



**East Herts District Council**

# **Bishop's Stortford Park and Ride**

## **Feasibility Study**

September 2018

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## Version Control and Approval

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## I Introduction

- 1.1.1 PJA has been commissioned by East Herts District Council (EHDC) to assess the feasibility of introducing a Park & Ride service in Bishop's Stortford. Park & Ride services comprise a car park, typically located on the outskirts of a town, with access to a public transport service which typically takes the form of a regular bus service to the town centre.
- 1.1.2 This report has been informed by a desk study, and a site visit undertaken on Thursday 2<sup>nd</sup> August 2018.
- 1.1.3 This note considers
- the policy and best practice relating to Park & Ride schemes;
  - existing transport conditions in Bishop's Stortford;
  - the potential demand for a Park & Ride service in Bishops Stortford; and
  - the level of uptake which would be required for the service to be profitable.

## I.2 Advantages and Disadvantages of a Park and Ride

- 1.2.1 The advantages and disadvantages of Park & Ride include:
- Providing access to public transport for trips which do not originate near frequent public transport services<sup>1</sup>
  - Reduced town centre congestion and parking demand, improving air quality and allowing the reallocation of road space<sup>1</sup>
  - Increased car use outside of the town centre, particularly where drivers must detour to reach a Park & Ride facility<sup>1</sup>
  - Can reduce wider public transport use: 9-14% of Park & Ride trips would have been made using public transport in any case<sup>1</sup>
  - Allow Local Authorities to exert direct control on urban bus networks where bus services are deregulated<sup>1</sup>
  - Encouraging retail to relocate to the town centre<sup>1</sup>
  - Requirement for large car parks to be built on the edge of the town centre

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<sup>1</sup> The Effectiveness of Park-and-Ride as a Policy Measure for more Sustainable Mobility (Graham Parkhurst of the University of West England, 2014)



## 2 Policy

### 2.1 East Herts Local Plan (2007)

2.1.1 The East Herts Local Plan was prepared to guide development and land use up to 2011, although has not yet been updated. Chapter 11 of the Local Plan relates to Bishop's Stortford, and requires that:

*“car parking demand in the town centre should be accommodated, positioned and integrated in a manner that considerably reduces its visual impact while maintaining ease of pedestrian access”.*

2.1.2 It further requires that:

*“car parking facilities at the north and south edges of the town centre should be designed, in terms of location, size and accessibility, with the aim of alleviating traffic pressures in the core”.*

2.1.3 Both of these requirements could be facilitated through the implementation of a Park & Ride, which would reduce the requirement for town centre parking and reduce the amount of traffic in the town centre.

2.1.4 A draft revised Local Plan has been prepared: *“East Herts District Plan Pre-Submission Consultation 2016”*, due for adoption in September 2018. This plan does not have the same emphasis as the previous plan in relation to car parking, with no preference for or against town centre car parks.

### 2.2 Hertfordshire Local Transport Plan 2018-2031 (2018)

2.2.1 The Hertfordshire Local Transport Plan 2018-2031, lists a range of initiatives for sustainable travel towns, including:

*“The application of park and ride and other parking demand management approaches should also be considered as these would complement other improvements in passenger transport, and improved provision for sustainable modes in the towns.”*

2.2.2 The Plan acknowledges that car parking in Hertfordshire is typically generous at relatively low cost, and Policy 4 relates to demand management, stating:

*“The county council considers greater traffic demand management to be essential in the county’s urban areas in the next five years to achieve modal shift and improve sustainable travel provision. This can only currently be achieved efficiently and effectively through parking restrictions and charging applied to on-street, off-street and potentially at workplace parking. The county council will work with the district and borough councils and other key stakeholders to develop locally appropriate strategies”*

2.2.3 The Plan further states that:

*“demand management interventions such as congestion charging and parking charges can also provide a revenue stream that can facilitate investment in sustainable transport”.*

## **2.3 Bishop’s Stortford Town Centre Planning Framework (2018)**

2.3.1 The Bishop’s Stortford Town Centre Planning Framework was prepared by Allies and Morrison to help set a vision and strategy for the development of Bishop’s Stortford.

2.3.2 The preparation of the framework included consultation with residents and local community groups in Bishop’s Stortford. One of the issues raised was that there is insufficient car parking in the town centre, with people also commenting about the problems of congestion in the town centre. A number of proposals are made within the framework to address these problems, including:

- A new bridge from Adderley Road to the Mill site to provide a new route from the train station to town centre;
- Widening of Station Bridge to provide a safe and attractive new route for pedestrians;
- Widening of the tow path along the eastern edge of the river to provide a shared route for pedestrians and cyclists;
- Timed closure of South Street / Potter Street to reduce emissions and improve public realm;
- Introducing contraflow cycling on existing one-way streets, and the removal of other one-way restrictions for all vehicles to improve the permeability of the network;
- Provision of additional car parking within the town centre; and
- Provision of pedestrian crossing facilities at the Hockerill junction.

## **2.4 Summary**

2.4.1 In summary, the policy recognises that car parking within Bishop’s Stortford needs to be located and designed in order to minimise the impact on the town centre. This could be achieved through the provision of Park & Ride facilities with edge of town car parking. The LTP does, however, note that increasingly traffic demand management will be required to encourage modal shift, with parking availability, charging and restrictions being the key drivers.



### 3 Best Practice

3.1.1 In order to guide the assessment of providing Park & Ride sites within Bishop’s Stortford, the operation of other Park & Ride sites have been reviewed and are summarised in Table 3-1. Winchester and Salisbury are both relatively small in size, similar to Bishop’s Stortford, whilst Chelmsford and Cambridge are located close to Bishop’s Stortford.

**Table 3-1: Comparable Park & Ride Sites**

Location	Town centre car park charge	Park & Ride Site			
		Service Frequency	Fares	Operating Times	No. of spaces
Winchester	All day Monday – Friday: £7 - £15	Approx. every 15 minutes	<p>Pay and display</p> <p><b>Monday - Saturday</b> Standard: £3.00 Smartcard: £2.70</p> <p><b>Off peak</b> (Arrival after 10:30am Monday to Friday): £2.50</p> <p>Concessionary pass holders must pay</p>	<p><b>Monday to Friday:</b> 06:30 – 19:50</p> <p><b>Saturdays:</b> 07:00 – 18.50</p>	<p><b>Site 1</b> 573 standard 2 accessible 8 motor home</p> <p><b>Site 2</b> 195 standard</p> <p><b>Site 3</b> 858 standard 9 accessible 7 child + parent 8 motor home 2 electric vehicle charging points</p> <p><b>Site 4</b> 197 standard 2 accessible</p>
Salisbury	All day Monday – Friday: £8.90	Approx. every 15 minutes	<p>Pay on the bus</p> <p><b>Monday - Saturday</b> Single adult: £3 Group : £4 (+£1 per extra person if more than 4)</p> <p>10 trips single adult: £14 60 trips single adult: £70 10 trips group: £18</p> <p>Free for concessionary pass holders after 09:30 weekdays and all-day Saturday</p>	<p><b>Monday to Friday:</b> 06:00 / 07:00 – 23:00 (some sites use Red2 services during evening)</p> <p><b>Saturdays + Good Friday:</b> 06:00 – 23:00</p> <p><b>Bank holidays:</b> 09:00 – 19:00 / 21:00</p>	Over 2,000 spaces across five sites
Cambridge	All day Monday – Friday: £8 - £28.80	Approx. every 15 minutes	<p>Pay on the bus, parking free up to 18 hours</p> <p><b>Daily</b> Adult: £3, up to 3 children free Group (up to 5 people): £8.50</p> <p><b>Weekly</b> P&amp;R: £14 P&amp;R and Stagecoach: £15</p> <p><b>Monthly</b></p>	<p><b>Monday to Friday:</b> 06:00 / 07:00 – 20:30</p> <p><b>Saturday:</b> 07:00 / 08:00 – 20:00 / 20:30</p> <p><b>Sunday:</b> 09:00 – 18:00</p>	<p><b>Site 1</b> 1,340 spaces</p> <p><b>Site 2</b> 873 spaces</p> <p><b>Site 3</b> 930 spaces</p> <p><b>Site 4</b> 1458 spaces</p> <p><b>Site 5</b> 792 spaces</p>

Location	Town centre car park charge	Park & Ride Site			
		Service Frequency	Fares	Operating Times	No. of spaces
			P&R and Stagecoach: £56  Free for concessionary pass holders after 09:30 weekdays and all-day weekends		
Chelmsford	All day Monday – Friday: £5.50 - £18	Approx. every 10 minutes	Pay on the bus  <b>Monday - Friday</b> Adult: £3.50 Child (5+): £1.00  <b>Weekly pass</b> Adult: £17.50 Child (5+): £5.00  <b>Monthly pass</b> Adult: £64.50 Child (5+): £20.00  <b>Weekend</b> Adult: £1.50 Child under 16: Free  Free for concessionary pass holders after 09:00 weekdays and all,day Saturday	<b>Monday to Saturday:</b> 07:00 – 20:00 / 21:00	<b>Site 1</b> 1,500 spaces plus 20 cycle spaces <b>Site 2</b> 1003 spaces plus 20 cycle spaces



## 4 Existing Transport Conditions

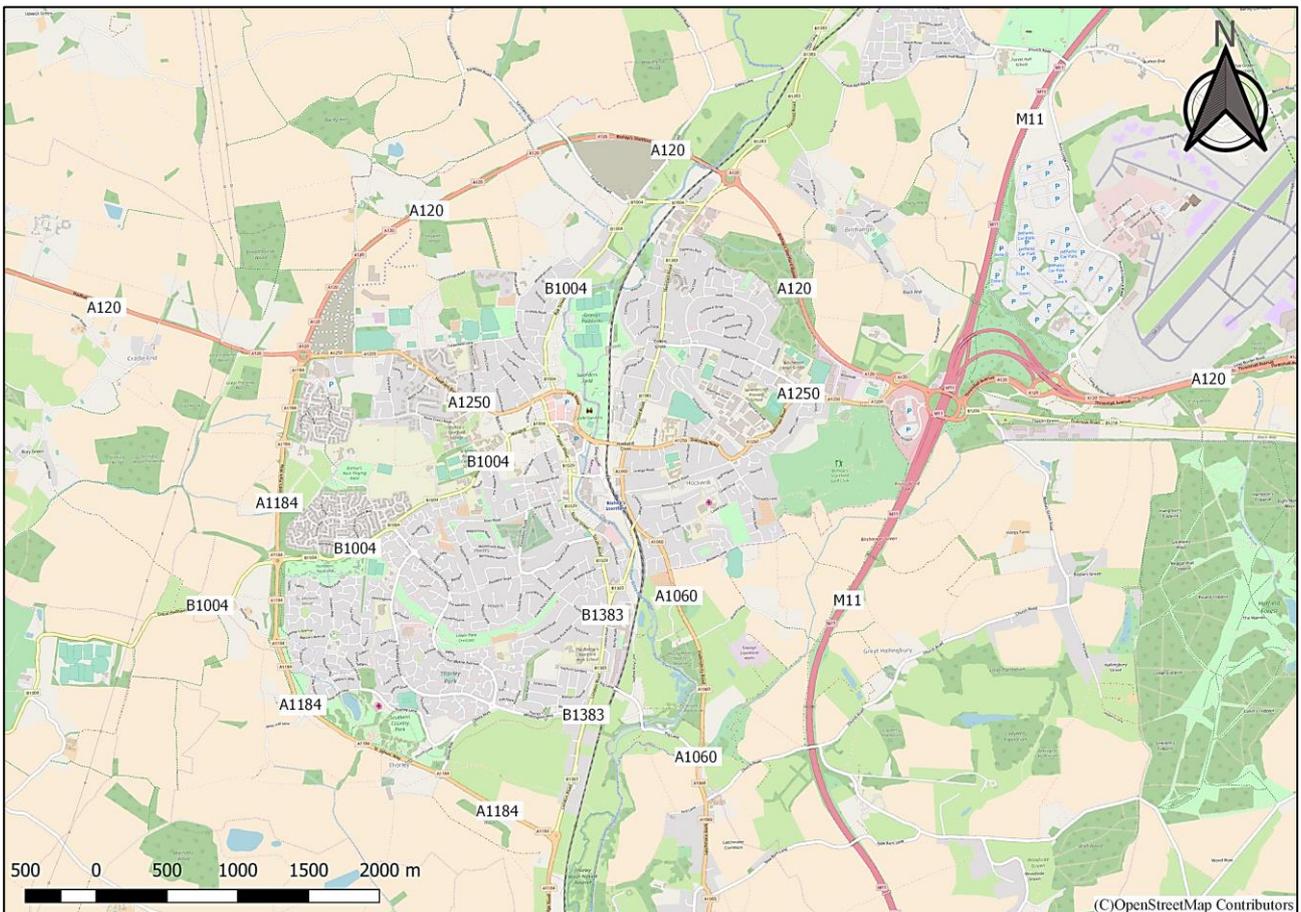
4.1.1 The existing transport conditions in Bishop’s Stortford have been reviewed, including the local highway network and public transport provision, to inform the potential for a Park & Ride service and identify potential locations for a Park & Ride car park.

### 4.2 Highway Network

4.2.1 The existing highway network in the vicinity of Bishop’s Stortford is shown in Figure 4-1. Further details on the key arterial routes through and around Bishop’s Stortford are provided below.

4.2.2 From the outer extent of Bishop’s Stortford, it currently takes between 8 and 16 minutes to reach the town centre at peak times. The additional journey time resulting from interchanging onto a Park & Ride bus is subsequently relatively high compared to the existing travel time.

Figure 4-1: Existing Highway Network



#### A1250

4.2.3 The A1250 provides the main east-west route through Bishop’s Stortford between the M11 and A120. Within Bishop’s Stortford, the A1250 is subject to a 30mph speed limit – this commences



approximately 110 metres to the east of the roundabout junction with the A1184 / A120 in the west, and approximately 250 metres to the southwest of the roundabout junction with the A120 in the east. Pedestrian footways are provided along at least one side of the A1250 for its entire length.

### **B1004**

- 4.2.4 The B1004 is an arterial route which runs from the north of Bishop's Stortford to the southwest of the town. It is subject to a 30mph speed limit within Bishop's Stortford, which commences approximately 200 metres east of the roundabout junction with the A1184 in the west and approximately 210 metres southwest of the junction with Hazelend Road in the north.

### **A120**

- 4.2.5 The A120 bypasses around the north of Bishop's Stortford, allowing east-west trips to avoid the town centre. In the east, the A120 provides access to junction 8 of the M11 via a roundabout junction.

### **A1184**

- 4.2.6 The A1184 provides a bypass around the southwest of Bishop's Stortford, and also routes south through Spellbrook and Sawbridgeworth towards Harlow.

### **M11**

- 4.2.7 The M11 is part of the motorway network, and can be accessed approximately 3km east of Bishop's Stortford town centre (junction 8).
- 4.2.8 The M11 links the North Circular Road in South Woodford, northeast London, to the A14 to the northwest of Cambridge. The Bishop's Stortford junction also serves London Stansted Airport.

## **4.3 Existing Public Transport Provision**

- 4.3.1 Bishop's Stortford benefits from a good network of both bus and rail services.

### **Bus**

- 4.3.2 The locations of existing bus stops are shown in Figure 4-2, which also shows 5, 10 and 15 minute walk isochrones and the location of Bishop's Stortford Railway Station. The services accessible are summarised in Table 4-1 and show that strategic destinations such as Stansted Airport, Sawbridgeworth and Harlow are accessible via frequent services which operate 24 hours a day.



Figure 4-2: Bus Stop Locations



Table 4-1: Bishop's Stortford Bus Services

No.	Route	Frequency	Days of Operation
5	Stansted Airport – Little Hallingbury – Bishop's Stortford	Approx. every hour 06:56 – 21:05	Monday – Saturday
7	Stansted Airport – Takeley – Henham – Elsenham – Bishop's Stortford	Approx. every 135 minutes 06:00 – 20:27	Monday – Saturday
7A	Stansted Airport – Takeley – Henham – Elsenham – Bishop's Stortford	Approx. every 2 hours 08:49 – 19:17	Monday – Saturday
20	Anstey – Bishop's Stortford	1-2 off peak services per day	Monday – Friday
27	Royston – Bishop's Stortford	1 off peak service per week	Wednesday
28	Buntingford – Bishop's Stortford	1 off peak service per week	Monday
301	Saffron Walden – Newport – Mountfitchet – Bishop's Stortford	Approx. every hour 07:12 – 20:08	Monday – Saturday
309	Stansted Airport – Bishop's Stortford	Approx. every hour 19:10 – 06:10 24 hours Sunday	Monday – Sunday
351	Hertford – Bishop's Stortford	Approx. every 2 hours 06:17 – 19:57	Monday – Saturday
386	Stevenage – Bishop's Stortford	5 buses per day 06:50 – 20:00	Monday – Saturday
508	Stanstead Airport – Bishop's Stortford – Harlow	Approx. every 30 minutes 06:20 – 19:13	Monday – Saturday
509	Stanstead Airport – Bishop's Stortford – Sawbridgeworth – Harlow	Approx. every 30 minutes 05:55 – 20:10	Monday – Saturday

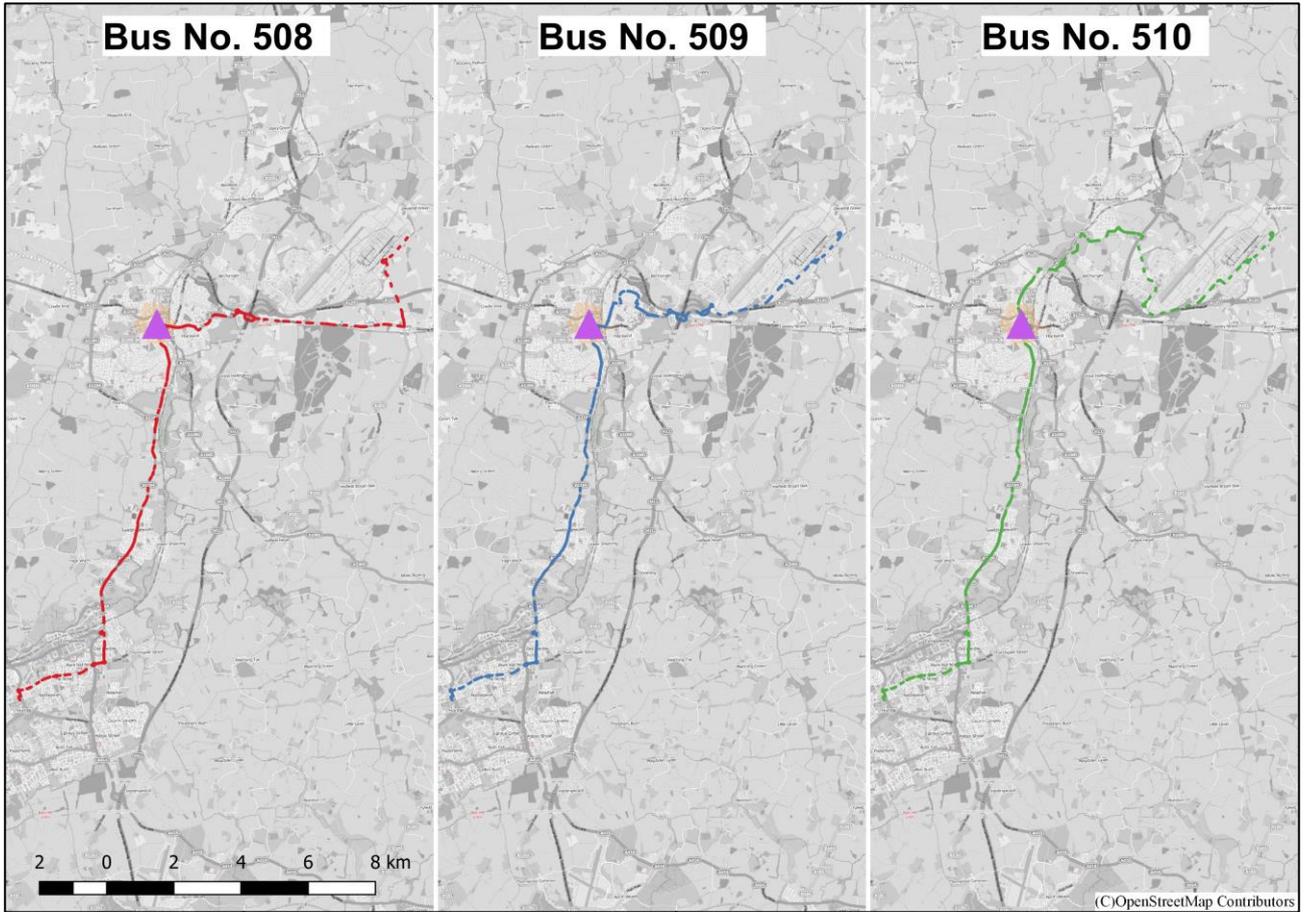


No.	Route	Frequency	Days of Operation
510	Stanstead Airport – Bishop’s Stortford – Sawbridgeworth – Harlow	Approx. every 30 minutes 24 hours	Monday – Sunday
Stortford Shuttle	Herts & Essex Hospital – Bishop’s Gate – Thorley – Havers – Parsonage – Herts & Essex Hospital	Approx. every hour 08:00 – 14:56	Monday – Friday

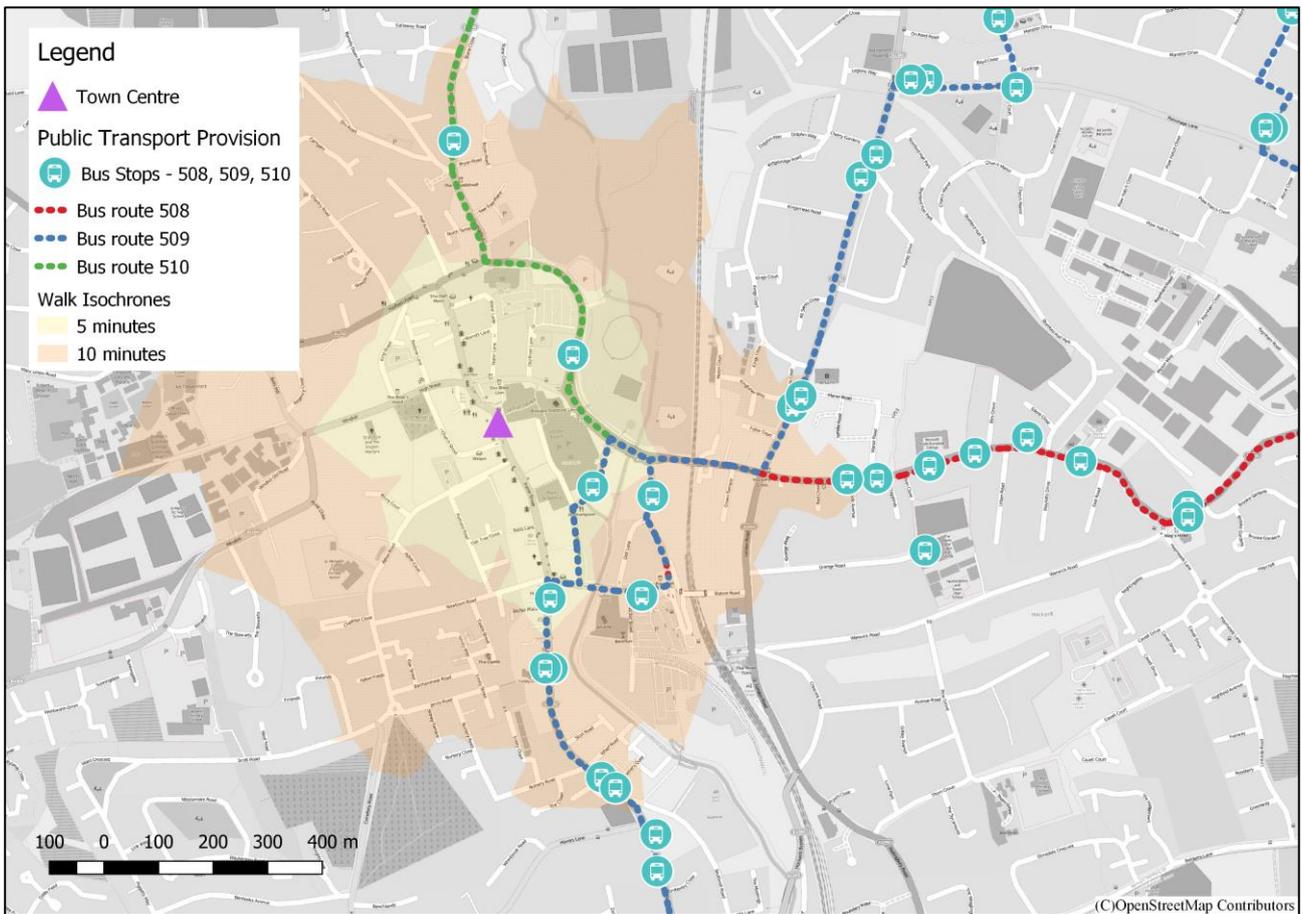
- 4.3.3 Services 508 and 509 could potentially be detoured into a Park & Ride site located to the east of the town, with a journey time of approximately 10-12 minutes into the town centre. There can be a gap of up to approximately 25 minutes between services due to the current timings. These timings would need to be adjusted to provide services at 15 minute intervals at the Park & Ride site, or an additional bus would need to be provided to cover the gaps.
- 4.3.4 Service 510 could be detoured into a Park & Ride site located to the north of the town, with a journey time to the town centre of approximately six minutes. This service would need to be supplemented by additional half hourly services to provide a frequency of every 15 minutes.
- 4.3.5 All three services could be detoured into a Park & Ride site located to the south of the town, with a journey time into the town of approximately 5-8 minutes. During the interpeak these combined services run at a frequency of every 10 minutes. However, the gap between buses can be longer during the peaks, and therefore some adjustments to the timetable would be required to ensure a regular Park & Ride service.
- 4.3.6 Using existing bus services would reduce the operating costs, although may limit capacity available for Park & Ride users at peak times, depending on the existing demand for the service. The attractiveness of Park & Ride services would also be reduced as existing services would be required to call at existing stops along the route adding to the journey time.
- 4.3.7 There are no existing bus priority measures within Bishops Stortford in the form of Bus Lanes or priority signal arrangements at congested junctions. Such arrangements would be desirable to reduce bus journey times relative to the car which would make the Park & Ride scheme more attractive. However given the constrained nature of the highway network within Bishop’s Stortford such measures would be difficult to implement and attract a significant cost financially and in terms of additional delay to general traffic.



Figure 4-3: Bus Routes 508, 509 and 510



**Figure 4-4: Bus Routes 508, 509 and 510 – town centre**



## Rail

- 4.3.8 Bishop’s Stortford railway station is located approximately 10 minutes walking distance from the town centre based on a walking speed of 5km/h. The station has 236 cycle parking spaces and 772 car parking spaces, which will be replaced by two multi-storey car parks totalling 966 spaces following the Goods Yard development (see section 3.4 for further details).
- 4.3.9 The destinations accessible directly from Bishop’s Stortford railway station are shown in Table 4-2. Residents living close to the stations listed in Table 4-2 would have a significantly faster journey time by train than by Park & Ride and are therefore unlikely to change mode.



**Table 4-2: Bishop's Stortford Railway Station**

Destination	Services per hour (peak)	Services per hour (off-peak)	Calling Points / Approx. Journey Time <sup>2</sup>
London Liverpool Street (slow)	3	1	Sawbridgeworth – 5 minutes Harlow Mill – 8 minutes Harlow Town – 11 minutes Roydon – 15 minutes Broxbourne – 19 minutes Cheshunt – 23 minutes Tottenham Hale – 32 minutes London Liverpool Street – 47 minutes
London Liverpool Street (semi-fast)	3	1	Harlow Town – 8 minutes Broxbourne – 14 minutes Cheshunt – 18 minutes Tottenham Hale – 28 minutes London Liverpool Street – 42 minutes
London Liverpool Street (fast)	2	2	Tottenham Hale – 24 minutes London Liverpool Street – 38 minutes
Stratford (London)	1	1	Sawbridgeworth – 5 minutes Harlow Mill – 8 minutes Harlow Town – 11 minutes Roydon – 15 minutes Broxbourne – 20 minutes Cheshunt – 29 minutes Enfield Lock – 32 minutes Northumberland Park – 38 minutes Tottenham Hale – 41 minutes Lea Bridge – 45 minutes Stratford (London) – 55 minutes
Stratford (London)	0/1	1	Sawbridgeworth – 5 minutes Harlow Town – 10 minutes Broxbourne – 24 minutes Cheshunt – 29 minutes Waltham Cross – 32 minutes Tottenham Hale – 40 minutes Lea Bridge – 44 minutes Stratford (London) – 53 minutes
Stansted Airport	2	2	Stansted Airport – 9/10 minutes
Cambridge	1	1	Audley End – 22 minutes Whittlesford Parkway – 19 minutes Cambridge – 30 minutes
Cambridge North	1	1	Stansted Mountfitchet – 4 minutes Elsenham (Essex) – 8 minutes Newport (Essex) – 13 minutes Audley End – 16 minutes Great Chesterford – 21 minutes Whittlesford Parkway – 26 minutes Shelford (Cams) – 30 minutes Cambridge – 37 minutes Cambridge North – 42 minutes

<sup>2</sup> Note: there are some slight variations to these calling points throughout the day – the most representative have been selected.



## 5 Existing Parking Provision and Demand

### 5.1 Existing Car Parks

5.1.1 The feasibility of introducing Park & Ride sites needs to be assessed in relation to existing public car parking provision and parking demand within the town centre, as people are unlikely to use a Park & Ride service unless it is cheaper and more convenient than parking in the town centre.

5.1.2 The existing car parks in Bishop's Stortford are listed in Table 5-1 with Figure 5-1 showing their locations. The information relating to the EHDC car parks was obtained from the EHDC website, whilst the station car park information was obtained from the planning application for the site (see section 5.2).

**Table 5-1: Existing Bishop's Stortford Car Parks**

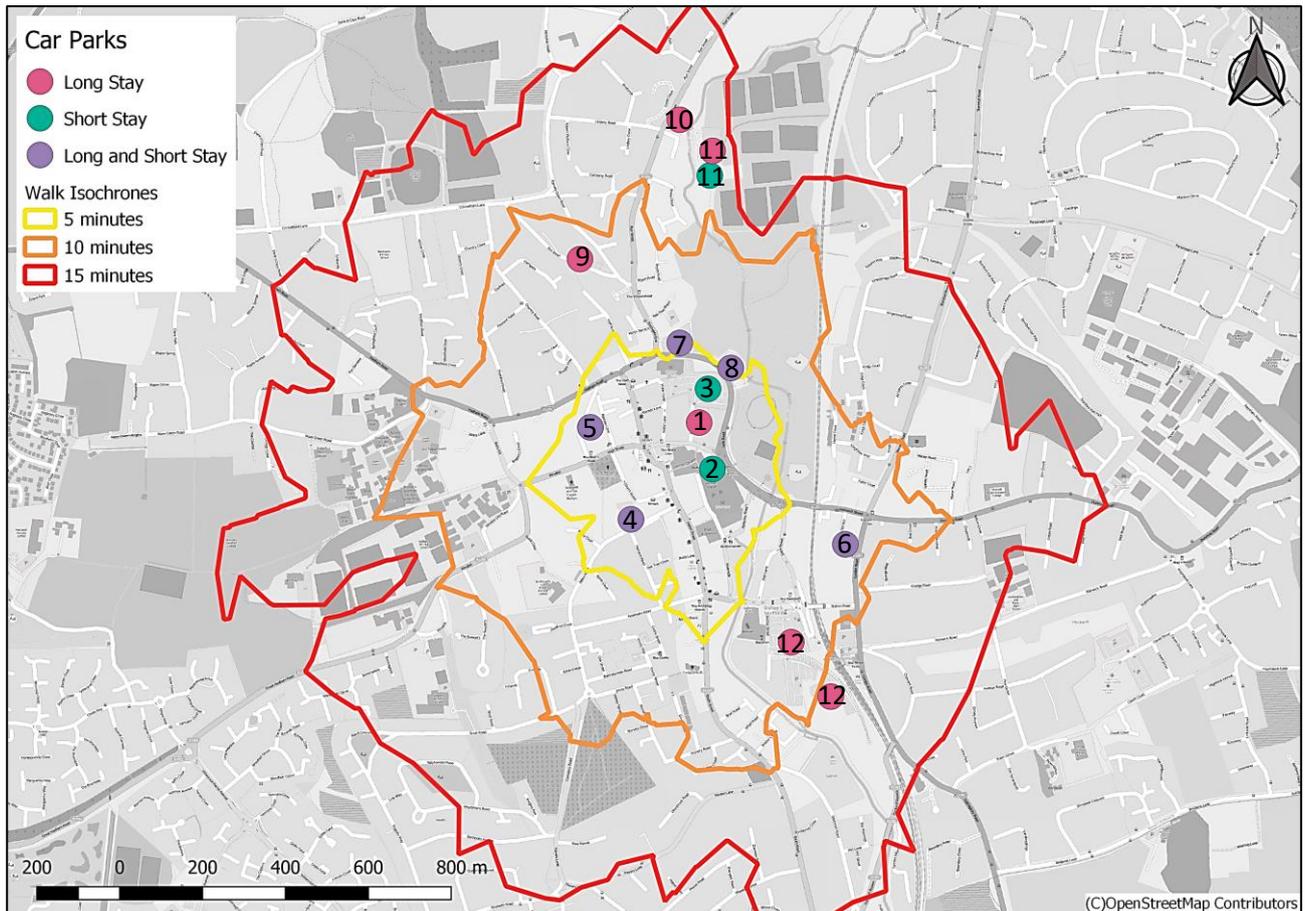
No.	Car Park Name	Postcode	No. of spaces	Cost	Max. length of stay	Managed By	Other
1	Charrington's	CM23 2ER	Monday to Friday: - 49 spaces - 2 blue badge bays Saturday and Sunday: - 73 spaces (reduced tenant only parking) - 2 blue badge bays	5 hours - £3.60 All day £4.40	Long Stay – All day	EHDC	Temporary permission granted for up to 10 years
2	Jackson Square	CM23 3XQ	- 708 spaces - 36 blue badge bays - Designated motorcycle bays	Monday to Saturday, 07.30 - 18.30: 1 hour - 80p 2 hours - £1.60 3 hours - £2.20 4 hours - £2.90 5 hours - £3.60	Short Stay – Max. 5 hours	EHDC	Multi storey - 2.1m height limit. Closed 12pm-6am.
3	Causeway	CM23 2EN	- 241 spaces - 4 blue badge bays	Monday to Saturday, 07.30 - 18.30: 30 min - Free 1 hour - 80p 2 hours - £1.60 3 hours - £2.20 4 hours - £2.90 5 hours - £3.60	Short Stay – Max. 5 hours	EHDC	
4	Apton Road	CM23 3SN	- 86 spaces - 2 blue badge bays - Designated motorcycle bays	Monday to Saturday, 07.30 - 18.30: 30 min - Free 1 hour - 80p 2 hours - £1.60 3 hours - £2.20 4 hours - £2.90	Short Stay – Max. 5 hours Long Stay – All day	EHDC	



No.	Car Park Name	Postcode	No. of spaces	Cost	Max. length of stay	Managed By	Other
				5 hours - £3.60 All day - £4.40			
5	Basbow Lane	CM23 2NA	- 71 spaces	Monday to Saturday, 07.30 - 18.30: 30 min - Free 1 hour - 80p 2 hours - £1.60 3 hours - £2.20 4 hours - £2.90 5 hours - £3.60 All day - £4.40	Short Stay – Max. 5 hours Long Stay – All day	EHDC	
6	Crown Terrace	CM23 2DP	- 64 spaces - 1 blue badge bay	Monday – Friday (Saturday for long stay only), 07.30 - 18.30: 30 min Free 1 hour - 80p 2 hours - £1.60 3 hours - £2.20 4 hours - £2.90 5 hours - £3.60 All day - £4.40	Short Stay – Max. 3 hours Long Stay – All day	EHDC	
7	Northgate End	CM23 2ET	- 143 spaces	Monday - Saturday, 07.30 - 18.30: 30 min Free 1 hour - 80p 2 hours - £1.60 3 hours - £2.20 4 hours - £2.90 5 hours - £3.60 All day - £4.40	Short Stay – Max. 5 hours Long Stay – All day	EHDC	
8	Link Road	CM23 2BA	- 100 spaces - 2 blue badge bays	Monday - Saturday, 07.30 - 18.30: 30 min Free 1 hour - 80p 2 hours - £1.60 3 hours - £2.20 4 hours - £2.90 5 hours - £3.60 All day - £4.40	Short Stay – Max. 5 hours Long Stay – All day	EHDC	
9	Elm Road	CM23 2BA	- 47 spaces - 2 blue badge bays	Monday - Saturday, 07.30 - 18.30 30 min - free 5 hours - £2.00 All day £3.00	Long Stay – All day	EHDC	
10	Grange Paddocks A	CM23 2HH	- 80 spaces	Monday - Saturday, 07.30 - 17.00: All day - £3.00	Long Stay – All day	EHDC	

No.	Car Park Name	Postcode	No. of spaces	Cost	Max. length of stay	Managed By	Other
11	Grange Paddocks B and C	CM23 2HH	- 200 spaces	Monday - Saturday, 09.00 - 17.00: 2.5 hours - Free 5 hours - £2.00 (Grange Paddocks car park 'B' only)	Short Stay – Max. 5 hours	EHDC	Grange Paddocks 'C' is for leisure centre customers only
12	Bishop's Stortford Station	CM23 3BL	- 772 spaces	Monday - Friday: Peak rate - £9.00 Off peak rate - £5.40 Night rate - £3.40 Saturday / Sunday: £3.50 Weekly: £37.30 Annual: £1,750	Unlimited	NCP	2.1m height limit

Figure 5-1: Existing Bishop's Stortford Car Parks





- 5.1.3 As shown on Figure 5-1, Bishop's Stortford currently has 12 public car parks located within 15 minutes walking distance of the town centre, offering both short and long stay parking options to commuters and visitors. The cost of parking is relatively low compared to the towns with existing Park & Ride provision reviewed in chapter 3, starting from £3.00 all day.

## **5.2 Proposed Car Park Alterations**

### **Northgate End**

- 5.2.1 The Northgate End development was consented in July 2018 (Application Reference: 3/18/0432/FUL) and comprises the construction of a 581-space multi-storey car park. This would replace the existing 143-space car parking facility at Northgate End and the 241-space Causeway car park. Therefore, the net car parking uplift would be 197 spaces. The charging structure and permitted duration of stay are currently undecided.

### **Goods Yard**

- 5.2.2 Planning permission was granted in 2018 for development at the Bishop's Stortford Goods Yard alongside the railway station (application number 3/17/2588/OUT). The mixed-use development would include two multi-storey station car parks comprising a total of 966 spaces.
- 5.2.3 Prior to March 2017, the site comprised a total of 756 authorised car parking spaces. 200 of these were removed, and a car park comprising 422 spaces was constructed without planning consent. Consent was granted in 2017 (application number 3/16/0707/FUL), but the number of additional spaces permitted was limited to 216, leading to a total of 772 spaces across the site.
- 5.2.4 The existing 772 spaces would be replaced by the proposed 966 space multi-storey car parks following redevelopment of the area.

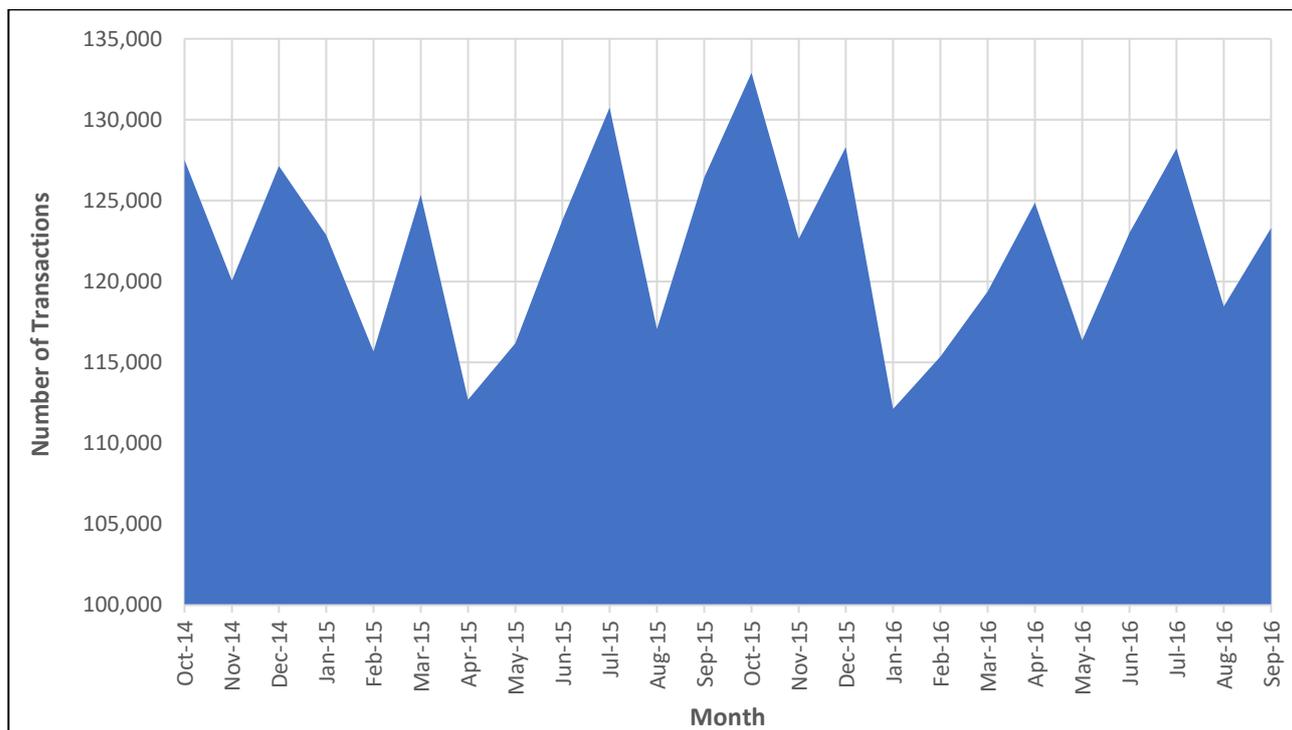
## **5.3 Existing Car Park Demand**

### **Car Park Transaction Data**

- 5.3.1 Car park transaction data was made available to PJA by EHDC. The data includes parking ticket sales, by month for the period October 2014 – September 2016. The data for Bishop's Stortford is summarised in Figure 5-2. It should be noted that Charrington's car park was not open at this time, and the railway station car park comprised 756 spaces compared to the current 772 spaces.



**Figure 5-2: Number of Parking Transactions in Bishop’s Stortford by Month**



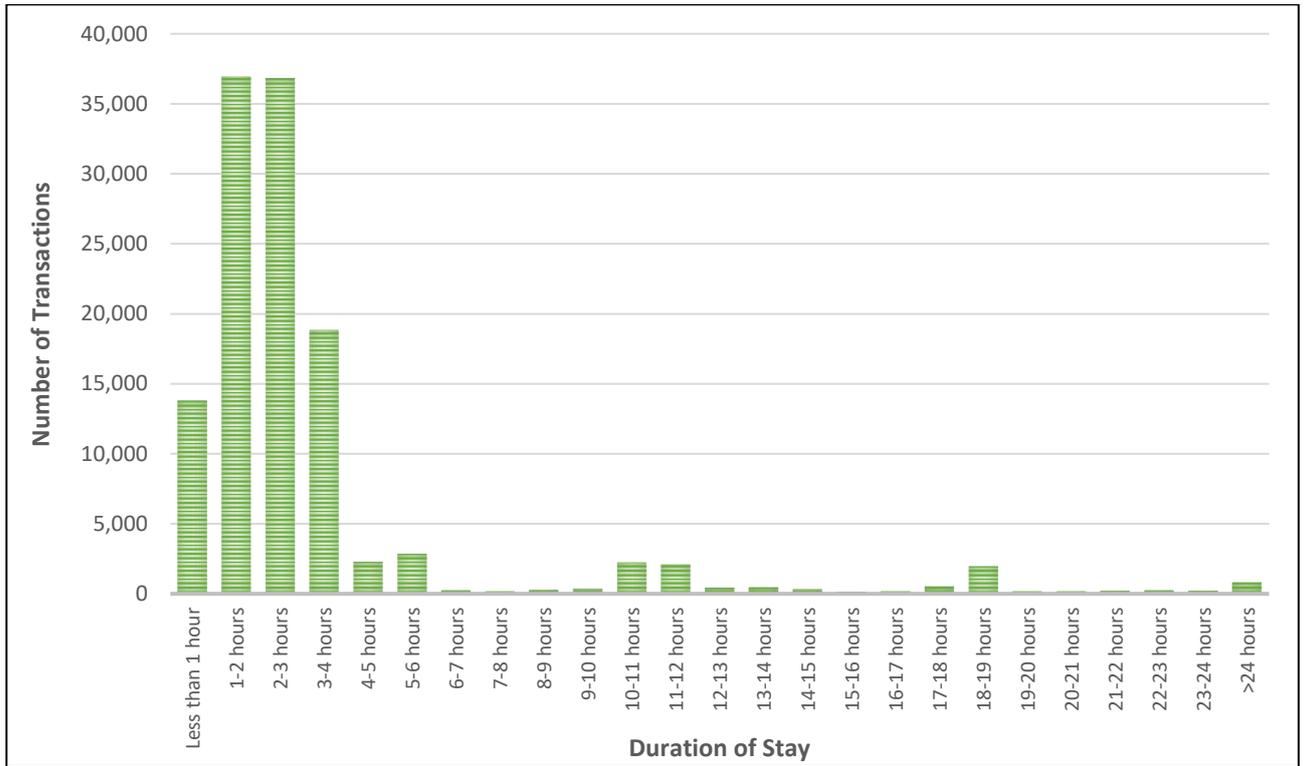
5.3.2

5.3.3 The results in Figure 5-2 show that there is considerable variation in car park use across the year, with the maximum parking demand observed in October 2015 when almost 133,000 transactions took place (equating to an average of 4,290 transactions per day). Note that this does not include any vehicles parked without obtaining a ticket.

5.3.4 The data also includes information about duration of stay, based on the length of time paid for by customers. As shown in Figure 5-3, in September 2016 11% of transactions were for 1 hour or less, with 41% of transactions for two hours or less. These shorter parking durations are less likely to be offset by Park & Ride use, given the increased journey duration resulting from interchanging onto a Park & Ride bus.



Figure 5-3: Number of parking transactions by duration of stay – Bishop’s Stortford, September 2016



5.3.5

### Car Park Occupancy Surveys

5.3.6 A parking study of Bishop’s Stortford was undertaken by Project Centre in 2015. As part of this study, zones within Bishops Stortford were identified according to central proximity. ‘Zone A’ was identified as car parks within a 5-minute walk of the centre, ‘Zone B’ car parks within a 10-minute walk, and ‘Zone C’ car parks within a 15-minute walk. Car parks by zone are set out in Table 5-2, which also shows the walk time to key destinations within the town.

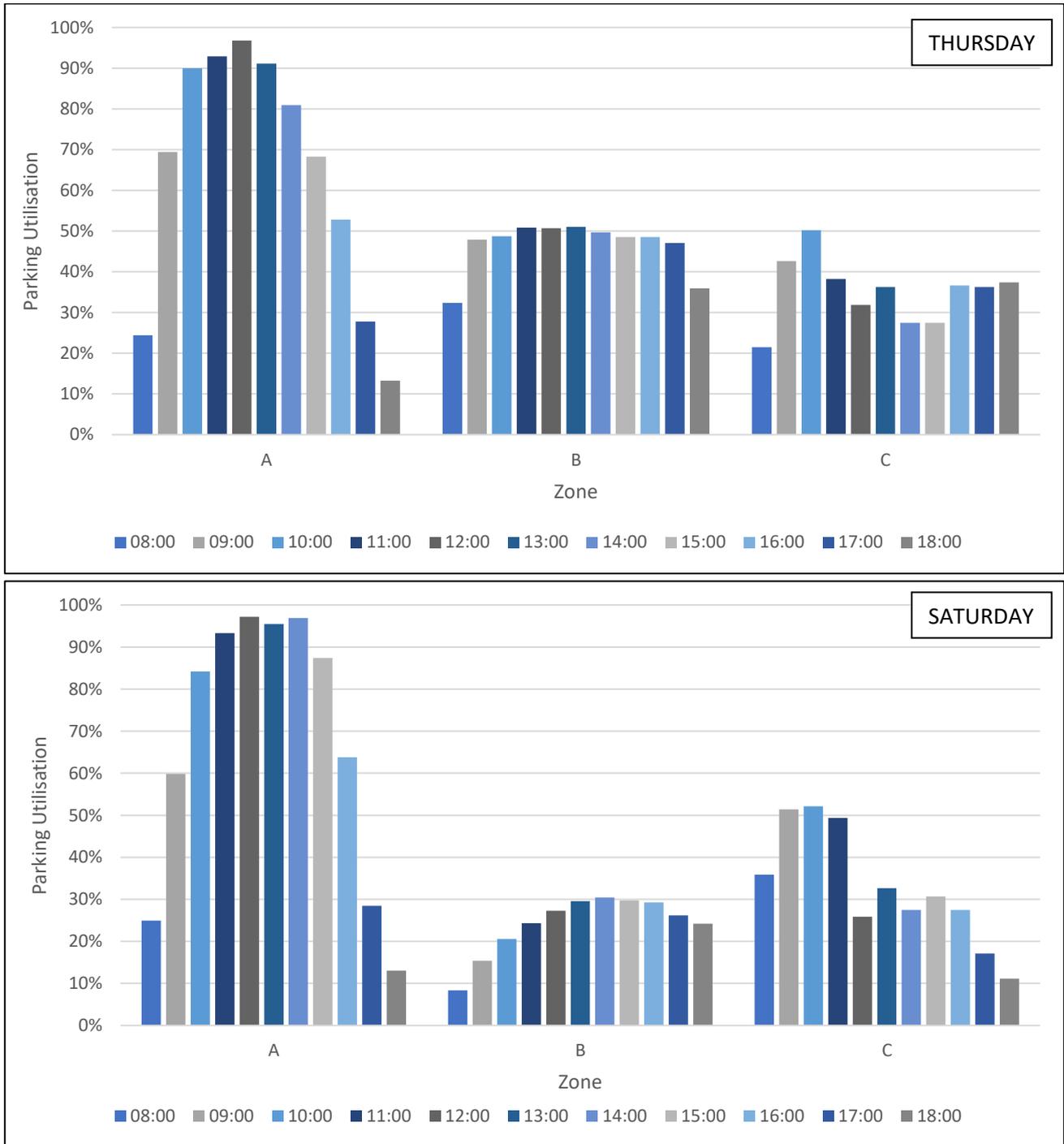
**Table 5-2: Existing Bishop's Stortford Car Parks**

Car Park	Zone	Walk time to Jacksons Square	Walk time to town centre (South Street)	Walk time to Waitrose	Walk time to railway station
1 – Charrington's	(A)	1 minute	2 minutes	2 minutes	8 minutes
2 – Jackson Square	A	0 minutes	3 minutes	3 minutes	7 minutes
3 – Causeway	A	2 minutes	4 minutes	1 minute	10 minutes
4 – Apton Road	A	3 minutes	2 minutes	7 minutes	9 minutes
5 – Basbow Lane	A	3 minutes	3 minutes	4 minutes	11 minutes
6 – Crown Terrace	B	6 minutes	8 minutes	9 minutes	7 minutes
7 – Northgate End	A	4 minutes	5 minutes	1 minute	11 minutes
8 – Link Road	A	3 minutes	5 minutes	3 minutes	9 minutes
9 – Elm Road	B	8 minutes	9 minutes	4 minutes	16 minutes
10 – Grange Paddocks A	C	12 minutes	13 minutes	8 minutes	20 minutes
11 – Grange Paddocks B and C	C	12 minutes	13 minutes	8 minutes	20 minutes
12 – Bishop's Stortford station	B	7 minutes	8 minutes	11 minutes	1 minute

- 5.3.7 Zone A comprises 1,329 car parking spaces (excluding Charrington's which now provides another 49 spaces), zone B 883 (excluding the 16 additional new spaces), and zone C 280. It should be noted that 60 spaces in zone C are for Grange Paddocks Leisure Centre customers only.
- 5.3.8 Occupancy surveys were commissioned as part of the parking study; these were undertaken in May 2015, with the results analysed by Project Centre. An uplift factor of 1.115 was applied to the results to provide an estimate of the expected car park occupancy across the mean top five months. The parking utilisation obtained from the surveys is shown in Figure 5-4 for an average weekday (a Thursday) and a Saturday.



Figure 5-4: Car Parking Occupancy - Thursday and Saturday



5.3.9 Whilst zone A car parks in Bishop’s Stortford have high usage levels, with a maximum occupancy of 97% on both a Thursday and a Saturday, there is considerable remaining capacity (at least 50%) within zones B and C. This does not account for the additional parking capacity at Carrington’s, as well as the proposed additional car parking at the railway station and at Northgate End.

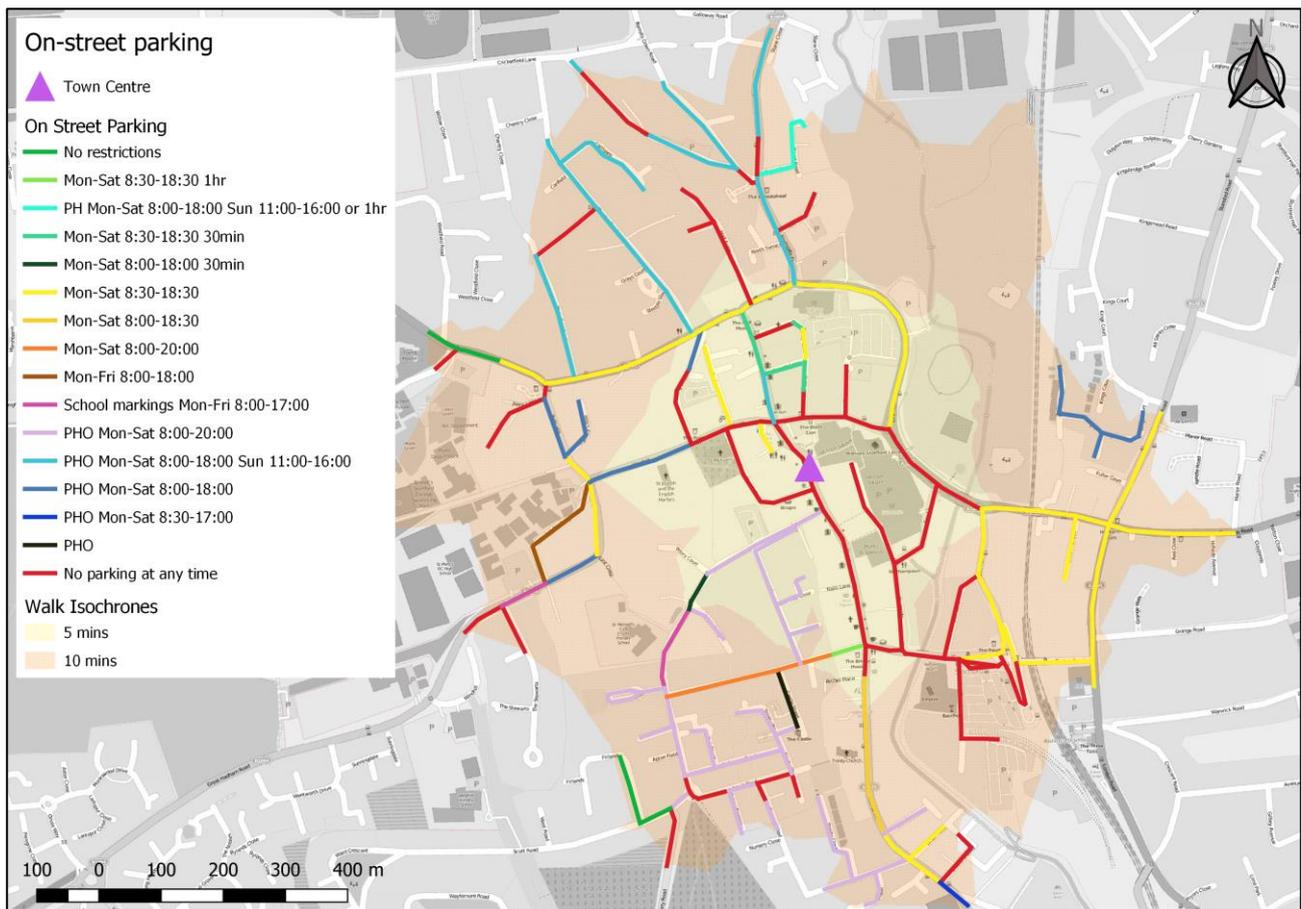


5.3.10 As shown in Table 5-2, the car parks in zone B are a maximum of eight minutes walk distance from Jackson Square and a maximum of nine minutes walk distance from South Street. This is an acceptable walk distance, particularly for longer duration parking. Even factoring in the additional walk time, it is likely that using the car parks with significant spare capacity located within zone B would result in comparable or shorter journey times into the town centre compared to interchanging to a Park & Ride service.

## 5.4 Existing On-Street Car Parking

5.4.1 A survey of on-street car parking provision was undertaken by PJA on Thursday 2<sup>nd</sup> August 2018. This showed that there are currently only two short road sections within a 10 minute walking distance of the town centre where all-day on street parking is permitted on a weekday without a permit. There are, however, a number of locations where parking is permitted on-street for up to 30 minutes / 1 hour. The existing on-street parking restrictions are shown in Figure 5-5.

Figure 5-5: On-street car parking



5.4.2 Based on Figure 5-5, it is expected that the majority of car drivers spending more than an hour in the town centre park within the off-street car parks.



## 6 Existing Travel Patterns

### 6.1 Introduction

6.1.1 The following section establishes the existing travel patterns for retail and employment trips into Bishops Stortford to identify the potential level of demand and most suitable location for a Park & Ride service.

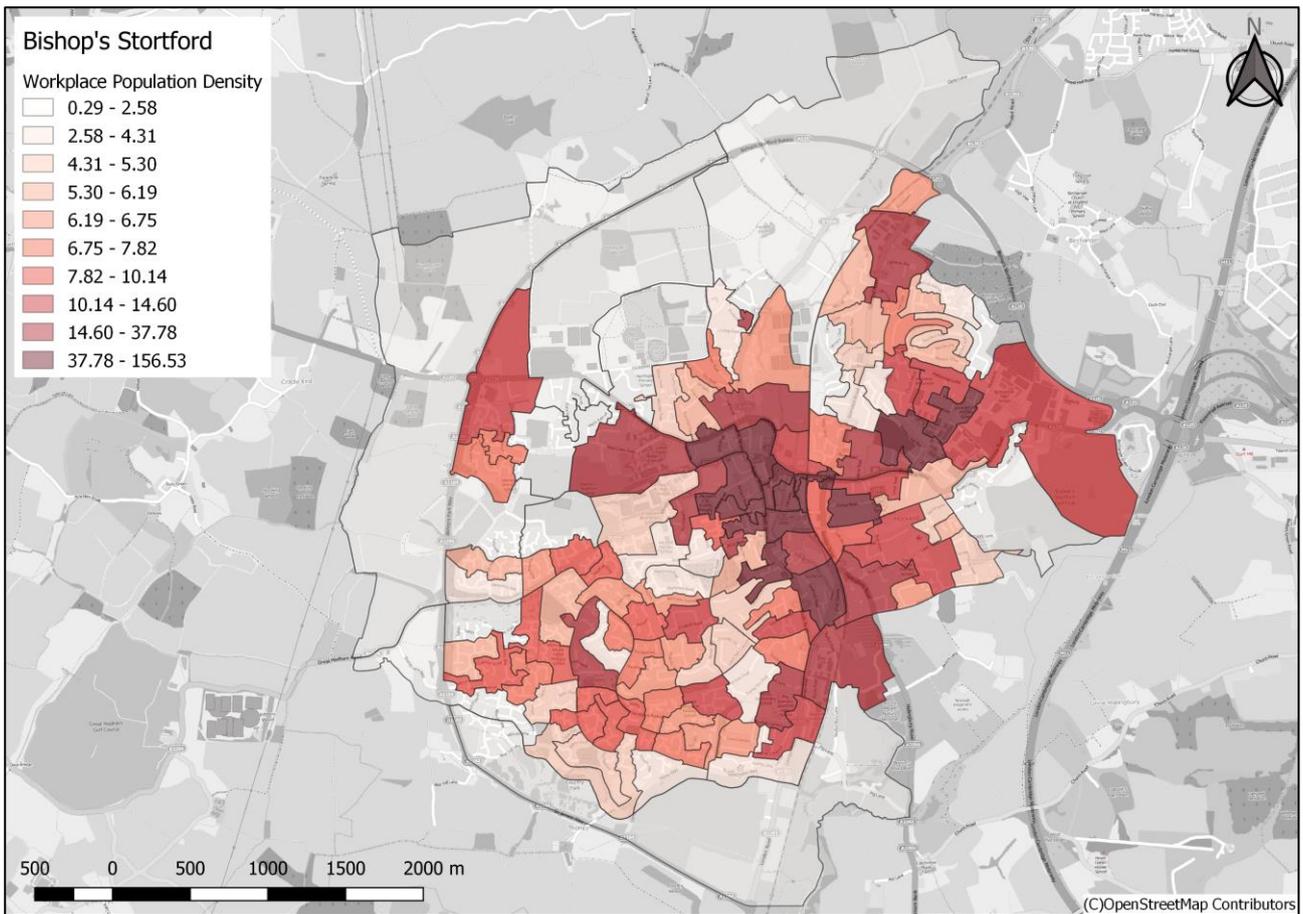
### 6.2 Employment

#### Places of Work

6.2.1 Figure 6-1 shows the workplace population density for Bishop's Stortford, obtained from 2011 Census data. The graphic shows that the highest levels of employment are located within the town centre, as well as to the northeast of the town centre where the Stortford Hall Industrial Park, Raynham Close Industrial Park and Summercroft Primary School are located.

6.2.2 It should be noted that the relatively high employment to the south of the railway station is likely to have reduced since the 2011 Census, as a large employment area has subsequently been redeveloped to provide residential dwellings at Adderley Riverside.

**Figure 6-1: Workplace population density (persons employed / hectare)**



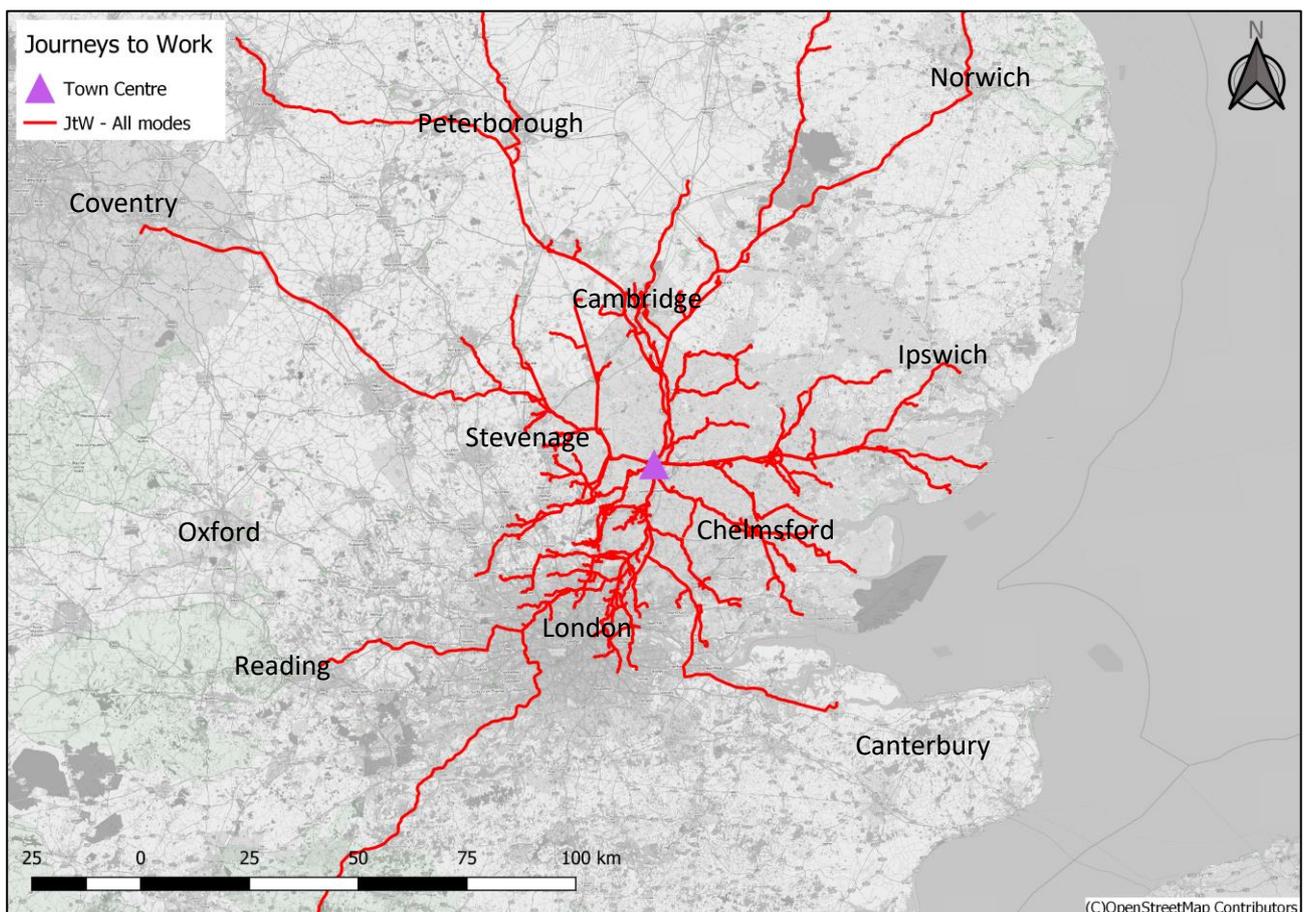
- 6.2.3 The other key work location near Bishop's Stortford is Stansted airport, which employs 11,600 on-site employees across over 200 companies. Stansted airport covers a total area of approximately 810 hectares, equating to a workplace population density of approximately 14.3 employees / hectare. This is approximately the same as the overall workplace population for Bishop's Stortford. Stansted airport will therefore significantly impact on the commuting patterns for the town.

## Journeys to Work

### *All Modes of Transport*

- 6.2.4 The distribution and route assignment for all work trips to output areas within a 10 minute walk distance of Bishop's Stortford town centre is shown in Figure 6-2. This includes work trips undertaken by all modes. Output areas with only one resident working in Bishop's Stortford have been excluded from the analysis.

**Figure 6-2: Distribution and route assignment: all modes, to workplaces within 10 minutes walk distance of the town centre**



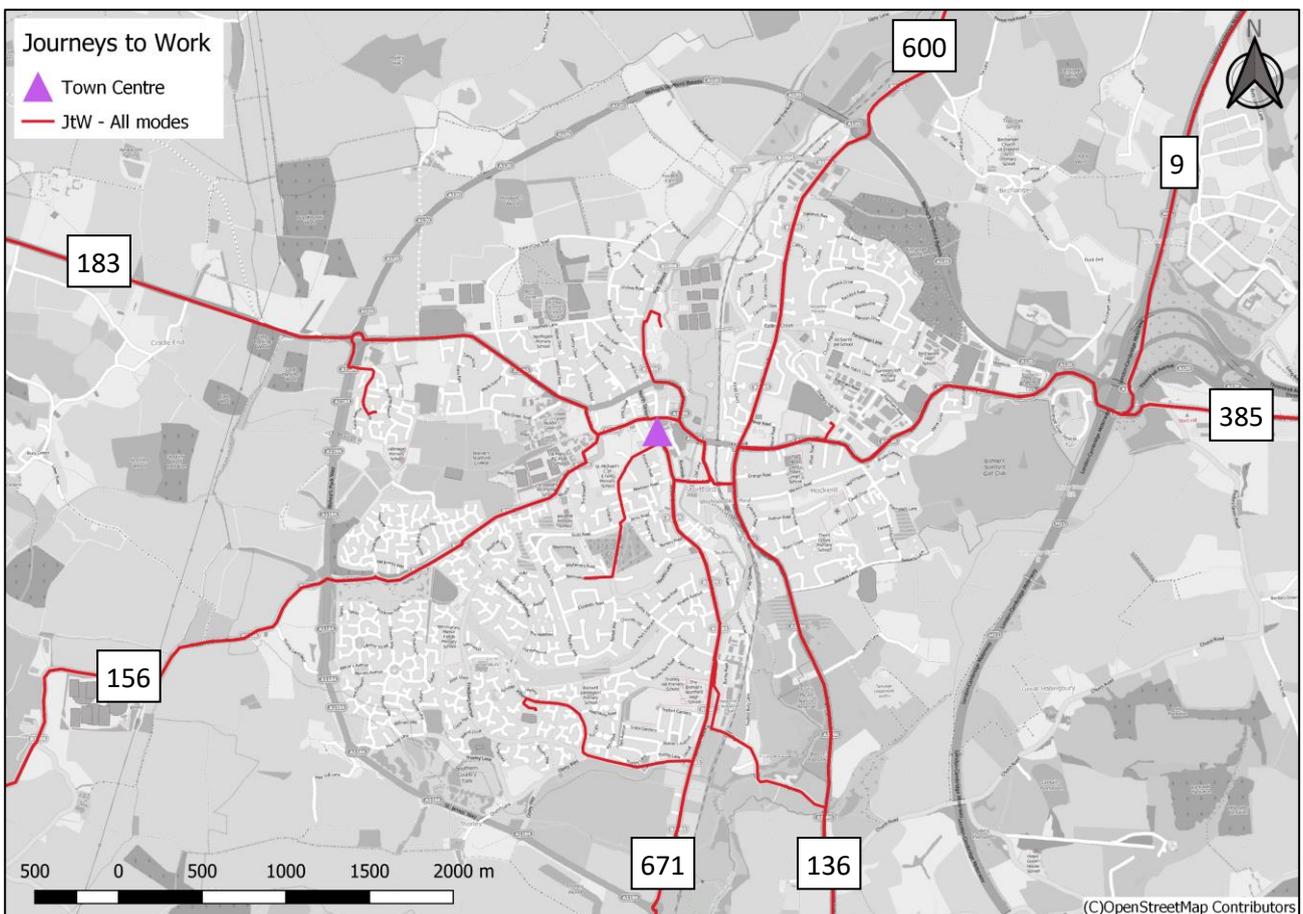


6.2.5 Further adjustments have been made:

- based on Census 2011 data to account for full and part time workers;
- based on NTS0504 to remove Sunday work trips; and
- based on NTS0503 to account for work trips made outside the hours of 07:00-20:00.

6.2.6 Figure 6-3 shows the number of work trips to the town centre by all modes following these adjustments. This shows that the majority of trips originate to the north and south of the town, with lower east-west demand.

**Figure 6-3: Distribution and route assignment: all modes, to workplaces within 10 minutes walk distance of the town centre**

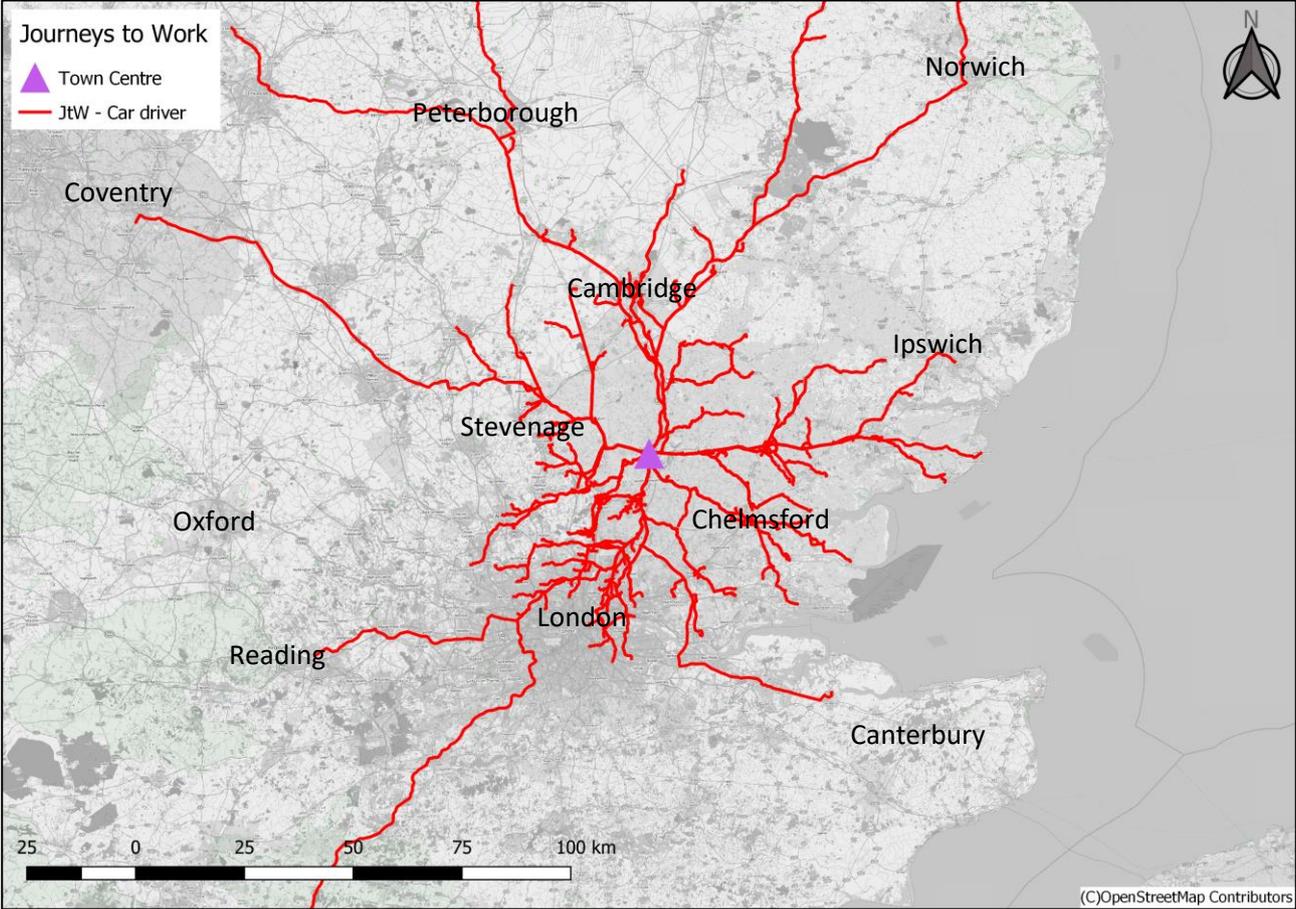


### *Car Drivers*

6.2.7 To identify the number of employment vehicle trips to Bishop’s Stortford, the modal split has been obtained for employment trips to the five Middle Super Output Areas (MSOAs) in which Bishop’s Stortford is located, considering each “place of residence” MSOA individually.

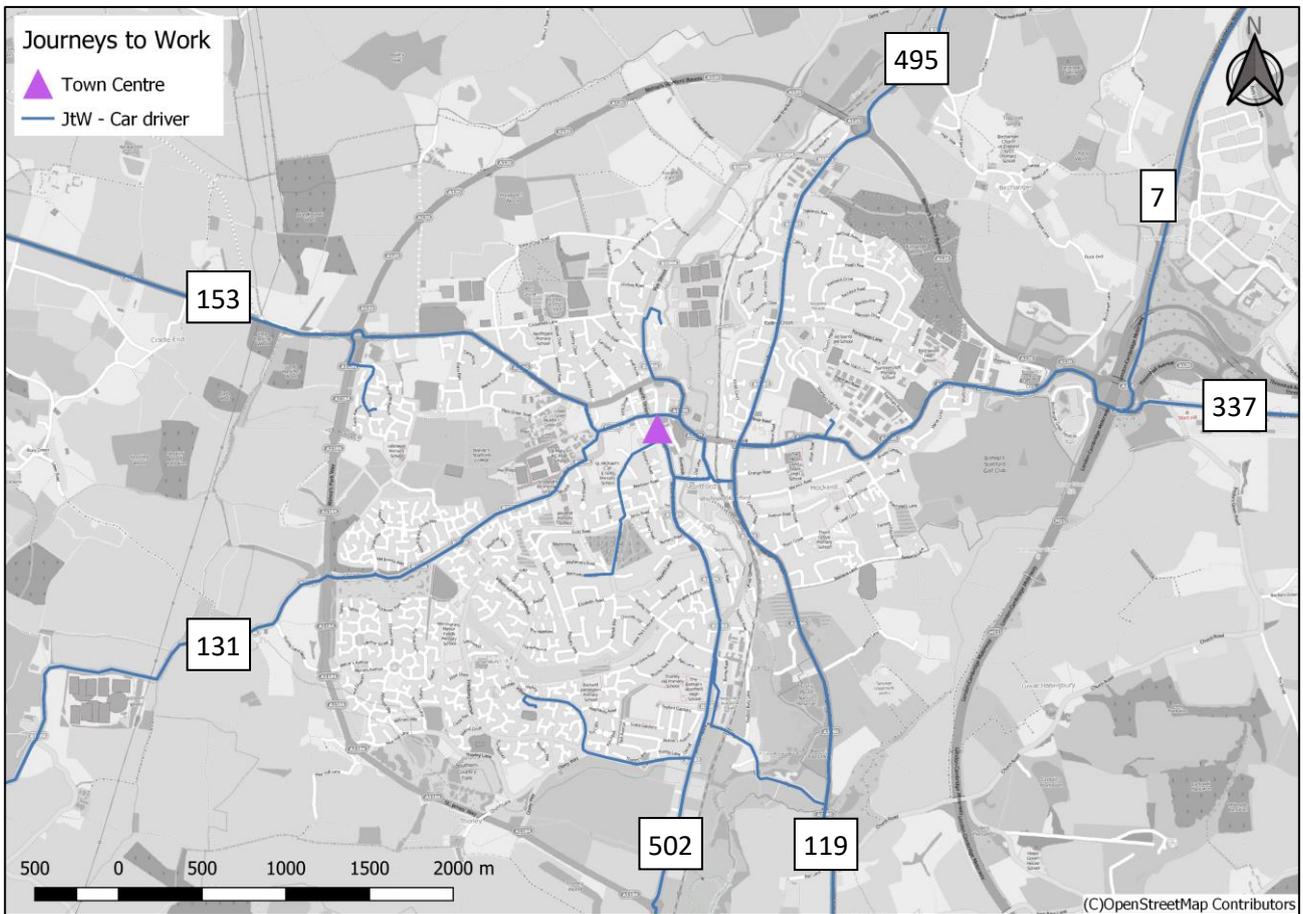
6.2.8 The resulting car driver distribution and assignment for work trips is shown in Figure 6-4 and 6-5. Based on the 2011 Census, these car trips would have an average occupancy of 1.091.

**Figure 6-4: Distribution and route assignment: car drivers, to workplaces within 10 minutes walk of town centre**





**Figure 6-5: Distribution and route assignment: car drivers, to workplaces within 10 minutes walk distance of the town centre**



## 6.3 Retail

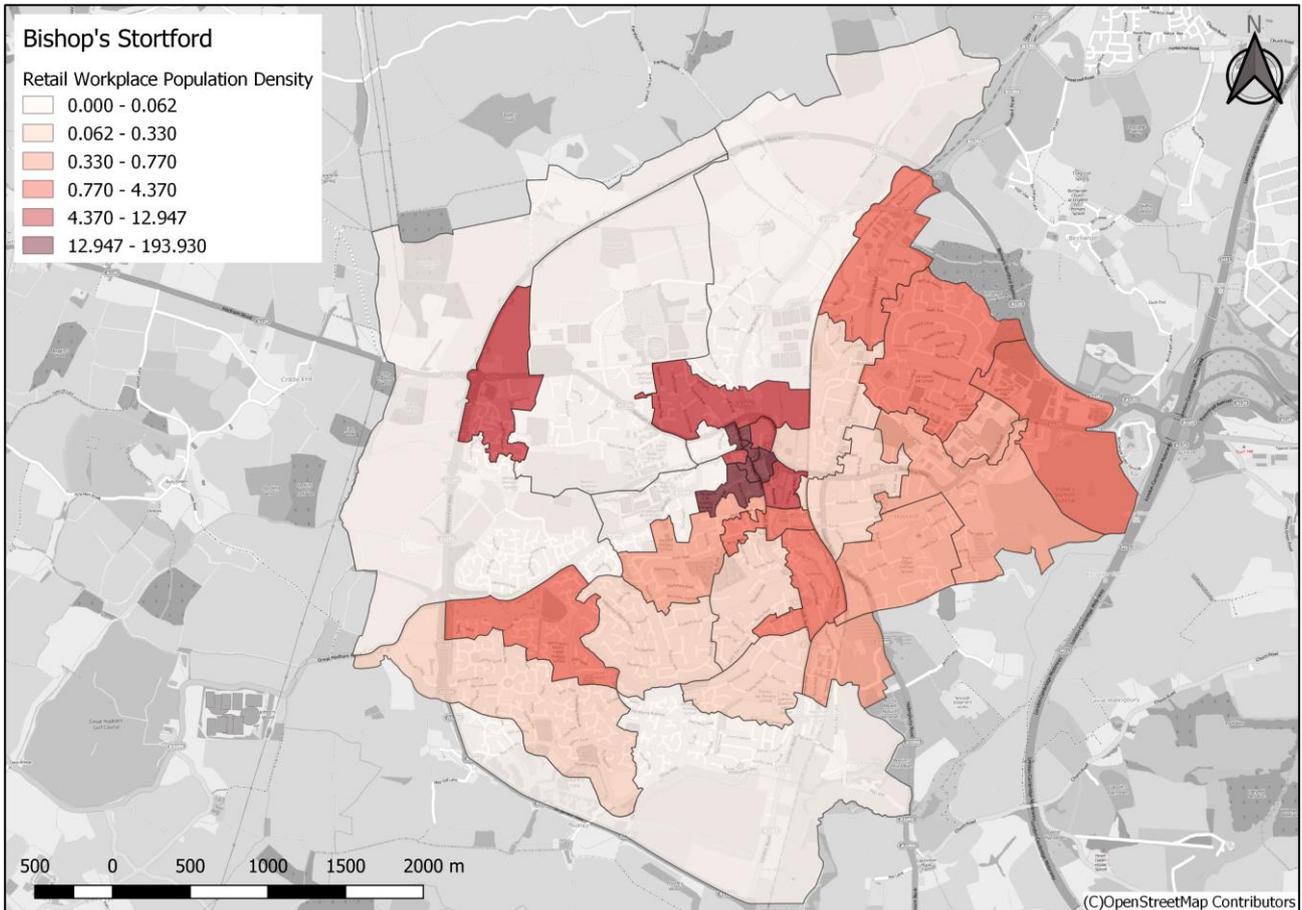
### Key Retail Destinations

6.3.1 Retail destinations within Bishop's Stortford include:

- Bishop's Stortford town centre, which benefits from
  - Three major supermarkets
  - An indoor shopping centre (Jackson's square)
  - High Street retail and convenience retail, concentrated around North Street, Potters Street and South Street
- A Tesco superstore on the western edge of town, adjacent to the A120 / A1250 roundabout
- A Sainsburys superstore within the Thorley neighbourhood centre, to the southwest of the town centre
- Retail units within the Stortford Hall Industrial Park, Raynham Close Industrial Park and Goodliffe Industrial Park

6.3.2 The retail (sales and customer service categories) workplace population density across Bishop’s Stortford has been obtained from Census 2011 data and is shown in Figure 6-6. This shows that the retail is concentrated in the town centre and at the Tesco superstore to the west of the town.

**Figure 6-6: Retail workplace population density**



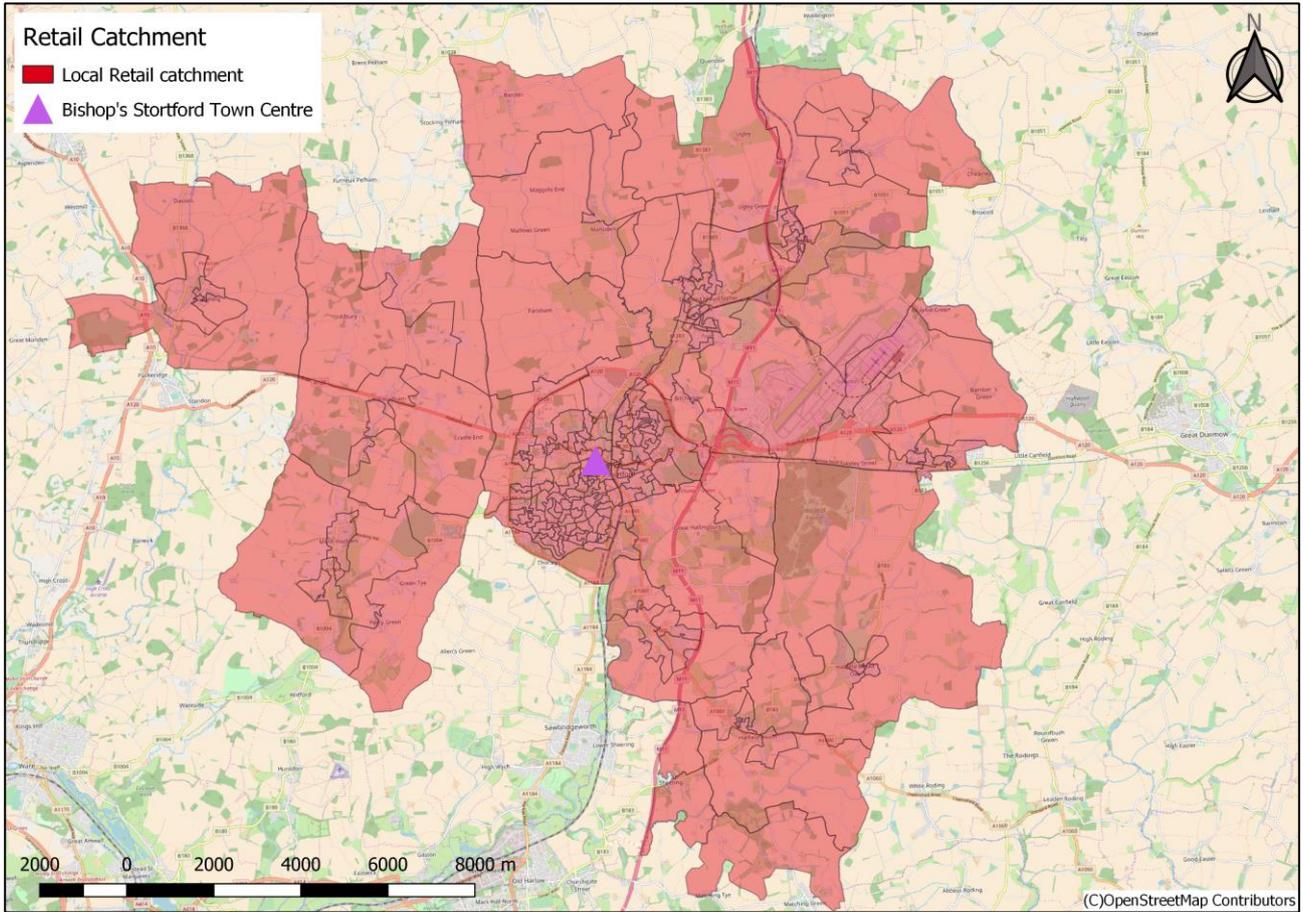
**Journeys to Retail**

*Retail Catchment – Local*

6.3.3 The retail catchment for Bishop’s Stortford, shown in Figure 6-7, was obtained from the “East Herts Retail and Town Centres Study Update” (East Herts Council, November 2013). It is assumed that all town centre retail trips from this area would be to Bishop’s Stortford.



Figure 6-7: Retail Catchment: Local



### *Retail Catchment – Extended*

6.3.4 It is expected that Bishop's Stortford will also attract further, less frequent, retail trips from the surrounding towns and villages which have less extensive retail provision. The TRICS Research Report 14/1 states that the catchment for retail stores can be found based on the assumption that "shoppers would be prepared to travel for a maximum of 20 minutes to access a comparison store, and 10 minutes to access a convenience store". 10 and 20-minute drive distances were plotted from Bishop's Stortford and the following nearby towns, which have comparable or better provision:

- Stevenage<sup>3</sup>
- Welwyn Garden City<sup>3</sup>
- Cambridge<sup>4</sup>

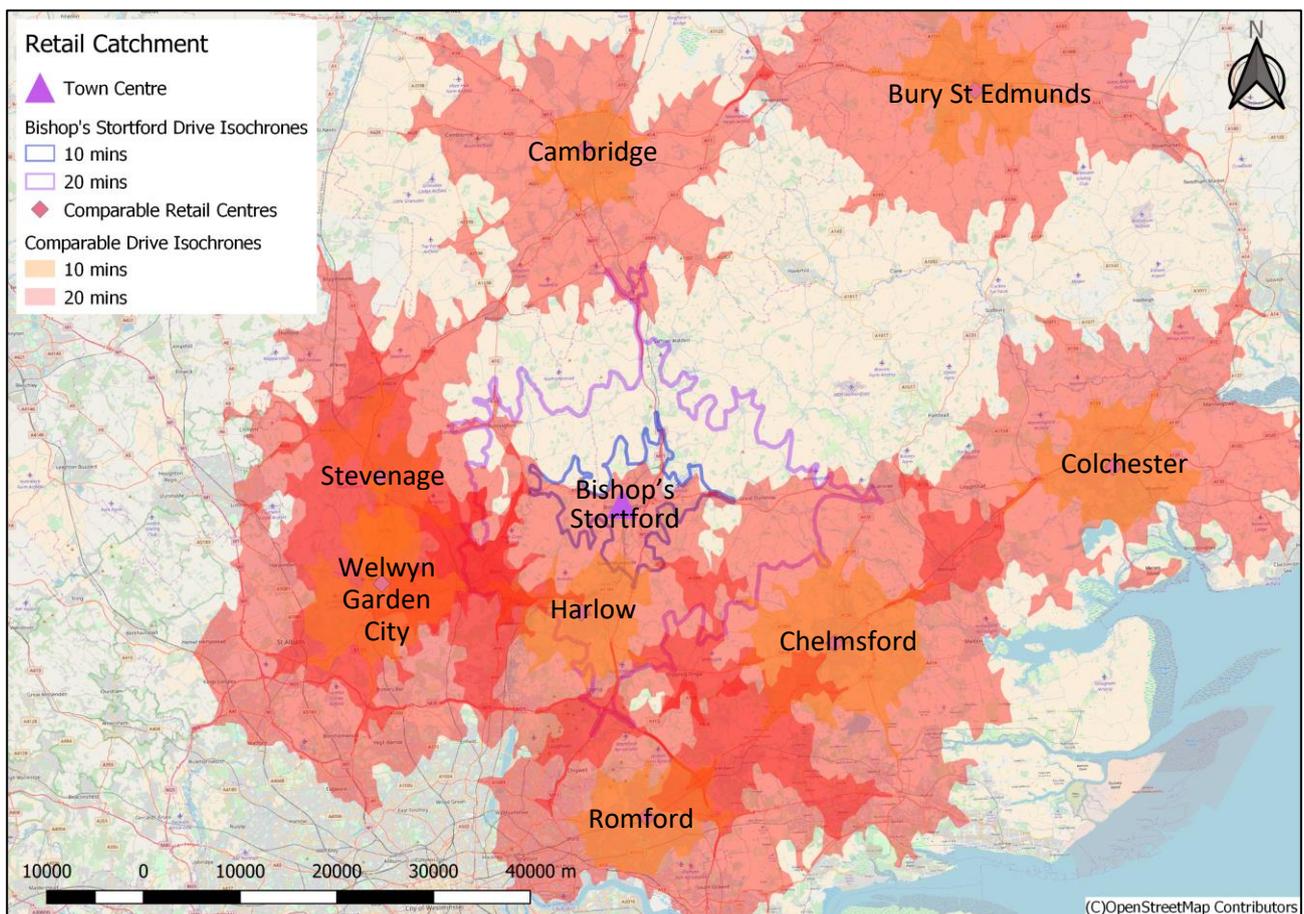
<sup>3</sup> "East Herts Retail and Town Centres Study Update" (East Herts Council, November 2013)

<sup>4</sup> "Cambridge City Council and South Cambridgeshire District Council Sub-regional Retail Study" (GVA Grimley Ltd, October 2008)

- Bury St Edmunds<sup>5</sup>
- Chelmsford<sup>6</sup>
- Romford<sup>6</sup>
- Colchester<sup>7</sup>

6.3.5 The resulting isochrone map is shown in Figure 6-8. Harlow is also included – whilst it is classified as a major district centre and Bishop’s Stortford is classified as a sub-regional centre, Harlow’s retail provision achieved a Management Horizons Europe Shopping Index of 129 compared to Bishop’s Stortford’s 133<sup>8</sup>. The two towns therefore have very similar retail provision.

**Figure 6-8: Nearby towns: Isochrones**



6.3.6

<sup>5</sup> “Cambridge City Council and South Cambridgeshire District Council Sub-regional Retail Study” (GVA Grimley Ltd, October 2008)

<sup>6</sup> “South Essex Retail Study” (Peter Brett Associates, November 2017)

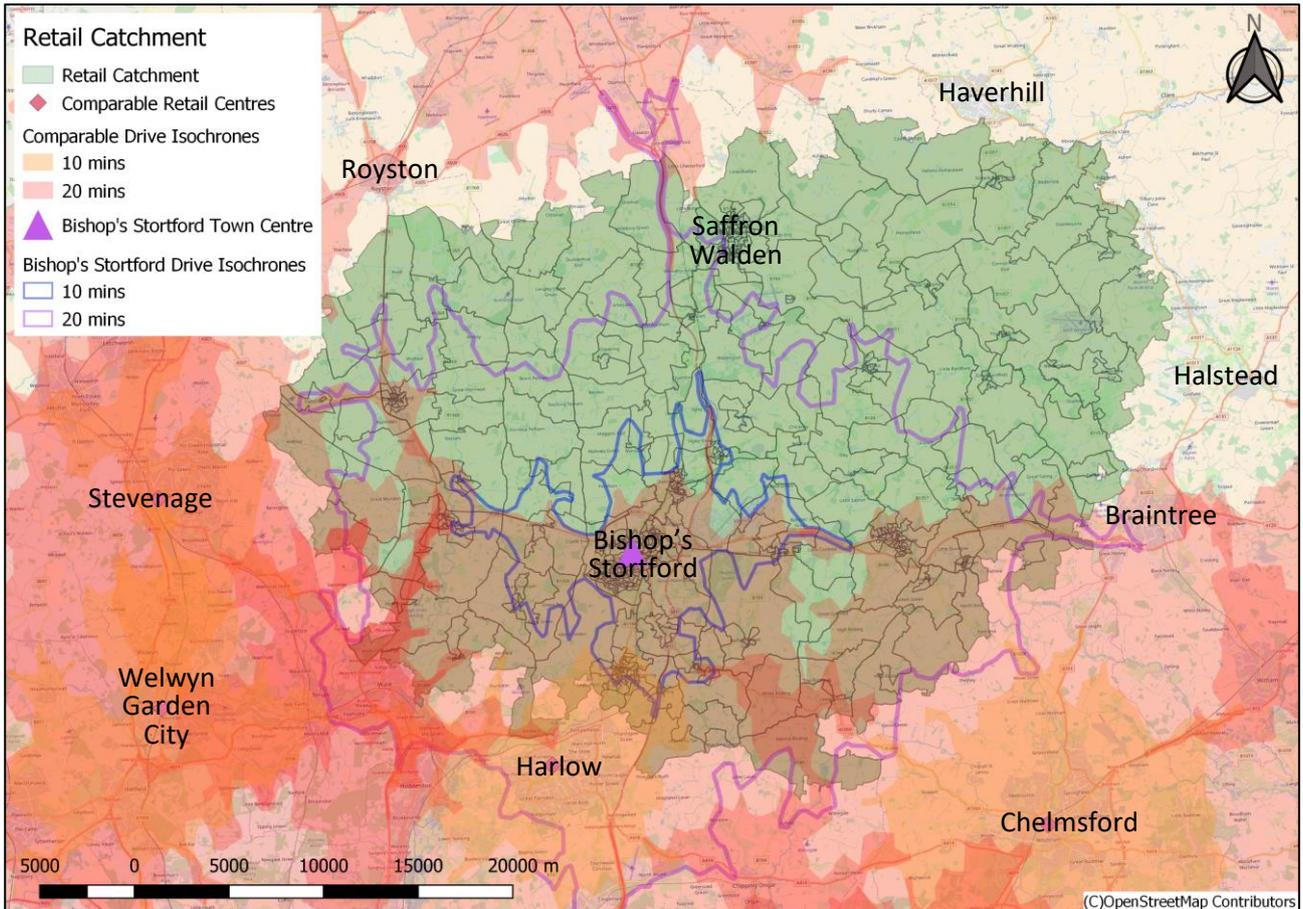
<sup>7</sup> “Colchester Borough Council Retail and Town Centre Study 2016” (Cushman & Wakefield, December 2016)

<sup>8</sup> “East Herts Retail and Town Centres Study Update” (East Herts Council, November 2013)



6.3.7 Output areas located closer to Bishop’s Stortford than the other towns were identified, as shown in Figure 6-9. It should be noted that this considers journeys of greater than 20 minutes, for which there is no closer alternative town with comparable retail provision. For journeys within the extended catchment area, it was assumed that 50% of town centre retail trips would be to Bishop’s Stortford, whilst the remainder would be to local centres.

**Figure 6-9: Retail Catchment - Extended**



*Retail Demand*

6.3.8 The residential population for each of the output areas within the catchment was obtained from the 2011 Census data. This shows that the area has a total of approximately 158,000 residents. The local catchment area has a population of 65,790, or 27,952 excluding those living within Bishop’s Stortford itself. The extended catchment, excluding the local catchment and Bishop’s Stortford, has a population of 92,225.

6.3.9 National Travel Survey (NTS) table NTS0409 provides a breakdown of the average number of trips by purpose and main mode in England, whilst Table NTS0504 provides the average number of trips by day of the week and purpose. Each person makes an average of 94.5 shopping trips per year



(note, this is half the number given in the NTS, as the NTS considers a trip to be a one-way course of travel, i.e. going to the shop and back would be two trips), of which 66% occur on weekdays and 22% occur on a Saturday – equating to an average of 0.24 shopping trips per person on a weekday and 0.39 shopping trips per person on a Saturday.

- 6.3.10 *“The Customer Experience of Town Centres”* (Loughborough University, 2014) states that town centres account for 32% of all shopping visits, including online shopping (13%). Excluding online shopping, 37% of shopping trips are to town centres.
- 6.3.11 For the purposes of this assessment it has been assumed that all town centre shopping trips from the local catchment would be to Bishop’s Stortford, whilst 50% of town centre shopping trips from the extended catchment would be to Bishop’s Stortford, which allows for shopping trips to the local centres such as Sawbridgeworth, Buntingford and Saffron Walden.
- 6.3.12 This equates to a total of 6,518 shopping trips to Bishop’s Stortford town centre on an average weekday and 10,676 trips on a Saturday, excluding those originating within the town.
- 6.3.13 The Loughborough University report also notes an average dwell time of 98 minutes for town centre shopping trips. It is assumed that only people staying longer than this average time would use the Park & Ride, since the journey time penalty of interchanging would be more significant for shorter trips and the cost saving compared to parking in the town centre would be reduced – equating to 3,259 trips on a weekday and 5,338 trips on a Saturday. Based on NTS0409, this would include 1,464 vehicle trips on a weekday and 2,398 vehicle trips on a Saturday. The average retail car occupancy is 1.41 persons per vehicle, based on NTS Table 0409.

#### *Trip Distribution*

- 6.3.14 The distribution of the trips onto the local highway was undertaken based on Census 2011 population data for each of the Output Areas.



Figure 6-10: Distribution and route assignment: to retail

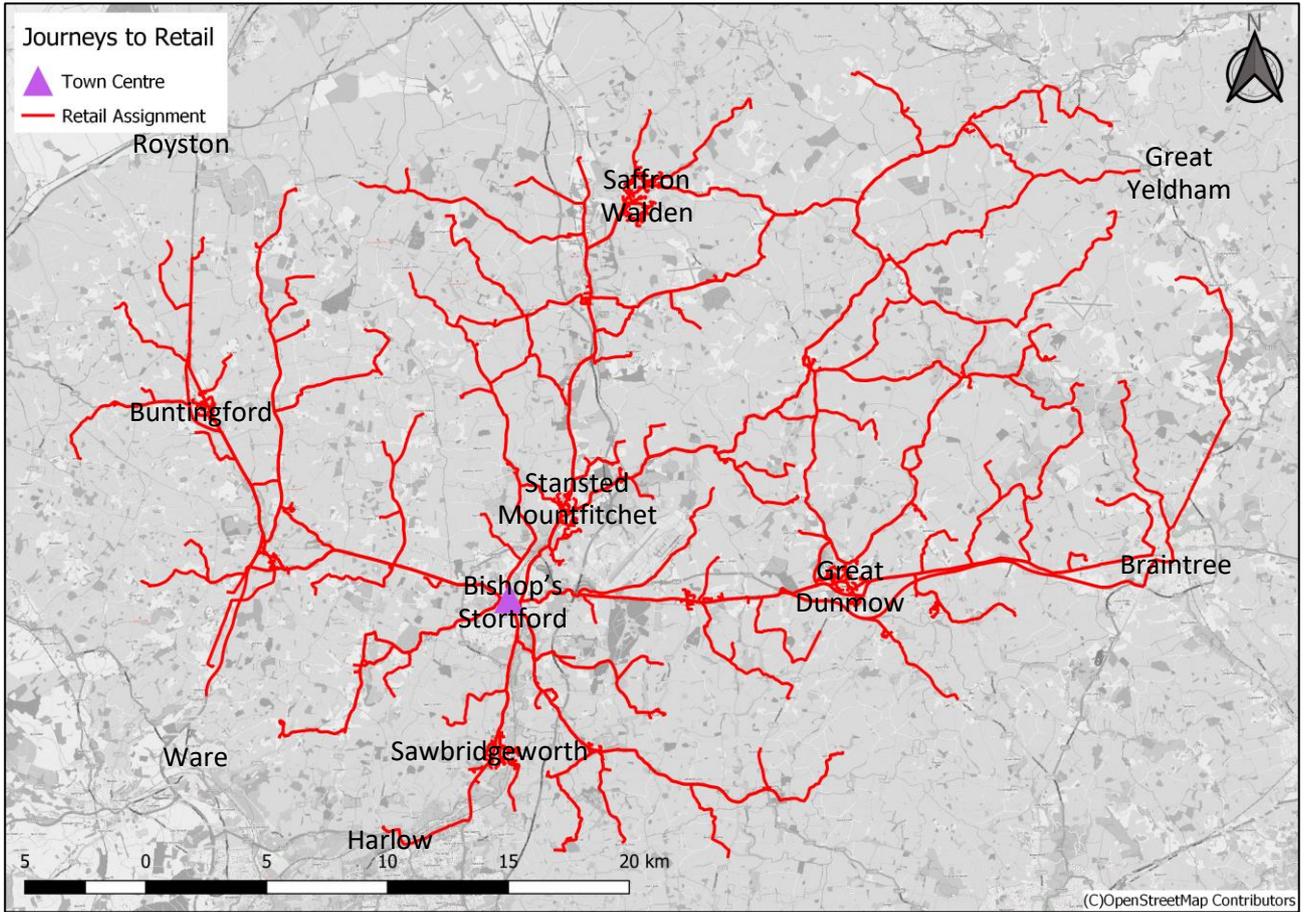


Figure 6-11: Distribution and route assignment: all modes to retail – average weekday

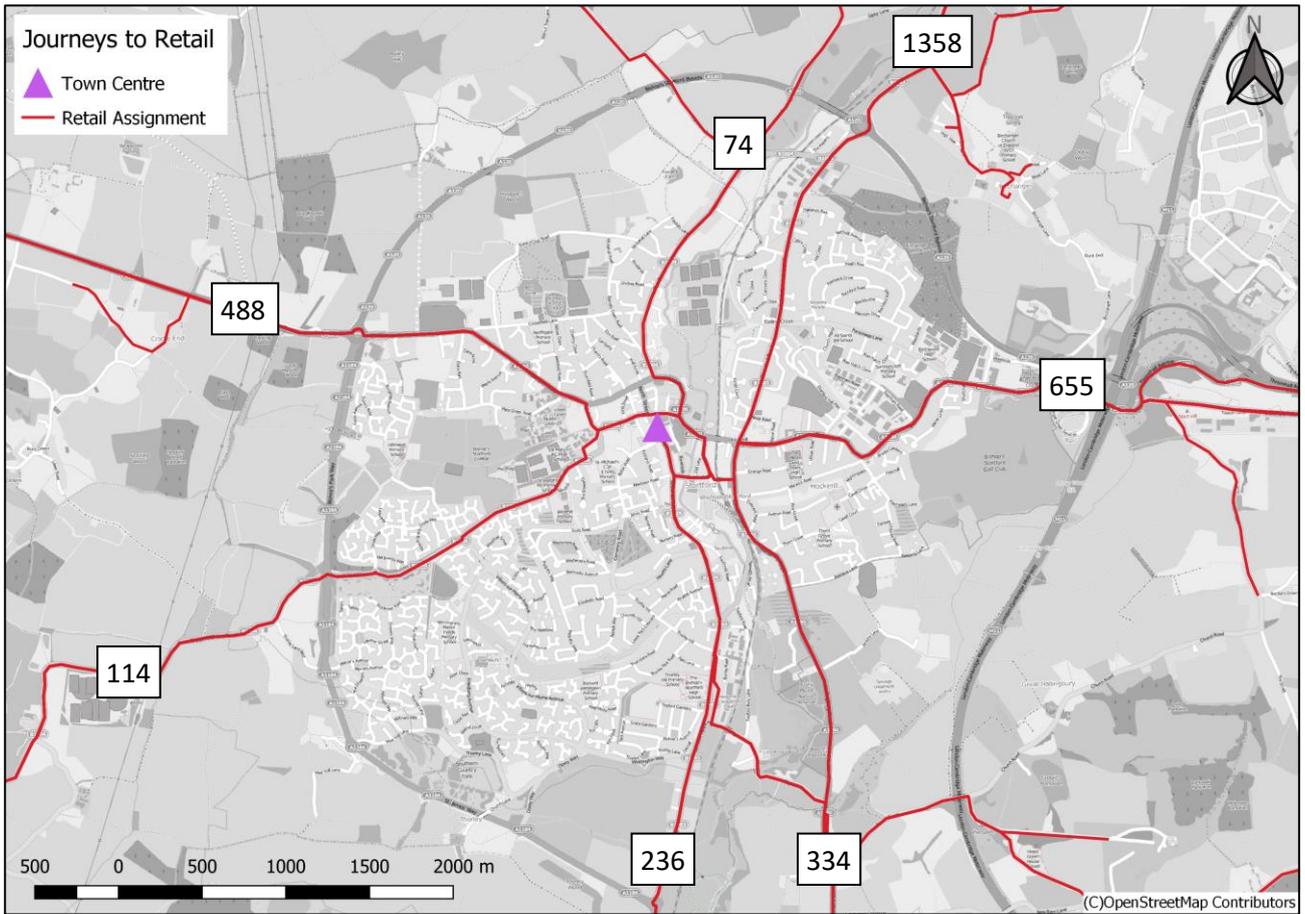
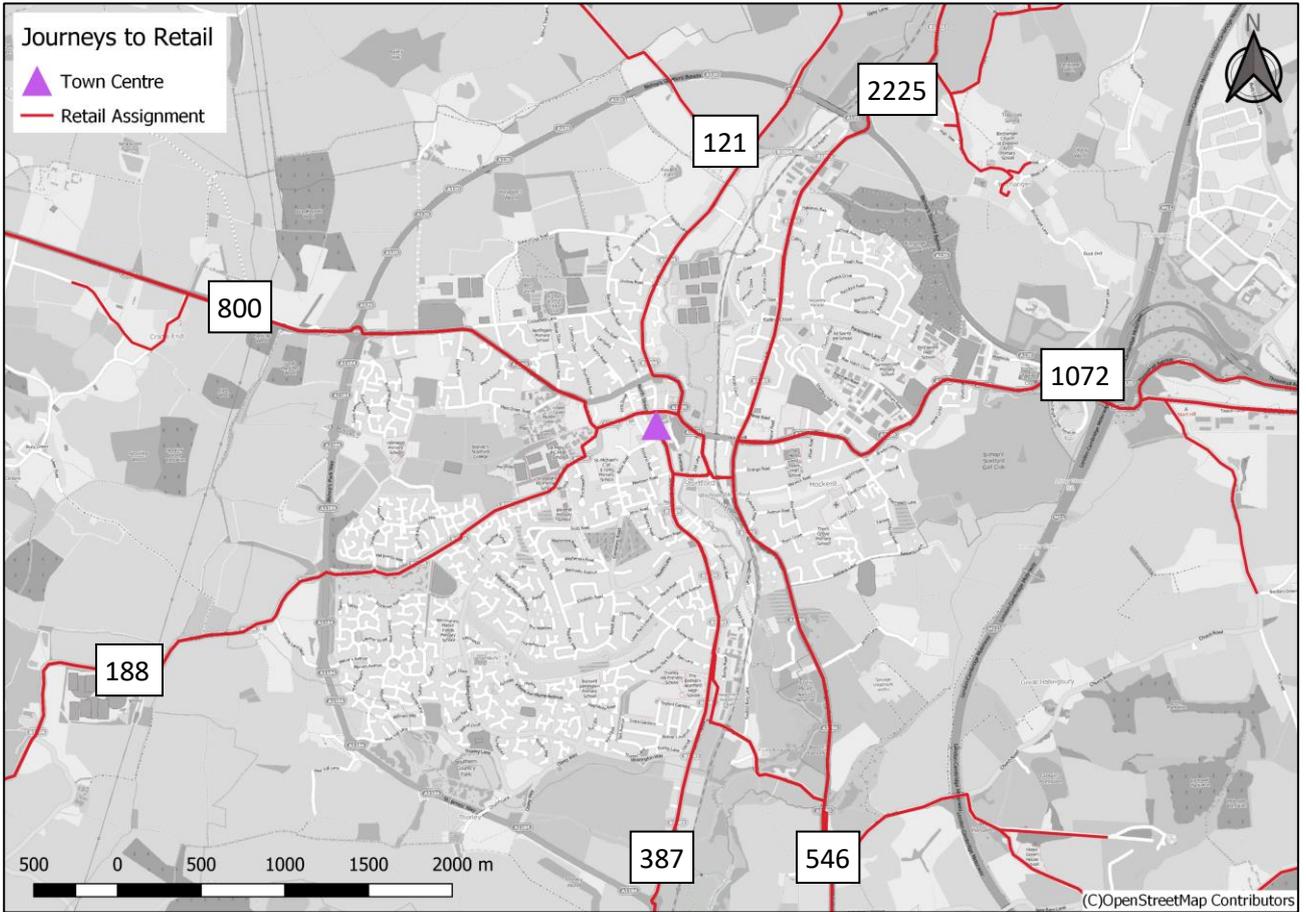




Figure 6-12: Distribution and route assignment: all modes to retail – average Saturday



**Figure 6-13: Distribution and route assignment: car drivers to retail – average weekday**

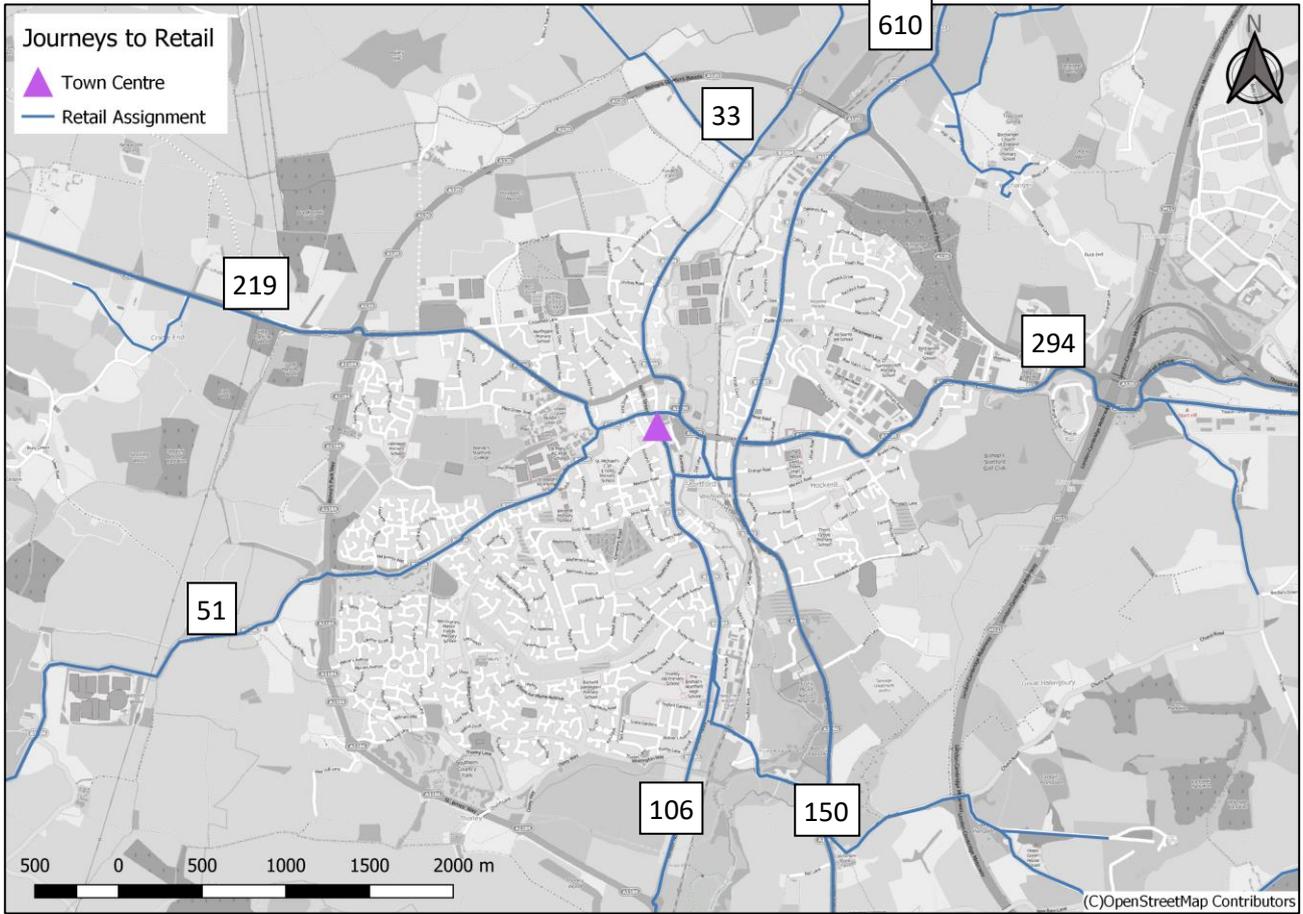
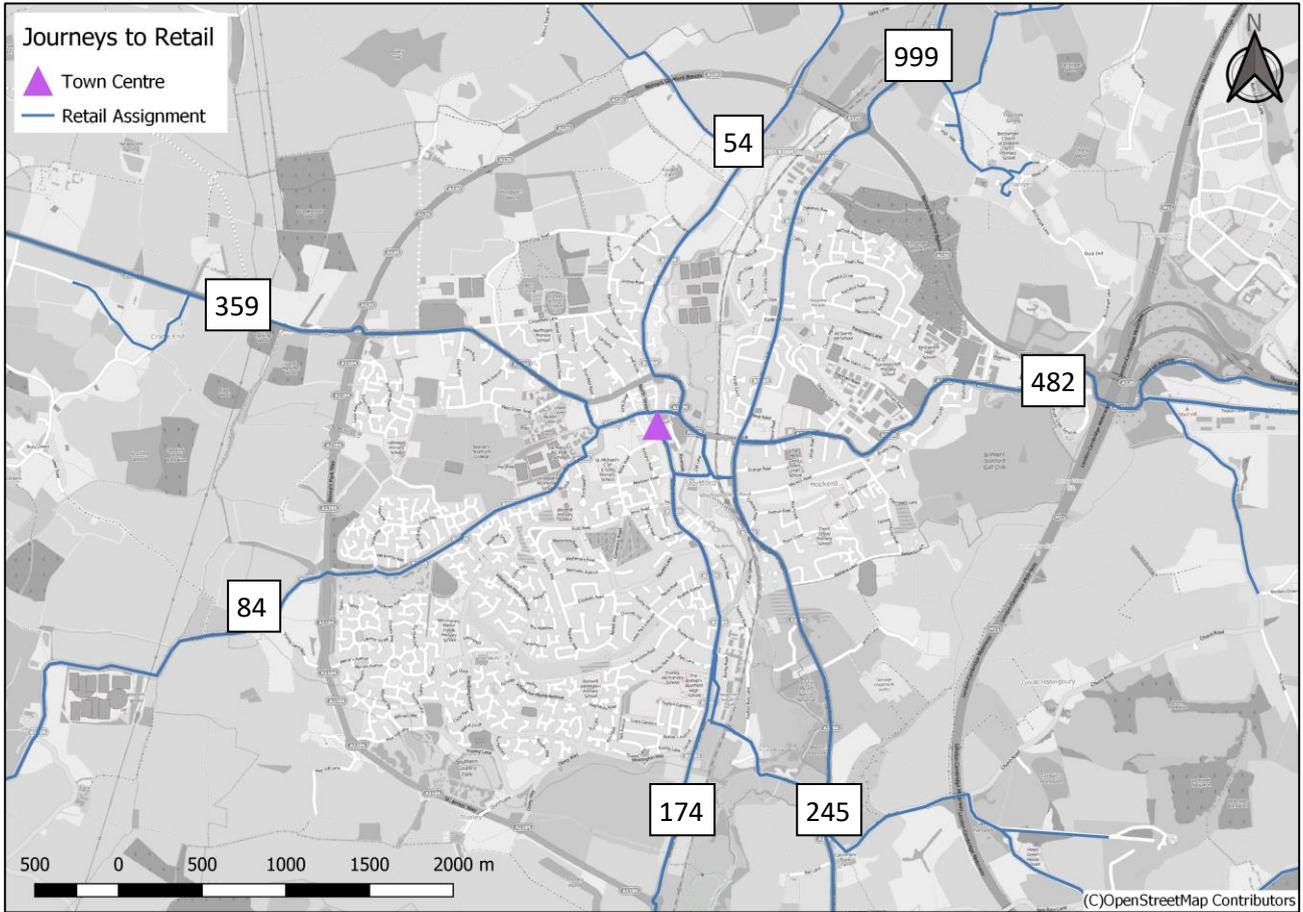




Figure 6-14: Distribution and route assignment: car drivers to retail – average Saturday



## 6.4 Summary

6.4.1 The above section has used a combination of localised Census data and National Travel Survey information to provide an estimate of the likely demand for retail and employment into Bishop's Stortford on an average weekday and Saturday. The key directions for employment trips into and out of the town centre are from the north and south whereas for retail trips these are estimated as being from the north and east. As there is no single primary route into the town centre locating a Park and Ride facility to maximise uptake would be difficult and may require more than one location to avoid significant detours from drivers desired routes.

## 7 Park & Ride Feasibility Analysis

### 7.1 Introduction

7.1.1 The following section utilises the demand calculations in Section 6 to estimate the financial viability of a Park and Ride service within Bishops Stortford.

### 7.2 Annualised Demand

7.2.1 Based on the analysis above, across a year (excluding Sundays), it is expected that Bishop’s Stortford would generate 1.67 million retail and work trips by all modes between 07:00 and 20:00, of which 0.95 million trips would be by car with a total of 1.19 million car occupants. These trips would be distributed as shown in Table 7-1.

**Table 7-1: Annual retail and work trips (Monday – Saturday)**

Origin	All Modes	Car Driver	Car Occupants
A1250 East	325,814	188,554	237,972
B1383 North	621,341	335,900	433,381
B1004 North	25,465	11,439	16,101
A120 West	215,034	114,525	148,992
B1004 West	78,945	50,710	60,975
B1383 South	250,829	163,176	189,714
A1060 South	149,753	81,831	105,710

### 7.3 Adult / Child / Concessionary Split

7.3.1 Based on NTS Table 0611 and 2011 Census ‘Population by age for England’ (QS103EW), 4% of retail trips would be made by children 16 or under, 70% by working age adults (17-64) and 26% by persons aged 65 or over (the current state pension age). All journeys to work were assumed to be undertaken by persons between the age of 17 and 64.

**Table 7-2: Annual retail and work trips (Monday – Saturday)**

Origin	Child (0-16)			Adult			Concession (65+)		
	All Modes	Car Driver	Car Occupants	All Modes	Car Driver	Car Occupants	All Modes	Car Driver	Car Occupants
A1250 East	8,258	0	5,221	258,160	160,862	195,193	59,397	27,692	37,557
B1383 North	17,135	0	10,835	480,957	278,440	344,615	123,249	57,460	77,931
B1004 North	928	0	587	17,861	8,327	11,294	6,676	3,112	4,221
A120 West	6,158	0	3,894	164,581	93,875	117,091	44,294	20,651	28,008
B1004 West	1,444	0	913	67,112	45,867	53,493	10,389	4,843	6,569
B1383 South	2,981	0	1,885	226,408	153,181	174,272	21,441	9,996	13,557
A1060 South	4,208	0	2,661	115,276	67,719	83,910	30,268	14,111	19,139



## 7.4 Journey Times

7.4.1 Four potential Park & Ride locations on the outskirts of Bishop’s Stortford have been identified:

- At the junction of the B1838 / A120 to the north of the town
- At the junction of the A1250 / A120 to the east of the town
- At the junction of the A120 / A1250 to the west of the town
- At the junction of the A1184 / Thorley Street to the south of the town

7.4.2 The journey times from each of these locations to the town centre has been obtained from Google Maps, as summarised in Table 7-3.

**Table 7-3: Expected journey time to town centre from potential Park & Ride locations**

Origin	Approx. Distance	AM Peak		PM Peak	
		To town centre	From town centre	To town centre	From town centre
B1838 / A120 (north)	3.0km	14 minutes	12 minutes	12 minutes	12 minutes
A1250 / A120 (east)	3.1km	14 minutes	9 minutes	12 minutes	12 minutes
A120 / A1250 (west)	3.2km	14 minutes	8 minutes	12 minutes	8 minutes
A1184 / Thorley Street (south)	2.9km	14 minutes	16 minutes	10 minutes	16 minutes

7.4.3 Based on this, it is anticipated that a minimum three buses would be required for any of the Park & Ride sites, to allow for a 15-minute service frequency with passenger loading and unloading, driver breaks etc.

7.4.4 It is anticipated that a Park & Ride site to the north of the town at the B1838 / A120 junction would generate the greatest passenger demand, as this could attract passengers from the north and east of Bishop’s Stortford where the existing numbers of car trips is highest. A minimum of three buses would be required to operate this service at a cost of approximately £200,000 each per year (£600,000 total cost).

## 7.5 Assumed Pricing Structure

7.5.1 Based on the review of other Park & Ride sites, it has been assumed that a “pay on the bus” approach would be taken. This allows for charging per person, rather than per vehicle.

7.5.2 The following pricing structure has been assumed:

- Adult Return: £3
- Child Return: Up to 3 children travel for free per adult
- Group Return (up to 5 people): £7.50
- Weekly: £14



- Monthly: £54
- Concessionary Pass Holders: Free after 09:30, assume 67% reimbursement factor

7.5.3 This charging structure would require significant increases to town centre car park prices, to ensure that the Park & Ride is competitive. Based on the review of other similar towns, it is expected that all day parking charges in the town centre would need to be increased to approximately £9.00. A large proportion of car park use will be residents within Bishops Stortford of those travelling from directions that would not be served by the Park & Ride facility. This increase in parking charges would penalise these users and potentially reduce the attractiveness of Bishops Stortford Town Centre. This may result in increased vehicle mileage as a result of people driving through or around the town to access the Park & Ride, in order to access cheaper parking charges.

## 7.6 Annualised Revenue

7.6.1 To determine the income from passenger trips, it has been assumed that:

- All part time workers and all adult shoppers would purchase adult return tickets
- 50% of full time workers would purchase a weekly ticket and 50% would purchase a monthly ticket
- All children would travel free of charge
- Weekly tickets would equate to an average of 5.25 return journeys per person
- Monthly tickets would equate to an average of 24 return journeys per person

7.6.2 Based on the above assumptions, 33.5% of existing “eligible” car occupants travelling from the north and east would have to use the service to ensure it generates more than £600,000 per year.

7.6.3 By comparison, a Park & Ride study prepared by Atkins for Darlington in 2008<sup>9</sup> stated that Cambridge and Belfast Park & Rides had an approximate intercept rate of around 15% of “in scope” car drivers, whilst York had an intercept rate of 25%. This suggests that the uptake required for Bishop’s Stortford is unlikely to be achievable.

## 7.7 Car Park Costs

7.7.1 The above analysis does not consider the construction or maintenance costs of the car park. It is assumed that a car park of approximately 500 spaces would be appropriate, based on the review of other Park & Ride sites, and the level of demand required to make the site profitable. Table 7-1 shows the costs associated with constructing and operating such a car park.

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<sup>9</sup> <https://www.whatdotheyknow.com/request/232140/response/593541/attach/4/5047783%20feasibility%20v2c1.pdf>

**Table 7-4: Car Park Construction and Maintenance Costs**

	Assumptions / data source	Cost
Land purchase		Unknown
Construction – car park	£40 per square metre, 28-30sqm per parked car, assuming a surface level car park	£560,000 - £600,000 prior to site opening
Construction – additional costs	CCTV system, waiting area, cycle lockers	£20,000
Attendants	£8.00 per hour, 07:00-20:00 Monday to Saturday	£32,537 per year
Consumables (Information boards, cleaning etc.)	<a href="http://www.parkingconsultantsltd.com/6n.htm">http://www.parkingconsultantsltd.com/6n.htm</a>	£8,000 per year
Maintenance	<a href="http://www.parkingconsultantsltd.com/6n.htm">http://www.parkingconsultantsltd.com/6n.htm</a>	£17,000 per year
Accounts / Administration / Audit	<a href="http://www.parkingconsultantsltd.com/6n.htm">http://www.parkingconsultantsltd.com/6n.htm</a>	£5,000 per year

7.7.2 Considering the ongoing costs only, the proportion of “eligible” car occupants travelling from the north and east who would need to use the Park & Ride to ensure its profitability would increase to 37.0%. A considerably larger number of patrons would be needed to cover the land purchase and construction costs.

## 7.8 Utilising Existing Bus Services

7.8.1 As discussed in Chapter 4, there is also the possibility of providing a Park & Ride which makes use of the existing bus provision. This would significantly reduce the bus operating cost, but the car park construction and operation costs would be unchanged.

7.8.2 Arriva currently charges £4.70 for an adult daily ticket, £18 for an adult weekly ticket and £62 for an adult 4-weekly ticket within Bishop’s Stortford. These charges are higher than those proposed for a dedicated bus service, and would require larger increases in town centre parking charges to encourage people to use the Park & Ride. Furthermore, all of these profits would go directly to Arriva. The council would therefore need to negotiate with Arriva for a percentage of the profits to cover the cost of running the car park or introduce charges for parking in addition to bus travel.

7.8.3 The success of utilising the existing services also depends on the existing usage of these services, and whether there is any additional space for Park & Ride users.

## 7.9 Time Cost

7.9.1 No consideration has been given to the additional time cost for drivers diverting to a Park & Ride site and waiting for a Park & Ride bus. The wait time will range between 0 and 15 minutes and there will also potentially be slower journey times into the town centre. As discussed in section 4, ideally priority measures would be provided to allow buses to bypass congestion and offer an improved journey time relative to private cars which would offset some of the additional journey time. The



potential for such measures within Bishop's Stortford is limited and would come at a significant cost financially and in terms of additional congestion for other road users.

- 7.9.2 Transport Analysis Guide (TAG) Unit 3.5.6 (2014) sets out an average resource cost of commuting time of £5.72 per hour and of other non-working time of £5.08 per hour (2010 values), whilst the cost of working time is considerably higher.



## 8 Summary and Conclusions

8.1.1 This report has been prepared by PJA on behalf of East Herts District Council to assess the feasibility of introducing a Park & Ride service in Bishop’s Stortford. The existing public transport and car parking provision in the town has been reviewed to establish the baseline situation, and the potential demand for a Park & Ride service has been assessed against the costs of operation. The key conclusions are summarised below:

### **Financial Viability**

8.1.2 The assessment has estimated that for a Park & Ride located to the north of the town, 37.0% of existing “eligible” employment and retail car trips from the north and east would need to use the Park & Ride to cover the bus operating and annual car park costs. This uptake is significantly higher than that achieved at the Park & Ride sites in Cambridge, Belfast or York, and assumes that people travelling from the east would divert to the Park & Ride site. This is therefore very unlikely to be achievable. Further to this, it is anticipated that the cost of constructing a 500 space car park would be in the region of £580,000-£620,000 plus the cost of purchasing the land. It is very unlikely that revenue generated by the Park & Ride would ever be sufficient to repay this capital investment.

8.1.3 Whilst the above uptake calculations assume only existing car users would transfer to the Park & Ride, it is also likely the existing public transport passengers may change to use the service. This would lead to a reduction in bus and rail passengers, and may lead to increased car use in the wider area.

### **Cost and Availability of Town Centre Car Parking**

8.1.4 The calculations assume a cost of £7.50 for a group return, which is considerably higher than the existing cost of town centre car parking. To ensure that the Park & Ride would be competitive, the town centre car parking prices would therefore have to be increased significantly – the other Park & Rides reviewed have all day town centre car parking charges of approximately double the cost of the Park & Ride. This could lead to people choosing to instead travel to nearby towns, with cheaper car parking or better facilities.

8.1.5 Furthermore, there is currently remaining car parking capacity within a 10-minute walk distance of the town centre. The use of a Park & Ride facility will only become attractive if the availability of parking within a short walk of the town centre is reduced significantly.

### **Location of Park & Ride**

8.1.6 The origins of inward journeys into Bishop’s Stortford are split primarily into the north, south and east approaches to the town. The cost calculations set out above has been based on the provision



of a single Park & Ride site however, given the directional split of origins a successful scheme would have several parking location to capture a greater proportion of the inward car journeys.

- 8.1.7 With only one Park & Ride site, town centre car parking price increases and reductions in capacity would have a greater impact on those travelling from directions without a Park & Ride, and may lead to those drivers travelling through or around the town to access the Park & Ride, which would not have the desired impact of reducing town centre traffic, or travelling to alternative destinations. Therefore, introducing a Park & Ride for the town would be most successful if several sites were opened. However, a Park & Ride located to the south or west of the town would need a higher percentage uptake, as the existing number of employment and retail trips from these directions is lower.

### **Journey Times**

- 8.1.8 Whilst it is relatively easy and inexpensive to park in the town centre, people are unlikely to use the Park & Ride as this can lead to longer, less reliable journey times as a result of the need to interchange, with wait times of between 0 and 15 minutes depending on the time of arrival. The additional interchange time is particularly pronounced in Bishop's Stortford as the journey time from the edge of town to the town centre is relatively short with limited opportunity for reduced bus journey times, through the implementation of bus priority measures.
- 8.1.9 It should additionally be noted that the current highway network in Bishop's Stortford is conducive to driving, particularly when compared to other towns and cities where a Park & Ride service has been implemented successfully. However, if a Park & Ride is successfully implemented and town centre traffic reduces, the arterial routes could be downgraded, to improve the pedestrian realm within the town. Additionally, any town centre traffic reduction could also lead to reduced congestion and faster travel times for Park & Ride buses, and reduced pollution.

### **Overall Conclusions**

- 8.1.10 In conclusion, whilst a successfully implemented Park & Ride service with multiple sites could lead to benefits for Bishop's Stortford through town centre traffic reductions, it is very unlikely that a Park & Ride site would be financially viable based on the anticipated demand. It is also unlikely to be attractive to drivers without significant reductions in town centre car parking capacity and increases in costs.