	Departures	Total
AM Peak	9	25	34
PM Peak	14	6	20

Table 6.18 – Additional Walking and Cycling Trips transferred from Internal Vehicle Trip Rates

6.6.2 Taking into account the potential proposals for improving the site accessibility by sustainable modes of travel and promoting walking, cycling and public transport, the potential 15% modal shift on the forecast external vehicle trips as result of behaviour changing will see:

- 20% of these journeys will be made by walking;
- 40% of these trips will be transferred to cycling;
- 40% of these trips will be switched to public transport.

6.6.3 The additional walking, cycling and public transport trips as result of behaviour changing are set out in **Table 6.19** as follows:

Time	Residential – Walking		
	Arrivals	Departures	Total
AM Peak	2	4	6
PM Peak	5	2	7
Time	Residential – Cycling		
	Arrivals	Departures	Total
AM Peak	3	8	11
PM Peak	9	4	13
Time	Residential – Public Transport		
	Arrivals	Departures	Total
AM Peak	3	8	11
PM Peak	9	4	13

Table 6.19 – Additional Walking, Cycling and Public Transport Trips as Result of Behaviour Changing

6.6.4 Applying the above adjustments to the forecast trip generation or walking, cycling and public transport as set out in **Table 6.6**, **Table 6.7** and **Table 6.8**, the forecast total trips by means of sustainable modes of travel for the development proposals are summarised below:

Time	Overall Development – Walking		
	Arrivals	Departures	Total
AM Peak	70	137	207
PM Peak	69	62	131
Time	Overall Development –Cycling		
	Arrivals	Departures	Total
AM Peak	18	43	61
PM Peak	30	15	45
Time	Overall Development – Public Transport		
	Arrivals	Departures	Total
AM Peak	10	28	38
PM Peak	20	9	29

Table 6.20 – Forecast Walking, Cycling and Public Transport Trip Generation

6.7 Vehicle Trip Distribution

Residential and Elderly Accommodation (C3)

- 6.7.1 The vehicle trip distribution for the proposed residential (C3) and elderly accommodation (C3) units is based on the 2011 Census O/D data, available on the website www.nomisweb.co.uk, using the WU03EW dataset 'Location of Usual Residence and Place of Work by Method of Travel to Work'. The area used for those residing/working is the MSOA 'E02004878: East Hertfordshire 001', which covers the town of Buntingford.
- 6.7.2 The percentage directional distribution for the proposed residential uses that are derived based on car trips to/from the MSOA of 'East Hertfordshire 001' using 2011 Census Data are set out in **Table 6.21** below. This is consistent with the methodology adopted for the neighbouring application 3/23/1447/OUT that lies to the east of the A10.

Directional Distribution	Residential
A10 N	8%
A10 S	56%
Baldock Rd West	21%
Hare Street	3%
High Street	6.9%
Station Road	5%

Table 6.21 – Residential Distribution

Potential GP Surgery

- 6.7.3 Given the potential catchment area of a potential GP Surgery, it is reasonable to assume that the majority of the prospective patients would live locally. In light of this, a percentage distribution of the associated traffic generation is proposed in **Table 6.22** taking into account its proximity to the existing residential area of Buntingford as well as the location of existing practices in the area.

Directional Distribution	Residential
Baldock Rd East of the A10	10%
Baldock Rd West	5%
Hare Street	10%
High Street	10%
Station Road	65%

Table 6.22 – GP Surgery Distribution

7 Traffic Analysis

7.1 Introduction

- 7.1.1 This section sets out the methodology for preparing forecasts for the assessment of the impact of the proposed development on the study area network. This includes details relating to background traffic growth.

7.2 Scope of Assessment

- 7.2.1 This TA includes an assessment of the anticipated impact of the traffic generated by the proposed development. Considering the potential vehicle routes to the application site, a traffic impact study area encompassing the following junctions that are identified as potentially sensitive to changes in traffic flow have been considered:

- Proposed Site Access Roundabout junction off the A507 Baldock Road
- A10 Buntingford Bypass / Ermine Street
- A10 Buntingford Bypass / Throcking Lane
- A10 Buntingford Bypass / A507 Baldock Road / B1038 Baldock Road Roundabout junction
- B1038 Baldock Road / High Street
- B1038 High Street / Station Road / B1038 Hare Street Road Roundabout junction
- A10 Buntingford Bypass / London Road Roundabout junction

7.3 Assessment Scenarios

- 7.3.1 The assessment year in respect of capacity analysis for the transport network is consistent with the size, scale and completion schedule of the proposed development.
- 7.3.2 In line with Department for Transport (DfT) guidance, Year 2035 has been used as the future year for assessment. This is in consistent with the forecast build out rate and completion year for the proposed development.

7.4 Analysis Period

- 7.4.1 This TA has considered the following analysis periods: weekday morning and evening peak periods with a combined highway and development peak.

7.5 Background Growth

- 7.5.1 Traffic growth factors for the future year assessment have been derived from TEMPro (Version 8.1). TEMPro forecasts traffic growth based on factors such as changes in housing, employment, and car ownership over a growth period for a selected study area using the National Trip End Model (NTEM). These forecasts are informed by information derived from adopted Local Plans and, as such, can be reasonably expected to include neighbouring land allocations.
- 7.5.2 The correlated Origin/Destination growth rates for Car Drivers have been estimated using TEMPro Dataset 8.1 for the Mid Super Output Areas that covers the site, namely MSOAs 'E02004878: East Hertfordshire 001' and 'E02004879: East Hertfordshire 002'.

- 7.5.3 The factors were subsequently adjusted in line with the DfT TEMPro User Guidance to account for the National Transport Model (NTM) Traffic Growth (using the NRTP 2022 Core) to reflect the characteristics of the local road network (i.e. Region - All Roads).
- 7.5.4 The projected local growth factors are summarised in **Table 7.1** below. The established average representation will be adopted to forecast the background traffic growth in the area.

MSOA Area	Year 2023 - 2035	
	AM	PM
East Hertfordshire 001	1.0995	1.1022
East Hertfordshire 002	1.1013	1.1031
Average - All	1.1004	1.1026

Table 7.1 – TEMPro Growth Factors

- 7.5.5 It is acknowledged that TEMPro NTEM datasets take into account the underlying planning information in the local area, as well as the strategic housing and employment allocations. Thus, committed development traffic is already accounted for in these growth figures.
- 7.5.6 In light of this, the impact of the development traffic will be assessed solely on the observed traffic levels that have been factored up to the design year 2035 level. The resultant traffic diagrams for Year 2035 Baseline scenario are illustrated in **Appendix J**.

7.6 Introduction to Junction Capacity Assessments

- 7.6.1 The LHA's Guidance on Transport Assessment states that junction assessments should be conducted where material changes in traffic volumes are experienced. In light of this, the percentage increase on the net 2035 base flow traffic for both AM and PM peak hours, as a result of the proposed development, is summarised below in **Table 7.2**.

Junction	Approach	AM			PM		
		2035	Dev	%	2035	Dev	%
The A10 Buntingford Bypass / Ermine Street	The A10 North	518	4	1%	453	11	2%
	Ermine St	142	2	1%	107	5	5%
	The A10 South	544	14	3%	571	7	1%
The A10 Buntingford Bypass / Throcking Lane	The A10 North	567	5	1%	486	15	3%
	Throcking Lane	15	14	89%	12	7	56%
	The A10 South	550	0	0%	583	0	0%
The A10 Buntingford Bypass / A507 Baldock Road / B1038 Baldock Road	The A10 North	571	0	0%	496	0	0%
	B1038 East	722	38	5%	533	28	5%
	The A10 South	872	43	5%	954	85	9%
	Baldock Road West	614	104	17%	517	79	15%
The B1038 Baldock Road / High Street	The B1038 West	288	25	9%	346	28	8%
	High Street	191	7	4%	161	7	4%
	The B1038 South	483	26	5%	470	19	4%
The B1038 High St / Station Rd / B1038 Hare Street Rd	High Street	387	19	5%	431	22	5%
	Hare Street	272	7	2%	237	6	3%
	Station Road	421	19	5%	452	13	3%
The A10 Buntingford Bypass / London Road Roundabout	Station Road	570	17	3%	330	6	2%
	The A10 South	1051	26	2%	1420	79	6%
	The A10 North	1010	77	8%	730	48	7%

Table 7.2 Percentage Increase as Result of Development Traffic

- 7.6.2 As can be seen above, the development proposals are not forecast to result in a tangible growth in traffic volume along the study highway network with an overall average increase of 9% is forecast in AM Peak and 7% in the PM. It is noted that an increase of less than 10% is generally within the range of typical daily variation and therefore insignificant in terms of traffic impact.
- 7.6.3 Notwithstanding the above, to provide a robust impact study, junction capacity tests have been carried out at the identified key junctions to determine the significance of development traffic impact on the local highway network using industry standard software (i.e. ARCADY and PICADY) under the following scenarios for the identified AM and PM peak periods:
- 2023 Base (based on 2023 traffic data);
 - 2035 Base (includes 2023 -2035 traffic growth); and
 - 2035 Base + Development (includes traffic growth and the proposed development).
- 7.6.4 As such, by comparing the differing results of the '2035 Base' and the '2035 With Development' assessments the junctions included within the study area can be viewed in the context of background traffic flows, and with the addition of the traffic flows generated by the development proposals.
- 7.6.5 A sensitivity test has also been carried out taking into account a potential employment development on the land to the south of the A507 Baldock Road and west of the A10. The scheme will see the delivery of an employment scheme comprising up to 27,420sqm/295,145sqft of employment floorspace in a mix of employment uses (Use Class B2, B8, E(c) and E(g)), and a solar farm.
- 7.6.6 Taking into account the close proximity of the two sites, further deduction has been made to the forecast traffic generation associated with both the proposed employment and residential developments to

account for the potential internalisation on commuting journeys. In view of this, it has assumed that 12% of the commuting traffic associated with the residential development will be internal trips to the proposed employment scheme:

- Sensitivity Test - 2035 Base + Both Employment and Residential Developments on Land either Side of the A507 Baldock Road.

7.7 Junction Assessments

- 7.7.1 Junction capacity modelling for the identified junctions was undertaken for the proposed assessment scenarios as set out in **Section 7.2**. The full set of modelling outputs for this modelling is presented at **Appendix L**.
- 7.7.2 Geometric inputs were established using AutoCAD GIS with appropriate measurements taken from the existing junction layout.
- 7.7.3 The results of these assessments provide details of calculated Queue, Delay and Ratio of Flow to Capacity (RFC) for priority and roundabout junctions. It is noted that where an RFC value is shown to exceed a value of 1.00 the associated approach is considered oversaturated.

A10 Buntingford Bypass / Ermine Street Priority T-Junction

- 7.7.4 This priority T-junction has been assessed using the industry standard Junctions 10 modelling package. The A10 forms the major arm of this priority T-junction in a north-south direction with Ermine Street joining from the east as the give way arm. Full output from this model is included as **Appendix L** with associated model results summarised in **Table 7.3**.

Period	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Year 2023 Baseline						
Ermine St	0.5	14.1	0.33	0.3	12.59	0.25
A10 South	0.1	6.73	0.05	0.1	6.73	0.07
Year 2035 Baseline						
Ermine St	0.6	15.99	0.38	0.4	13.91	0.29
A10 South	0.1	6.93	0.05	0.1	6.93	0.08
Year 2035 + Residential Development						
Ermine St	0.6	16.24	0.38	0.4	14.1	0.30
A10 South	0.1	7	0.06	0.1	7.01	0.09
Year 2035 + Dev Both Sites						
Ermine St	0.7	16.93	0.39	0.4	14.28	0.30
A10 South	0.1	7.13	0.06	0.1	7	0.09

Table 7.3 Modelling Results for the A10 / Ermine Street Junction

- 7.7.5 As can be seen in the above table the predicted performance of the junction in the three future year scenarios predicts the junction will operate well within capacity on all movements in both the AM and PM peak hours.

- 7.7.6 Comparison between the two scenarios demonstrates that the junction operates almost identically, with only indiscernible increases in delay in the 'With Development' scenario.
- 7.7.7 As such, the addition of the traffic generated by the proposed development will not result in a severe cumulative residual impact and thus no mitigation works are required at this junction.

A10 / Throcking Lane Junction

- 7.7.8 This priority junction has been assessed using the industry standard Junctions 10 modelling package. The A10 forms the major arm of this priority T-junction in a north-south direction with Throcking Lane joining from the east as the give way arm. Full output from this model is included as **Appendix K** with associated model results summarised in **Table 7.4**.

Period	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Year 2023 Baseline						
Throcking Ln Left	0	6.74	0.01	0	6.68	0.01
Throcking Ln Right	0	11.94	0.03	0	10.57	0.01
A10 North	0	6.51	0.01	0	6.59	0.01
Year 2035 Baseline						
Throcking Ln Left	0	6.94	0.01	0	6.85	0.01
Throcking Ln Right	0	12.71	0.03	0	11.32	0.01
A10 North	0	6.66	0.01	0	6.77	0.01
Year 2035 + Residential Development						
Throcking Ln Left	0	6.93	0.03	0	6.85	0.03
Throcking Ln Right	0	12.92	0.03	0	11.9	0.01
A10 North	0	6.74	0.02	0	6.98	0.04
Year 2035 Sensitivity Test						
Throcking Ln Left	0	6.95	0.03	0	6.94	0.03
Throcking Ln Right	0	13.14	0.03	0	12.09	0.01
A10 North	0	6.74	0.02	0	7.06	0.04

Table 7.4 Modelling Results for the A10 / Throcking Lane Junction

- 7.7.9 As can be seen in the above table the predicted performance of the junction in the three future year scenarios predicts the junction will operate well within capacity on all movements in both the AM and PM peak hours.
- 7.7.10 Comparison between the two scenarios demonstrates that the junction operates almost identically, with only indiscernible increases in delay in the 'With Development' scenario.
- 7.7.11 As such, the addition of the traffic generated by the proposed development will not result in a severe cumulative residual impact and thus no mitigation works are required at this junction.

A10 / A507 Baldock Road / B1038 Baldock Road Roundabout

- 7.7.12 This junction is a five-arm roundabout with an Inscribed Circle Diameter (ICD) of 55 metres encompassing the following arms:

- The A10 approaching from north and south directions;
- The A507 Baldock Road to the east;
- The B1038 Baldock Road to the south; and
- Site Access to Esso Petrol Station from the southeast.

7.7.13 A single lane approach with a short flare is facilitated along all arms. This 5-arm roundabout has been assessed using the industry standard Junctions 10 modelling package. Full output from this model is included as **Appendix L** with associated model results summarised in **Table 7.5**.

Period	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2023 Baseline Traffic						
1 - the A10 North	0.7	4.56	0.38	0.5	3.64	0.31
2 - the B1038	1.3	7.1	0.55	0.6	4.39	0.37
3 - Access Road	0	13.46	0.01	0	10.29	0.05
4 - the A10 South	0.8	3.71	0.43	0.9	3.58	0.46
5 - the A507	0.8	5.39	0.44	0.6	4.47	0.37
2035 Baseline Traffic						
1 - the A10 North	0.8	5.15	0.43	0.5	3.97	0.35
2 - the B1038	1.8	9.12	0.64	0.7	4.91	0.42
3 - Access Road	0	15.76	0.02	0.1	11.31	0.06
4 - the A10 South	1	4.17	0.49	1.1	4.03	0.51
5 - the A507	1.1	6.23	0.50	0.7	5.02	0.42
Year 2035 + Residential Development						
1 - the A10 North	0.9	5.62	0.45	0.6	4.18	0.36
2 - the B1038	2.4	11.46	0.70	0.8	5.32	0.45
3 - Access Road	0	18.36	0.02	0.1	12.12	0.06
4 - the A10 South	1.1	4.51	0.52	1.3	4.54	0.56
5 - the A507	1.5	7.49	0.58	0.9	5.65	0.48
Year 2035 Sensitivity Test						
1 - the A10 North	1	5.98	0.48	0.6	4.46	0.38
2 - the B1038	3.3	14.77	0.76	0.9	5.6	0.46
3 - Access Road	0	21.07	0.02	0.1	12.8	0.06
4 - the A10 South	1.5	5.36	0.58	1.3	4.56	0.56
5 - the A507	1.5	7.66	0.59	1.3	6.85	0.57

Table 7.5 Modelling results for the A10 / Baldock Road Roundabout

- 7.7.14 The future predicted performance of the junction is shown to be well within capacity on all movements in both the AM and PM peak hours under all assessed scenarios.
- 7.7.15 Comparison between the two scenarios demonstrates that minor increases in RFC, queuing and delay are predicted in the 'With Development' scenario. However, even with these increases the highest RFC value of 0.76 indicates that the junction is predicted to operate comfortably within capacity.
- 7.7.16 As such, the addition of the traffic generated by the proposed development will not result in a severe cumulative residual impact and thus no mitigation works are required at this junction.

B1038 Baldock Road / High Street

- 7.7.17 This priority junction has been assessed using the industry standard Junctions 10 modelling package. The B1038 Baldock Road forms the major arm of this priority T-junction in a west-south direction with High Street joining from the north as the give way arm. The full output from this model is included as **Appendix L** with associated model results summarised in **Table 7.6**.

Period	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	Year 2023 Baseline					
High Street	0.6	11.64	0.36	0.4	10.66	0.30
the B1038 South	0.9	8.74	0.36	1.1	9.73	0.40
	Year 2025 Baseline					
High Street	0.7	12.76	0.40	0.5	11.57	0.34
the B1038 South	1.2	9.21	0.41	1.4	10.53	0.46
	Year 2025 + Residential Development					
High Street	0.8	13.82	0.43	0.6	12.42	0.37
the B1038 South	1.3	9.22	0.42	1.5	10.65	0.48
	Year 2025 Sensitivity Test					
High Street	1	16.69	0.50	0.6	12.81	0.37
the B1038 South	1.4	9.11	0.43	1.6	10.96	0.49

Table 7.6 Modelling Results for the B1038 Baldock Road / High Street

- 7.7.18 As can be seen in the above table, the junction is predicted to operate within practical capacity on all arms in both the AM and PM peak hours under all assessment scenarios. Comparison between the two scenarios demonstrates that the junction operates almost identically, with only imperceptible changes in delay.
- 7.7.19 As such, given that there is no discernible difference in the performance of the junction with the addition of the development traffic, relevant to the future baseline situation, the proposed development will not result in a severe cumulative residual impact and thus no mitigation works are required at this junction.

B1038 High Street / Station Road / B1038 Hare Street Road Roundabout

- 7.7.20 The junction is a 3-arm mini roundabout with High Street approaching from the north, the B1038 Hare Street to the east and Station Road to the south. This 3-arm mini roundabout has been assessed using the industry standard Junctions 10 modelling package. Full output from this model is included as **Appendix L** with associated model results summarised in **Table 7.7**.

Period	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2023 Baseline						
1 - High Street	0.6	6	0.36	0.7	6.5	0.41
2 - Hare Street	0.4	6.42	0.30	0.4	6.34	0.27
3 - Station Road	0.8	7.39	0.43	0.8	7.46	0.46
2035 Baseline						
1 - High Street	0.7	6.42	0.40	0.8	7.1	0.45
2 - Hare Street	0.5	6.88	0.34	0.4	6.8	0.30
3 - Station Road	1	8.17	0.48	1	8.32	0.51
Year 2035 + Residential Development						
1 - High Street	0.7	6.64	0.42	0.9	7.39	0.48
2 - Hare Street	0.5	7.08	0.35	0.5	7.02	0.32
3 - Station Road	1	8.61	0.51	1.1	8.65	0.53
Year 2035 Sensitivity Test						
1 - High Street	0.8	6.66	0.42	1	7.7	0.50
2 - Hare Street	0.6	7.39	0.38	0.5	7.06	0.32
3 - Station Road	1.1	9	0.52	1.1	8.66	0.53

Table 7.7 Modelling Results for the B1038 High Street/Station Road /Hare Street Roundabout

- 7.7.21 As can be seen in the above table, the junction is predicted to operate within practical capacity on all arms in both the AM and PM peak hours under all assessment scenarios.
- 7.7.22 Comparison between the two scenarios demonstrates that the junction operates almost identically, with only indiscernible increases in delay in the 'With Development' scenario.
- 7.7.23 As such, given that there is no discernible difference in the performance of the junction with the addition of the development traffic, relevant to the future baseline situation, the proposed development will not result in a severe cumulative residual impact and thus no mitigation works are required at this junction.

A10/London Road Roundabout

- 7.7.24 This junction is a four-arm roundabout with an Inscribed Circle Diameter (ICD) of 54 metres encompassing the following arms:
- The A10 approaching from south and west directions;
 - Station Road to the north; and
 - Site Access to Sainsbury Depot in the east.
- 7.7.25 A single lane approach flaring into two lane entry at the give way line is available along the A10 and Station Road. This 4-arm roundabout has been assessed using the industry standard Junctions 10 modelling package. The full output from this model is included as **Appendix L** with associated model results summarised in **Table 7.8**.

Period	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Year 2023 Baseline						
1 - London Rd	0.6	4.2	0.37	0.2	2.85	0.19
2 - Sainsbury Depot Access	0	3.61	0.01	0	3.15	0.01
3 - A10 (S)	0.9	3.35	0.46	1.6	4.4	0.61
4 - A10 (N)	1.1	4.38	0.51	0.7	3.65	0.40
Year 2035 Baseline						
1 - London Rd	0.8	4.77	0.42	0.3	3.01	0.21
2 - Sainsbury Depot Access	0	3.93	0.01	0	3.29	0.01
3 - A10 (S)	1.1	3.68	0.50	2.1	5.26	0.67
4 - A10 (N)	1.4	4.99	0.57	0.8	4.05	0.45
Year 2035 + Residential Development						
1 - London Rd	0.8	5.17	0.45	0.3	3.08	0.22
2 - Sainsbury Depot Access	0	4.17	0.01	0	3.36	0.01
3 - A10 (S)	1.1	3.82	0.52	2.5	5.97	0.71
4 - A10 (N)	1.7	5.56	0.61	0.9	4.27	0.48
Year 2035 Sensitivity Test						
1 - London Rd	0.8	5.19	0.45	0.3	3.16	0.23
2 - Sainsbury Depot Access	0	4.18	0.01	0	3.45	0.01
3 - A10 (S)	1.3	4.13	0.55	2.5	5.97	0.71
4 - A10 (N)	1.7	5.59	0.62	1	4.55	0.51

Table 7.8 Modelling Results for the A10 / London Road Roundabout

- 7.7.26 As can be seen above, the junction is predicted to operate well within capacity on all movements in both the AM and PM peak hours.
- 7.7.27 Comparison between the two scenarios demonstrates that minor increases in RFC, queuing and delay are predicted in the 'With Development' scenario. However, even with these increases the highest RFC value of 0.71 indicates that the junction is predicted to operate comfortably within capacity.
- 7.7.28 As such, the addition of the traffic generated by the proposed development will not result in a severe cumulative residual impact and thus no mitigation works are required at this junction.

Baldock Road Site Access Junction

- 7.7.29 As stated in **Section 5**, the proposed vehicular access to the proposed development will be via a new roundabout directly off the A507 Baldock Road. To ensure the adequacy of the proposed access junction in terms of capacity, capacity tests were undertaken to assess its operational capacity with the outturn junction performance summarised in **Table 7.9** below.

Period	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Year 2035 + Residential Development						
1 - Site Access North	0.2	5.44	0.17	0.1	4.8	0.11
2 - Baldock Rd East	1.5	7.33	0.59	1.4	7.2	0.59
3 - Site Access South	0	0	0.00	0	0	0.00
4 - Baldock Rd West	1.2	6.96	0.55	0.9	6.21	0.49
Year 2035 Sensitivity Test						
1 - Site Access North	0.2	6.23	0.18	0.1	5.21	0.12
2 - Baldock Rd East	3.5	14.51	0.78	1.5	7.3	0.59
3 - Site Access South	0	5.58	0.04	0.3	6.6	0.24
4 - Baldock Rd West	2.2	10.18	0.69	1.1	6.91	0.51

Table 7.9 Modelling Results for Site Access Junction off A507 Baldock Road

7.7.30 **Table 7.9** shows that the proposed access junction has sufficient capacity to accommodate the estimated development traffic with no significant queues predicted.

7.7.31 No access from Throcking Lane has been assessed due to the priority given to vehicle traffic travelling to and from the site from the A10 via Throcking Lane.

7.8 Summary

7.8.1 The Future Year Assessments forecast that the identified key junctions will operate within capacity and should also provide a capacity margin to accommodate any further traffic growth in the area should this occur. The proposed development is not forecast to constitute any discernible impact with a notional increase in queue length and delays predicted at all tested junctions and thus the proposal would not result in a severe residual cumulative impact as defined within the NPPF.

8 Summary and Conclusions

8.1 Summary

- 8.1.1 This Transport Assessment has been prepared in support of an outline planning application for a residential led development comprising up to 600 dwellings (C3), elderly accommodation (C3), Mixed Use Local Centre (including flexible use E, F and Sui Generis), First School, informal and formal open space, associated works and infrastructure including a new access from the A507 and pedestrian bridge over the A10, with all matters reserved save for access.
- 8.1.2 This Transport Assessment has been undertaken in accordance with the guidance included within the National Planning Policy Framework and the National Planning Policy Guidance.

8.2 Existing Conditions

- 8.2.1 Buntingford is a market town located in East Hertfordshire. The application site benefits from being located in close proximity to a wide range of compatible and supportive 'day to day' local services and the site is located within 2km of Buntingford town centre.
- 8.2.2 The site is very well located in terms of access to the local and strategic highway network being accessed off the A507 Baldock Road and easily accessible from the strategic road network with the A10 located within close proximity.
- 8.2.3 A number of connections have been identified that would link the site to the wider pedestrian network. These linkages comprise existing Public Rights of Way (PRoW) along with a continuous segregated footway and cycle path that is proposed as part of the access strategy. The surrounding area is also served by sustainable links to the south and east of the application site, offering a range of walking and cycling opportunities that connect with Buntingford.
- 8.2.4 The site is conveniently located to access the local bus services. The nearest existing bus stop to the proposed site access lies on the B1038 Baldock Road, known as 'Greenways'. This bus stop would be located within close proximity to the site boundary and provides access to three different bus services.

8.3 Preliminary Review on Highway Safety

- 8.3.1 Records of personal injury collisions have been assessed in the vicinity of the site for the 5-year period between January 2018 and December 2022. Considering the wide study area and the type roads within it the number of collisions is of a very low level.
- 8.3.2 Thus, the conclusion of this preliminary study of PIC collision data is that it is not considered to be any specific collision problems in the vicinity of the development site.

8.4 Proposed Development

- 8.4.1 The proposed residential led development is for up to 600 dwellings (C3), elderly accommodation (C3), Mixed Use Local Centre (including flexible use E, F and Sui Generis) and First School, with associated works and infrastructure.
- 8.4.2 The main vehicular access point to the proposed development will be provided off the A507 Baldock Road from the south via a roundabout junction and off Throcking Lane from the north via a priority

junction, which will be realigned from the existing arrangement to provide priority to vehicle trips to and from the site.

- 8.4.3 It is also proposed to reduce the existing vehicle speed limits along the A507 and Throcking Lane to 30mph in the vicinity to the application site.
- 8.4.4 Car and cycle parking will be provided in line with local policy, and following consultation with the Local Highways Authority as required in the Local Plan.
- 8.4.5 It is proposed to provide extensive pedestrian, cycle and public transport facilities throughout the site and on the way to Buntingford town centre to provide a high-quality sustainable network that will encourage the use of alternative modes of transport to the private car.
- 8.4.6 The proposals comprise the upgrading of the existing 3.0m cycle-footway connecting Buntingford with Buntingford Business Park to a segregated network of footways and cycle paths that will be extended to the site and which will also include the provision of a Toucan crossing on the A10.
- 8.4.7 It is also proposed to improve conditions with additional measures that would include an additional pedestrian crossing on the A10 along the Cottered Footpath 041.
- 8.4.8 Additional improvements are also proposed in terms of public transport infrastructure and bus services to serve the site. The provision of two mobility hubs would help achieve high sustainable credentials as part of the proposed development.
- 8.4.9 On top of that, the proposed development could also include additional off-site highway improvements along the B1038 Baldock Road, which would be subject to feasibility and further conversations with HCC.
- 8.4.10 These measures could be complemented with those proposed as part of the adjacent employment proposal to the south of the A507 Baldock Road, and which would comprise a number of additional pedestrian and cycle crossings to the east and west of the proposed roundabout junction providing access to both sites. These would significantly extend the length of the segregated pedestrian and cycle network to the west of Buntingford and would promote walking and cycling as safe, efficient and convenient modes of transport between the sites and the town of Buntingford.
- 8.4.11 Whilst the proposed development has been designed to be sustainable as an individual site, the cumulative measures associated with the introduction of the nearby employment scheme would complement those proposed as part of this application and would enhance the already significant accessibility and connectivity improvements provided to the west of Buntingford.

8.5 Traffic Generation, Distribution and Assignment

- 8.5.1 In order to establish the predicted trip generation of the proposed development, trip rates have been established based on comparative multi-modal survey sites collated from TRICS database (using version 7.10.3) for the land categories of 'Residential – Houses Privately Owned', 'Residential – Retirement Living' and 'Health – GP Surgeries' (with the latter one included in order to provide a robust assessment as part of the facilities that could be provided within the proposed Local Centre).
- 8.5.2 Appropriate adjustments have been undertaken to the nature of the site as a mixed-use development with facilities provided that will significantly reduce the need to use the private car for a number of purposes needed on a daily basis.

- 8.5.3 Furthermore, a robust site overarching Travel Plan will also be introduced at the development to reduce the reliance on solo-car journeys and thus to accomplish a positive mode shift from car travel to other sustainable modes. This Travel Plan will include measures to encourage sustainable travel behaviour from the point of occupation.
- 8.5.4 The vehicle trip distribution for the proposed residential (C3) and elderly accommodation (C3) units is based on the 2011 Census O/D data, available on the website www.nomisweb.co.uk, using the WU03EW dataset 'Location of Usual Residence and Place of Work by Method of Travel to Work'.

8.6 Impact on the Local Highway Network

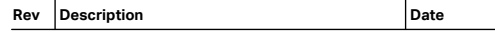
- 8.6.1 The capacity analyses undertaken for the junctions included within the study area have shown that the proposed development will have a limited and acceptable impact on all the junctions assessed. Furthermore, the proposed main access is also shown to operate within capacity in all assessed scenarios.
- 8.6.2 The Future Year Assessments forecast that the identified key junctions will operate satisfactorily within their capacity and should also provide further capacity margin to accommodate the further traffic growth in the area should this occur.
- 8.6.3 The proposed development is not forecast to constitute any discernible impact with a notional increase in queue length and delays predicted at all testing junctions and thus the proposal would not result in a severe impact as defined within the NPPF.

8.7 Overall Conclusion

- 8.7.1 This Transport Assessment has assessed the traffic impacts from the proposed development.
- 8.7.2 The strategy for Hertfordshire County Council has a strong emphasis on minimising car use by integrating land use and transport planning and improving the choice of sustainable modes to access key services and facilities.
- 8.7.3 The site is located within walking and cycle distance from surrounding facilities provided within Buntingford. There are good opportunities to encourage high levels of walking, cycling and public transport use.
- 8.7.4 It has been identified that there are no PIC collision black spots on the highway in the vicinity of the site; and that the impact of development traffic on the local highway will be below levels which could be described as 'severe'.
- 8.7.5 This Transport Assessment has assessed the likely effects of the traffic associated with the development proposals. It is the conclusion of this Transport Assessment that the proposed development will have a minimal impact on the highway network near the site.
- 8.7.6 Therefore, it is concluded that this development is appropriate and acceptable in traffic and transport terms. The proposal is compliant with NPPF and NPPG, and with MfS/MfS2. Based on the above, it is considered that the proposed development is in accordance with policy and will not cause a 'severe' impact on the local road network.

Appendix A: Application Boundary Plan

10/10



FOR PLANNING PURPOSES ONLY
All information is copyright protected and may not be
used or reproduced without prior permission.
© Crown copyright and database right 2022.
All rights reserved.
Ordnance Survey Licence number 100059809.

Hallam Land Management

Land West of Buntingford

Application Boundary Plan (North of Baldock Road)

Drawn:
ADW

Design
SJP

Approved:
SJP

Revised
B

Date:
10.05.24

50 North Thirteenth Street, Central Milton Keynes, MK9 3BP
01908 666276 mail@davidlock.com **davidlock.com**



Appendix B: Traffic Survey Data

Buntingford

Tuesday 3rd October 2023

Junction: 1A

Approach: A10 North

	Left to Ermine Street									Ahead to A10 (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	60	22	1	0	1	84	85.5
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	1	81	27	5	2	0	116	120.5
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	1	67	22	2	1	0	93	94.7
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	110	26	5	2	1	144	150.1
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	2	318	97	13	5	2	437	450.8
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	87	25	5	1	1	119	123.8
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	89	12	6	3	1	111	118.9
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	48	16	8	1	0	73	78.3
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	1	76	20	3	1	0	101	103.2
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	1	300	73	22	6	2	404	424.2
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	76	19	8	4	0	107	116.2
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	58	17	5	6	1	87	98.3
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	14	37	13	5	2	0	71	67.7
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	48	5	5	3	1	62	69.4
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	14	219	54	23	15	2	327	351.6
TOTAL	0	0	0	0	0	0	0	0	0.0	0	17	837	224	58	26	6	1168	1226.6
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	1	58	17	5	0	0	81	82.9
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	1	1	75	18	3	1	1	100	102.4
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	73	17	0	1	0	91	92.3
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	94	17	0	1	0	112	113.3
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	2	300	69	8	3	1	384	390.9
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	87	14	0	1	0	102	103.3
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	1	96	19	1	0	0	117	116.9
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	1	97	10	2	1	1	112	114.7
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	67	7	0	0	1	75	76.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	2	347	50	3	2	2	406	410.9
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	63	7	1	3	0	74	78.4
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	1	65	5	1	0	0	72	71.9
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	49	6	0	1	0	56	57.3
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	39	2	1	1	0	43	44.8
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	1	216	20	3	5	0	245	252.4
TOTAL	0	0	0	0	0	0	0	0	0.0	1	5	863	139	14	10	3	1035	1054.2

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 1A

Approach: Ermine Street

TIME	Left to A10 (S)									Right to A10 (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	3	1	0	0	0	4	4.0	0	0	9	0	0	0	0	9	9.0
07:15 - 07:30	0	0	6	2	1	0	0	9	9.5	0	1	9	3	0	0	0	13	12.4
07:30 - 07:45	1	0	8	1	1	0	0	11	10.7	0	1	9	4	0	0	0	14	13.4
07:45 - 08:00	0	0	9	1	0	0	0	10	10.0	0	0	10	1	1	0	0	12	12.5
Hourly Total	1	0	26	5	2	0	0	34	34.2	0	2	37	8	1	0	0	48	47.3
08:00 - 08:15	0	0	6	4	0	0	0	10	10.0	0	0	10	1	0	1	0	12	13.3
08:15 - 08:30	0	0	15	2	0	1	0	18	19.3	0	0	22	3	1	0	0	26	26.5
08:30 - 08:45	0	0	15	0	1	0	0	16	16.5	0	0	21	0	0	0	0	21	21.0
08:45 - 09:00	0	0	8	1	0	0	0	9	9.0	0	0	12	3	0	0	0	15	15.0
Hourly Total	0	0	44	7	1	1	0	53	54.8	0	0	65	7	1	1	0	74	75.8
09:00 - 09:15	0	0	8	1	0	1	0	10	11.3	0	0	8	3	0	0	0	11	11.0
09:15 - 09:30	0	0	3	1	0	0	0	4	4.0	0	0	6	2	0	1	0	9	10.3
09:30 - 09:45	0	0	2	1	0	0	0	3	3.0	0	1	6	0	0	0	0	7	6.4
09:45 - 10:00	0	0	8	0	0	0	0	8	8.0	0	0	6	0	0	0	0	6	6.0
Hourly Total	0	0	21	3	0	1	0	25	26.3	0	1	26	5	0	1	0	33	33.7
TOTAL	1	0	91	15	3	2	0	112	115.3	0	3	128	20	2	2	0	155	156.8

16:00 - 16:15	0	0	3	2	0	0	0	5	5.0	0	0	13	0	0	0	0	13	13.0
16:15 - 16:30	1	0	2	2	0	0	0	5	4.2	0	0	10	2	1	0	0	13	13.5
16:30 - 16:45	0	0	4	1	0	0	0	5	5.0	0	0	11	2	0	0	0	13	13.0
16:45 - 17:00	0	0	1	0	0	0	0	1	1.0	0	0	11	0	0	0	0	11	11.0
Hourly Total	1	0	10	5	0	0	0	16	15.2	0	0	45	4	1	0	0	50	50.5
17:00 - 17:15	0	1	17	1	0	0	0	19	18.4	0	0	15	0	0	0	0	15	15.0
17:15 - 17:30	0	0	5	1	0	0	0	6	6.0	0	0	15	4	1	0	0	20	20.5
17:30 - 17:45	0	0	3	1	0	0	0	4	4.0	0	0	15	0	0	1	0	16	17.3
17:45 - 18:00	0	0	6	0	0	0	0	6	6.0	0	0	10	0	0	0	0	10	10.0
Hourly Total	0	1	31	3	0	0	0	35	34.4	0	0	55	4	1	1	0	61	62.8
18:00 - 18:15	0	0	4	0	0	0	0	4	4.0	0	0	16	2	0	0	0	18	18.0
18:15 - 18:30	0	0	5	0	0	0	0	5	5.0	0	0	6	0	1	0	0	7	7.5
18:30 - 18:45	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0
18:45 - 19:00	0	0	1	0	0	0	1	2	3.0	0	0	7	0	0	0	0	7	7.0
Hourly Total	0	0	12	0	0	0	1	13	14.0	0	0	33	3	1	0	0	37	37.5
TOTAL	1	1	53	8	0	0	1	64	63.6	0	0	133	11	3	1	0	148	150.8

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 1A

Approach: A10 South

TIME	Ahead to A10 (N)									Right to Ermine Street								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	67	26	3	1	0	97	99.8	1	0	1	1	0	1	0	4	4.5
07:15 - 07:30	0	0	82	22	3	1	0	108	110.8	0	0	5	0	0	0	0	5	5.0
07:30 - 07:45	0	0	70	24	5	2	0	101	106.1	0	0	5	1	0	1	0	7	8.3
07:45 - 08:00	0	0	71	25	5	1	0	102	105.8	0	0	0	2	0	0	0	2	2.0
Hourly Total	0	0	290	97	16	5	0	408	422.5	1	0	11	4	0	2	0	18	19.8
08:00 - 08:15	0	0	71	27	1	1	1	101	103.8	0	0	2	2	0	0	0	4	4.0
08:15 - 08:30	0	0	89	22	4	3	0	118	123.9	0	0	8	0	0	0	0	8	8.0
08:30 - 08:45	0	0	102	17	1	4	2	126	133.7	0	0	11	2	0	0	0	13	13.0
08:45 - 09:00	0	1	81	14	3	5	0	104	111.4	0	0	6	1	0	1	0	8	9.3
Hourly Total	0	1	343	80	9	13	3	449	472.8	0	0	27	5	0	1	0	33	34.3
09:00 - 09:15	0	0	55	17	7	1	0	80	84.8	0	0	5	1	0	1	0	7	8.3
09:15 - 09:30	0	0	48	13	6	4	0	71	79.2	0	0	5	1	0	0	0	6	6.0
09:30 - 09:45	0	2	62	10	4	3	0	81	85.7	0	0	2	0	0	0	0	2	2.0
09:45 - 10:00	0	1	52	18	5	1	0	77	80.2	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	3	217	58	22	9	0	309	329.9	0	0	12	2	0	1	0	15	16.3
TOTAL	0	4	850	235	47	27	3	1166	1225.2	1	0	50	11	0	4	0	66	70.4
16:00 - 16:15	0	0	65	24	2	2	0	93	96.6	0	0	4	2	0	0	0	6	6.0
16:15 - 16:30	0	1	91	26	2	1	1	122	124.7	0	0	7	3	0	0	0	10	10.0
16:30 - 16:45	0	0	89	24	4	1	0	118	121.3	0	0	8	3	0	0	0	11	11.0
16:45 - 17:00	0	0	86	18	0	1	0	105	106.3	1	0	9	3	0	0	0	13	12.2
Hourly Total	0	1	331	92	8	5	1	438	448.9	1	0	28	11	0	0	0	40	39.2
17:00 - 17:15	0	2	93	27	1	2	0	125	126.9	0	0	9	0	0	0	0	9	9.0
17:15 - 17:30	0	1	102	14	2	1	0	120	121.7	0	0	15	0	0	0	0	15	15.0
17:30 - 17:45	0	0	102	13	1	0	0	116	116.5	0	0	12	2	0	0	0	14	14.0
17:45 - 18:00	0	0	95	13	0	0	1	109	110.0	0	0	5	0	0	0	0	5	5.0
Hourly Total	0	3	392	67	4	3	1	470	475.1	0	0	41	2	0	0	0	43	43.0
18:00 - 18:15	0	0	91	7	0	2	0	100	102.6	1	0	5	0	0	0	0	6	5.2
18:15 - 18:30	0	0	77	10	0	0	0	87	87.0	0	0	1	1	0	0	0	2	2.0
18:30 - 18:45	0	0	48	9	2	0	0	59	60.0	0	0	5	1	0	0	0	6	6.0
18:45 - 19:00	0	0	42	6	0	1	0	49	50.3	0	0	8	0	0	0	0	8	8.0
Hourly Total	0	0	258	32	2	3	0	295	299.9	1	0	19	2	0	0	0	22	21.2
TOTAL	0	4	981	191	14	11	2	1203	1223.9	2	0	88	15	0	0	0	105	103.4

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0



Tuesday 3rd October 2023

PCUs

From: 1) 07:00

To: 1) 10:00

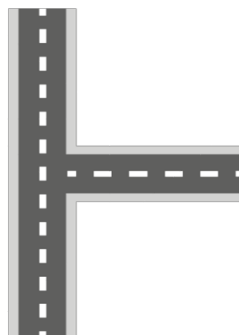
Class: All Vehicles

Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

A10 (N)	
1168	0
1226.6	0



156.8	155	Ermine Street
115.3	112	

1225.2	70.4
1166	66
A10 (S)	

Buntingford

Tuesday 3rd October 2023

Junction: 1B

Approach: Ermine Street North (A10 Offslip)

	Left to Ermine Street (S)									Right to Ermine Street (W)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	2	1	1	1	0	5	6.8	0	0	0	0	0	0	0	0	0.0	
07:15 - 07:30	0	0	5	3	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0.0	
07:30 - 07:45	0	0	7	3	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0	
07:45 - 08:00	0	0	16	3	0	0	0	19	19.0	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	0	30	10	1	1	0	42	43.8	0	0	0	0	0	0	0	0	0.0	
08:00 - 08:15	0	0	22	2	0	0	0	24	24.0	0	0	0	0	0	0	0	0	0.0	
08:15 - 08:30	0	0	45	4	0	0	0	49	49.0	0	0	0	0	0	0	0	0	0.0	
08:30 - 08:45	0	0	20	3	0	0	0	23	23.0	0	0	0	0	0	0	0	0	0.0	
08:45 - 09:00	0	0	7	3	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	0	94	12	0	0	0	106	106.0	0	0	0	0	0	0	0	0	0.0	
09:00 - 09:15	0	0	11	3	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	
09:15 - 09:30	0	1	4	1	0	0	0	6	5.4	0	0	0	0	0	0	0	0	0.0	
09:30 - 09:45	0	0	10	1	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0.0	
09:45 - 10:00	0	0	9	2	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	1	34	7	2	0	0	44	44.4	0	0	0	0	0	0	0	0	0.0	
TOTAL	0	1	158	29	3	1	0	192	194.2	0	0	0	0	0	0	0	0	0.0	
16:00 - 16:15	0	1	12	4	0	0	0	17	16.4	0	0	0	0	0	0	0	0	0.0	
16:15 - 16:30	0	0	17	4	0	0	0	21	21.0	0	0	0	0	0	0	0	0	0.0	
16:30 - 16:45	0	0	14	3	1	0	0	18	18.5	0	0	0	0	0	0	0	0	0.0	
16:45 - 17:00	0	0	17	3	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	1	60	14	2	0	0	77	77.4	0	0	0	0	0	0	0	0	0.0	
17:00 - 17:15	0	0	15	2	0	0	0	17	17.0	0	0	0	0	0	0	0	0	0.0	
17:15 - 17:30	0	0	15	2	0	0	0	17	17.0	0	0	0	0	0	0	0	0	0.0	
17:30 - 17:45	0	1	16	3	0	0	0	20	19.4	0	0	0	0	0	0	0	0	0.0	
17:45 - 18:00	0	0	13	1	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	1	59	8	0	0	0	68	67.4	0	0	0	0	0	0	0	0	0.0	
18:00 - 18:15	0	0	11	2	0	0	0	13	13.0	0	0	0	0	0	0	0	0	0.0	
18:15 - 18:30	0	0	12	2	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0	
18:30 - 18:45	0	0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0.0	
18:45 - 19:00	0	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	0	39	5	1	0	0	45	45.5	0	0	0	0	0	0	0	0	0.0	
TOTAL	0	2	158	27	3	0	0	190	190.3	0	0	0	0	0	0	0	0	0.0	

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 1B

Approach: Ermine Street South

	Ahead to Ermine Street (W)									Right to Ermine Street (N) A10 Offslip								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	12	1	0	0	0	13	13.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	1	15	5	1	0	0	22	21.9	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	1	1	17	5	1	0	0	25	24.1	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	19	2	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	1	2	63	13	3	0	0	82	81.5	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	16	5	0	1	0	22	23.3	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	37	5	1	1	0	44	45.8	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	36	0	1	0	0	37	37.5	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	20	4	0	0	0	24	24.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	109	14	2	2	0	127	130.6	0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	16	4	0	1	0	21	22.3	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	9	3	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	1	8	1	0	0	0	10	9.4	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	14	0	0	0	0	14	14.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	47	8	0	2	0	58	60.0	0	0	0	0	0	0	0	0	0.0
TOTAL	1	3	219	35	5	4	0	267	272.1	0	0	0	0	0	0	0	0	0.0
16:00 - 16:15	0	0	16	2	0	0	0	18	18.0	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	1	0	12	4	1	0	0	18	17.7	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	15	3	0	0	0	18	18.0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	12	0	0	0	0	12	12.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	1	0	55	9	1	0	0	66	65.7	0	0	0	0	0	0	0	0	0.0
17:00 - 17:15	0	1	32	1	0	0	0	34	33.4	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	20	5	1	0	0	26	26.5	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	18	1	0	1	0	20	21.3	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	16	0	0	0	0	16	16.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	86	7	1	1	0	96	97.2	0	0	0	0	0	0	0	0	0.0
18:00 - 18:15	0	0	20	2	0	0	0	22	22.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	11	0	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	6	1	0	0	0	7	7.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	8	0	0	0	1	9	10.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	45	3	1	0	1	50	51.5	0	0	0	0	0	0	0	0	0.0
TOTAL	1	1	186	19	3	1	1	212	214.4	0	0	0	0	0	0	0	0	0.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 1B

Approach: Ermine Street West

	Left to Ermine Street (N) A10 Offslip									Ahead to Ermine Street (S)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	1	0	1	1	0	1	0	4	4.5	
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	5	0	0	0	0	5	5.0	
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	1	0	7	8.3	
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	2	0	0	0	2	2.0	
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	0	11	4	0	2	0	18	19.8	
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	2	2	0	0	0	4	4.0	
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	8	0	0	0	0	8	8.0	
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	11	2	0	0	0	13	13.0	
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	6	1	0	1	0	8	9.3	
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	27	5	0	1	0	33	34.3	
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	1	0	7	8.3	
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	0	0	6	6.0	
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	12	2	0	1	0	15	16.3	
TOTAL	0	0	0	0	0	0	0	0	0.0	1	0	50	11	0	4	0	66	70.4	
16:00 - 16:15	0	0	0	0	0	0	0	0	0.0	0	0	4	2	0	0	0	6	6.0	
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	7	3	0	0	0	10	10.0	
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	8	3	0	0	0	11	11.0	
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	1	0	9	3	0	0	0	13	12.2	
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	0	28	11	0	0	0	40	39.2	
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	9	0	0	0	0	9	9.0	
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	15	0	0	0	0	15	15.0	
17:30 - 17:45	0	0	0	0	0	0	0	0	0.0	0	0	12	2	0	0	0	14	14.0	
17:45 - 18:00	0	0	0	0	0	0	0	0	0.0	0	0	5	0	0	0	0	5	5.0	
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	41	2	0	0	0	43	43.0	
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	1	0	5	0	0	0	0	6	5.2	
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0	
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	5	1	0	0	0	6	6.0	
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	8	0	0	0	0	8	8.0	
Hourly Total	0	0	0	0	0	0	0	0	0.0	1	0	19	2	0	0	0	22	21.2	
TOTAL	0	0	0	0	0	0	0	0	0.0	2	0	88	15	0	0	0	105	103.4	

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0



Tuesday 3rd October 2023

PCUs

From: 1) 07:00

To: 1) 10:00

Class: All Vehicles

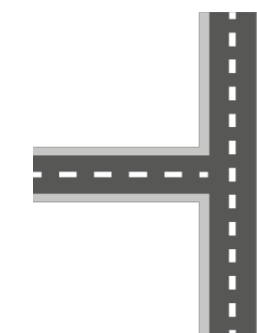
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

Ermine Street (W)	0	0	
	66	70.4	

Ermine Street (N) A10 Offslip	
0	192
0	194.2



272.1	0
267	0
Ermine Street (S)	



Buntingford

Tuesday 3rd October 2023

Junction: 2

Approach: A10 North

	Ahead to A10 (S)									Right to Throcking Lane								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	64	26	0	0	1	91	92.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	1	83	25	7	3	0	119	125.8	0	0	1	0	0	0	0	1	1.0
07:30 - 07:45	0	1	78	26	2	1	0	108	109.7	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	111	27	6	1	1	146	151.3	0	0	0	2	0	0	0	2	2.0
Hourly Total	0	2	336	104	15	5	2	464	478.8	0	0	1	2	0	0	0	3	3.0
08:00 - 08:15	0	0	94	29	6	1	1	131	136.3	0	0	0	1	0	0	0	1	1.0
08:15 - 08:30	0	0	104	12	5	4	1	126	134.7	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	62	14	7	1	0	84	88.8	0	0	1	0	0	0	0	1	1.0
08:45 - 09:00	0	1	81	18	2	1	0	103	104.7	0	0	3	2	0	0	0	5	5.0
Hourly Total	0	1	341	73	20	7	2	444	464.5	0	0	4	3	0	0	0	7	7.0
09:00 - 09:15	0	0	80	19	6	5	0	110	119.5	0	0	0	1	0	0	0	1	1.0
09:15 - 09:30	0	0	59	17	9	5	1	91	103.0	0	0	1	0	0	0	0	1	1.0
09:30 - 09:45	0	14	49	17	5	2	0	87	83.7	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	48	8	5	3	1	65	72.4	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	14	236	61	25	15	2	353	378.6	0	0	2	1	0	0	0	3	3.0
TOTAL	0	17	913	238	60	27	6	1261	1321.9	0	0	7	6	0	0	0	13	13.0
16:00 - 16:15	0	0	60	18	6	0	0	84	87.0	0	1	0	0	0	0	0	1	0.4
16:15 - 16:30	0	1	75	20	3	1	1	101	104.2	0	0	0	1	0	0	0	1	1.0
16:30 - 16:45	0	0	77	18	0	1	0	96	97.3	0	0	2	0	0	0	0	2	2.0
16:45 - 17:00	0	0	86	18	0	1	0	105	106.3	0	0	2	1	0	0	0	3	3.0
Hourly Total	0	1	298	74	9	3	1	386	394.8	0	1	4	2	0	0	0	7	6.4
17:00 - 17:15	0	0	103	14	0	1	0	118	119.3	0	1	0	1	0	0	0	2	1.4
17:15 - 17:30	0	1	95	19	1	0	0	116	115.9	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	1	103	11	1	1	1	118	120.2	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	72	8	0	0	1	81	82.0	0	0	1	2	0	0	0	3	3.0
Hourly Total	0	2	373	52	2	2	2	433	437.4	0	1	1	3	0	0	0	5	4.4
18:00 - 18:15	0	0	63	9	1	3	0	76	80.4	0	0	1	0	0	0	0	1	1.0
18:15 - 18:30	0	1	65	5	1	0	0	72	71.9	0	0	2	0	0	0	0	2	2.0
18:30 - 18:45	0	0	49	6	0	1	0	56	57.3	0	0	1	0	0	0	0	1	1.0
18:45 - 19:00	0	1	41	2	1	1	1	47	49.2	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	2	218	22	3	5	1	251	258.8	0	0	6	0	0	0	0	6	6.0
TOTAL	0	5	889	148	14	10	4	1070	1091.0	0	2	11	5	0	0	0	18	16.8

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 2

Approach: A10 South

TIME	Left to Throcking Lane									Ahead to A10 (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	1	1	0	0	2	2.5	0	0	69	23	4	2	0	98	102.6
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	89	21	3	1	0	114	116.8
07:30 - 07:45	0	0	0	1	0	0	0	1	1.0	0	0	79	23	4	4	0	110	117.2
07:45 - 08:00	0	0	1	2	0	0	0	3	3.0	0	0	71	28	5	1	0	105	108.8
Hourly Total	0	0	1	4	1	0	0	6	6.5	0	0	308	95	16	8	0	427	445.4
08:00 - 08:15	0	0	1	0	0	0	0	1	1.0	0	0	77	29	1	1	1	109	111.8
08:15 - 08:30	0	0	1	0	0	0	0	1	1.0	0	0	93	21	4	3	0	121	126.9
08:30 - 08:45	0	0	2	0	0	0	0	2	2.0	0	0	111	23	2	2	2	140	145.6
08:45 - 09:00	0	0	1	0	0	0	0	1	1.0	0	1	87	20	3	7	0	118	128.0
Hourly Total	0	0	5	0	0	0	0	5	5.0	0	1	368	93	10	13	3	488	512.3
09:00 - 09:15	0	0	1	0	0	0	0	1	1.0	0	0	68	20	8	2	0	98	104.6
09:15 - 09:30	0	0	1	1	0	0	0	2	2.0	0	0	53	12	5	4	0	74	81.7
09:30 - 09:45	0	0	0	1	0	0	0	1	1.0	0	2	56	10	5	3	0	76	81.2
09:45 - 10:00	0	0	1	0	0	0	0	1	1.0	0	1	53	12	4	1	0	71	73.7
Hourly Total	0	0	3	2	0	0	0	5	5.0	0	3	230	54	22	10	0	319	341.2
TOTAL	0	0	9	6	1	0	0	16	16.5	0	4	906	242	48	31	3	1234	1298.9
16:00 - 16:15	0	0	2	1	0	1	0	4	5.3	0	0	72	24	2	2	0	100	103.6
16:15 - 16:30	0	0	1	0	0	0	0	1	1.0	0	1	89	29	2	1	1	123	125.7
16:30 - 16:45	0	0	1	0	0	0	0	1	1.0	0	0	96	26	3	1	0	126	128.8
16:45 - 17:00	0	0	2	0	0	0	0	2	2.0	0	0	88	11	0	1	0	100	101.3
Hourly Total	0	0	6	1	0	1	0	8	9.3	0	1	345	90	7	5	1	449	459.4
17:00 - 17:15	0	0	0	1	0	0	0	1	1.0	0	2	103	28	1	2	0	136	137.9
17:15 - 17:30	0	0	1	1	0	0	0	2	2.0	0	1	125	13	2	1	0	142	143.7
17:30 - 17:45	0	0	1	0	0	0	0	1	1.0	0	0	115	14	1	0	0	130	130.5
17:45 - 18:00	0	0	1	0	0	0	0	1	1.0	0	0	97	13	0	0	1	111	112.0
Hourly Total	0	0	3	2	0	0	0	5	5.0	0	3	440	68	4	3	1	519	524.1
18:00 - 18:15	0	0	0	1	0	0	0	1	1.0	0	0	96	8	0	2	0	106	108.6
18:15 - 18:30	0	0	2	0	0	0	0	2	2.0	0	0	78	8	0	0	0	86	86.0
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	53	7	2	0	0	62	63.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	53	9	1	0	0	63	63.5
Hourly Total	0	0	3	1	0	0	0	4	4.0	0	0	280	32	3	2	0	317	321.1
TOTAL	0	0	12	4	0	1	0	17	18.3	0	4	1065	190	14	10	2	1285	1304.6

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 2

Approach: Throcking Lane

	Left to A10 (N)									Right to A10 (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0
07:15 - 07:30	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0
Hourly Total	0	0	1	0	0	0	0	1	1.0	0	0	5	3	0	0	0	8	8.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0
08:15 - 08:30	0	0	2	0	0	0	0	2	2.0	0	0	4	0	0	0	0	4	4.0
08:30 - 08:45	0	0	2	0	0	0	0	2	2.0	0	0	1	1	1	0	0	3	3.5
08:45 - 09:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	1	0	0	1	1.5
Hourly Total	0	0	4	0	0	0	0	4	4.0	0	0	5	2	2	0	0	9	10.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	4	1	0	0	0	5	5.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	5	1	0	0	0	6	6.0	0	0	3	0	0	0	0	3	3.0
TOTAL	0	0	10	1	0	0	0	11	11.0	0	0	13	5	2	0	0	20	21.0
16:00 - 16:15	0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0
16:15 - 16:30	0	0	1	1	0	0	0	2	2.0	0	0	2	1	0	0	0	3	3.0
16:30 - 16:45	0	0	1	1	1	0	0	3	3.5	0	0	2	2	0	0	0	4	4.0
16:45 - 17:00	0	0	1	1	0	1	0	3	4.3	1	0	1	0	0	0	0	2	1.2
Hourly Total	0	0	3	4	1	1	0	9	10.8	1	0	6	3	0	0	0	10	9.2
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	1	1	0	0	0	2	2.0	0	0	0	1	0	0	0	1	1.0
17:30 - 17:45	0	0	1	2	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0
17:45 - 18:00	0	0	1	1	0	0	0	2	2.0	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	0	3	4	0	0	0	7	7.0	0	0	3	1	0	0	0	4	4.0
18:00 - 18:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	3	1	0	0	0	4	4.0	0	0	0	1	0	0	0	1	1.0
18:30 - 18:45	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	7	1	0	0	0	8	8.0	0	0	1	1	0	0	0	2	2.0
TOTAL	0	0	13	9	1	1	0	24	25.8	1	0	10	5	0	0	0	16	15.2

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0



Tuesday 3rd October 2023

PCUs

From: 1) 07:00

To: 1) 10:00

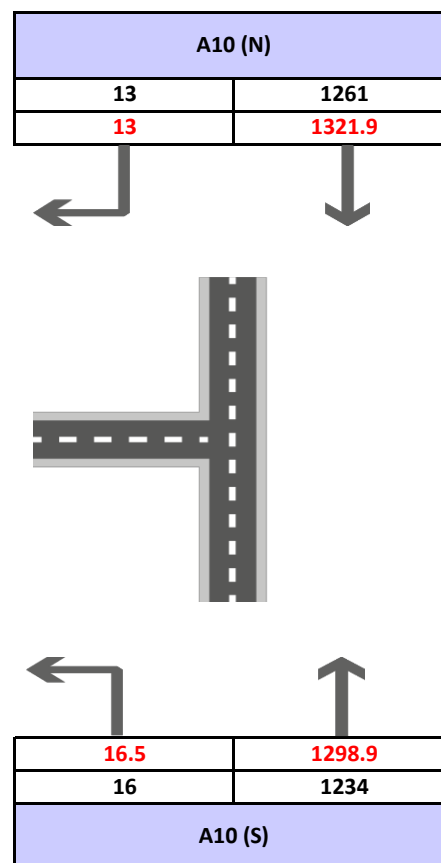
Class: All Vehicles

Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

Throcking Lane	11	11	
	20	21	



Buntingford
Tuesday 3rd October 2023
Junction: 3
Approach: A10 North

TIME	To B1038										To Esso Howe Green										To A10 (S)										To A507									
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs				
07:00 - 07:15	0	1	2	2	0	0	0	5	4.4	0	0	3	3	0	0	0	6	6.0	0	0	44	15	0	0	0	59	59.0	0	0	13	8	1	0	0	22	22.5				
07:15 - 07:30	0	0	3	3	0	0	0	6	6.0	0	0	2	3	2	0	0	7	8.0	0	1	64	13	3	2	0	83	86.5	0	0	17	5	3	0	0	25	26.5				
07:30 - 07:45	0	0	6	2	0	0	0	8	8.0	0	0	3	2	0	0	0	5	5.0	0	0	56	8	1	2	0	67	70.1	0	1	20	10	0	0	0	31	30.4				
07:45 - 08:00	0	0	11	4	0	0	1	16	17.0	0	0	4	2	0	0	0	6	6.0	0	0	58	14	4	0	0	76	78.0	0	0	31	7	2	1	0	41	43.3				
Hourly Total	0	1	22	11	0	0	1	35	35.4	0	0	12	10	2	0	0	24	25.0	0	1	222	50	8	4	0	285	293.6	0	1	81	30	6	1	0	119	122.7				
08:00 - 08:15	0	0	7	4	1	0	1	13	14.5	0	0	4	2	1	0	0	7	7.5	0	0	57	10	1	1	0	69	70.8	0	0	22	9	5	0	0	36	38.5				
08:15 - 08:30	0	0	10	1	0	0	2	13	15.0	0	0	3	0	1	0	0	4	4.5	0	0	66	7	2	3	0	78	82.9	0	0	20	7	1	0	0	28	28.5				
08:30 - 08:45	0	0	10	2	2	0	0	14	16.0	0	0	2	1	1	0	0	4	4.5	0	0	38	9	5	1	0	53	56.8	0	0	24	5	2	1	0	32	34.3				
08:45 - 09:00	0	0	15	3	0	0	0	18	18.0	0	0	3	2	0	0	0	5	5.0	0	1	36	7	1	1	0	46	47.2	0	0	31	10	2	0	0	43	44.0				
Hourly Total	0	0	42	10	3	0	3	58	62.5	0	0	12	5	3	0	0	20	21.5	0	1	197	33	9	6	0	246	257.7	0	0	97	31	10	1	0	139	145.3				
09:00 - 09:15	0	0	14	0	1	0	0	15	15.5	0	0	5	2	0	0	0	7	7.0	0	0	35	11	4	4	0	54	61.2	0	0	24	4	0	0	0	28	28.0				
09:15 - 09:30	0	0	10	2	1	0	0	13	13.5	0	0	3	1	0	0	0	4	4.0	0	0	27	10	4	6	0	47	56.8	0	0	21	1	4	0	1	27	30.0				
09:30 - 09:45	0	0	6	1	1	0	0	8	8.5	0	0	2	2	0	0	0	4	4.0	0	0	20	7	4	3	0	34	39.9	0	14	13	7	0	0	0	34	25.6				
09:45 - 10:00	0	0	10	1	2	0	1	14	16.0	0	0	2	1	0	0	0	3	3.0	0	0	24	2	2	0	0	28	29.0	0	0	13	4	2	2	0	21	24.6				
Hourly Total	0	0	40	4	5	0	1	50	53.5	0	0	12	6	0	0	0	18	18.0	0	0	106	30	14	13	0	163	186.9	0	14	71	16	6	2	1	110	108.2				
TOTAL	0	0	1	104	25	8	0	5	143	151.4	0	0	36	21	5	0	0	62	64.5	0	2	525	113	31	23	0	694	738.2	0	15	249	77	22	4	1	368	376.2			
16:00 - 16:15	0	0	15	6	2	0	0	23	24.0	0	0	3	1	0	0	0	4	4.0	0	0	24	7	3	0	0	34	35.5	0	0	16	7	1	0	0	24	24.5				
16:15 - 16:30	0	0	21	4	0	0	0	25	25.0	0	0	2	0	0	0	0	2	2.0	0	1	37	8	3	0	0	49	49.9	0	0	16	8	0	1	1	26	28.3				
16:30 - 16:45	0	0	18	2	0	0	0	20	20.0	0	0	3	1	0	0	0	4	4.0	0	0	47	10	0	1	0	58	59.3	0	0	17	7	0	0	0	24	24.0				
16:45 - 17:00	0	0	14	3	0	0	0	17	17.0	0	0	3	1	0	0	0	4	4.0	0	0	45	10	0	1	0	56	57.3	0	0	17	4	0	0	0	21	21.0				
Hourly Total	0	0	68	15	2	0	0	85	86.0	0	0	11	3	0	0	0	14	14.0	0	1	153	35	6	2	0	197	202.0	0	0	66	26	1	1	1	95	97.8				
17:00 - 17:15	0	0	16	0	0	0	0	16	16.0	0	0	4	2	0	0	0	6	6.0	0	0	59	5	0	1	0	65	66.3	0	0	27	6	0	0	0	33	33.0				
17:15 - 17:30	0	0	18	2	1	0	0	21	21.5	0	0	5	0	0	0	0	5	5.0	0	1	48	7	0	0	1	57	57.4	0	0	23	9	0	0	0	32	32.0				
17:30 - 17:45	0	0	23	2	0	0	0	25	25.0	0	0	4	0	0	0	0	4	4.0	0	1	46	8	2	1	0	58	59.7	0	0	27	4	1	0	0	32	32.5				
17:45 - 18:00	0	0	20	1	0	0	2	23	25.0	0	0	5	0	0	0	0	5	5.0	0	0	42	3	0	0	0	45	45.0	0	0	15	1	0	0	0	16	16.0				
Hourly Total	0	0	77	5	1	0	2	85	87.5	0	0	18	2	0	0	0	20	20.0	0	2	195	23	2	2	1	225	228.4	0	0	92	20	1	0	0	113	113.5				
18:00 - 18:15	0	0	11	3	0	0	0	14	14.0	0	0	3	0	0	0	0	3	3.0	0	0	36	3	1	3	0	43	47.4	0	0	12	2	0	0	0	14	14.0				
18:15 - 18:30	0	0	12	1	0	0	0	13	13.0	0	0	3	0	0	0	0	3	3.0	0	1	45	3	0	0	0	49	48.4	0	0	14	3	1	0	0	18	18.5				
18:30 - 18:45	0	0	12	1	0	0	0	13	13.0	0	0	2	0	0	0	0	2	2.0	0	0	23	2	0	1	0	26	27.3	0	0	12	3	0	0	0	15	15.0				
18:45 - 19:00	0	0	6	0	0	0	0	6	6.0	0	0	3	0	0	0	0	3	3.0	0	0	27	2	1	1	0	31	32.8	0	1	8	1	0	0	1	11	11.4				
Hourly Total	0	0	41	5	0	0	0	46	46.0	0	0	11	0	0	0	0	11	11.0	0	1	131	10	2	5	0	149	155.9	0	1	46	9	1	0	1	58	58.9				
TOTAL	0	0	0	186	25	3	0	2	216	219.5	0	0	40	5	0	0	0	45	45.0	0	4	479	68	10	9	1	571	586.3	0	1	204	55	3	1	2	266	270.2			

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford
Tuesday 3rd October 2023
Junction: 3
Approach: B1038

TIME	To Esso Howe Green										To A10 (S)										To A507										To A10 (N)									
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs				
07:00 - 07:15	0	0	5	4	1	0	0	10	10.5	0	0	40	14	1	0	0	55	55.5	0	0	13	5	1	0	1	20	21.5	0	0	18	10	1	0	0	29	29.5				
07:15 - 07:30	0	0	2	1	2	0	0	5	6.0	0	2	61	11	3	1	1	79	81.6	0	0	14	7	3	0	1	25	27.5	0	0	13	9	1	0	0	23	23.5				
07:30 - 07:45	0	0	3	3	1	0	0	7	7.5	0	0	48	6	2	0	0	56	57.0	0	0	18	7	4	0	0	29	31.0	0	0	23	15	2	0	0	40	41.0				
07:45 - 08:00	0	0	12	2	1	0	0	15	15.5	0	0	49	9	0	0	0	58	58.0	0	0	27	6	0	0	1	34	35.0	0	0	29	12	0	0	0	41	41.0				
Hourly Total	0	0	22	10	5	0	0	37	39.5	0	2	198	40	6	1	1	248	252.1	0	0	72	25	8	0	3	108	115.0	0	0	83	46	4	0	0	133	135.0				
08:00 - 08:15	0	0	4	2	1	0	0	7	7.5	0	0	43	9	0	0	0	52	52.0	0	0	16	9	1	0	2	28	30.5	0	0	24	15	0	0	1	40	41.0				
08:15 - 08:30	0	0	12	2	1	0	0	15	15.5	0	0	71	8	3	1	0	83	85.8	0	0	21	8	1	0	0	30	30.5	0	0	42	10	2	0	0	54	55.0				
08:30 - 08:45	0	0	13	1	0	0	0	14	14.0	0	0	54	7	2	0	2	65	68.0	0	0	36	4	2	0	2	44	47.0	0	0	47	10	0	0	1	58	59.0				
08:45 - 09:00	0	0	20	3	1	0	0	24	24.5	0	2	46	6	2	0	0	56	56.8	0	0	34	7	2	0	0	43	44.0	0	0	34	6	1	0	0	41	41.0				
Hourly Total	0	0	49	8	3	0	0	60	61.5	0	2	214	30	7	1	2	256	261.6	0	0	107	28	6	0	4	145	152.0	0	0	147	41	3	0	2	193	196.5				
09:00 - 09:15	0	0	10	0	0	0	0	10	10.0	0	0	37	5	2	0	2	46	49.0	0	0	24	2	0	0	2	28	30.0	0	0	24	6	3	0	0	33	34.5				
09:15 - 09:30	0	0	4	0	0	0	0	4	4.0	0	0	32	7	1	0	0	40	40.5	0	0	16	1	1	0	2	20	22.5	0	0	16	5	0	0	0	21	21.0				
09:30 - 09:45	0	0	5	3	0	0	0	8	8.0	0	0	29	8	0	2	0	39	41.6	0	0	19	5	0	0	0	24	24.0	0	0	16	3	0	0	0	19	19.0				
09:45 - 10:00	0	0	6	4	0	0	0	10	10.0	0	0	31	5	2	0	0	38	39.0	0	0	17	9	2	1	2	31	35.3	0	0	17	3	1	0	0	21	21.5				
Hourly Total	0	0	25	7	0	0	0	32	32.0	0	0	129	25	5	2	2	163	170.1	0	0	76	17	3	1	6	103	111.8	0	0	73	17	4	0	0	94	96.0				
TOTAL	0	0	96	25	8	0	0	129	133.0	0	4	541	95	18	4	5	667	683.8	0	0	255	70	17	1	13	356	378.8	0	0	303	104	11	0	2	420	427.5				
16:00 - 16:15	0	0	5	3	0	0	0	8	8.0	0	1	41	10	3	0	0	55	55.9	0	1	23	8	1	0	0	33	32.9	0	0	19	10	0	0	0	29	29.0				
16:15 - 16:30	0	0	7	4	0	0	0	11	11.0	0	0	27	8	0	0	0	35	35.0	0	2	11	7	0	0	2	22	22.8	0	0	26	5	0	0	1	32	33.0				
16:30 - 16:45	0	0	7	3	1	0	0	11	11.5	0	0	47	9	2	0	0	58	59.0	0	0	14	7	1	0	0	22	22.5	0	0	17	7	2	0	0	26	27.0				
16:45 - 17:00	0	0	4	0	0	0	0	4	4.0	0	0	31	6	0	0	0	37	37.0	0	0	11	2	0	0	0	13	13.0	0	0	18	4	0	0	0	22	22.0				
Hourly Total	0	0	23	10	1	0	0	34	34.5	0	1	146	33	5	0	0	185	186.9	0	3	59	24	2	0	2	90	91.2	0	0	80	26	2	0	1	109	111.0				
17:00 - 17:15	0	0	9	0	0	0	0	9	9.0	0	0	42	7	0	0	0	49	49.0	0	0	20	11	0	0	1	32	33.0	0	0	35	2	0	0	1	38	39.0				
17:15 - 17:30	0	0	2	2	0	0	0	4	4.0	0	0	34	7	0	0	0	41	41.0	0	0	18	7	0	0	0	25	25.0	0	0	33	4	0	0	0	37	37.0				
17:30 - 17:45	0	0	8	0	0	0	0	8	8.0	0	0	47	10	0	0	0	57	57.0	0	0	25	8	0	0	2	35	37.0	0	0	19	2	0	0	0	21	21.0				
17:45 - 18:00	0	0	2	2	0	0	0	4	4.0	0	0	59	1	0	0	0	60	60.0	0	0	23	7	0	1	0	31	32.3	0	0	21	4	0	0	1	26	27.0				
Hourly Total	0	0	21	4	0	0	0	25	25.0	0	0	182	25	0	0	0	207	207.0	0	0	86	33	0	1	3	123	127.3	0	0	108	12	0	0	2	122	124.0				
18:00 - 18:15	0	0	7	0	1	0	0	8	8.5	0	0	30	6	1	0	0	37	37.5	0	0	12	2	1	0	1	16	17.5	0	0	29	1	0	0	0	30	30.0				
18:15 - 18:30	0	0	5	0	0	0	0	5	5.0	0	0	30	1	0	0	0	31	31.0	0	0	9	1	0	0	1	11	12.0	0	0	12	1	0	0	0	13	13.0				
18:30 - 18:45	0	0	3	1	0	0	0	4	4.0	0	0	28	0	0	0	0	28	28.0	0	0	13	0	0	0	2	15	17.0	0	0	17	0	0	0	0	17	17.0				
18:45 - 19:00	0	0	3	1	0	0	0	4	4.0	0	0	14	5	0	0	0	19	19.0	0	0	8	1	0	0	0	9	9.0	0	0	15	1	0	0	0	16	16.0				
Hourly Total	0	0	18	2	1	0	0	21	21.5	0	0	102	12	1	0	0	115	115.5	0	0	42	4	1	0	4	51	55.5	0	0	73	3	0	0	0	76	76.0				
TOTAL	0	0	62	16	2	0	0	80	81.0	0	1	430	70	6	0	0	507	509.4	0	3	187	61	3	1	9	264	274.0	0	0	261	41	2	0	3	307	311.0				

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford
Tuesday 3rd October 2023
Junction: 3
Approach: Esso Howe Green

TIME	To A10 (S)									To A507									To A10 (N)									To B1038								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	1	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	2	1	0	0	5	5.5	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	2	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	2	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
09:00 - 09:15	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	1	0	0	0	0	0	1	0.4	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
09:45 - 10:00	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	3	2	0	0	0	6	5.4	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TOTAL	0	1	7	6	1	0	0	15	14.9	0	0	1	1	0	0	0	2	2.0	0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
16:00 - 16:15	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1.0	
16:15 - 16:30	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	1	3	0	0	0	4	4.0	0	0	2	0	0	0	0	2	2.0	0	0	2	0	0	0	0	0	2	2.0	0	0	1	0	0	0	1	1.0
17:00 - 17:15	0	0	1	1	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	1	1.5
17:15 - 17:30	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	0	1	1.0	0	0	0	0	0	0	1	1.0
17:45 - 18:00	0	0	3	0	0	0	0	3	3.0	0	0	2	0	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	8	1	0	0	0	9	9.0	0	0	3	0	0	0	0	3	3.0	0	0	3	0	0	0	0	0	3	3.0	0	0	1	0	1	0	2	2.5
18:00 - 18:15	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1.0
18:30 - 18:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1.0
TOTAL	0	0	10	5	0	0	0	15	15.0	0	0	5	0	0	0	0	5	5.0	0	0	5	0	0	0	0	0	5	5.0	0	0	3	0	1	0	4	4.5

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford
Tuesday 3rd October 2023
Junction: 3
Approach: A10 South

TIME	To A507										To A10 (N)										To B1038										To Esso Howe Green									
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs				
07:00 - 07:15	0	0	36	12	6	1	0	55	59.3	0	0	53	14	2	3	0	72	76.9	0	0	12	2	0	0	2	16	18.0	0	0	6	3	1	0	0	10	10.5				
07:15 - 07:30	0	0	49	16	4	0	0	69	71.0	0	0	62	11	1	1	0	75	76.8	0	0	8	1	0	0	0	9	9.0	0	0	3	1	1	0	0	5	5.5				
07:30 - 07:45	0	1	53	24	1	2	0	81	83.5	0	0	50	13	4	2	0	69	73.6	0	0	11	4	2	0	0	17	18.0	0	0	7	6	0	0	0	13	13.0				
07:45 - 08:00	0	0	43	24	4	3	0	74	79.9	0	0	38	14	4	1	0	57	60.3	0	0	28	8	1	0	0	37	37.5	0	0	7	3	0	0	0	10	10.0				
Hourly Total	0	1	181	76	15	6	0	279	293.7	0	0	203	52	11	7	0	273	287.6	0	0	59	15	3	0	2	79	82.5	0	0	23	13	2	0	0	38	39.0				
08:00 - 08:15	0	0	41	15	1	1	0	58	59.8	0	0	43	13	1	1	0	58	59.8	0	0	42	7	3	1	2	55	59.8	0	0	6	5	0	0	0	11	11.0				
08:15 - 08:30	0	0	48	9	2	1	0	60	62.3	0	0	44	12	3	3	0	62	67.4	0	0	64	7	2	0	0	73	74.0	0	0	6	1	1	0	0	8	8.5				
08:30 - 08:45	0	0	52	18	5	5	0	80	89.0	0	0	56	9	2	2	1	70	74.6	0	0	31	6	0	0	0	37	37.0	0	0	4	2	0	0	0	6	6.0				
08:45 - 09:00	0	0	40	6	4	4	0	54	61.2	0	1	36	12	3	5	0	57	64.4	0	0	36	4	0	0	0	40	40.0	0	1	6	2	0	0	0	9	8.4				
Hourly Total	0	0	181	48	12	11	0	252	272.3	0	1	179	46	9	11	1	247	266.2	0	0	173	24	5	1	2	205	210.8	0	1	22	10	1	0	0	34	33.9				
09:00 - 09:15	0	0	28	8	6	0	0	42	45.0	0	0	38	12	5	3	0	58	64.4	0	0	13	3	0	0	0	16	16.0	0	0	4	2	1	0	0	7	7.5				
09:15 - 09:30	0	0	29	16	4	1	0	50	53.3	0	0	35	4	4	4	0	47	54.2	0	0	12	4	0	0	0	16	16.0	0	0	4	1	1	1	0	7	8.8				
09:30 - 09:45	0	1	29	5	3	2	0	40	43.5	0	1	36	5	6	2	0	50	55.0	0	0	9	2	2	0	0	13	14.0	0	0	4	1	0	1	0	6	7.3				
09:45 - 10:00	0	0	22	5	3	1	0	31	33.8	0	1	33	9	2	2	0	47	50.0	0	0	9	3	0	0	1	13	14.0	0	0	2	3	1	0	0	6	6.5				
Hourly Total	0	1	108	34	16	4	0	163	175.6	0	2	142	30	17	11	0	202	223.6	0	0	43	12	2	0	1	58	60.0	0	0	14	7	3	2	0	26	30.1				
TOTAL	0	2	470	158	43	21	0	694	741.6	0	3	524	128	37	29	1	722	777.4	0	0	275	51	10	1	5	342	353.3	0	1	59	30	6	2	0	98	103.0				
16:00 - 16:15	0	0	29	23	8	0	0	60	64.0	0	0	50	14	1	2	0	67	70.1	0	2	42	5	0	0	0	49	47.8	0	0	7	3	0	0	0	10	10.0				
16:15 - 16:30	0	1	42	27	1	2	0	73	75.5	0	1	67	26	2	1	0	97	98.7	0	0	34	8	0	0	0	42	42.0	0	0	4	0	0	0	0	4	4.0				
16:30 - 16:45	0	0	39	27	2	0	0	68	69.0	0	0	64	16	1	1	0	82	83.8	0	0	30	10	1	0	0	41	41.5	0	0	4	3	0	0	0	7	7.0				
16:45 - 17:00	0	0	55	15	1	0	0	71	71.5	0	0	66	8	1	1	0	76	77.8	0	0	22	8	0	0	0	30	30.0	0	0	4	1	0	0	0	5	5.0				
Hourly Total	0	1	165	92	12	2	0	272	280.0	0	1	247	64	5	5	0	322	330.4	0	2	128	31	1	0	0	162	161.3	0	0	19	7	0	0	0	26	26.0				
17:00 - 17:15	0	2	51	22	0	0	0	75	73.8	0	3	64	27	1	2	0	97	98.3	0	0	33	2	2	1	1	39	42.3	0	0	6	1	0	0	0	7	7.0				
17:15 - 17:30	0	1	65	19	6	0	0	91	93.4	0	1	85	13	2	1	0	102	103.7	0	1	47	5	0	0	0	53	52.4	0	0	7	0	0	0	0	7	7.0				
17:30 - 17:45	0	0	51	17	3	0	0	71	72.5	0	0	79	15	1	0	0	95	95.5	0	0	30	3	0	0	1	34	35.0	0	0	5	1	0	0	0	6	6.0				
17:45 - 18:00	0	0	48	10	2	2	0	62	65.6	0	0	76	11	0	0	0	87	87.0	0	0	14	5	0	0	1	20	21.0	0	0	4	0	0	0	0	4	4.0				
Hourly Total	0	3	215	68	11	2	0	299	305.3	0	4	304	66	4	3	0	381	384.5	0	1	124	15	2	1	3	146	150.7	0	0	22	2	0	0	0	24	24.0				
18:00 - 18:15	0	0	42	9	0	0	0	51	51.0	0	0	68	7	0	2	0	77	79.6	0	0	33	5	0	0	0	38	38.0	0	0	7	1	0	0	0	8	8.0				
18:15 - 18:30	0	0	42	6	1	1	0	50	51.8	0	0	61	9	0	0	0	70	70.0	0	1	19	1	2	0	0	23	23.4	0	0	4	0	0	0	0	4	4.0				
18:30 - 18:45	0	0	40	7	0	1	1	49	51.3	0	0	32	8	2	0	0	42	43.0	0	0	18	3	0	0	0	21	21.0	0	0	3	0	0	0	0	3	3.0				
18:45 - 19:00	0	0	28	7	0	0	0	35	35.0	0	0	34	6	2	0	0	42	43.0	0	0	16	1	0	0	0	17	17.0	0	0	3	0	0	0	0	3	3.0				
Hourly Total	0	0	152	29	1	2	1	185	189.1	0	0	195	30	4	2	0	231	235.6	0	1	86	10	2	0	0	99	99.4	0	0	17	1	0	0	0	18	18.0				
TOTAL	0	4	532	189	24	6	1	756	774.4	0	5	746	160	13	10	0	934	950.5	0	4	338	56	5	1	3	407	411.4	0	0	58	10	0	0	0	68	68.0				

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford
Tuesday 3rd October 2023
Junction: 3
Approach: A507

TIME	To A10 (N)										To B1038										To Esso Howe Green										To A10 (S)									
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs				
07:00 - 07:15	0	0	4	2	0	0	0	6	6.0	0	0	11	2	0	0	0	13	13.0	0	0	2	3	0	0	0	5	5.0	0	0	43	15	3	0	0	61	62.5				
07:15 - 07:30	0	0	8	1	1	0	0	10	10.5	0	0	18	7	0	0	0	25	25.0	0	0	2	5	2	0	0	9	10.0	0	0	61	27	4	1	0	93	96.3				
07:30 - 07:45	0	0	4	1	0	0	0	5	5.0	0	0	12	3	2	0	1	18	20.0	0	0	4	5	0	0	0	9	9.0	0	0	68	23	5	1	0	97	100.8				
07:45 - 08:00	0	0	4	4	1	0	0	9	9.5	0	0	19	6	1	0	0	26	26.5	0	0	4	4	0	0	0	8	8.0	0	1	55	22	6	1	0	85	88.7				
Hourly Total	0	0	20	8	2	0	0	30	31.0	0	0	60	18	3	0	1	82	84.5	0	0	12	17	2	0	0	31	32.0	0	1	227	87	18	3	0	336	348.3				
08:00 - 08:15	0	0	7	0	0	0	0	7	7.0	0	0	24	7	5	0	0	36	38.5	0	0	3	4	2	0	0	9	10.0	0	0	48	28	5	0	0	81	83.5				
08:15 - 08:30	0	0	6	3	0	0	0	9	9.0	0	0	34	12	2	0	2	50	53.0	0	1	3	2	1	0	0	7	6.9	0	0	57	19	2	1	0	79	81.3				
08:30 - 08:45	0	0	9	1	0	0	0	10	10.0	0	0	26	6	1	0	0	33	33.5	0	0	3	2	1	0	0	6	6.5	0	0	63	13	2	3	0	81	85.9				
08:45 - 09:00	0	0	10	1	1	1	0	13	14.8	0	0	13	9	0	0	0	22	22.0	0	0	3	2	1	0	0	5	5.0	0	0	49	21	6	4	0	80	88.2				
Hourly Total	0	0	32	5	1	1	0	39	40.8	0	0	97	34	8	0	2	141	147.0	0	1	12	10	4	0	0	27	28.4	0	0	217	81	15	8	0	321	338.9				
09:00 - 09:15	0	0	6	4	1	0	0	11	11.5	0	0	18	7	0	0	0	25	25.0	0	0	4	2	1	0	0	7	7.5	0	0	22	14	6	5	0	47	56.5				
09:15 - 09:30	0	0	3	0	0	1	0	4	5.3	0	0	12	4	0	0	0	16	16.0	0	0	3	1	0	0	0	4	4.0	0	0	35	12	5	4	0	56	63.7				
09:30 - 09:45	0	1	6	2	0	0	0	9	8.4	0	0	8	5	2	0	0	15	16.0	0	0	2	2	0	0	0	4	4.0	0	0	27	10	6	2	0	45	50.6				
09:45 - 10:00	0	0	2	0	1	0	0	3	3.5	0	0	20	3	1	3	0	27	31.4	0	0	1	5	1	0	0	7	7.5	0	0	15	8	9	0	0	32	36.5				
Hourly Total	0	1	17	6	2	1	0	27	28.7	0	0	58	19	3	3	0	83	88.4	0	0	10	10	2	0	0	22	23.0	0	0	99	44	26	11	0	180	207.3				
TOTAL	0	0	1	69	19	5	2	0	96	100.5	0	0	215	71	14	3	3	306	319.9	0	1	34	37	8	0	0	80	83.4	0	1	543	212	59	22	0	837	894.5			
16:00 - 16:15	0	0	4	2	0	0	0	6	6.0	1	0	13	1	0	0	0	15	14.2	0	0	3	0	0	0	0	3	3.0	0	0	21	5	3	1	0	30	32.8				
16:15 - 16:30	0	0	6	3	0	0	0	9	9.0	0	0	15	2	0	0	0	17	17.0	0	0	2	0	0	0	0	2	2.0	0	0	33	8	3	0	0	44	45.5				
16:30 - 16:45	0	0	9	0	0	0	0	9	9.0	0	0	26	4	0	0	0	30	30.0	0	0	2	2	0	0	0	4	4.0	0	2	30	5	1	0	0	38	37.3				
16:45 - 17:00	0	0	5	0	0	0	0	5	5.0	0	0	21	11	3	0	0	35	36.5	0	0	2	1	0	0	0	3	3.0	0	0	30	8	0	0	0	38	38.0				
Hourly Total	0	0	24	5	0	0	0	29	29.0	1	0	75	18	3	0	0	97	97.7	0	0	9	3	0	0	0	12	12.0	0	2	114	26	7	1	0	150	153.6				
17:00 - 17:15	0	0	7	1	0	0	0	8	8.0	0	0	30	7	1	0	1	39	40.5	0	0	4	1	0	0	0	5	5.0	0	1	53	7	0	0	0	61	60.4				
17:15 - 17:30	0	0	7	0	0	0	0	7	7.0	0	0	35	7	0	0	0	42	42.0	0	0	4	0	0	0	0	4	4.0	0	0	41	13	0	0	0	54	54.0				
17:30 - 17:45	0	0	7	3	0	0	0	10	10.0	0	0	33	10	0	0	0	43	43.0	0	0	3	1	0	0	0	4	4.0	0	0	52	8	0	0	0	60	60.0				
17:45 - 18:00	0	0	4	0	1	0	0	5	5.5	0	0	54	4	0	0	0	58	58.0	0	0	4	0	0	0	0	4	4.0	0	0	53	7	0	1	0	61	62.3				
Hourly Total	0	0	25	4	1	0	0	30	30.5	0	0	152	28	1	0	1	182	183.5	0	0	15	2	0	0	0	17	17.0	0	1	199	35	0	1	0	236	236.7				
18:00 - 18:15	0	0	2	1	0	0	0	3	3.0	0	0	21	2	0	0	0	23	23.0	0	0	3	1	0	0	0	4	4.0	0	1	40	6	0	0	0	47	46.4				
18:15 - 18:30	0	0	1	0	0	0	0	1	1.0	0	0	27	1	1	0	0	29	29.5	0	0	2	0	0	0	0	2	2.0	0	0	31	7	0	1	0	39	40.3				
18:30 - 18:45	0	0	6	1	1	0	0	7	7.0	0	0	18	2	0	0	2	22	24.0	0	0	3	0	0	0	0	3	3.0	0	0	37	10	0	0	0	47	47.0				
18:45 - 19:00	0	0	5	2	0	0	0	7	7.0	0	0	24	1	0	0	0	25	25.0	0	0	3	0	0	0	0	3	3.0	0	0	29	3	3	1	0	36	38.8				
Hourly Total	0	0	14	4	0	0	0	18	18.0	0	0	90	6	1	0	2	99	101.5	0	0	11	1	0	0	0	12	12.0	0	1	137	26	3	2	0	169	172.5				
TOTAL	0	0	0	63	13	1	0	0	77	77.5	1	0	0	317	52	5	0	3	378	382.7	0	0	35	6	0	0	0	41	41.0	0	4	450	87	10	4	0	555	562.8		

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

From: 1) 07:00

To: 1) 10:00

Class: All Vehicles

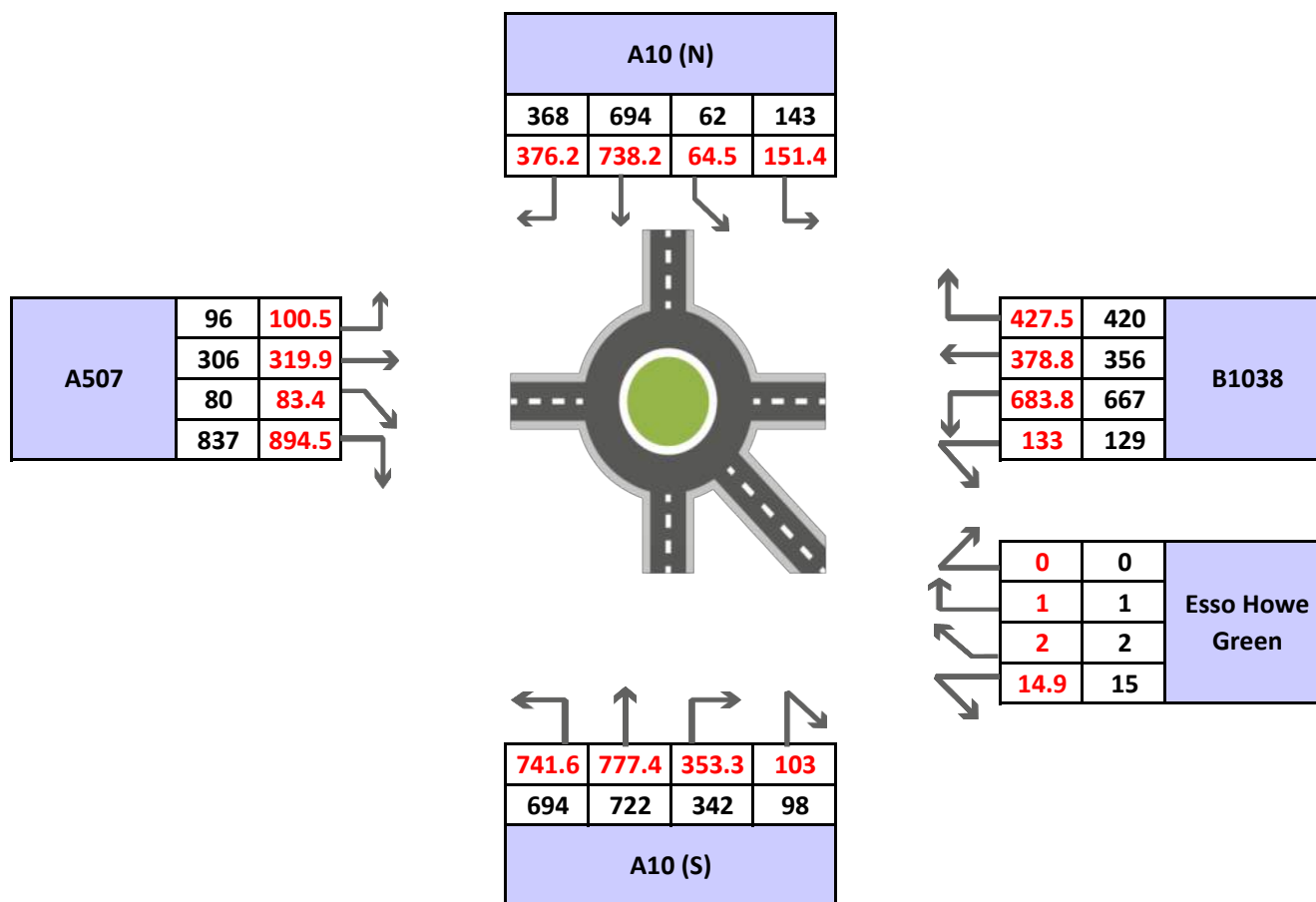
Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

Tuesday 3rd October 2023

PCUs



Buntingford

Tuesday 3rd October 2023

Junction: 4

Approach: High Street North

	Left to High Street (S)										Right to Baldock Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs		
07:00 - 07:15	1	1	22	4	0	0	0	28	26.6	0	1	4	3	0	0	0	8	7.4		
07:15 - 07:30	1	0	18	3	1	0	0	23	22.7	0	1	3	2	0	0	0	6	5.4		
07:30 - 07:45	0	0	19	7	0	0	0	26	26.0	0	0	5	3	0	0	0	8	8.0		
07:45 - 08:00	0	0	23	10	0	0	0	33	33.0	0	0	6	2	0	0	0	8	8.0		
Hourly Total	2	1	82	24	1	0	0	110	108.3	0	2	18	10	0	0	0	30	28.8		
08:00 - 08:15	0	0	17	3	0	0	0	20	20.0	0	0	1	0	1	0	0	2	2.5		
08:15 - 08:30	0	0	29	7	0	0	0	36	36.0	0	0	11	0	0	0	0	11	11.0		
08:30 - 08:45	0	0	46	1	0	0	0	47	47.0	0	0	12	3	1	0	0	16	16.5		
08:45 - 09:00	0	0	24	3	0	0	0	27	27.0	0	0	7	2	0	0	0	9	9.0		
Hourly Total	0	0	116	14	0	0	0	130	130.0	0	0	31	5	2	0	0	38	39.0		
09:00 - 09:15	0	0	18	6	0	0	0	24	24.0	0	0	6	3	1	0	0	10	10.5		
09:15 - 09:30	1	0	19	6	0	0	0	26	25.2	0	1	3	1	1	0	0	6	5.9		
09:30 - 09:45	0	0	18	2	0	0	0	20	20.0	0	0	6	4	0	0	0	10	10.0		
09:45 - 10:00	0	0	14	2	0	0	0	16	16.0	0	0	8	3	0	0	0	11	11.0		
Hourly Total	1	0	69	16	0	0	0	86	85.2	0	1	23	11	2	0	0	37	37.4		
TOTAL	3	1	267	54	1	0	0	326	323.5	0	3	72	26	4	0	0	105	105.2		
16:00 - 16:15	0	0	16	8	0	0	0	24	24.0	0	0	7	3	0	0	0	10	10.0		
16:15 - 16:30	0	1	14	5	0	0	0	20	19.4	0	0	4	2	0	0	0	6	6.0		
16:30 - 16:45	0	0	28	5	0	0	0	33	33.0	0	0	5	0	0	0	0	5	5.0		
16:45 - 17:00	1	0	17	3	0	0	0	21	20.2	0	0	3	1	0	0	0	4	4.0		
Hourly Total	1	1	75	21	0	0	0	98	96.6	0	0	19	6	0	0	0	25	25.0		
17:00 - 17:15	1	0	33	5	0	0	0	39	38.2	0	0	7	2	0	0	0	9	9.0		
17:15 - 17:30	0	0	30	1	0	0	0	31	31.0	0	0	2	3	0	0	0	5	5.0		
17:30 - 17:45	0	0	21	4	0	0	0	25	25.0	0	0	4	2	0	0	0	6	6.0		
17:45 - 18:00	1	0	26	1	0	0	0	28	27.2	0	0	3	2	0	0	0	5	5.0		
Hourly Total	2	0	110	11	0	0	0	123	121.4	0	0	16	9	0	0	0	25	25.0		
18:00 - 18:15	0	1	18	1	0	0	0	20	19.4	0	0	7	1	0	0	0	8	8.0		
18:15 - 18:30	0	0	17	3	0	0	0	20	20.0	0	0	4	0	0	0	0	4	4.0		
18:30 - 18:45	0	0	13	1	0	0	0	14	14.0	0	0	5	2	0	0	0	7	7.0		
18:45 - 19:00	0	0	17	2	0	0	0	19	19.0	0	0	3	0	0	0	0	3	3.0		
Hourly Total	0	1	65	7	0	0	0	73	72.4	0	0	19	3	0	0	0	22	22.0		
TOTAL	3	2	250	39	0	0	0	294	290.4	0	0	54	18	0	0	0	72	72.0		

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 4

Approach: High Street South

TIME	Ahead to Baldock Road									Right to High Street (N)								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	19	11	0	0	1	31	32.0	0	0	2	4	0	0	0	6	6.0
07:15 - 07:30	0	0	32	9	5	0	1	47	50.5	1	1	10	4	0	0	0	16	14.6
07:30 - 07:45	0	0	39	11	0	0	0	50	50.0	0	0	3	4	1	0	0	8	8.5
07:45 - 08:00	0	0	52	16	0	0	1	69	70.0	0	0	14	3	2	0	0	19	20.0
Hourly Total	0	0	142	47	5	0	3	197	202.5	1	1	29	15	3	0	0	49	49.1
08:00 - 08:15	0	0	57	10	0	0	2	69	71.0	0	0	16	8	2	0	0	26	27.0
08:15 - 08:30	0	0	77	14	1	0	3	95	98.5	0	0	38	1	0	0	0	39	39.0
08:30 - 08:45	2	0	67	7	0	0	2	78	78.4	0	0	33	2	0	0	0	35	35.0
08:45 - 09:00	0	0	54	4	1	0	1	60	61.5	0	0	30	2	1	0	0	33	33.5
Hourly Total	2	0	255	35	2	0	8	302	309.4	0	0	117	13	3	0	0	133	134.5
09:00 - 09:15	0	0	47	8	1	0	3	59	62.5	1	0	18	2	0	0	0	21	20.2
09:15 - 09:30	0	0	43	6	0	0	0	49	49.0	0	0	15	7	0	0	0	22	22.0
09:30 - 09:45	0	0	33	6	0	0	1	40	41.0	0	0	9	3	0	0	0	12	12.0
09:45 - 10:00	0	0	34	7	1	1	1	44	46.8	1	0	20	1	1	0	0	23	22.7
Hourly Total	0	0	157	27	2	1	5	192	199.3	2	0	62	13	1	0	0	78	76.9
TOTAL	2	0	554	109	9	1	16	691	711.2	3	1	208	41	7	0	0	260	260.5
16:00 - 16:15	0	0	66	18	0	0	2	86	88.0	0	0	30	5	1	0	0	36	36.5
16:15 - 16:30	0	0	37	12	1	0	2	52	54.5	0	0	19	5	0	0	0	24	24.0
16:30 - 16:45	0	0	36	15	3	1	0	55	57.8	0	0	31	7	0	0	0	38	38.0
16:45 - 17:00	0	1	41	8	0	0	1	51	51.4	0	0	23	6	0	0	0	29	29.0
Hourly Total	0	1	180	53	4	1	5	244	251.7	0	0	103	23	1	0	0	127	127.5
17:00 - 17:15	0	1	65	12	0	0	1	79	79.4	0	0	27	7	0	0	0	34	34.0
17:15 - 17:30	0	1	54	8	0	0	0	63	62.4	1	1	29	5	0	0	0	36	34.6
17:30 - 17:45	0	0	66	10	0	1	0	77	78.3	0	0	33	6	1	0	0	40	40.5
17:45 - 18:00	0	0	59	7	0	0	2	68	70.0	0	1	23	3	0	0	0	27	26.4
Hourly Total	0	2	244	37	0	1	3	287	290.1	1	2	112	21	1	0	0	137	135.5
18:00 - 18:15	1	0	44	3	1	0	0	49	48.7	0	0	29	5	0	0	0	34	34.0
18:15 - 18:30	1	0	36	5	0	0	0	42	41.2	0	0	26	0	0	0	0	26	26.0
18:30 - 18:45	0	0	36	2	0	1	3	42	46.3	0	0	29	5	0	0	0	34	34.0
18:45 - 19:00	0	0	31	5	0	0	0	36	36.0	0	0	14	2	0	0	0	16	16.0
Hourly Total	2	0	147	15	1	1	3	169	172.2	0	0	98	12	0	0	0	110	110.0
TOTAL	2	3	571	105	5	3	11	700	714.0	1	2	313	56	2	0	0	374	373.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 4

Approach: Baldock Road

	Left to High Street (N)									Ahead to High Street (S)									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	
07:00 - 07:15	1	0	2	0	0	0	0	3	2.2	0	0	16	9	0	0	1	26	27.0	
07:15 - 07:30	0	0	5	1	0	0	0	6	6.0	0	0	15	8	0	0	2	25	27.0	
07:30 - 07:45	0	0	3	4	0	0	0	7	7.0	0	0	17	8	3	0	0	28	29.5	
07:45 - 08:00	0	0	7	2	0	0	0	9	9.0	0	0	28	15	2	0	1	46	48.0	
Hourly Total	1	0	17	7	0	0	0	25	24.2	0	0	76	40	5	0	4	125	131.5	
08:00 - 08:15	0	0	8	3	2	0	0	13	14.0	0	0	29	7	4	0	0	40	42.0	
08:15 - 08:30	0	0	6	4	2	0	0	12	13.0	0	0	38	10	2	0	2	52	55.0	
08:30 - 08:45	0	0	13	2	1	0	0	16	16.5	0	0	52	10	1	0	0	63	63.5	
08:45 - 09:00	0	0	8	4	0	0	0	12	12.0	0	0	47	16	1	0	2	66	68.5	
Hourly Total	0	0	35	13	5	0	0	53	55.5	0	0	166	43	8	0	4	221	229.0	
09:00 - 09:15	0	0	6	3	0	0	0	9	9.0	0	0	44	5	1	1	1	52	54.8	
09:15 - 09:30	0	0	3	2	0	0	0	5	5.0	0	0	28	9	1	0	0	38	38.5	
09:30 - 09:45	0	0	8	1	2	0	0	11	12.0	0	0	18	8	3	0	0	29	30.5	
09:45 - 10:00	0	0	6	2	0	0	0	8	8.0	0	0	32	4	2	2	2	42	47.6	
Hourly Total	0	0	23	8	2	0	0	33	34.0	0	0	122	26	7	3	3	161	171.4	
TOTAL	1	0	75	28	7	0	0	111	113.7	0	0	364	109	20	3	11	507	531.9	
16:00 - 16:15	0	0	10	1	0	0	0	11	11.0	1	0	64	14	4	0	0	83	84.2	
16:15 - 16:30	0	0	8	0	0	0	0	8	8.0	0	0	51	8	1	0	0	60	60.5	
16:30 - 16:45	0	0	6	1	0	0	0	7	7.0	0	0	52	11	1	0	0	64	64.5	
16:45 - 17:00	0	0	10	2	0	0	0	12	12.0	1	0	49	13	1	0	0	64	63.7	
Hourly Total	0	0	34	4	0	0	0	38	38.0	2	0	216	46	7	0	0	271	272.9	
17:00 - 17:15	0	0	8	2	0	0	0	10	10.0	0	0	51	12	2	1	3	69	74.3	
17:15 - 17:30	0	0	6	3	0	0	0	9	9.0	0	1	72	3	0	0	0	76	75.4	
17:30 - 17:45	0	0	6	1	0	0	0	7	7.0	0	0	60	8	0	0	0	68	68.0	
17:45 - 18:00	0	0	6	1	0	0	0	7	7.0	1	0	53	4	0	0	3	61	63.2	
Hourly Total	0	0	26	7	0	0	0	33	33.0	1	1	236	27	2	1	6	274	280.9	
18:00 - 18:15	0	0	8	1	0	0	0	9	9.0	0	0	59	9	0	0	0	68	68.0	
18:15 - 18:30	0	1	7	2	0	0	0	10	9.4	1	0	43	3	1	0	0	48	47.7	
18:30 - 18:45	0	0	7	3	0	0	0	10	10.0	0	0	39	3	0	0	0	42	42.0	
18:45 - 19:00	0	0	9	0	0	0	0	9	9.0	1	0	34	3	0	0	1	39	39.2	
Hourly Total	0	1	31	6	0	0	0	38	37.4	2	0	175	18	1	0	1	197	196.9	
TOTAL	0	1	91	17	0	0	0	109	108.4	5	1	627	91	10	1	7	742	750.7	

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0



Tuesday 3rd October 2023

PCUs

From: 1) 07:00

To: 1) 10:00

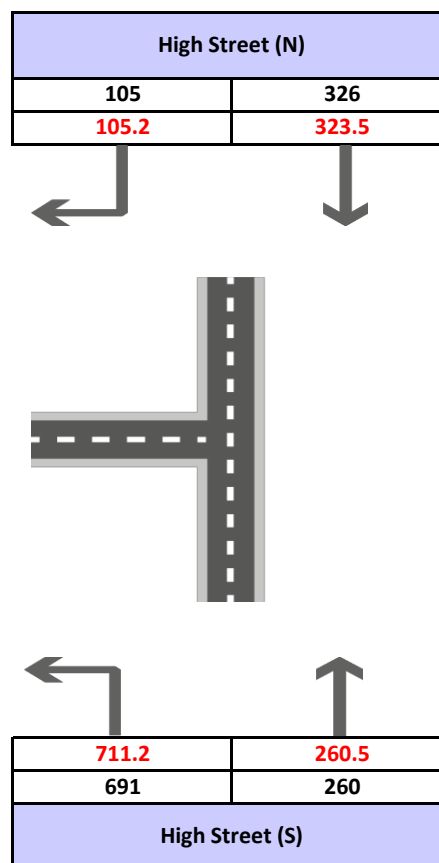
Class: All Vehicles

Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

Baldock Road	111	113.7	
	507	531.9	



Buntingford

Tuesday 3rd October 2023

Junction: 5

Approach: High Street

	Left to Hare Street Road										Ahead to Station Road									
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs		
07:00 - 07:15	0	0	10	7	0	0	1	18	19.0	1	1	27	7	0	0	0	36	34.6		
07:15 - 07:30	0	0	8	5	0	0	2	15	17.0	1	0	31	6	1	0	0	39	38.7		
07:30 - 07:45	0	0	8	5	1	0	0	14	14.5	0	0	32	8	2	0	0	42	43.0		
07:45 - 08:00	0	0	18	6	2	0	0	26	27.0	0	0	34	18	0	0	1	53	54.0		
Hourly Total	0	0	44	23	3	0	3	73	77.5	2	1	124	39	3	0	1	170	170.3		
08:00 - 08:15	0	0	15	4	2	0	0	21	22.0	0	0	34	7	2	0	0	43	44.0		
08:15 - 08:30	0	0	27	8	2	0	1	38	40.0	0	0	39	9	0	0	1	49	50.0		
08:30 - 08:45	0	0	36	4	0	0	0	40	40.0	0	0	66	7	1	0	0	74	74.5		
08:45 - 09:00	0	0	21	9	0	0	2	32	34.0	0	0	45	9	1	0	0	55	55.5		
Hourly Total	0	0	99	25	4	0	3	131	136.0	0	0	184	32	4	0	1	221	224.0		
09:00 - 09:15	0	0	13	7	1	1	1	23	25.8	0	0	51	5	0	0	0	56	56.0		
09:15 - 09:30	0	0	12	7	1	0	0	20	20.5	0	0	32	8	0	0	0	40	40.0		
09:30 - 09:45	1	0	8	3	1	0	0	13	12.7	0	0	31	4	2	0	0	37	38.0		
09:45 - 10:00	0	0	15	2	1	2	2	22	27.1	0	0	34	6	1	0	0	41	41.5		
Hourly Total	1	0	48	19	4	3	3	78	86.1	0	0	148	23	3	0	0	174	175.5		
TOTAL	1	0	191	67	11	3	9	282	299.6	2	1	456	94	10	0	2	565	569.8		
16:00 - 16:15	1	0	13	9	2	0	0	25	25.2	1	0	64	16	2	0	0	83	83.2		
16:15 - 16:30	0	0	13	2	1	0	0	16	16.5	0	1	55	8	0	0	0	64	63.4		
16:30 - 16:45	0	0	18	5	0	0	0	23	23.0	0	0	61	10	1	0	0	72	72.5		
16:45 - 17:00	0	0	23	6	1	0	0	30	30.5	0	0	43	15	0	0	0	58	58.0		
Hourly Total	1	0	67	22	4	0	0	94	95.2	1	1	223	49	3	0	0	277	277.1		
17:00 - 17:15	0	0	23	8	2	0	0	33	34.0	2	0	62	5	0	0	3	72	73.4		
17:15 - 17:30	0	0	35	1	0	0	0	36	36.0	0	1	64	3	0	1	0	69	69.7		
17:30 - 17:45	0	0	20	3	0	0	0	23	23.0	0	0	56	10	0	0	0	66	66.0		
17:45 - 18:00	1	0	22	3	0	0	2	28	29.2	1	0	56	2	0	0	1	60	60.2		
Hourly Total	1	0	100	15	2	0	2	120	122.2	3	1	238	20	0	1	4	267	269.3		
18:00 - 18:15	0	0	27	2	0	0	0	29	29.0	1	0	52	7	0	0	0	60	59.2		
18:15 - 18:30	0	0	19	2	1	0	0	22	22.5	1	0	44	5	0	0	0	50	49.2		
18:30 - 18:45	0	0	19	2	0	0	0	21	21.0	0	0	33	2	0	0	0	35	35.0		
18:45 - 19:00	0	0	8	1	0	0	0	9	9.0	0	0	42	5	0	0	1	48	49.0		
Hourly Total	0	0	73	7	1	0	0	81	81.5	2	0	171	19	0	0	1	193	192.4		
TOTAL	2	0	240	44	7	0	2	295	298.9	6	2	632	88	3	1	5	737	738.8		

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 5

Approach: Hare Street Road

	Left to Station Road									Right to High Street								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	16	2	0	0	0	18	18.0	0	0	12	4	0	0	0	16	16.0
07:15 - 07:30	0	0	22	5	2	0	0	29	30.0	0	0	18	6	0	0	0	24	24.0
07:30 - 07:45	0	0	26	6	0	0	0	32	32.0	0	0	8	4	0	0	0	12	12.0
07:45 - 08:00	0	0	12	4	1	0	0	17	17.5	0	0	20	6	0	0	0	26	26.0
Hourly Total	0	0	76	17	3	0	0	96	97.5	0	0	58	20	0	0	0	78	78.0
08:00 - 08:15	0	0	29	4	2	0	0	35	36.0	0	0	20	6	0	0	0	26	26.0
08:15 - 08:30	0	0	24	3	0	0	0	27	27.0	0	0	42	5	0	0	2	49	51.0
08:30 - 08:45	0	0	19	4	0	1	0	24	25.3	1	0	35	1	0	0	1	38	38.2
08:45 - 09:00	0	0	39	6	0	0	0	45	45.0	0	0	31	3	0	0	0	34	34.0
Hourly Total	0	0	111	17	2	1	0	131	133.3	1	0	128	15	0	0	3	147	149.2
09:00 - 09:15	0	0	24	1	0	0	0	25	25.0	0	0	20	2	0	0	1	23	24.0
09:15 - 09:30	0	0	21	3	0	0	0	24	24.0	0	0	14	4	0	0	0	18	18.0
09:30 - 09:45	0	0	18	2	0	0	0	20	20.0	0	0	12	3	0	0	0	15	15.0
09:45 - 10:00	0	0	11	5	1	0	0	17	17.5	0	0	18	3	0	1	0	22	23.3
Hourly Total	0	0	74	11	1	0	0	86	86.5	0	0	64	12	0	1	1	78	80.3
TOTAL	0	0	261	45	6	1	0	313	317.3	1	0	250	47	0	1	4	303	307.5
16:00 - 16:15	0	0	8	4	0	0	0	12	12.0	0	0	24	6	0	0	1	31	32.0
16:15 - 16:30	0	0	18	5	0	0	0	23	23.0	0	0	15	5	0	0	1	21	22.0
16:30 - 16:45	0	0	15	2	0	0	0	17	17.0	0	0	20	10	0	1	0	31	32.3
16:45 - 17:00	0	0	19	5	0	0	0	24	24.0	0	0	11	3	0	0	1	15	16.0
Hourly Total	0	0	60	16	0	0	0	76	76.0	0	0	70	24	0	1	3	98	102.3
17:00 - 17:15	0	0	23	5	0	0	0	28	28.0	0	1	26	2	0	0	1	30	30.4
17:15 - 17:30	0	0	23	9	1	0	0	33	33.5	0	0	24	5	0	0	0	29	29.0
17:30 - 17:45	0	0	11	3	0	0	0	14	14.0	0	0	36	1	1	1	0	39	40.8
17:45 - 18:00	0	0	4	7	0	0	0	11	11.0	0	0	24	2	0	0	1	27	28.0
Hourly Total	0	0	61	24	1	0	0	86	86.5	0	1	110	10	1	1	2	125	128.2
18:00 - 18:15	0	0	23	2	0	0	0	25	25.0	0	0	14	2	0	0	0	16	16.0
18:15 - 18:30	0	0	16	3	0	0	0	19	19.0	0	0	19	4	0	0	0	23	23.0
18:30 - 18:45	0	0	10	0	0	0	0	10	10.0	0	0	5	1	0	1	1	8	10.3
18:45 - 19:00	0	0	9	2	0	0	0	11	11.0	0	0	7	1	0	0	0	8	8.0
Hourly Total	0	0	58	7	0	0	0	65	65.0	0	0	45	8	0	1	1	55	57.3
TOTAL	0	0	179	47	1	0	0	227	227.5	0	1	225	42	1	3	6	278	287.8

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 5

Approach: Station Road

TIME	Ahead to High Street									Right to Hare Street Road								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	15	9	1	0	1	26	27.5	0	0	4	2	0	1	0	7	8.3
07:15 - 07:30	1	1	27	7	4	0	1	41	42.6	0	0	5	1	0	0	0	6	6.0
07:30 - 07:45	0	0	35	12	2	0	0	49	50.0	0	0	13	9	0	0	0	22	22.0
07:45 - 08:00	0	0	42	13	1	0	1	57	58.5	0	0	10	1	2	0	0	13	14.0
Hourly Total	1	1	119	41	8	0	3	173	178.6	0	0	32	13	2	1	0	48	50.3
08:00 - 08:15	0	0	56	15	2	0	2	75	78.0	0	0	14	3	1	0	0	18	18.5
08:15 - 08:30	0	0	73	8	0	0	1	82	83.0	1	0	26	3	0	0	0	30	29.2
08:30 - 08:45	0	0	67	7	0	0	1	75	76.0	0	0	23	2	0	0	0	25	25.0
08:45 - 09:00	0	1	55	3	3	0	1	63	64.9	0	0	20	6	0	0	0	26	26.0
Hourly Total	0	1	251	33	5	0	5	295	301.9	1	0	83	14	1	0	0	99	98.7
09:00 - 09:15	1	0	47	4	1	0	2	55	56.7	0	0	15	4	0	0	0	19	19.0
09:15 - 09:30	1	0	48	9	0	0	0	58	57.2	0	0	10	3	0	0	1	14	15.0
09:30 - 09:45	0	0	32	7	0	0	1	40	41.0	0	0	11	3	1	0	0	15	15.5
09:45 - 10:00	1	0	35	5	2	0	1	44	45.2	0	0	13	2	2	0	0	17	18.0
Hourly Total	3	0	162	25	3	0	4	197	200.1	0	0	49	12	3	0	1	65	67.5
TOTAL	4	2	532	99	16	0	12	665	680.6	1	0	164	39	6	1	1	212	216.5
16:00 - 16:15	0	0	78	20	2	0	1	101	103.0	0	0	20	5	0	0	0	25	25.0
16:15 - 16:30	0	0	33	7	0	0	1	41	42.0	0	0	13	1	0	0	0	14	14.0
16:30 - 16:45	0	0	54	10	3	0	0	67	68.5	1	0	14	7	0	0	0	22	21.2
16:45 - 17:00	0	1	51	14	0	0	0	66	65.4	0	0	31	7	0	0	0	38	38.0
Hourly Total	0	1	216	51	5	0	2	275	278.9	1	0	78	20	0	0	0	99	98.2
17:00 - 17:15	0	0	69	17	0	0	0	86	86.0	0	0	24	5	0	0	0	29	29.0
17:15 - 17:30	0	1	55	6	0	0	0	62	61.4	0	0	26	2	0	0	0	28	28.0
17:30 - 17:45	0	0	70	13	0	0	0	83	83.0	0	0	20	8	0	0	0	28	28.0
17:45 - 18:00	0	2	59	7	0	0	1	69	68.8	0	0	23	3	0	0	0	26	26.0
Hourly Total	0	3	253	43	0	0	1	300	299.2	0	0	93	18	0	0	0	111	111.0
18:00 - 18:15	1	0	55	6	1	0	0	63	62.7	0	0	20	1	0	0	0	21	21.0
18:15 - 18:30	1	0	47	2	0	0	0	50	49.2	0	0	25	2	0	0	0	27	27.0
18:30 - 18:45	0	0	53	2	0	0	2	57	59.0	0	0	26	2	0	0	0	28	28.0
18:45 - 19:00	0	0	39	6	0	0	0	45	45.0	0	0	12	3	0	0	0	15	15.0
Hourly Total	2	0	194	16	1	0	2	215	215.9	0	0	83	8	0	0	0	91	91.0
TOTAL	2	4	663	110	6	0	5	790	794.0	1	0	254	46	0	0	0	301	300.2

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0



From: 1) 07:00

To: 1) 10:00

Class: All Vehicles

Show Peak Hour: ☐

Show PCUs: ☒

Show Session 2

Tuesday 3rd October 2023

PCUs

High Street	
0	0
0	0



0	0	Hare Street Road
0	0	

0	0
0	0
Station Road	

Buntingford

Tuesday 3rd October 2023

Junction: 6

Approach: London Road North

	Left to London Road (E)									Ahead to A10 (S)									Right to A10 (W)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	1	71	22	4	1	0	99	101.7	0	0	20	3	1	1	0	25	26.8
07:15 - 07:30	0	0	2	0	0	0	0	2	2.0	0	1	76	12	5	0	0	94	95.9	0	0	14	2	1	0	0	17	17.5
07:30 - 07:45	0	0	1	0	0	0	0	1	1.0	0	0	109	19	0	0	0	128	128.0	0	0	11	7	1	1	0	20	21.8
07:45 - 08:00	0	0	1	0	0	0	0	1	1.0	0	0	82	15	2	1	1	101	104.3	0	0	8	9	1	0	0	18	18.5
Hourly Total	0	0	4	0	0	0	0	4	4.0	0	2	338	68	11	2	1	422	429.9	0	0	53	21	4	2	0	80	84.6
08:00 - 08:15	0	0	1	1	0	0	0	2	2.0	0	0	84	12	3	0	0	99	100.5	0	0	10	2	0	0	0	12	12.0
08:15 - 08:30	0	0	2	0	0	0	0	2	2.0	0	0	103	9	1	0	1	114	115.5	0	0	23	3	3	1	0	30	32.8
08:30 - 08:45	0	0	4	0	0	0	0	4	4.0	0	0	83	8	2	1	0	94	96.3	0	0	17	6	1	2	0	26	29.1
08:45 - 09:00	0	0	1	0	1	0	0	2	2.5	0	0	63	14	0	3	0	80	83.9	0	1	11	2	0	1	0	15	15.7
Hourly Total	0	0	8	1	1	0	0	10	10.5	0	0	333	43	6	4	1	387	396.2	0	1	61	13	4	4	0	83	89.6
09:00 - 09:15	0	0	1	0	0	0	0	1	1.0	0	0	53	8	2	3	0	66	70.9	0	0	12	5	1	0	0	18	18.5
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	1	43	11	1	1	0	57	58.2	0	0	8	3	0	0	0	11	11.0
09:30 - 09:45	0	0	3	0	0	0	0	3	3.0	0	0	34	6	1	1	0	42	43.8	0	0	9	1	0	0	0	10	10.0
09:45 - 10:00	0	0	4	0	0	0	0	4	4.0	0	0	38	5	1	2	0	46	49.1	0	0	6	3	1	0	0	10	10.5
Hourly Total	0	0	8	0	0	0	0	8	8.0	0	1	168	30	5	7	0	211	222.0	0	0	35	12	2	0	0	49	50.0
TOTAL	0	0	20	1	1	0	0	22	22.5	0	3	839	141	22	13	2	1020	1048.1	0	1	149	46	10	6	0	212	224.2
16:00 - 16:15	0	0	1	1	0	0	0	2	2.0	0	0	35	12	1	0	0	48	48.5	0	0	7	2	1	0	0	10	10.5
16:15 - 16:30	0	0	0	0	0	0	0	0	0.0	0	0	38	13	1	0	0	52	52.5	0	0	7	4	2	0	0	13	14.0
16:30 - 16:45	0	0	0	0	1	0	0	1	1.5	0	0	36	12	1	0	0	49	49.5	0	0	10	5	0	0	0	15	15.0
16:45 - 17:00	0	0	0	1	0	0	0	1	1.0	0	1	35	15	0	0	0	51	50.4	0	0	12	3	0	0	0	15	15.0
Hourly Total	0	0	1	2	1	0	0	4	4.5	0	1	144	52	3	0	0	200	200.9	0	0	36	14	3	0	0	53	54.5
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	1	0	59	5	0	0	3	68	70.2	0	0	9	2	0	0	0	11	11.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	1	44	9	0	0	0	54	53.4	0	0	14	1	0	0	0	15	15.0
17:30 - 17:45	0	0	3	1	0	0	0	4	4.0	0	0	53	4	0	0	0	57	57.0	0	0	14	1	0	0	0	15	15.0
17:45 - 18:00	0	0	4	0	0	0	0	4	4.0	0	0	49	6	0	0	0	55	55.0	0	0	10	2	0	0	1	13	14.0
Hourly Total	0	0	7	1	0	0	0	8	8.0	1	1	205	24	0	0	3	234	235.6	0	0	47	6	0	0	1	54	55.0
18:00 - 18:15	0	0	2	0	0	0	0	2	2.0	0	0	33	7	1	0	0	41	41.5	0	0	8	1	0	1	0	10	11.3
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	29	5	0	0	0	34	34.0	0	0	8	0	0	0	0	8	8.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	35	5	0	0	0	40	40.0	0	0	15	3	1	0	0	19	19.5
18:45 - 19:00	0	0	1	0	0	0	0	1	1.0	0	0	29	0	0	0	1	30	31.0	0	0	5	2	1	0	0	8	8.5
Hourly Total	0	0	3	0	0	0	0	3	3.0	0	0	126	17	1	0	1	145	146.5	0	0	36	6	2	1	0	45	47.3
TOTAL	0	0	11	3	1	0	0	15	15.5	1	2	475	93	4	0	4	579	583.0	0	0	119	26	5	1	1	152	156.8

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford

Tuesday 3rd October 2023

Junction: 6

Approach: London Road East

	Left to A10 (S)									Ahead to A10 (W)									Right to London Road (N)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
07:30 - 07:45	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
08:00 - 08:15	0	0	2	0	0	0	0	2	2.0	0	0	0	1	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0
08:15 - 08:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:30 - 08:45	0	0	1	1	0	0	0	2	2.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
08:45 - 09:00	0	0	6	0	1	0	0	7	7.5	0	0	2	0	0	0	0	2	2.0	0	0	4	1	0	0	0	5	5.0
Hourly Total	0	0	9	1	1	0	0	11	11.5	0	0	2	1	0	0	0	3	3.0	0	0	5	1	0	0	0	6	6.0
09:00 - 09:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0
09:15 - 09:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0
09:45 - 10:00	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0	0	0	0	2	0	0	0	2	2.0
TOTAL	0	0	11	1	1	0	0	13	13.5	0	0	3	2	0	0	0	5	5.0	0	0	5	3	0	0	0	8	8.0
16:00 - 16:15	0	0	2	1	0	0	0	3	3.0	0	0	4	0	0	0	0	4	4.0	0	0	10	0	0	0	0	10	10.0
16:15 - 16:30	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	1	0	0	0	1	1.0
16:45 - 17:00	0	0	0	0	0	0	0	0	0.0	0	0	3	0	0	0	0	3	3.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	3	1	0	0	0	4	4.0	0	0	7	0	0	0	0	7	7.0	0	0	10	1	0	0	0	11	11.0
17:00 - 17:15	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0	0	0	0	0.0	0	0	1	0	0	0	0	1	1.0	0	0	1	1	0	0	0	2	2.0
17:30 - 17:45	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0	0	0	1	1	0	0	0	2	2.0
17:45 - 18:00	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	0	2	0	1	0	0	3	3.5	0	0	1	0	0	0	0	1	1.0	0	0	2	2	0	0	0	4	4.0
18:00 - 18:15	0	0	1	0	0	0	0	1	1.0	0	0	1	0	0	0	0	1	1.0	0	0	0	0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0	0	0	0	0.0	0	0	2	0	0	0	0	2	2.0	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	0	1	0	0	0	0	1	1.0	0	0	3	0	0	0	0	3	3.0	0	0	1	0	0	0	0	1	1.0
TOTAL	0	0	6	1	1	0	0	8	8.5	0	0	11	0	0	0	0	11	11.0	0	0	13	3	0	0	0	16	16.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford
Tuesday 3rd October 2023
Junction: 6
Approach: A10 South

	Left to A10 (W)									Ahead to London Road (N)									Right to London Road (E)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	96	28	8	4	2	138	149.2	0	1	14	5	1	1	1	23	25.2	0	0	0	0	0	0	0	0	0.0
07:15 - 07:30	0	0	108	38	6	1	0	153	157.3	0	0	18	12	0	0	0	30	30.0	0	0	1	0	0	0	0	1	1.0
07:30 - 07:45	0	1	108	39	7	2	0	157	162.5	0	0	27	13	3	0	0	43	44.5	0	0	1	0	0	0	0	1	1.0
07:45 - 08:00	0	0	116	40	6	5	0	167	176.5	0	0	41	13	4	0	1	59	62.0	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	428	145	27	12	2	615	645.5	0	1	100	43	8	1	2	155	161.7	0	0	2	0	0	0	0	2	2.0
08:00 - 08:15	0	0	111	35	5	3	2	156	164.4	0	0	34	8	3	1	1	47	50.8	0	0	0	1	0	0	0	1	1.0
08:15 - 08:30	0	0	138	33	5	4	0	180	187.7	0	0	39	13	1	1	1	55	57.8	0	0	2	0	0	0	0	2	2.0
08:30 - 08:45	0	1	139	26	4	5	1	176	184.9	0	0	43	8	2	4	0	57	63.2	0	0	5	0	0	0	0	5	5.0
08:45 - 09:00	0	0	101	18	8	7	0	134	147.1	0	1	37	9	1	0	1	49	49.9	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	1	489	112	22	19	3	646	684.1	0	1	153	38	7	6	3	208	221.7	0	0	8	1	0	0	0	9	9.0
09:00 - 09:15	0	0	70	18	12	3	0	103	112.9	0	0	43	11	2	1	1	58	61.3	0	0	0	0	0	0	0	0	0.0
09:15 - 09:30	0	0	80	18	9	6	0	113	125.3	1	0	31	8	0	1	0	41	41.5	0	0	0	1	0	0	0	1	1.0
09:30 - 09:45	0	1	70	12	9	4	1	97	107.1	0	0	24	8	4	1	1	38	42.3	0	0	1	0	0	0	0	1	1.0
09:45 - 10:00	0	1	65	18	5	3	0	92	97.8	0	0	37	11	0	1	1	50	52.3	0	0	2	0	0	0	0	2	2.0
Hourly Total	0	2	285	66	35	16	1	405	443.1	1	0	135	38	6	4	3	187	197.4	0	0	3	1	0	0	0	4	4.0
TOTAL	0	4	1202	323	84	47	6	1666	1772.7	1	2	388	119	21	11	8	550	580.8	0	0	13	2	0	0	0	15	15.0
16:00 - 16:15	0	1	118	45	7	2	0	173	178.5	0	0	67	21	1	1	0	90	91.8	0	0	0	0	0	0	0	0	0.0
16:15 - 16:30	0	1	148	53	2	4	0	208	213.6	0	0	52	10	1	0	1	64	65.5	0	0	0	0	0	0	0	0	0.0
16:30 - 16:45	0	0	134	49	4	1	0	188	191.3	0	0	85	17	0	0	0	102	102.0	0	0	1	0	0	0	0	1	1.0
16:45 - 17:00	0	2	127	32	1	3	0	165	168.2	0	1	72	17	0	0	0	90	89.4	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	4	527	179	14	10	0	734	751.6	0	1	276	65	2	1	1	346	348.7	0	0	2	0	0	0	0	2	2.0
17:00 - 17:15	0	5	149	48	4	2	0	208	209.6	0	2	77	14	0	0	0	93	91.8	0	0	0	0	0	0	0	0	0.0
17:15 - 17:30	0	2	191	39	6	1	0	239	242.1	0	1	98	12	0	0	0	111	110.4	0	0	0	0	0	0	0	0	0.0
17:30 - 17:45	0	0	161	31	4	0	1	197	200.0	0	1	94	16	1	0	1	113	113.9	0	0	0	0	0	0	0	0	0.0
17:45 - 18:00	0	0	161	24	3	2	1	191	196.1	0	0	100	19	1	1	0	121	122.8	0	0	1	0	0	0	0	1	1.0
Hourly Total	0	7	662	142	17	5	2	835	847.8	0	4	369	61	2	1	1	438	438.9	0	0	1	0	0	0	0	1	1.0
18:00 - 18:15	0	0	144	19	0	2	0	165	167.6	0	0	80	7	0	0	0	87	87.0	0	0	1	0	0	0	0	1	1.0
18:15 - 18:30	0	1	122	16	3	1	0	143	145.2	0	0	89	7	1	0	0	97	97.5	0	0	0	0	0	0	0	0	0.0
18:30 - 18:45	0	0	77	12	1	0	1	91	92.5	0	0	66	7	3	0	1	77	79.5	0	0	0	0	0	0	0	0	0.0
18:45 - 19:00	0	0	82	12	1	0	0	95	95.5	0	0	43	5	1	0	0	49	49.5	0	0	0	0	0	0	0	0	0.0
Hourly Total	0	1	425	59	5	3	1	494	500.8	0	0	278	26	5	0	1	310	313.5	0	0	1	0	0	0	0	1	1.0
TOTAL	0	12	1614	380	36	18	3	2063	2100.2	0	5	923	152	9	2	3	1094	1101.1	0	0	4	0	0	0	0	4	4.0

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

Buntingford
Tuesday 3rd October 2023
Junction: 6
Approach: A10 West

	Left to London Road (N)									Ahead to London Road (E)									Right to A10 (S)								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUS	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUS	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	PCUS
07:00 - 07:15	0	0	2	4	0	0	0	6	6.0	0	0	0	0	0	0	0	0	0.0	0	0	126	44	7	0	0	177	180.5
07:15 - 07:30	0	0	3	1	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0.0	0	3	155	50	8	2	0	218	222.8
07:30 - 07:45	0	0	8	1	0	0	0	9	9.0	0	0	1	0	0	0	0	1	1.0	0	2	167	52	5	6	1	233	243.1
07:45 - 08:00	0	0	11	4	2	0	0	17	18.0	0	0	0	0	0	0	0	0	0.0	0	1	162	44	7	1	0	215	219.2
Hourly Total	0	0	24	10	3	0	0	37	38.5	0	0	1	0	0	0	0	1	1.0	0	6	610	190	27	9	1	843	865.6
08:00 - 08:15	0	0	7	4	0	0	0	11	11.0	0	0	2	0	0	0	0	2	2.0	0	0	145	47	6	1	0	199	203.3
08:15 - 08:30	0	0	7	0	1	2	0	10	13.1	0	0	0	0	0	0	0	0	0.0	0	0	180	37	12	2	0	231	239.6
08:30 - 08:45	0	0	5	3	1	0	1	10	11.5	0	0	1	1	0	0	0	2	2.0	0	0	147	26	9	4	1	187	197.7
08:45 - 09:00	0	0	12	4	1	1	0	18	19.8	0	0	0	0	0	0	0	0	0.0	0	1	134	30	10	5	0	180	190.9
Hourly Total	0	0	31	11	3	3	1	49	55.4	0	0	3	1	1	0	0	4	4.0	0	1	606	140	37	12	1	797	831.5
09:00 - 09:15	0	0	11	0	1	1	0	13	14.8	0	0	0	1	0	0	0	1	1.0	0	0	92	27	10	5	2	136	149.5
09:15 - 09:30	0	0	7	3	1	1	0	12	13.8	0	0	0	0	1	0	0	1	1.0	0	0	86	27	11	9	0	133	150.2
09:30 - 09:45	0	0	3	1	0	0	0	4	4.0	0	0	1	0	0	0	0	1	1.0	0	1	74	17	8	5	0	105	114.9
09:45 - 10:00	0	0	7	2	0	0	0	9	9.0	0	0	3	0	0	0	0	3	3.0	0	0	66	14	10	1	0	91	97.3
Hourly Total	0	0	28	6	2	2	0	38	41.6	0	0	4	2	0	0	0	6	6.0	0	1	318	85	39	20	2	465	511.9
TOTAL	0	0	83	27	8	5	1	124	135.5	0	0	8	3	0	0	0	11	11.0	0	8	1534	415	103	41	4	2105	2209.0
16:00 - 16:15	0	0	9	0	0	0	0	9	9.0	0	0	0	0	0	0	0	0	0.0	0	1	85	26	8	1	0	121	125.7
16:15 - 16:30	0	0	5	3	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0.0	0	1	108	21	4	0	0	134	135.4
16:30 - 16:45	0	0	8	2	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0.0	0	1	110	26	5	2	0	144	148.5
16:45 - 17:00	0	0	13	6	0	0	0	19	19.0	0	0	0	0	0	0	0	0	0.0	0	1	88	18	0	1	0	108	108.7
Hourly Total	0	0	35	11	1	0	0	47	47.5	0	0	0	0	0	0	0	0	0.0	0	4	391	91	17	4	0	507	518.3
17:00 - 17:15	0	0	15	1	0	0	0	16	16.0	0	0	0	0	0	0	0	0	0.0	0	1	127	17	0	2	0	147	149.0
17:15 - 17:30	0	0	14	4	0	0	0	18	18.0	0	0	1	1	0	0	0	2	2.0	0	1	119	24	0	0	0	144	143.4
17:30 - 17:45	0	0	7	3	0	0	0	10	10.0	0	0	0	0	0	0	0	0	0.0	0	1	131	28	3	1	0	164	166.2
17:45 - 18:00	0	0	19	1	0	0	0	20	20.0	0	0	0	0	0	0	0	0	0.0	0	0	129	6	0	1	0	136	137.3
Hourly Total	0	0	55	9	0	0	0	64	64.0	0	0	1	1	0	0	0	2	2.0	0	3	506	75	3	4	0	591	595.9
18:00 - 18:15	0	0	9	1	0	1	0	11	12.3	0	0	0	0	0	0	0	0	0.0	0	1	95	13	1	2	0	112	114.5
18:15 - 18:30	0	0	4	1	0	0	0	5	5.0	0	0	0	0	0	0	0	0	0.0	0	1	97	14	0	1	0	113	113.7
18:30 - 18:45	0	0	6	2	0	0	0	8	8.0	0	0	0	0	0	0	0	0	0.0	0	0	81	10	0	1	0	92	93.3
18:45 - 19:00	0	0	5	2	2	0	0	9	10.0	0	0	0	0	0	0	0	0	0.0	0	0	70	7	1	1	0	79	80.8
Hourly Total	0	0	24	6	2	1	0	33	35.3	0	0	0	0	0	0	0	0	0.0	0	2	343	44	2	5	0	396	402.3
TOTAL	0	0	114	26	3	1	0	144	146.8	0	0	1	1	0	0	0	2	2.0	0	9	1240	210	22	13	0	1494	1516.5

PCU Factors:	
CYCLE	0.2
M/CYCLE	0.4
CAR	1.0
LGV	1.0
OGV1	1.5
OGV2	2.3
BUS	2.0

From: 1) 07:00

Show Peak Hour: ☐

To: 1) 10:00

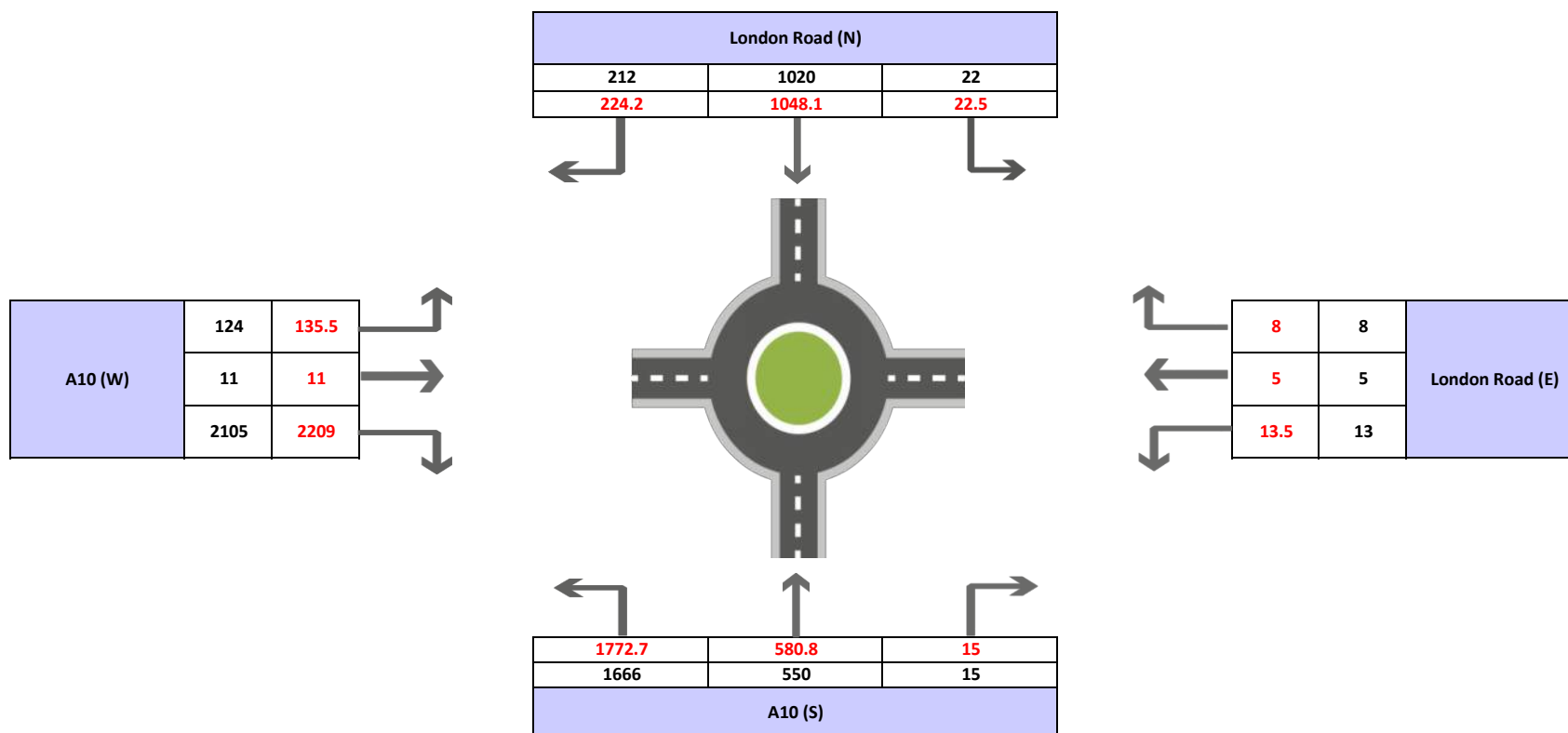
Show PCUs: ☒

Class: All Vehicles

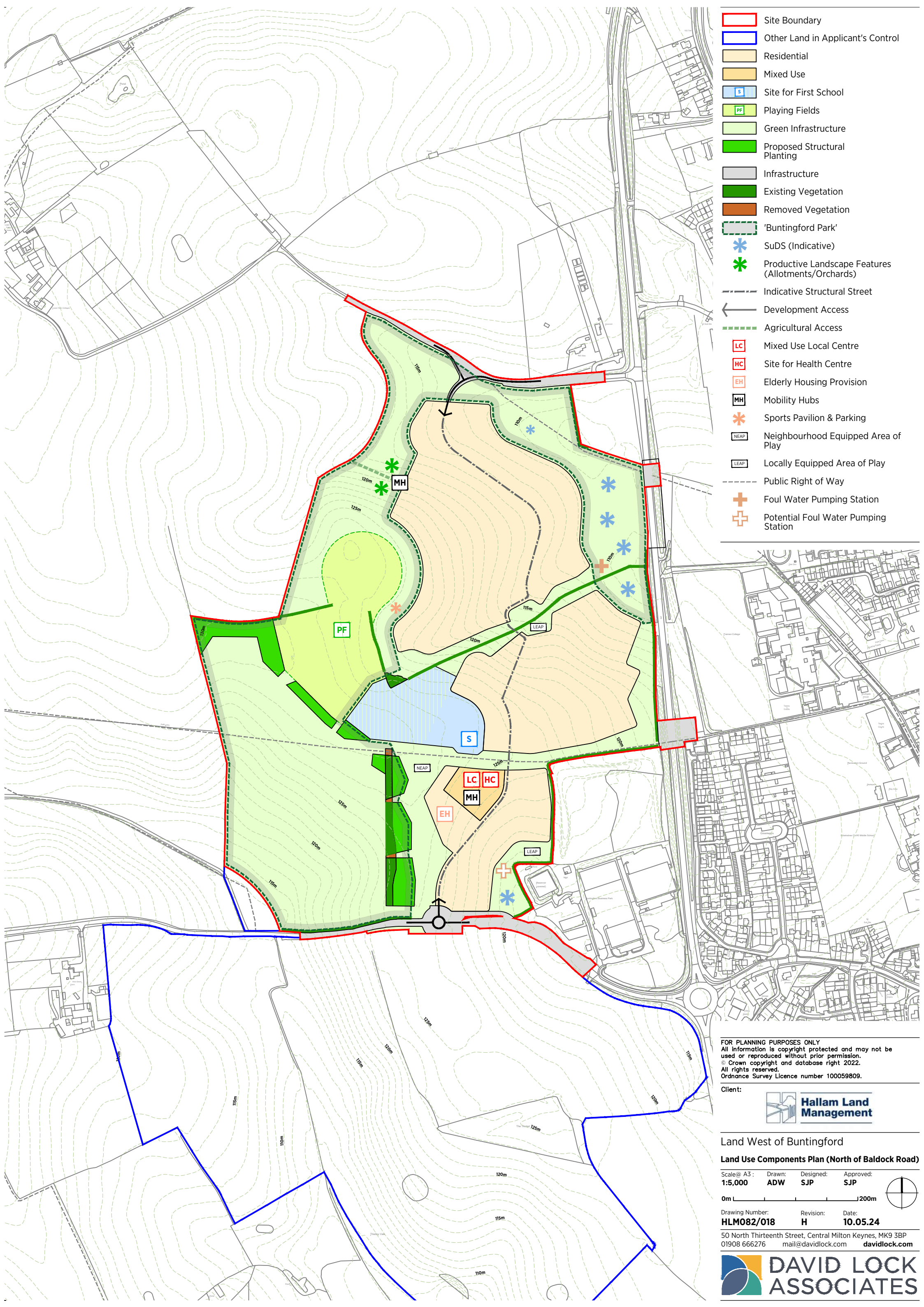
Show Session 2

Tuesday 3rd October 2023

PCUs



Appendix C: Land Use Components Plan



- Site Boundary
- Other Land in Applicant's Control
- Residential
- Mixed Use
- Site for First School
- Playing Fields
- Green Infrastructure
- Proposed Structural Planting
- Infrastructure
- Existing Vegetation
- Removed Vegetation
- 'Buntingford Park'
- SuDS (Indicative)
- Productive Landscape Features (Allotments/Orchards)
- Indicative Structural Street
- Development Access
- Agricultural Access
- Mixed Use Local Centre
- Site for Health Centre
- Elderly Housing Provision
- Mobility Hubs
- Sports Pavilion & Parking
- Neighbourhood Equipped Area of Play
- Locally Equipped Area of Play
- Public Right of Way
- Foul Water Pumping Station
- Potential Foul Water Pumping Station

FOR PLANNING PURPOSES ONLY
All information is copyright protected and may not be used or reproduced without prior permission.
© Crown copyright and database right 2022.
All rights reserved.
Ordnance Survey Licence number 100059809.

Client:  **Hallam Land Management**

Land West of Buntingford
Land Use Components Plan (North of Baldock Road)

Scale@ A3: **1:5,000** Drawn: **ADW** Designed: **SJP** Approved: **SJP**

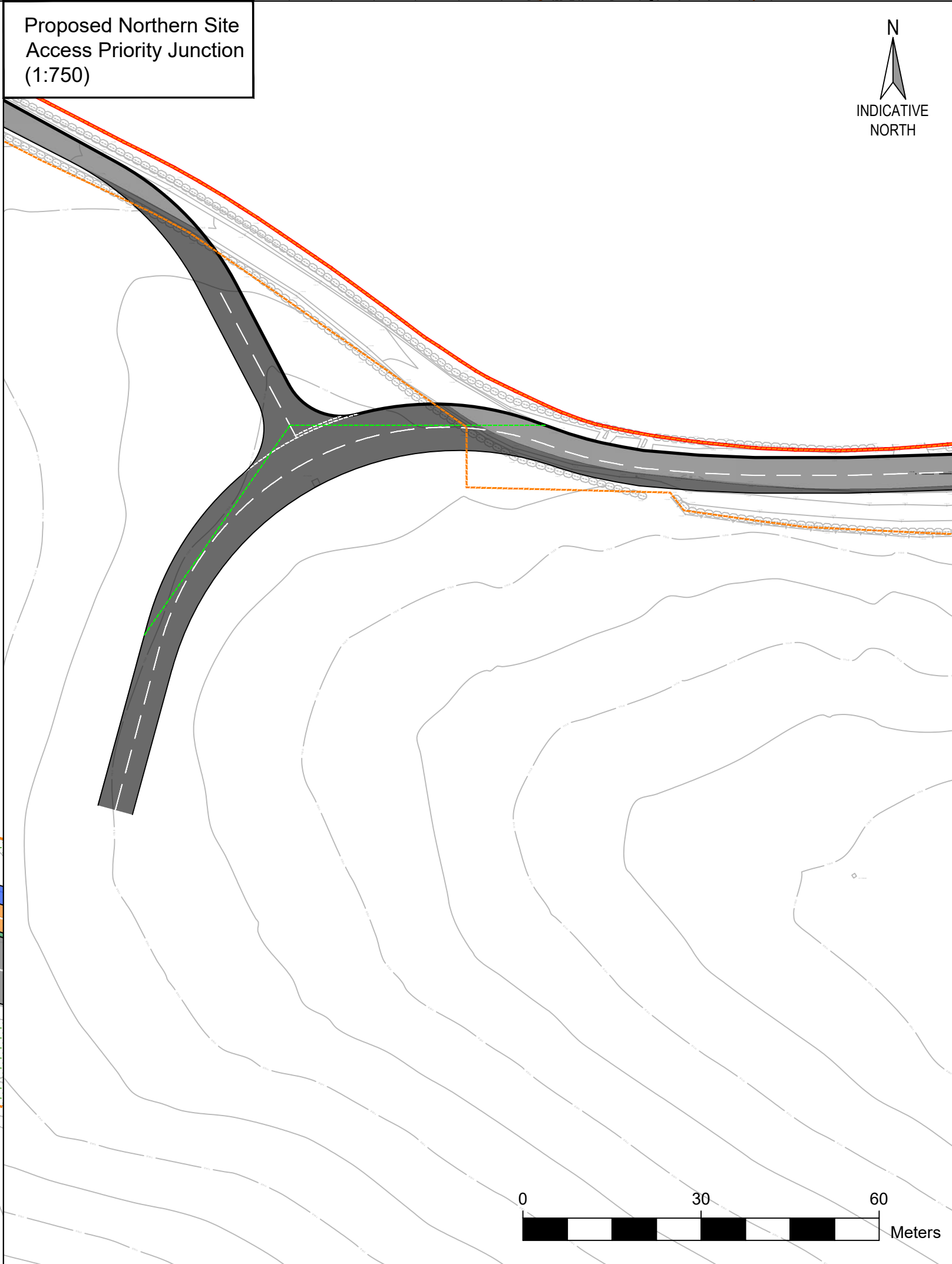
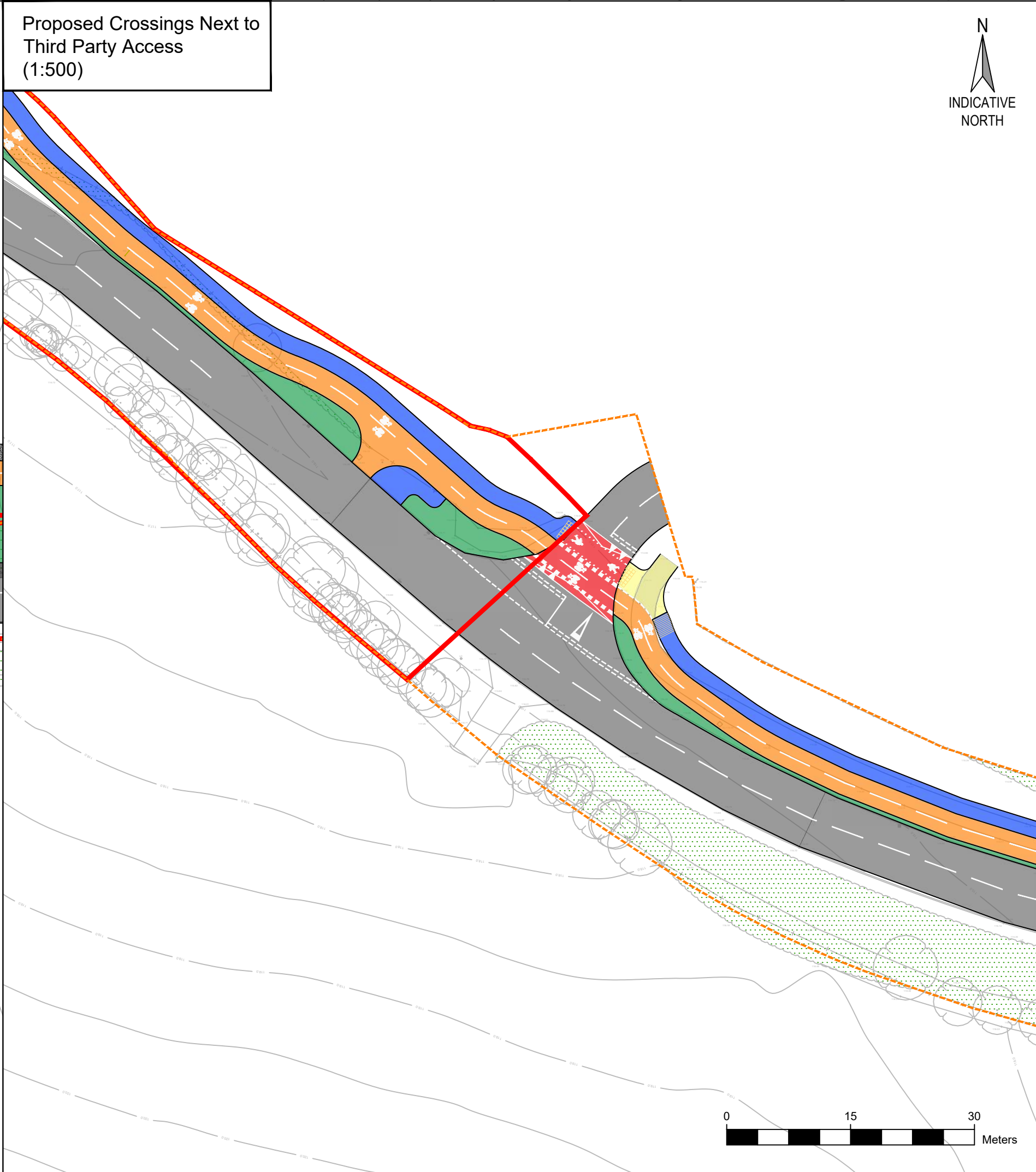
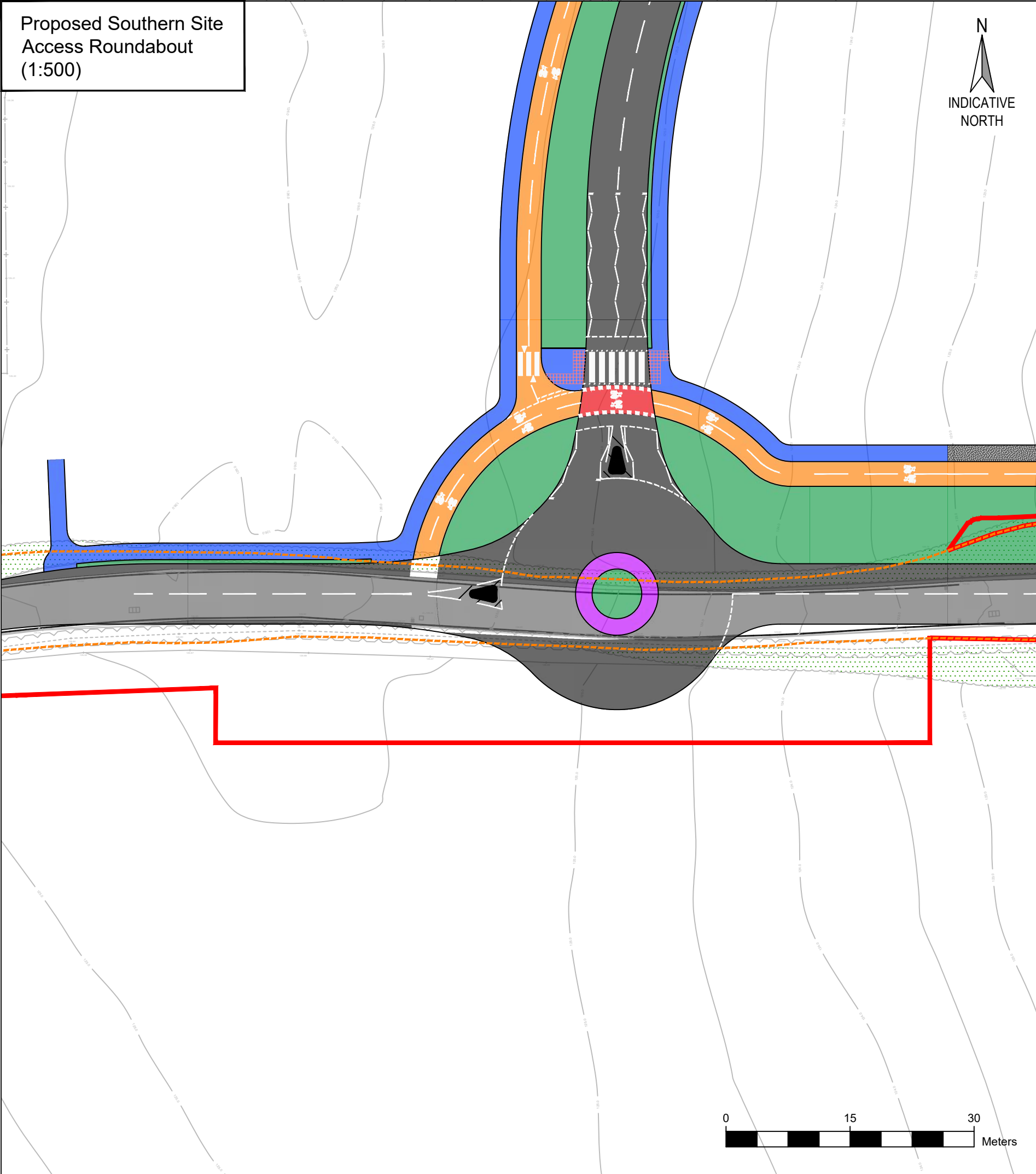
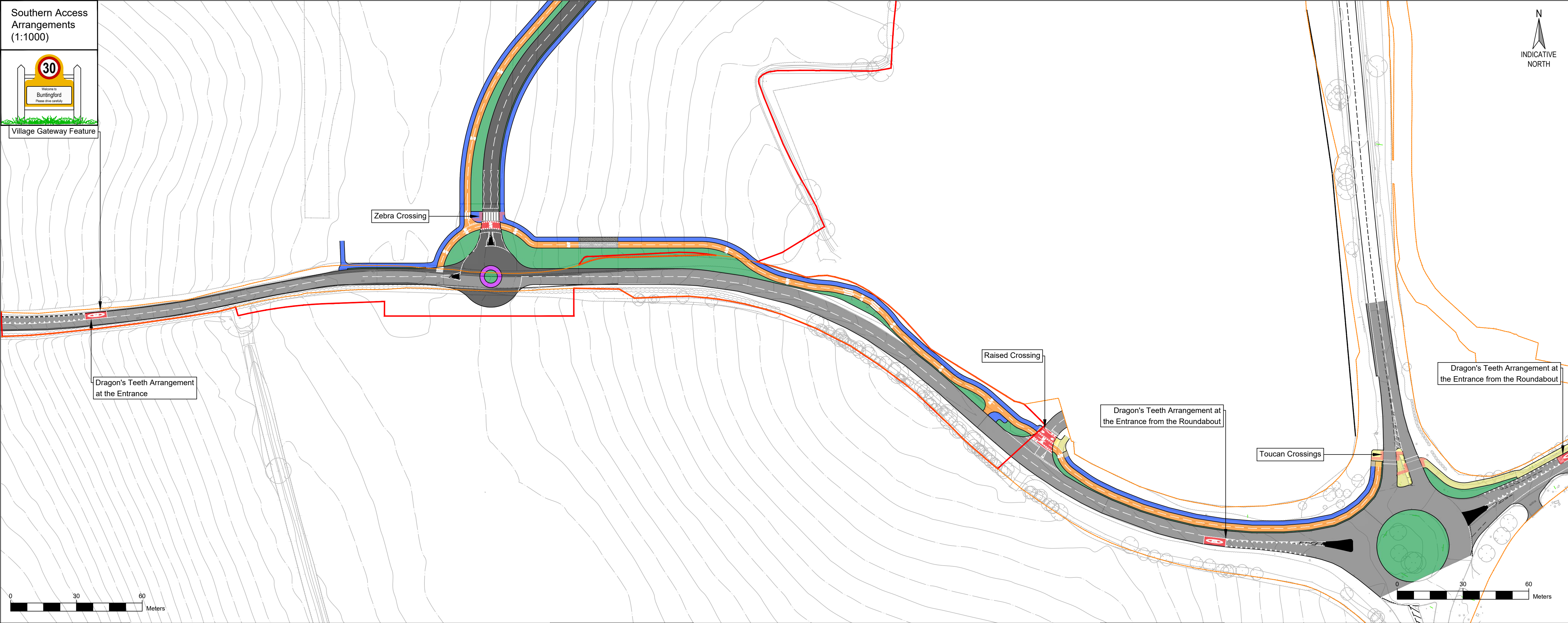
0m L 200m

Drawing Number: **HLMO82/018** Revision: **H** Date: **10.05.24**

50 North Thirteenth Street, Central Milton Keynes, MK9 3BP
01908 666276 mail@davidlock.com davidlock.com



Appendix D: Proposed Site Access Layout



LEGEND

- Site Boundary
- Highway Boundary
- Proposed Carriageway
- Existing Carriageway
- Proposed Cycleway
- Proposed Pedestrian Path / Footway
- Proposed Shared Pedestrian and Cyclist Path
- Existing Shared Pedestrian and Cyclist Path
- Verge
- Coloured Surface Treatment
- Overrun Area

Rev	Date	Description	By	Apvd
P4	14.05.24	RLB Amendment	AB	RM
P3	25.03.24	RLB Amendment	BT	RM
P2	23.02.24	Amendments	JF	MG
P1	21.02.24	Preliminary issue	JF	MG

PROJECT:
BUNTINGFORD

TITLE:
PROPOSED SITE ACCESS ARRANGEMENTS

CLIENT:
HALLAM LAND MANAGEMENT LTD

SCALE@A1:
Please Refer to the Drawing

PROJECT REF:
23161

DRAWING No:
0009

STATUS:
N/A

REV:
P4

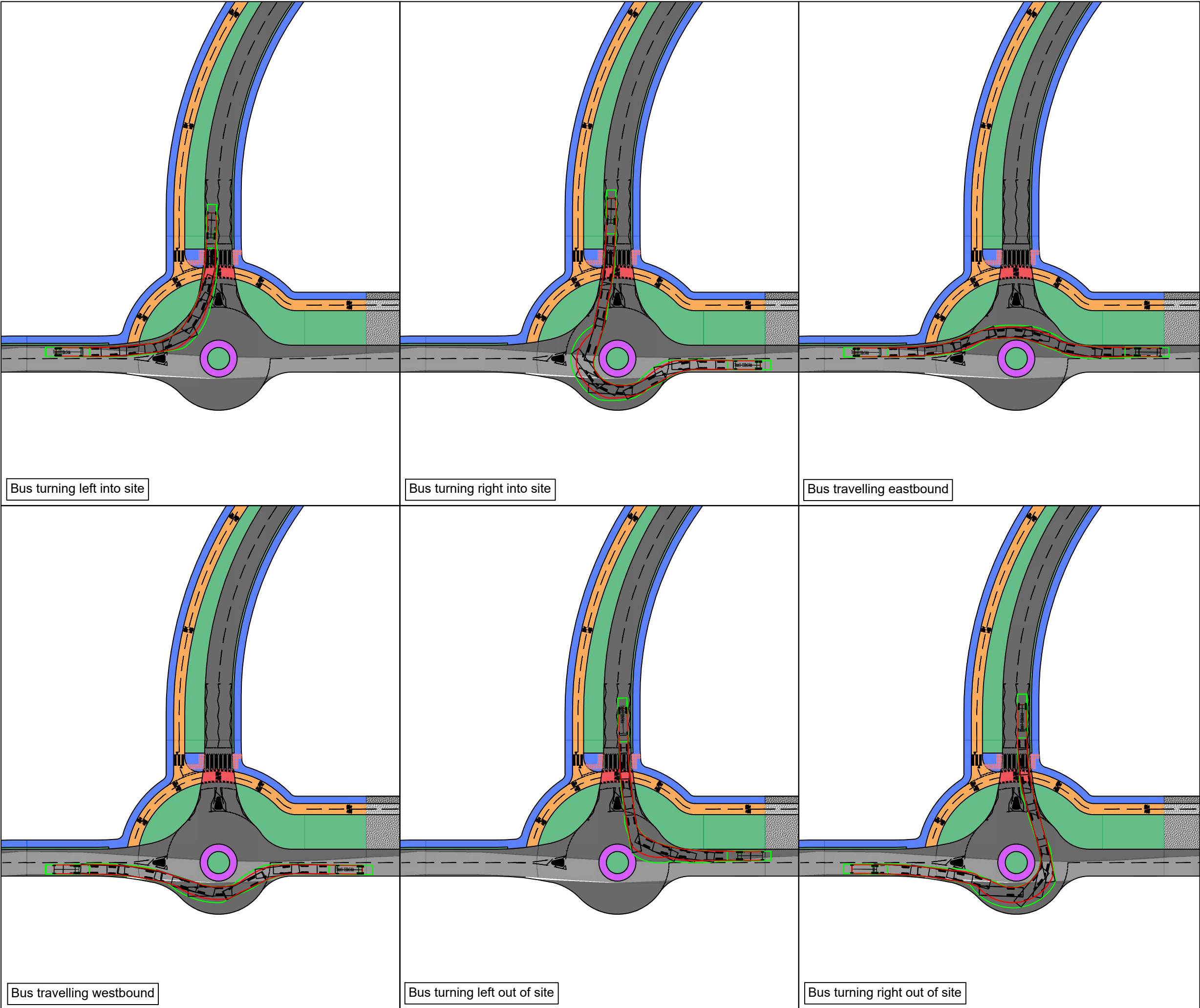
Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction

Jubb

Bristol, Cardiff, Plymouth, Winchester
Kings Orchard, 1 Queen St, Bristol BS2 0HQ

jubb.uk.com
+44(0)117 922 6266

Appendix E: Swept Path Analysis at Proposed Roundabout Junction



Bus turning left into site

Bus turning right into site

Bus travelling eastbound

Bus travelling westbound

Bus turning left out of site

Bus turning right out of site

LEGEND

Trident II - 12.00m 3-Axle
Overall Length 11.856m
Overall Width 2.496m
Overall Body Height 4.140m
Min Body Ground Clearance 0.311m
Track Width 2.363m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m

P1	25.03.24	Preliminary issue	BT	RM
Rev	Date	Description	By	Apvd

PROJECT:
BUNTINGFORD

TITLE:
PROPOSED SITE ACCESS - SWEPT
PATH ANALYSIS BUS

CLIENT:
HALLAM LAND MANAGEMENT LTD

SCALE@A3:
1:1000

PROJECT REF: 23161	STATUS: N/A
DRAWING No: 0011	REV: P1

Revision Referencing
P = Preliminary A = Approval T = Tender C = Construction

