Appendix A

St Edmundsbury Borough Council

Final Report: Car Parking Capacity & Management Study

ALPHA PARKING

Contents page

1. Study Objective

1.1 St Edmundsbury Borough Council are aware of the importance of car parking facilities to the development and prosperity of the town and the region and are considering their strategy for managing their sites going forward.

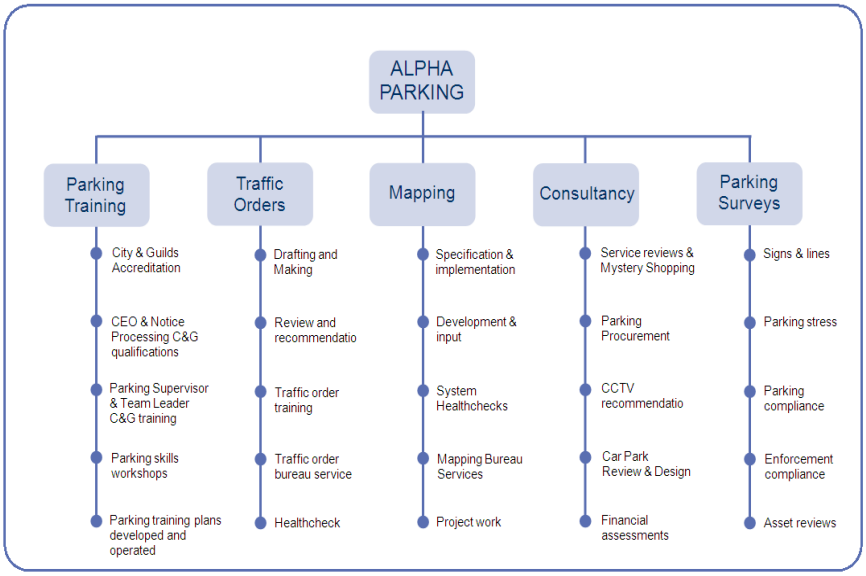
1.2 The strategy is to consider key areas such as:

- The offering to customers and stakeholders
- Current and future capacity requirements
- Efficient operational development

1.3 The Council has instructed Alpha Parking to carry out a car park review and produce this report to explain the approach and results of the project and make recommendations for strategy development.

1.4 Alpha Parking is an established, successful specialist parking consultancy focused on assisting public and private parking operations in all parking areas.

1.5 Our experienced teams have in-depth parking knowledge and skills split across the five areas in the diagram below.



2. Methodology

2.1 In order to obtain an overall understanding of the current St Edmundsbury car park position we carried out a number of exercises. These are described in the table below which indicates, as well, what each exercise contributes to the review. Please note: the table does not indicate any priority or specific order; a number of the exercises where carried out concurrently

Review Process	Objective
1. Background research	To obtain an understanding of the St Edmundsbury area and major demographic factors which impact on the car parking requirements; for instance, economy, population types and forecast, transport and previous car park studies.
2. Review of transaction data obtained from the Council	Depending on the scope and detail of the transaction data available it can provide considerable information on recent car park usage in the Borough. While useful we found that the data systems were not user friendly so analysis from this source was of assistance but somewhat restricted.
3. On site physical review of car parks	Assessment of customer offer and physical state of each site.
4. Occupancy surveys of car parks	To review current usage and provide further information on transaction data issues
5. Focus group meeting with local stakeholders	Discussion group to gain information on stakeholder concerns and aspirations.

6. Car park customer consultation	Gaining input on car park users views on the car parks
7. Use of TEMPRO database	We access the government database to obtain information on future transport projections in the region and, therefore, potential parking capacity requirements.
8. Benchmarking	Obtaining of comparable car parking data from appropriate towns to compare and contrast with the St Edmundsbury offer.
9. Desktop review	Assessment of the results from the review processes combined with our experienced knowledge and development of recommendations

3. Background Assessment

3.1 A review of the background to the parking requirements in the area provides core information on types and scale of future requirements which need to be born in mind in considering car park strategy development.

3.2 The Borough is in Suffolk between Cambridge and Ipswich. It is a mainly rural area with two towns, Bury St. Edmunds and Haverhill and a number of smaller centres.

3.3 The population has been growing consistently and is forecast to continue growing as shown in the table below:-

Year	Population	Index (1982 base = 100)
1982 [1]	88,400	100
2002 (estimate)	98,563	111.5
2007 [1]	102,900	116.4
2010 (estimate)	107,350	121.4
2013 [2]	111,800	126.5
2035 (forecast) [3]	126,673	143.3

3.4 Age distribution is changing with over 65's forecast to increase by 25% by 2031 whilst the under 16s will remain static.

3.5 There is a higher than average proportion of Group A,B and C2 and a lower than average Group D and E. A high proportion of people work from home compared with the average [5].

3.6 Home ownership is unaffordable to large sections of the population with average costs 7.5 times the average earnings [1]. New properties are expected to be built at around 600pa until 2030/31[1]

3.7 Other measures show high quality of life, high life expectancy, good general health, low crime and low deprivation, though there are pockets where this situation is reversed.

3.8 The economy is strong with less than 3.1% unemployment and the projected total employment is expected to rise by 22.2% from 2009-2026.[1].

3.9 The employment base, however, lacks a broad range and on a smaller division, some communities are highly dependent on a specific industry or even single employer. As such there is a level of vulnerability [1].

3.10 There are three primary road routes (A14, A134 and A143), though other roads are considered difficult or unsuitable for large vehicles. [1]

3.11 There is one railway station in Bury St Edmunds with very good commuter access to Cambridge (and on to Birmingham), Ipswich, Peterborough (for the East Coast Line) and London Liverpool Street.

3.12 Bus Stations in Bury St Edmunds and Haverhill are convenient for the town [5]. Inter town services are generally on an hourly basis, whilst Bury St Edmunds town circulars are every 20 - 30 minutes. However, the majority only run through the day, ending at around 6pm, a minority are reduced on a Saturday and there is little or no service on Sunday. Haverhill shares some of the Bury St Edmunds services but local services are not so frequent, as little as 1 per day in some directions.

3.13 There is an “Over reliance on private car for transport” [1] and, compared with the national average, there is a significantly higher level of two (or more) car households. In rural areas this is seen by many as a necessity with around 2/3 of parishes having no local access to shops, post offices or general stores. Public Transport improvement is rated as ’fundamental’ to development of the area and congestion, air quality and road safety are key issues.

3.14 Other documents such as the East of England Plan (2008), the Regional Transport Plan and the Suffolk Local Transport Plan all refer to the need to encourage sustainable travel modes.

3.15 Development Considerations

Car Parks at the Arc, Wilkinsons, and St Andrews Street North in Bury St Edmunds have all been suggested as sites or parts of sites where existing parking spaces could or should be reconfigured to provide further expansion of the town centre 'high street' type of retailing.

The Haverhill masterplan recently endorsed by St Edmundsbury Borough Council, proposing significant development improvement in the town centre for example, Jubilee Walk is part of a plan to improve the bus station and enhance the car park.[5].

3.16 Previous Car Parking Studies

Surveys were carried out in 2006 and 2011 asking people in the two town centres about their travel, purpose and facilities.

Some key results relating to this report are that:-

a) 57% of visitors to Bury St Edmunds arrived by car as a driver or as a passenger
b) 37% of visitors (ie not just motorists) stay for less than 2 hours
c) 48% of visitors (ie not just motorists) stay for between 2 and 4 hours
d) 16% of visitors (ie not just motorists) stay for more than 4 hours
e) The most disliked aspect of Bury St Edmunds was high car park charges and the most popular suggestion for improving Bury St Edmunds was to reduce car parking charges. Providing more parking was the next priority and then to improve public transport
f) Two/thirds stated that the difficulty in parking in Bury St Edmunds had reduced.
g) In Haverhill parking did not appear to be an issue in comparison with other factors

3.17 Pay on Exit/Foot or Pay by Plate

St Edmundsbury Council commissioned a Phase 1 report to study the technical feasibility of PoF and/or ANPR Pay by Plate in the St Edmundsbury car parks. This report was submitted in March 2014.

This report described the different forms of payment technology, such as; Pay and Display (P&D), Pay on Foot (PoF), Automatic Number Plate Recognition (ANPR) the different forms of payment (Coin, Note, Card, Contactless card, Tel, Web etc) as well as a number of the benefits and problems. A short summary of this is included later in this report.

It went on to advise the suitability of 6 Bury St Edmunds and 3 Haverhill car parks for conversion. All the car parks were considered suitable for ANPR whilst two would not be suitable for PoF. We have commentated on these conclusions later in this report.

The report concluded that PoF was a 'risk free solution', which could be considered a little sweeping as all systems, implementations and applications carry some risk.

3.18 Current Car Park Situation.

We were asked to cover in the study the main urban centre within the Borough, Bury St Edmunds and reference the Haverhill situation.

The two centres have a number of car parks which offer both long stay (LS) and short stay (SS) facilities. The table below summarises these and indicates the estimated number of parking bays available in each car park.

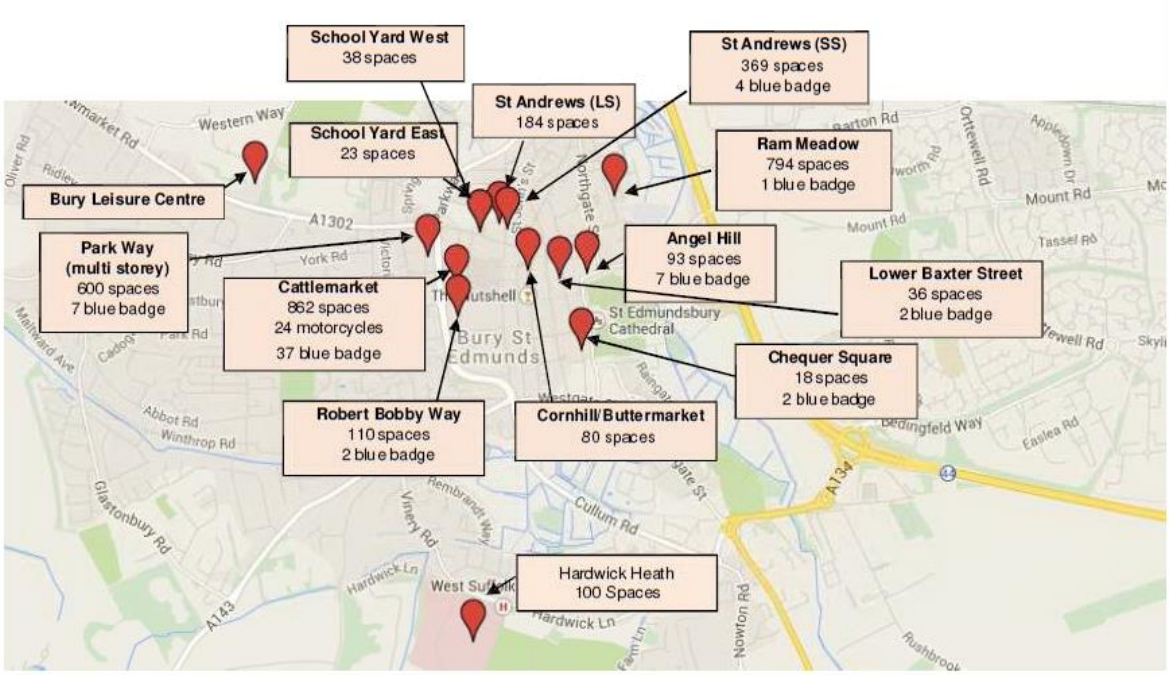
Car Park	Type	Spaces
Bury St Edmunds		
Cattlemarket	SS	862
St Andrews	SS	369
Parkway surface	SS	265
Robert Boby Way	SS	110
Angel Hill	SS	93
Cornhill/Buttermarket	SS	80
School Yard West	SS	38
Lower Baxter Street	SS	36
School Yard East	SS	23
Chequer Square	SS	18
Short Stay Totals		1,894
Ram Meadow	LS	794
ParkWay Multistorey	LS	600
St Andrews	LS	184
Hardwick Heath	LS	100
Long Stay Totals		1,678

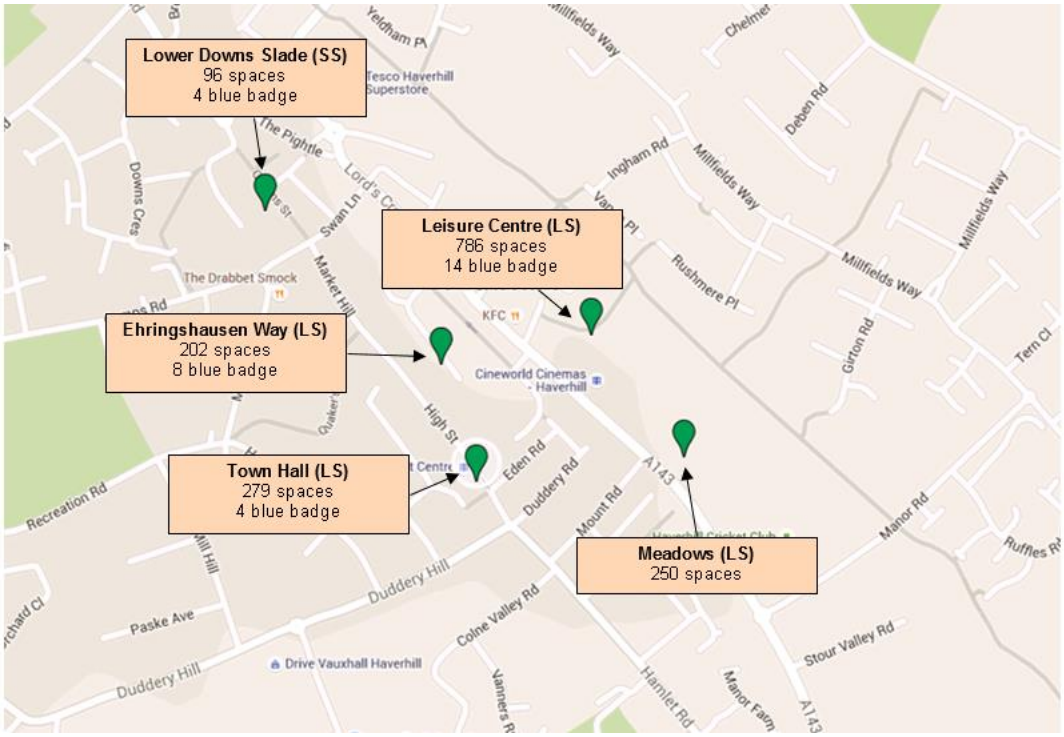
BSE Overall Totals		3,572
Haverhill		
Leisure Centre	SS	138
Town Hall	SS	279
Meadows	SS	250
Ehringshausen Way	SS	202
Lower Downs Slade	SS	96
Haverhill Totals		965

The three highlighted car parks are defined as on-street facilities.

3.19 We noted that the vast majority of parking in St Edmundsbury is supplied by the Council which means there is little pressure from private operators offering cheaper or better options

3.20 The car park locations are shown on the maps below (nb: Parkway surface is on the same site as Parkway multi-storey)





3.21 We have used the data suppled by the Council to calculate the income per space for each of the car parks in 2014/15 with the information supplied in the table below:

Car Park	Type	Spaces	2014/15 Income	2014/15 season ticket + permit income	2014/15 revenue per space	2014/15 ECN Income	2014/15 revenue per space inclusive ECN income
Bury St Edmunds			£	£	£	£	£
Cattlemarket	SS	862	1,842,953		2,138	28,310	2,171
St Andrews	SS	369	447,077		1,212	7,000	1,231
Parkway surface	SS	265	241,453		911	3,760	925
Robert Boby Way	SS	110	134,858		1,226	7,330	1,293
School Yard West	SS	38	55,650		1,464	3,110	1,546
Lower Baxter Street	SS	36	76,376		2,122	4,860	2,257
School Yard East	SS	23	44,439		1,932	6,800	2,228
Short Stay Totals		1,703	2,842,806	0	1,669	61,170	1,705
Ram Meadow	LS	794	456,279	37,950	622	5,370	629
ParkWay Multistorey	LS	600	379,735	38,580	697	3,870	704
St Andrews	LS	184	230,787		1,254	3,000	1,271
Hardwick Heath	LS	100	115,640		1,156		1,156
Long Stay Totals		1,078	802,706	37,950	780	8,370	788
Overall Totals		2,781	3,645,512	37,950	1,325	69,540	1,350

3.22 We find the "income per space" calculation can provide a useful approach to assessing car park performance.

3.23 Review of the table shows a number of interesting trends including:

- In the short stay category Cattlemarket is the most productive site with Lower Baxter Street and School Yard East both performing above the average
- The smaller short stay car parks are returning a good income per space
- Parkway surface site is the lowest short stay income provider
- Ram Meadow and Parkway multi-storey are the only car parks used by season ticket holders and is also providing an income per space considerably below St Andrews and Hardwick Heath
- There may well be additional capacity at both Parkway sites and Ram Meadow
- The Excess Charge Notice (ECN) income is very variable between the car parks which may reflect the compliance levels, the enforcement profile or, indeed a mixture of the two. The ECN income per space is shown in the following table.

Car Park	ECN per space
Bury St Edmunds	£
Cattlemarket	33
St Andrews	19
Parkway surface	14
Robert Boby Way	67
School Yard West	82
Lower Baxter Street	135
School Yard East	296
Short Stay Totals	36
Ram Meadow	7
ParkWay Multistorey	0
St Andrews	16
Hardwick Heath	0
Long Stay Totals	8
Overall Totals	25

3.24 Overall, these figures suggest that it would be useful to:

- Investigate further whether occupancy levels are one reason for the Ram Meadow figures and, if so, whether this parking capacity can be utilised.
- Consider whether season ticket prices could be increased.
- Research possible capacity availability in the lower performing car parks

4 Physical Review of Car Parks

4.1 An experienced member of our team visited each car park and carried out an asessment of its level of offer to the customer and, therefore, how attractive it is to the user. This is a standard approach and includes consideration of:

- Car park type and size
- Opening hours and payment facilities: opening hours will influence the usage of any car park, payment methods have become more flexible in recent years with the introduction of facilities such as telephone payment and pay on foot/pay on exit. Many retailers tend to believe that the more flexible approaches encourage customers to stay longer and use their businesses. Studies to support this are inconclusive while cost and the physical requirements of pay on foot/pay on exit often dictate possible introduction
- Accessibility to attractions within a 350 metre radius: as a guideline, it has been assessed, and is widely used in analysis, that the able bodied are willing to walk about 5 minutes from a short stay car park and 10-15 mins from a long stay one to reach the attraction which has caused their journey. Location of a car park is one of the most important points in its popularity and usage.
- How good is signage outside and inside the car park: good external signage will help to guide customers to the car park, this is especially relevant in a Borough where tourism is important. Good internal signage will improve the customer experience and thereby encourage usage of the site.

- Vehicle and pedestrian exit and entry points and ease of movement for vehicles and pedestrians within the car park: these areas will impact the customer experience and safety and thereby the service offer of the car park.
- Disabled and parent and toddler facilities; these are helpful to specific groups within the community, provision of these facilities is becoming more widespread and will influence usage of the car park by these groups.
- Internal and external car park presentation: good and attractive presentation of the car park is becoming expected by the customer and will influence their choice
- Car park security, including whether it has the ParkMark award for security.

4.2 The results of the assessment are shown in the two tables below.

Car park name	Type	Spaces	Opening hours	Payment	No of Attractions	Attractions
Robert Boby Way	Surface	110	24/7	P&D + Ringo	2	Retail, cinema/theatre,
School Yard East	Surface	23	24/7	P+D + Ringo	4	Bus station, Museum, Retail, cinema/theatre,
School Yard West	Surface	38	24/7	P&D + Ringo	4	Bus station, Museum, Retail, cinema/theatre,
Cattlemarket	Surface + basement	862	24/7	P&D + Ringo	4	Bus station, Museum, Retail, cinema/theatre,
Cornhill/Buttermarket	Surface	80	n/a	P&D + Ringo	2	Museum, Retail
Chequer Square	Surface	18	n/a	P&D + Ringo	4	Cinema/theatre, pubs/restaurants, cathedral, gardens/park
Angel Hill	Surface	93	n/a	P&D + Ringo	4	Retail, cathedral, hotels, parks/garden
Hardwick Heath	Surface	100	7am - 10pm	P&D + Ringo	3	Hospital, park/gardens
Bury Leisure Centre	Surface	N/A	24/7: charging 8.30 to 16.00	P&D + Ringo	3	Offices, Leisure Centre,Education
Ram Meadow	Surface	794	7am - 10pm	P&D + Ringo	5	Retail, pubs/restaurant, cathedral, football club, park/gardens
Lower Baxter Street	Surface	36	24/7	P&D + Ringo	2	Retail, doctors/hospital
Parkway Surface	Surface	265	Mon to Sat: 07:15am to 18:00pm, Sun: 10am to 16:00pm	P&D + Ringo	2	Retail, cinema/theatre,
Parkway Multi Storey	Multi storey	600 approx	Mon to Sat: 07:15am to 1am, Sun: 10am to 1am	P&D + Ringo	2	Retail, cinema/theatre,
St Andrews Short Stay	Surface	369	4am - 7pm	P&D + Ringo	5	Bus station, Library, Retail, driving test centre, job centre
St Andrews (long stay)	Surface	184	4am - 7pm	P&D + Ringo	5	Bus station, Library, Retail, Driving test centre, Job centre

Car park name	Type	Spaces	How good is external signage?	Exit & entry ease of use (vehicle)	Exit & entry ease of use (pedestrian)	Ease of using internal signage	Ease of vehicle movement in car park	Ease of pedestrian movement in car park?	Disabled facilties rating	Parent & toddler facilities rating	External View rating	Internal View rating	How secure does CP appear?	Has parkmark
Robert Boby Way	Surface	110	4	3	5	5	5	5	5	n/a	5	5	4	Yes
School Yard East	Surface	23	5	5	4	4	5	4	1	n/a	5	5	4	Yes
School Yard West	Surface	38	4	5	5	4	5	4	1	n/a	5	5	5	Yes
Cattlemarket	Surface + basement	862	4	5	5	5	5	5	5	n/a	5	5	5	Yes
Cornhill/ Buttermarket	Surface	80	5	3	5	5	4	5	4	n/a	5	5	4	No
Chequer Square	Surface	18	3	4	5	5	5	5	5	n/a	5	5	5	Unknown
Angel Hill	Surface	93	4	5	5	5	4	5	4	n/a	5	5	5	Unknown
Hardwick Heath	Surface	100	3	4	5	4	5	5	5	n/a	5	5	3	Yes
Bury Leisure Centre	Surface	N/A	4	5	5	4	5	5	5	5	5	3	3	Yes
Ram Meadow	Surface	794	4	4	4	4	5	4	3	n/a	5	4	5	Yes

Lower Baxter Street	Surface	36	5	5	5	3	4	4	3	n/a	4	5	3	Yes
Parkway Surface	Surface	265	5	5	5	5	5	5	4	n/a	5	5	4	Yes
Parkway Multi Storey	Multi storey	600 approx	5	5	5	5	5	5	4	n/a	4	5	5	Yes
St Andrews Short Stay	Surface	369	5	5	4	5	5	4	3	n/a	4	4	5	Yes
St Andrews (long stay)	Surface	184	5	4	3	3	4	4	3	n/a	4	4	4	Yes

4.3 The review was carried out by an experienced member of the Alpha team; the numbered assessments are based on using 1-5 where 1 = “very poor” and 5 is “very good”. The assessment was carried out by a single, experienced, member of the team in order to encourage consistency in the judgements.

4.4 The results are interesting and encouraging for the Council. Overall the car parks are assessed as average and above in important areas. We note that:

- Access to customer attractions, we noted, as well, that the car parks are all reasonably centrally placed.
- Signage, exits and entries, vehicle and pedestrian flow and internal and external appearance were all at a consistently good standard.
- Security was assessed as average and above with the majority of the car parks holding the ParkMark security accreditation
- The area where change could be considered is in the provision of Parent and toddler bays which can encourage these customers to use car parks close, for example, to retail facilities

5 Focus Group Review

5.1 Representatives were invited from various organisations to represent stakeholders and customers. The organisations included:-

- St Edmundsbury Borough Council
- West Suffolk Council
- Suffolk County Council
- Our Bury
- Chamber of Commerce
- ARC
- APEX
- Bury St Edmunds Cathedral
- West Suffolk College
- Greene King

5.2 At the beginning of the meeting the representatives completed a questionnaire assessing their perception of parking within Bury St Edmunds.

5.3 The representatives were then split into four groups to share and discuss in more detail their issues, concerns, desires and suggestions based on the questionnaire content. The groups were structured to broadly represent similar interests, for instance:-

- A Councillor and Council Officers
- Tourism and entertainment
- Business
- A Councillor and retail

5.4 The groups shared the results of their discussions for the entire group to hear and discuss the often differing views and priorities of their neighbours

5.5 At the end of the meeting the representatives completed the same questionnaire to asses their views of parking within Bury St Edmunds and see if any changes had occurred as a result of the discussions.

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5.6 **Key Outcomes from Assessment Questionnaires (see appendixes 4&5 for detail)**

- Current Bury St Edmunds car parking situation:

Response	Before the Focus Group Meeting	After the Focus Group Meeting
Very Good	21.43%	7.69%
Good	64.29%	92.31%
Average	14.29%	None
Poor and Very Poor	None	None

5.7 Overall, these results are encouraging and suggest the present car park offer is meeting current requirements

- Traffic flow perceptions

Response	Before the Focus Group Meeting	After the Focus Group Meeting
Very Good	14.29%	7.69%
Good	35.71%	46.15%
Average	35.71%	46.15%
Poor	14.29%	None
Very Poor	None	None

5.8 There is some concern in this area although, interestingly, perception improved after the discussions.

5.9 It is relevant to note that one of the disadvantages of a barrier (Pay on Foot or Pay on Exit) system is that it can cause delays at the entrance and care must be taken to provide enough space leading to the entrance to avoid any build up of traffic impeding the traffic flow on the highway.

- The most important car park users were assessed into two broad groups. Those assessed as most important were focussed customers, tourists and visitors from nearby local areas. The second were consistently marked as 'half as important' and consisted of residents, staff, other local workers and commuters

- The most important factors for a car park

Factor	Before the Focus Group Meeting Score	Position	After the Focus Group Meeting Score	Position
Close to destination	5.17	1	5.31	2
Easy to find a space	4.42	2	5.46	1
Flexibility of payment method	3.25	4	3.77	3
Lowest tariff	3.50	3	2.77	4
Safety of car park	3.25	4	2.23	5
Special features; e.g. disabled, family etc)	1.42	5	1.46	6

- Access to destination and ease in finding a space are consistently the most important factors. It is always interesting that tariff appears lower than may be expected and, in this case, fell lower by the end of the Focus Group.
- The long and short stay balance was overall Good with Average next and around 1/6th seeing it as Very Good. In the initial questionnaires those assessing it as "Poor" all changed their minds and upgraded their assessment.
- The most important areas for improvement in the car parks

Area	Before the Focus Group Meeting Score	Position	After the Focus Group Meeting Score	Position
More Long Term spaces: fewer Short Term	7.42	3	6.42	4
More Short Term spaces: fewer LongTerm	4.83	7	4.17	7
Change in geographical location of Long and short term spaces	5.67	5	8.58	1
Introduction of more flexible payment methods	7.50	2	7.92	2
Increase in cashless payment methods	7.67	1	7.17	3
More season ticket and permit availibility	6.08	4	5.50	6

Increased enforcement	3.00	10	2.33	10
More attractive environment	4.00	8	3.75	8
Extension of special features; e.g disabled, family parking etc	3.58	9	2.83	9
Improved signage	5.25	6	6.33	5

5.10 The change in the most assessment at the top end of possible changes was very marked between the beginning and end of the meeting. At the beginning, an increase in cashless payments was the most required change but the discussion moved the wider suggestion of more flexible payment methods (ie a wider choice) and the allocation of the short and long stay parking above this in importance.

- The issue of which car parks are most important, for the town, for the representatives' organisation and in need of improvement resulted in no clear concensus in any category.

5.11 The assessment returns were transcribed and graphically presented.

5.12 **Key Outcomes from the Sharing of Thoughts**

All groups identified tourists as the most important car park users and 3 out of 4 mentioned customers and nearby (regular) visitors. Residents and staff or local workers appeared less important.

Suggestion was made that staff, residents and nearby visitors should be encouraged towards non-car modes

Several comments were made to the effect that car parks must be easy to find, have easy to find spaces, have a variety of easy to use payment systems – more specifically more directional signage, including some information on the most

suitable car parks and where necessary improving signage through the one-way systems

There was a desire for tariff incentives; though others said only 10-15% would make their choices based on the tariff. It was also suggested that the Tariffs could be changed according to the time of day or day of week

6 Customer Questionaire

6.1 *Methodology*

In Bury St Edmunds, St Edmundsbury Council staff interviewed users of the car parks to obtain data about them and their views on the car park.

Some interviews were carried out by Alpha Parking in Haverhill.

The interviews were carried out on a variety of days including a Saturday.

These questions related to:-

- The origin of the visitors trip
- The distance they had travelled
- How often they used the car parks in Bury St Edmunds
- Why they were visiting
- Their opinions on safety, cleanliness, ability to find a space etc
- How long they would be staying
- Whether they would stay longer if it were possible

6.2 *Results*

There were over 180 respondents in Bury St Edmunds. It should be noted that the vast majority of questionnaires were completed in or around the lunchtime period, so possibly exclude the users who work in the area and might be around before 9 or after 5.

Answers from Bury St Edmunds

Journey Origin

Many responses did not fit into a category but the largest categories were:-

Bury St Edmunds, 16%
Mildenhall and Haverhill 8%
Newmarket and Cambridge 6%

Travel distance

The vast majority travelled between 10 and 20 miles (62%),
with a fifth between 2 and 5 miles whilst 7% travelled less than a mile.

Usage Frequency

Only 9% use the car parks daily, though given the note above about the time of survey it may have missed the local workers who would add greatly to this figure.

Otherwise frequency usage is reasonably even up to monthly and tails off dramatically thereafter for yearly

Reason for Trip

The majority are for shopping – 53%, though in contrast to Usage Frequency above 19% were actually work based

Tourists comprised 6.5%

Views on the car park

There was almost unanimous support of safety, cleanliness, location, and condition of the car parks

However, there were some more adverse thoughts, such as 1/6th found it difficult to find a space and ¼ thought that the car parks were never patrolled.

Length of stay

The vast majority were planning to stay between 1 and 3 hours, (this may have been an effect of the time of day the surveys were carried out.)

Only 5% were all day and 3.8% over 4 hours

Around 1/4 would stay longer if there was more flexibility

Answers from Haverhill

All identified origins were local, ie Haverhill or within 5 miles.

Most were visiting weekly or more

As before there was unanimous support of safe, clean and good location.

However 1/2 thought they were too busy despite the low levels identified in the occupancy surveys

30% thought the car parks were in poor condition

70% thought they were never patrolled

There was an even spread of stay upto 4 hours, but only 10% would stay longer if possible

Please note: the sample from Haverhill was considerably smaller and should be viewed as an indication of views rather than detailed data.

7 Occupancy Survey of Car Parks

7.1 APPROACH

Occupancy surveys were carried out in the car parks in both Bury St Edmunds and Haverhill on:

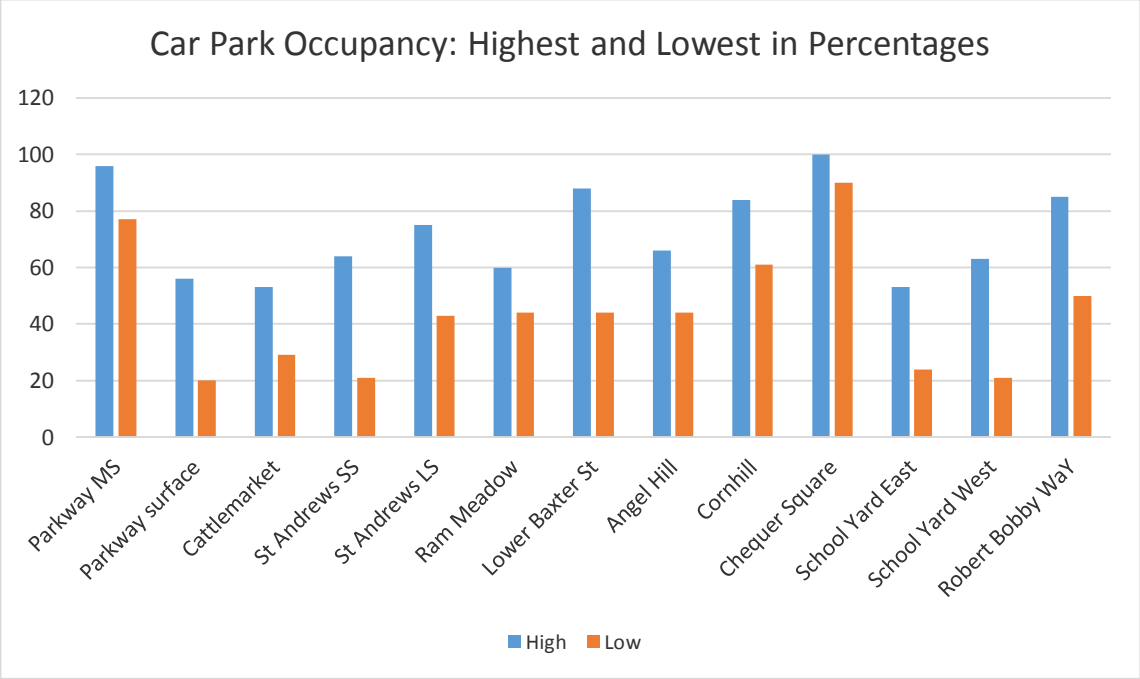
Thu 19 March 2015
Tue 24 March 2015
Wed 25 March 2015
Thu 26 March 2015
Sat 25 April 2015

The occupancy counts were carried out at intervals of:-

30 minutes	Cattlemarket
	St Andrews Long Stay
	St Andrews Short Stay
	Parkway MSCP
	Parkway Surface
1 hour	Remainder of Bury St Edmunds
2 hour	Haverhill

7.2 Survey Findings

Weekday Results



The graph shows clearly that, during the weekdays, the main car parks have appropriate occupancy well below the 95% which is usually seen as the maximum comfortable usage levels. The main exception to this is in the Parkway Multi-storey where occupancy rises to a stressed level of 96%.

Of the smaller car parks in other parts of the town, Chequer Square is already overstressed on a weekday but given its small size and vicinity to the Cathedral entrance this is not a surprise. Cornhill and Lower Baxter Street are showing good usage, but by no means are they 'stressed'.

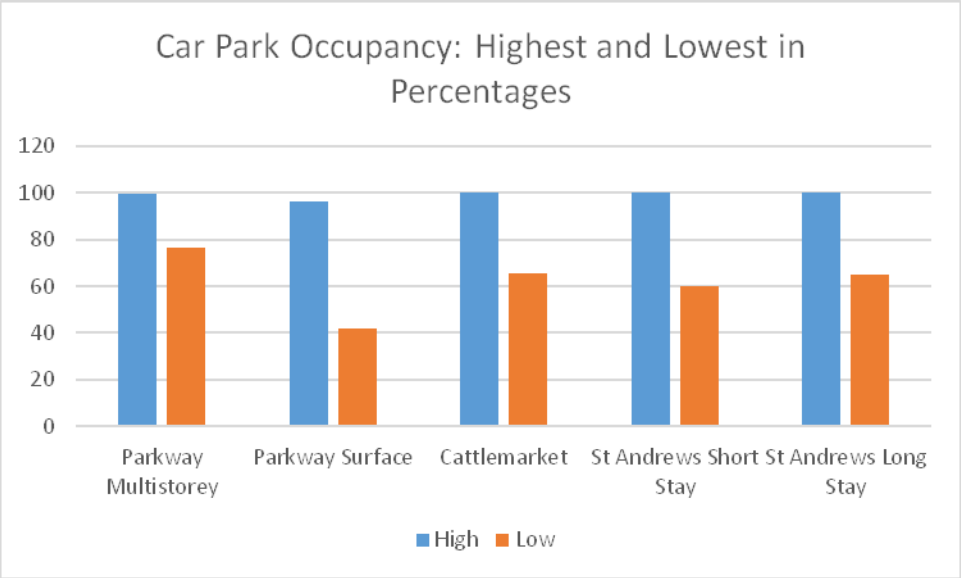
Ram Meadow, which was producing a low income per space, has low occupancy levels and, during the weekdays, there is considerable capacity as well at the large Cattlemarket site

It is interesting to note that capacity is very much at its highest towards the middle and end of the afternoon. Other towns have noticed the same profile and have employed a range of initiatives to encourage parking later in the day in all or some car parks. This can be of considerable assistance to the retail outlets and businesses in to the area. Examples are:

- Newcastle offers an “Alive after Five” option where parking is free after 17.00
- Ipswich uses a “Quids in” offer where parking is £1 after 15.00
- Chester provides “Free after three”, any car parking for more than 3 hours parks is not charged for the additional time

It is noted that Bury St Edmunds a ‘free from three’ offer on a Tuesday, occupancy on the short stay car parks at this time is at its highest level, with exception of weekends.

7.3 Saturday Results



The graph shows the level of the weekend demand with all the main central car parks either reaching or almost reaching the 100% occupancy level.

Our team noted that the high usage caused queuing both within the car parks in order to find a space and some traffic blockage at the entries to the car parks.

As will be discussed later in the report, this indicates a requirement for usage of under utilised resources and a review of any possible new car parking.

7.4 Detailed Results

As has been mentioned and is dealt with in more detail in 9.7.4, an occupancy level of 95% is considered a useful guideline for when a car park is becoming operationally stressed.

The other worksheets are forecasts for future years over the requested time periods of 3, 5, 10 and 20 years. They are based on applying TEMPRO (see later for explanation) growth factors for trip destinations in Bury St Edmunds.

There is also a worksheet for Haverhill which shows the current and future forecasts together.

In a fixed capacity destination such as a car park, results of over 100% cannot be achieved but give some indication of the demand that may transfer elsewhere, either within Bury St Edmunds or indeed another town.

7.5 BURY ST EDMUNDS

7.5.1 *Weekday*

Parkway MSCP is shown marginally exceeding the 95% guideline for occupancy levels during the lunchtime period of 12.00-14.00.

It could be considered that the predominance of what is probably all day parking (8am-6pm tickets) would mitigate this issue, with the large volumes of movements within the car park being in a single direction at peak periods.

Seven day permits are estimated to account for 16% of the car park space usage, which still leaves 84% of occupants using the P&D machines.

A survey of activity and queues at the P&D machines' 'rush hour' when the vast majority of purchases will be made might be useful. If there is widespread motorist frustration at payment delays, this may be an argument for Pay on Foot, providing it doesn't shift the queuing from the P&D machine to the entry barrier, and potentially the highway.

If growth is unchecked and the trip destination forecasts are correct (see TEMPRO below) this occupancy level will grow and spread slightly across the day until demand between 11.30 and 14.30 cannot be met by somewhere between 2020 and 2025.

There are other factors to consider,

It is likely that demand is already suppressed by the difficulty in using this car park and some long stay users who would prefer it as being closest to their destination may be using St Andrews as a 'second best', where they can more easily find space on a reliable basis, despite the higher charge.

The car park will of course be unable to accommodate this increasing demand, forcing a number to use St Andrews as an alternative, whilst the more price inflexible may use Ram Meadow to maintain their expenditure level.

St Andrews is forecast to be able to accommodate the Parkway MSCP long term overspill until beyond 2025, and if Ram Meadow is included then well beyond 2035

There is therefore no particular need to provide additional parking capacity for weekday users before 2025.

Chequer Square with its high specific demand from the Cathedral and its extremely small size is an anomaly and is not discussed here, though potential measures are dealt with later.

7.5.2 *Saturday*

This is an entirely different story with all the main car parks in the central area being well in excess of the 95% guideline for 3-4 hours during the mid-portion of the day and three of them hitting the completely full, 100% mark for upto to 1.5 hours in the late lunchtime period of the day.

The survey enumerators reported occurrence of the issues discussed in the occupancy levels section below, such as difficulty finding a space, vehicles re-circulating and exiting vehicles queuing with arriving vehicles causing severe congestion.

By 2018, it is forecast that four of the five car parks will have hit capacity for upto 3.5 hours, by 2020/2025 this has risen to 4 hours and by 2035 it is 5 hours.

As for weekdays, demand will already be supressed by the difficulty in parking. Without what many might consider a suitable alternative, the economic vibrancy of the town may have hit a peak during this Saturday period. This demand will continue to be supressed but to an increasing degree.

Based on some indicative calculations there are 300 spaces available at Ram Meadow on a Saturday, decreasing to 225 by 2035. Comparing this with the probable excess demand in the centre, if motorists are properly directed and incentivised, overall capacity might be sufficient, if congested, until after 2025.

There is already a significant shortage of capacity on a Saturday and if not addressed it is only going to get worse. It must be considered as a factor which is restraining the growth of the Town's retail and entertainment sectors.

7.5.3 *Forecast Capacity Levels*

The preparation of forecast car park capacity is not an exact science, but is dependent upon several factors outside of the control or knowledge of the forecaster. The following assumptions have been made:-

- the current demand is being satisfied ie there is no suppressed, deterred or diverted demand – this is unlikely to be the case but without extensive surveying and detailed statistical analysis this cannot begin to be determined
- that forecast trip end growth factors are correct – these are central government figures which cannot take account of changing circumstances during the period for which they were designed to be used – eg the recent reduction in fuel costs can be expected to bring overall motoring costs down, encouraging purchase and use of more vehicles, or additional use of existing vehicles, some of which will end up in Bury St. Edmunds
- forecasts can also be changed by matters such as updated/additional shopping, leisure, industrial or residential facilities.
- full use is made of the Ram Meadow capacity
- all identified demand is to be accommodated.

If operation is to be maintained at a (barely) tolerable level of service with difficult to find spaces and extensive queuing, even to leave. In this case of using Ram Meadow but with a lower quality service, it is expected there will be a shortfall of around 80 spaces by 2035

In the alternative scenario where use of Ram Meadow is not increased but the experience of visiting Bury St Edmunds car parks is made more pleasant, inviting

and more likely to result in repeat visits there is already a shortfall of 100 spaces and by 2035 this will be over 400.

7.6 Detailed figures are shown in the two tables below:-

If full use of Ram Meadow is not encouraged or imposed upon certain users then there will be a shortfall of parking spaces in the core areas as follows.

Saturday Needs in terms of Additional Spaces (Weekday can be managed for some time)	**To Accommodate Parking Motorists with full occupancy** (Congestion, Queuing)	**To Accommodate Parking Motorists with 95% occupancy** (Faster, Flowing)
2015	-	102
2018	51	149
2020	74	183
2025	155	276
2035	304	412

7.7 If full use of Ram Meadow is achieved then the shortfall of parking spaces in the core areas will reduce to following levels

Saturday Needs in terms of Additional Spaces (Weekday can be managed for some time)	**To Accommodate Parking Motorists with full occupancy** (Congestion, Queuing)	**To Accommodate Parking Motorists with 95% occupancy** (Faster, Flowing)

2015	-	-
2018	-	-
2020	-	-
2025	-	13
2035	79	187

7.8 CONCLUSION - INCREASE PARKING STOCK

The situation on a Saturday in the main car parks near the retail and entertainment centres is already severely stressed and unless use of Ram Meadow is to be increased considerably, there is already a need for additional parking capacity, especially if the operationally difficulties observed during the surveys are to be eliminated.

The Council is recommended to consider increasing the capacity of car parks immediately if a higher quality services is to be provided and it is not prepared to direct customers to a car park around 500m distance.

If these mitigation measures are adopted and the higher quality services are to be pursued, new capacity of at least 500 spaces is recommended to be in place by around 2025.

If the existing lower level of service is adopted the capacity should not be needed until 2030

The location of any new car park is obviously subject to the availability of land, but with suitable measures central or fringe locations should be equally viable.

It is beyond the scope of this report to identify potential sites for additional capacity or to give any guidance as to the likely timeframes for delivery of that capacity however we note that our research suggests that sites such as at the Arc and Wilkinsons have been considered in the past.

There is an alternative to expansion of property in terms of a Park and Ride service. It is noted that such a service does operate from Saxham Business Park over the Christmas fayre weekend in November. If this were to be operated on every Saturday it may attract sufficient users to relieve some of the pressure in the centre.

Before such a service is considered further it would be useful to interview a good proportion of current car park users to ascertain the terms under which they would use a Park and Ride if it were available. Factors such as the times of operation, frequency of service, time of transit, cost of parking, cost of transport etc. However such surveys are outside the scope of this report.

7.9 HAVERHILL

From the reviews there are no indications that any of the five car parks surveyed will become 'stressed' in the next 20 years. The nearest to doing so is at the Leisure Centre but there is more than sufficient capacity at all the other car parks to absorb any overflow, particularly on the Meadows Car Park.

The Haverhill Masterplan makes development proposals for the town, which may deliver a net loss of spaces on Ehringshausen Way Car Park. Based on the usage data, existing capacity around the town will off-set the loss of spaces from the development proposals but this will need to be closely monitored as growth plans will inevitably increase the number of car parking events over the medium term.

There is a small free car park at the Rose and Crown; from our observation this is a car park of around 43 spaces. If charges were introduced in this car park at the same tariff as other Haverhill car parks and occupancy rose to 40% for perhaps 40% of the day, there may be an annual income of around 10,000. This would have to be weighed against the cost of one P&D machine (around £5,000) and operational costs such as patrolling, maintenance and cash collection. We would suggest this would make a small return on investment.

7.9.1 *Conclusion*

No action is required in Haverhill on the basis of occupancy levels.

8. Benchmarking

8.1 Below is a summary and simplification of the Benchmarking data.

	Bury St Edmunds	**Cambridge**	**Ipswich**	**Norwich**
Times of Charging	The majority of car parks begin at 8am, a few at 9am The majority end at 6pm	Charges begin at 8, 9 or 10am according to the day of week Charges end at 5 or 7 pm largely dependent on multi-story or surface	The majority of car parks begin at 8am with one beginning at midnight The majority end at 8pm with some at 6pm	5 am to 6.30 pm
Method of Payment	All car parks use P&D, with the majority also taking telephone payments	Multi-Storey car parks use pay on foot payment machines Surface car parks use P&D	All car parks use P&D	One of the Multi-Storey car parks use uses Pay on Foot The other MSCP and all Surface car parks use P&D
Tariff Durations	One is restricted to 2 hours	Two car parks have a two hour limit	Four are restricted to 3 hours,	All P&D car parks are limited to 6 hours.

	Seven for 3 hours Five for 4 hours One for 5 hours and Three all day	One has an 8 hour limit. All other car parks provide long stay parking.	Two are restricted to 4 hours One is restricted to 5 hours There are 6 long stay car parks, One provides 24 hour paid parking	The two MSCPs allow long term
Tariff Amounts	An overall impression is of £1 hr for short stay £2.30 for 4 hrs and £2.75 for 8hrs	An overall impression is of £2 hr for short stays £8 for 4 hrs and £20 for 8 hrs	An overall impression is of £1 hr for short stays £2 for 4 hrs and £4 for 8 hrs	An overall impression is of £1.50 hr for short stays £6 for 4 hrs and £10 for 8 hrs
	There is a wide variety of charges which cannot be summarised into	The short stay car parks charge £2.10 hr and the 8hr car park £1.00 hr	There is a predominance of £1 for 1 hr £2 for 2 hr	Charges are based on hourly rates for the first three hours varying between £1.20 and £1.70.

	any form of standardised charging There is however a trend in most car parks for the rate per hour to decrease	The long stay car parks have a variety of increasing and decreasing non-linear tariffs There are different tariffs for:- - weekdays, - Saturdays (higher bar one) and - Sundays (lower than Saturdays, but sometimes higher than weekdays) Charges are considerably higher than elsewhere with the majority being at the higher end of:- - 2hrs costing £3 to £5	£3 for 3 hr £4 for 4 hr and £4.60 thereafter There is one 'premium' car park and 2 'discount' car parks Eight car parks charge only £1 if bought after 3pm. Another £1.20 after 6pm All are free after 6 or 8 pm One provides an all day discount if arriving before 8am	It is a little random thereafter with 5 car parks reaching £15 in the sixth hour whilst others have small proportional reductions from the 4th hour and beyond All car parks charge £1.80 after 6pm

		- 4hrs costing £5 to £10 - 6hrs costing £8 to £24		

8.1.1 *Times of Operation*

The Council's start time is consistent with many authorities, and not just those in the formal benchmarking. Norwich is considered a distinct outlier from the norm.

The end times are also in line with other authorities.

The survey results indicate that there is no capacity need to extend the hours of operation

8.1.2 *Method of Payment*

All benchmarked authorities use P&D in the majority of their car parks.

Both Cambridge and Norwich use Pay on Foot systems in their MSCPs with between 280 and 1084 spaces

Bury St Edmunds/Haverhill are the only one of the benchmarked authorities who use a pay by phone system.

8.1.3 *Restrictions on Length of Stay*

Bury St Edmunds and Ipswich have car parks with a range of duration restrictions which allows for the control of access and turnover.

Cambridge and Norwich have more standardised durations of all day and 6 hours respectively.

The vast majority of Cambridge parking spaces (around 2/3rds) are in the form of Park and Ride and as such have in practice an unlimited stay during the day.

8.1.4 *Tariffs*

Bury St Edmunds and Ipswich are similar with Bury St Edmunds slightly more expensive in the 4 hour period but appreciably cheaper for all day tariffs.

This leaves Bury St Edmunds some scope to increase the long stay tariffs whilst staying competitive and helping to reduce the amount of long-stay parking in the centre.

Cambridge and Norwich are considerably more expensive.

This is probably due to their wider hinterland and tourist appeal and a wider range of specialist shops where people are more likely to be on special trips for which there is a great deal of price flexibility. Cambridge, as well, is influenced by the presence of the University and linked businesses

Haverhill is comparable with nearby market towns, including Newmarket, Saffron Walden and Braintree.

8.2 DEMAND GROWTH

As was noted in the introduction there are a number of drivers which will place increasing demands on the car parks:-

Population growth
Increased housing stock,
Increasing Car ownership
Increasing centralisation of services/facilities as local services such as village shops close
Existing suppressed demand

For our forecasting we have used the The Department of Transport's Trip End Model Presentation Program or TEMPRO**.**

The factors which have been considered in the analysis are:-

Geographical area	essentially as detailed as individual towns – destinations of Bury St Edmunds and Haverhill are the definitions used in separate analyses
Mode of travel	Car driver is the selection for car park analysis
Year to Year comparison	in all cases 2015 has been used as the base year with separate reports for growth as far as 2018, 2020, 2025 and 2035

It has been assumed that growth will apply equally across car parks and across tariffs

9. Measures for Influencing Change

9.1 DIRECTION SIGNAGE TO CAR PARKS

There were comments in the focus group about motorists not being able to find the car parks, find the one most relevant to their needs or to find it through the one-way system. Improving direction signage would meet this need and facilitate using of capacity in different car parks; e.g. Ram Meadow, by encouraging movement towards these sites.

The potential range of signing methods is wide, including

- simple 'P' direction indicators
- 'P' direction indicators with additional information such as:-
  - The name of the car park
  - The size of the car park
  - The length of stay of the car park
  - The destinations served – eg
    - historic building (cathedral),
    - entertainment (cinema, Apex), or
    - shopping centre (Arc, Town Centre)
- A larger 'P' sign showing multiple car parks
- Variable Message Signing which also shows the number of spaces available at any specific time in the nearest car parks. This can be a powerful tool in redirecting vehicles to sites with available capacity

In all cases there should be follow up signs to keep the motorist going in the right and best direction.

9.2 MEANS OF PAYMENT

Pay & Display is the standard form of payment which motorists have been familiar with for probably 30 or more years. It involves motorists paying coins (or more recently cards) in exchange for a timed ticket which they display in their windscreen as proof to the parking officer that payment has been made, is for the right car park and has not expired.

It is familiar, cheap, easy to operate but does not provide change or the ability to use notes, which with rising tariffs becomes increasingly necessary. However, it does:

- need the motorist to decide in advance how much time they will need or to overpay and not use all the time purchased.
- require a level of enforcement to ensure that motorists do pay
- mean that the motorist has the appropriate cash to use the machine (assuming cards are not being used)

Pay on Foot is well established and is suitable for larger car parks with long access ways. It is more expensive per machine but fewer machines are needed along with barriers at the entrance and exit.

It involves motorists taking a timed entrance ticket which when leaving is presented to the payment machine which calculates the payment due. According to the machine specification this can be by coin, note or card and change can be given.

The motorist can stay for as long as they wish (subject to any maximum stay restrictions) and only pay for the tariff band they used. There is no need for pre-deciding the length of stay.

This system is almost self-enforcing as a vehicle cannot leave until payment has been made. Enforcement is thus reduced to yellow lines, disabled bays or poor parking for instance.

Pay by Phone (Web, App etc) is now well established and in widespread use.

It involves motorists telephoning, texting, using the internet, a smart phone app or pre-paid accounts to pay for time at a car park. The car park has a location code and having registered the system knows the primary vehicle related to a telephone number which the system recognises.

The motorist (or the Council) pay a service charge and can pay for a text reminder of when their time is about to expire. Again subject to maximum stay restrictions, time can be extended by further contact. There is no need for pre-deciding the length of stay.

Parking officers check that a current payment is valid by comparing the VRM with a 'white list' of paid for vehicles which updates in real time.

If the motorist pays the service charge this is cheaper than Pay and Display. However if the Council pays the service charge it is only cheaper in smaller car parks.

ANPR Pay by Plate is relatively new and is in limited use. It is a less mature system.

The Vehicle Registration Mark is recorded by Automatic Number Plate Recognition Technology on entry and exit.

The motorist can stay for as long as they wish (subject to any maximum stay restrictions) and only pay for the tariff band they used. There is no need for pre-deciding the length of stay.

If no payment has been made within a defined period the vehicle details can be obtained from the DVLA for payment (and a surcharge) to be pursued by post.

This enforcement after the event is more difficult and though not needing parking officers, needs a back office team to process the cases.

9.3 TRANSFER LONG STAY - SATURDAY

The central area around the The Arc, Apex Centre and entertainment complex is in very high demand on a Saturday. Long stay parking in this area is provided by the Parkway Multi-Storey and is utilised to a high degree for that purpose (37% of users are long stay and they take up 67% of the occupied time in the car park).

Though long-stay parking can be said to allow customers/visitors the opportunity to linger a while longer and perhaps take coffee or lunch in addition to an extended shopping expedition, it also provides no incentive for them to release a parking space for another customer/visitor who may spend more in their first say two hours than those in their third set of two hours.

These long stay users need to be incentivised or compulsorily transferred to other car parks, which though further away, the car-park to shops/entertainment journey is still a very short proportion of their time in the town.

St Andrews Long Stay car park does not have the capacity to accommodate additional car parking, long or short stay and as such, any effective transfer has to be out towards Ram Meadow

The proposal is therefore for a graduated set of measures moving from the centre outwards:-

9.3.1 *Parkway multi-storey*

This should be limited to a max stay of 4 hours for those arriving before 3pm, forcing long-stay visitors to park at a slightly more distant site whilst not removing the possibility of longer stays for an evening viewing at the cinema or Apex. However the 3 hr limitation would be extended to 4 hrs to make it more consistent with the other central area car parks.

As well as pushing some users to a later part of the day, some users can be encouraged to use an earlier part of the day by providing a discount for those who arrive early. This might be half price for a two hour stay starting before 9.30.

In addition there should a separate 'Saturday' tariff of:-

Up to 2 hrs	£2.00 (up from £1.50)
Up to 4 hrs	£3.00 (up from £1.80)
Over 4 hrs	£4.00 (up from £2.30)

This makes the somewhat lower charges at this car park more consistent with others in the vicinity and removes the very small extra charge for 4 hrs compared with 2 hrs, encouraging further turnover of spaces and therefore footfall on this the busiest and most overcrowded day in the car parks.

9.3.2 *St Andrews Long Stay*

Here it is suggested in addition to the all-day tariff a 4 hour tariff is introduced on a Saturday to increase turnover, but in this case no restriction be introduced on the time at which a long-stay visit may be started.

The 'Saturday' tariff would be:-

Up to 4 hrs	£3.00 (new period)
Over 4 hrs	£4.00 (up from £3.00)

This provides the potential for long stay near, but not in the centre, increases the availability of medium stay parking and provides a financial incentive to find a cheaper car park.

9.3.3 *Ram Meadow*

This car park is key to relieving the stress in the central area and should remain available to long-stay users; in fact they should be encouraged to use this car park in preference to others such as Parkway or St Andrews.

In order to accommodate the extra travel time that some may perceive to cut into their shopping, visiting or entertainment purpose it is suggested that the two shorter periods are extended from 2 hrs and 3hrs to 3 hrs and 5 hrs. This may also improve the experience of those visiting the cathedral who will feel less pressured to leave so quickly.

Though some simplification of the tariff is proposed, it is recommended that the charges are in essence reduced. This tariff would be:-

Up to 3 hrs	£1.50 (1 hour extra for no charge)
Up to 5 hrs	£2.00 (2 hours extra for 20p)
All-day	£2.50 (instead of £2.30)

This is intended to be the 'carrot' alternative to the 'stick' of the central area car parks with the purpose of attracting more users to this fringe car park thus relieving the pressure in the centre.

9.3.4 *Parkway Surface*

Though not strictly a long stay car park, it is in very close proximity with both Parkway MSCP and St Andrews. To avoid a preponderance of motorists targeting Parkway surface car park the tariffs should be made comparable with those for the shorter stays available at the long-term car parks. As such there would be a 'Saturday' tariff of:-

Up to 2 hrs	£2.00 (up from £1.50)

Up to 3 hrs	£2.50 (up from £2.00)
Up to 4 hrs	£3.00 (up from £2.20)

9.3.5 *St Andrews Short Stay*

Similarly St Andrews Short stay will become somewhat cheaper than the other central car parks and as a result could come under pressure from motorists attempting to minimise their costs. Unless measures are taken here as well a disproportionate number of vehicles could attempt to use this car park, especially at the 2 hour levels. The resultant congestion in and approaching the car park could become even more of an issue than it already is. A 'Saturday' tariff would be:-

Up to 30 mins	0.60 (no change)
Up to 2 hrs	2.00 (up 90p)
Up to 3 hrs	2.50 (up 50p)
Up to 4 hrs	3.00 (up 30p)

9.4 TRANSFER LONG STAY - WEEKDAY

9.4.1 *Parkway Multi-Storey*

This car park is the only one that is 'stressed' at this time, and only marginally and only for the lunch time period. The majority of parkers in this car park are there for long periods, whilst the other long stay car parks are around 1/3 empty.

It is likely that the relative pricing of the three long-term car parks is a major contributor to this imbalance in usage. Parkway is cheaper than the close by St Andrews by 70p per day or £154 pa less for the typical worker. Parkway is as cheap as Ram Meadow, a more distant car park. Parkway appears to be underpriced.

In partial compensation it is suggested that the middle tariff of 3 hrs for £1.80 be changed to 4 hrs for £2.00 which will also bring the car park more into line with similar car parks, though still the cheapest at this level.

The situation could go two ways –

the size and extent of this stress will increase to the point where the car park is completely full and space searching or queuing could become an

operational issue. An increase of the all day tariff to £3.00 (to match St Andrews) would seem to be a simple solution to encouraging transference to other car parks, particularly Ram Meadow. 7 day tickets would consequently need to rise to the St Andrews levels of £10.50 or £9.00 for low emission vehicles.

motorists will essentially regulate themselves and change car parks according to the relative merits of the experience in each. This may already be happening and figures of 95% occupancy could possibly be corroborating this interpretation.

It is recommended that the all day tariff and consequently the 7 day tickets are increased to £3.00 (up 70p) and 10.50 (up £1.50) with the low emission discount maintained at £1.50 off the standard price.

Alternatively the Council may wish to keep under review if self-regulation is working and delay any increase.

9.4.2 *Parkway Surface*

In order to introduce a tariff which does not encourage longer stays than necessary the weekday tariff should be changed to:-

Up to 2 hrs	1.50 (down 10p)
Up to 3 hrs	2.00 (no change)
Up to 4 hrs	2.50 (up 30p)

TRANSFER IMPACT

These changes will increase the income and the number of vehicles using the car park. This does not affect the parking stock requirements as those vehicles will be staying for a shorter period.

For instance, the forecast for Cattlemarket is that 6,500 long stay vehicles will be replaced by 15,100 short stay vehicles, but the 22,300 long-stay hours will be replaced by 23,500 short stay hours. These 1,200 additional hours represent less than one parking space which will be accommodated in the general shift of vehicles to Ram Meadow. Though 8,600 extra visitors is only 1.3% of visitors at this car park it

nevertheless contributes to an increase in visitors and customers who will be spending money in the towns various businesses.

The potential at Parkway MSCP is considerably greater at 19,000 additional visitors but is all on weekdays due to the need to reduce usage at a weekend. This also equates to nearly 10 fewer spaces helping towards the car park's efficiency.

9.5 REGULAR/FREQUENT USERS

9.5.1 *Seven Day Tickets*

An unusual feature of the Bury St Edmunds service is the availability of a seven day ticket, which accounts for nearly 300 of the vehicles parked each day during the week.

These are bought from a pay and display machine as and when a motorist requires. In this scenario of high activity machines this simple solution will be cheaper and less complicated than a pay by phone alternative or on-line solutions.

9.5.2 *Season Tickets*

Season tickets are available for Parkway MSCP and Ram Meadow. In 2014/15 there would have been an average of 212 vehicles parked each day, split almost equally between the two car parks.

These are purchased on line or at the car park office

Seven day tickets and season tickets can both be used on a Saturday, though many will not be present . However some will, perhaps the people who will be serving the shoppers. Provided the other measures are adopted to re-direct the casual long stay motorist, the use of these regular user tickets should not prove an issue for several years. It is recommended that the use of these permits and occupancy of the car parks be kept under review on an annual basis.

At some point it may be that the number of season tickets or season ticket spaces is restricted to increase the availability of space for casual visitors

9.5.3 *Other potential options for regular users*

There are perhaps two 'higher' levels of regular parking arrangement:-

Season tickets that have reserved bays in general – eg a number of bays are set aside which other motorists are not permitted to use. This can be positioned on a higher floor reducing the overall extent of movement within the car park which has safety and environmental benefits, or they can be positioned closest to the exits as an added value element. The design of the car park may dictate this choice.

Contract parking where a motorist 'buys' a space, knowing that that exact space will be available for them to use as and when they wish. This user is more likely to expect an advantageous position in the car park.

Neither of these measures are thought necessary and as such no recommendation is given for their adoption.

9.6 TARIFFS

Tariffs for the long stay car parks have been considered above in association with the need to transfer some long-stay parking out of the centre to Ram Meadow

Cattle Market is already a higher charge than any other large car park but is also packed out on a Saturday, though slightly less well used during the week. It seems this car park is the premium car park in the central area. The increased charges at the long stay car parks are still cheaper though it is hoped the movement from these will open up space for vehicles to move into the slightly cheaper car parks and thus reduce the pressure here.

9.7 EXCESS CHARGE NOTICE ISSUE RATES

The issue of ECNs is the means by which the Council provides a disincentive to motorists inclined to ignore or disregard the regulations for usage of the car parks. They are issued for matters such as:-

Failure to display a parking ticket or permit

Display of an expired parking ticket or permit

Incorrectly parked in a Blue Badge bay, on double yellow lines or outside the bay markings

Though a survey of offences has not been carried out the level of ECN issue appears extremely low for such a large estate of parking spaces. It would be considered normal for a single full time parking officer. However a single officer would not be able to cover each car park even once per day, where a typical patrol rate would be of the order of 3 or 4 visits per day, especially on a Saturday in Bury St Edmunds.

It is also surprising that car parks as large as Parkway MSCP, Parkway Surface and Ram Meadow would frequently have monthly ECN issue levels in single figures, especially in December.

The interpretation is that additional enforcement would be a sensible investment in terms of proper operation of the car parks and in terms of net income. The cost of issuing and processing the existing ECNs would be more than met by the income received, though at some point the costs will outweigh the income due to improvement in compliance reducing the efficiency of the parking officers as a result of their effectiveness.

As long as the prime driver for an enforcement operation is to deal with motorists failing to pay or compromising the safety, operation and priorities given to Blue Badge holders there is no issue with income from this source growing.

9.7.1 *Charging Options*

Increase in income does not always come from an increase in tariffs.

Motorists can always decide to use alternative cheaper car parks or to go somewhere else entirely. Thus a lower activity can diminish or even outweigh the effects of the higher charges. This might be a desirable outcome if the objective is to reduce over-crowding, congestion and dissatisfaction with the service.

The converse is also true in that reduced charges can stimulate extra usage of a car park which outweighs the lower income per vehicle. This might also be a win for local traders whose footfall and custom is improved.

Charges can also be varied according to the type of user. Reductions might apply to the disabled, those using low emission vehicles or particular interest groups, eg cathedral visitors

9.7.2 *Incentives*

These can be used to 'control' or 'direct' how motorists use the car park. There are various ways of encouraging a temporal spread of activity at entrances, exits and within the car park.

These might be to reduce the charge for people arriving before the morning rush hour, eg an 'early bird' before 8am or those leaving after the evening rush hour, eg a late stayer after 7pm. Along the same theme a rush hour premium might be charged for entry between 8 and 9.30 or departure between 4.30 and 6. An early bird or morning rush hour premium can be provided using P&D or Pay by Phone, but a late stayer or evening rush hour premium would need PoF/ANPR.

9.7.3 *Special Bays*

Everyone is familiar with bays reserved for the disabled with a Blue Badge which is easy to identify.

Parent and Child bays are more specialised in that they are usually identified with large attractions such as supermarkets. They are more difficult to operate successfully as there is no definitive way of controlling their use or providing evidence of a contravention and as such can be abused.

Other special interest groups such as visitors to the cathedral are more difficult again. In the context of Chequer Square and the Cathedral entrance there have been several thoughts but none stands out as a particularly viable solution. Able-bodied visitors can use Ram Meadow but how many disabled bays should be provided, if any? Too few and there could be disappointment, too many and there is an impact on others nearby. Should there be some form of refund for cathedral visitors presenting a copy of their P&D ticket, but how is this administered, who pays for it and how would the charges need adjusting to ensure some availability of space.

9.7.4 *Ideal Occupancy levels for a Car Park*

It might seem that the ideal would be for a car park to be entirely full. However this does have its problems, especially in car parks where access is unlimited such as P&D car parks. These include:-

Vehicles circulating the car park trying to find a vacant space. This is alright until several vehicles are circulating, perhaps getting in each other's way.

Vehicles try to exit who get caught up in the circulating traffic. Exiting vehicles cannot get past waiting vehicles and a queue forms of mixed traffic.

A queue also forms at the entrance, conflicting with already circulating vehicles.

In short, vehicle flow is compromised and eventually there is gridlock.

Long established wisdom is that a car park where occupancy is around 95% is going to run more efficiently and turnover of spaces is considerably improved, thus achieving more parking acts, more revenue and more satisfaction, leading to repeat visits in the future.

Barrier controlled car parks can have vehicle counters on the in and out barriers to establish the availability of space and therefore control entry and occupancy

For information, the corresponding figure for visitor parking on highways is 85% due to need to avoid holding up traffic trying to move through the street rather than stop in it.

9.7.5 *Vehicle Type*

Some types of vehicles can be given an advantage in terms of access, price or convenience. Or alternatively prevented from using certain car parks or spaces

For example really small vehicles can be allowed into spaces unsuitable for standard/large vehicles. They could also be given a price reduction.

Low emission vehicles can also be given price reductions and/or could be given the spaces nearest to an entrance where more pedestrians may pass or congregate, thus reducing the harmful effects on them of vehicles in general.

Coaches/Minibuses may be restricted to certain areas, or central drop off points provided before they park more remotely.

Larger vehicles have difficulty in fitting parking bays designed for vehicles 20 or 30 years ago. 4x4s are often presented as the ultimate excess, but executive or even modern standard cars are considerably larger than their predecessors and can have a larger footprint, even though they are not as tall. Perhaps there is a need for larger bays, but preventing smaller vehicles using them might be problematical.

9.7.6 *User Type*

There is an ever present question as to who is the customer of a car park or who should be the customer.

There are a number of categories people (and car parks) are put into:-

Tourists – these are usually one-off visitors who probably know where they want to be but do not know where it is, where they are or how to get from one to the other. They need car parks close to their chosen attraction (so as to not get lost on foot), which are identified as being associated with that attraction and which have direction signing from their likely point of entry to the town.

Regular visitors – these might be more local with perhaps relatives in the town or who come for a treat such as entertainment, restaurants, non-standard shops or as tourists for an hour or two. These people will know where they want to go but might not be over familiar with the town and may need signage to help/remind them of where they need to go.

Shopper – these are generally people who know the town pretty well and know where they want to go, know how to get there, know the alternatives and will follow their preferences for which car park they want to use.

Local Worker – these are people who are employed in the town, will have researched their car parking (or other travel) options and will know exactly how to get to where they wish to park, along with alternative routes and car parks.

Commuter – these are workers who are employed outside the town and need to connect with another form of transport, usually a train, but occasionally coach or bus. They will know where they want to be, but may not have as many alternatives as the local worker

Direction of different types of users to particular car parks can be manipulated by means of time restrictions and tariffs to try and manage availability and efficiency of parking spaces in the places particular people need them.

9.7.7 *Alternative Transport Modes*

There are alternatives to each individual driving to their destination and sometimes parking operations can help to move people to other modes of transport or travel:-

Car sharing is a means of reducing parking demand and pollution. It does however require sharing individuals to have very similar destinations, very similar travel times and a level of consistency to avoid the arrangement falling back into separate journeys.

Park and Ride will enable vehicles to be parked in car parks with probably a large capacity and high availability of spaces. To be successful the service needs to be frequent, quick and reliable with enough drop off/pick up spots to be convenient for destinations without being slowed down by stopping too frequently.

Public Transport buses will be unattractive without frequent services (perhaps half hourly and no more than hourly) that run early and late. (perhaps starting at 6am and finishing at 10pm or later). This is costly and without a sufficient potential customer base in a suitably dense population area is unlikely to be provided without at least an initial subsidy (seed money)

Rail travel in St Edmundsbury is somewhat limited in terms of access, ie only one railway station, which is a little way from the main central attractions and therefore unlikely to form any real contribution to modal transfer.

These will only be realistic if the persons experience of the town is not diminished as a result, and given the nature of Bury St Edmunds and its catchment area the car is going to remain king

9.8 PAY ON EXIT/FOOT (PoF) or ANPR PAY BY PLATE

The Phase 1 report indicated that PoF and/or ANPR Pay by Plate were technically viable alternatives at many of the St Edmundsbury car parks.

9.8.1 *Pay on Foot*

In order of the most viable they are:-

Bury St Edmunds

Parkway MSCP	low impact on highway
Cattlemarket	medium impact on highway
Parkway Surface	low impact on highway
St Andrews	medium impact on highway
Ram Meadow	low impact on highway

Haverhill

Ehringshausen	low impact on highway
Lower Down St	low impact on highway

Despite having a medium impact on the highway with 10 queuing spaces compared with others with low impact The Cattle Market was identified in the report as the most suitable due to its location, ease of access and proximity to the various amenities in town.

It was estimated to cost around £105,000 initially and £8,000 pa thereafter, based upon 3 multi-format payment options with change-giving payment machines and 3 card only payment machines, one of each co-located at 3 payment stations.

This includes some one-off costs such as central control hardware/software (£12,000) that would not be needed or would be somewhat cheaper if multiple car parks were chosen for implementation.

This car park may be a risk due to the impact on traffic flow if queues develop at the entrance to the car park. This is likely to be especially the case on Saturdays when pressure for spaces in the Cattlemarket is especially strong

An alternative is to choose one of the large but somewhat smaller car parks, with a lower potential impact on the highway and implement a Pay on Foot approach. This would enable experience on the approach to be gained without affecting such a large car park or the highway, provide comparison data and to inform a financial decision perhaps one year later and accustom both the public and the Council staff to the approach.

9.8.2 *ANPR Pay by Plate*

In addition to car parks identified as PoF suitable, ANPR could be used at Robert Boby and Haverhill Leisure Centre and all would have a low impact on the highway.

The system is relatively new and still has some reliability issues, particularly with reading/identifying the VRM which compromises the system. Motorists may misunderstand the system as well as the potential for easy abuse of the system by those claiming to be unfamiliar with the method or its application in the town in question.

The estimate for the Cattle Market using the ANPR method was £85,000 initially and £9,000 pa thereafter. Again there are some one off payments – but in this case they are only £2,500

The report recommended that ANPR is not yet sufficiently mature a system and should not be considered at this time. This is also the view of Alpha Parking and we are very aware that use of ANPR would not be acceptable if enforcement is carried out under the Traffic Management Act 2004 (TMA) the Act which would be enforced through decriminalisation. While we appreciate that the Borough does not enforce under the TMA at the present it would not be financially sensible to make this investment if a conversion is likely in the short to medium term. Indeed, with the current public discussions of the issue we suspect that any attempt to enforce using ANPR could be very controversial. As a result, we have not considered this further in this report.

9.8.3 *Pay and Display in conjunction with Pay by Phone*

The option of continuing with the existing system of Pay and Display and Pay by Phone should not be eliminated. The benefit of extendable stay is available via Pay by Phone whilst Pay and Display is significantly cheaper to install and can utilise existing locations.

Flexibility of has been core priority from user and feedback from stakeholders. We would recommend the upgrade of machines to credit card readers and contactless payment.

9.8.4 *Practical considerations*

There are however a number of financial, operational and perception factors that need to be considered.

Factor	Pay and Display	Pay on Foot/Exit	Pay by Phone
Cost of Installation	Requirements are for:- Machines Extras – VRM key pads - card readers Solar or Mains power GPRS/3G or fixed line comms Ground Works Signage This is a medium cost solution	Requirements are for:- Machines/Barriers Includes:- - card readers - change giving Mains Power Fixed line or GPRS/3G comms Ground Works Signage This is a higher cost option	The only requirement is for some signage, potentially using existing poles This is by far the cheapest option, with the supplier often offering to include this as part of the service.
Cost of Operation	Display Tickets and re-stocking Cash Collection Repair/Maintenance The cash collection involve a larger number of collections but of smaller amounts	Entry/Exit tickets (re-usable may be available) and re-stocking Cash Collection Change coin re-stocking Repair/Maintenance Collections will be less frequent but of larger amounts.	Fee per transaction – can be paid by:- - motorist - council - combination Potentially zero cost to council but additional cost to motorist
Staffing	Limited staffing needs to respond to	Staff are required on-site during all	No operational staffing

	machine fault codes – they can be centrally located, remote or mobile (re-acting to monitoring system 'calls')	opening hours to deal with issues such as motorist difficulties, lost tickets and system failures	needs
Operational Considerations	Financially viable for any size car park Access requirements do not have a particular impact	In practice 200 or more spaces are needed to justify this approach 2 entry lanes and 2 exit lanes or more are needed – queuing at entry and exit need to be considered/avoided. Due to the barrier and motorist interaction, entry/exit flow is reduced by around 40%	Any size car park Access requirements do not have a particular impact
Enforcement	Parking Officers are required to enforce against non-paying motorists as well as those on yellow lines, not within the markings or in reserved bays.	Payment requirements are essentially self-enforcing as those not paying will not be allowed to exit. Parking Officers are only required to enforce against the	Parking Officers are required to enforce against non-paying motorists as well as those on yellow lines, not within the markings or in reserved bays.

		yellow line, out of bay and reserved bay contraventions. These are by far the lower number of cases. Perhaps 1/10th of the Parking Officers	
Customer experience	Motorists are really familiar with this method of payment However the motorist must define the period of stay before they leave their vehicle, thus creating stress or early departure. Basic machines take only coin, Card can be added, but no change can be given	Motorists are familiar with this method of payment Motorists can take as long as they wish without fear of a penalty. (subject to any maximum period) Machines take coin, note and card as well as giving change.	Motorists are familiar with this method of payment Motorists define the period of stay prior to leaving their vehicle but if delayed or wish to, they can extend the stay (up to the maximum period) Payment is made by card which is registered the first time the system is used. Motorists can select to receive a test message when their payment is about to expire.

The PoF system is much more widely known and the public are more familiar with its operation, knowing they have to pay before they can leave.

PAY ON FOOT FINANCIAL CONSIDERATIONS

The forecast costs to introduce PoF at each of the recommended sites, based on the figures and structure in the previous 'technical' report are as follows:-

Car Park	Estimated cost of introducing Pay on Foot (£)	Estimated cost of Maintenance (£pa)
Parkway MSCP	78,000	6.000
Cattlemarket	105,000	8,000
Parkway Surface	78,000	6,000
St Andrews (SS)	78,000	6,000
Ram Meadow	93,000	7,000
Total for All Car Parks	432,000	33,000

It is not suggested that all car parks are re-equipped immediately but that some phased approach is taken, which must consider financial, practical and operational factors. Various matters are considered below and will focus on three car parks being implemented at the same time, in particular, Parkway surface, Parkway MSCP and Cattlemarket.

We have used estimated figures provided by St Edmundsbury Council for operating the PoF car parks.

Staffing Levels

These might be as much as £60,000pa for a single car park. However, this might reduce to £37,800 if more car parks were converted as daytime patrol duties could then be reduced.

ECN income loss

There is also concern about the potential loss of Excess Charge Notice (ECN) income.

ECN income from the three car parks is currently:-

Parkway Surface	£3,760
Parkway MSCP	£3,870
Cattlemarket	£28,310
Total	£35,940

A very efficient organisation operating in car parks might incur costs of around £12,000 to issue and process the ECNs making the net income around £24,000. Accepting that not all ECNs are related to payment the loss of income might be estimated as around £15,000 in total for the three car parks.

Maintenance and Cash Collection

The P&D machines are of an age where they will need replacement in the not too distant future. If we considered the three car parks for PoF, 25 P&D machines would not need to be replaced, a saving of between £100k and £125k.

Reduced maintenance/repair costs of P&D machines can offset some of the PoF maintenance costs.

A P&D machine can cost around £125pa to maintain and £750pa for cash collection.(£2.50*300 box pulls) Considering there are 25 P&D machines in the three car parks in question this amounts to a maintenance fee of nearly £22,000pa.

In these car parks the PoF maintenance is estimated at £20,000 and though the cash collection costs are not known, the reduced number of machines, larger capacity hoppers and greater use of electronic payment should reduce the number and hopefully the cost of cash collection.

Additional Income

The other policy and tariff matters suggested within this report is forecast to generate an additional £364,000 pa which should be considered as a general fund to be utilised as part of an overall strategy.

Financial Summary

For these three car parks the calculations become:-

Capital Introduction Costs

+ £261,000 for the PoF equipment and installation

+ £12,000 central control system

- £100,000 unspent P&D replacement costs

Net Additional Cost of PoF introduction is £173,000

Revenue Cost Changes

+£37,800 Additional Staffing costs

+£15,000 Lost ECN income

+£20,000 PoF Maintenance

+£15,000 PoF cash collection (This would need verifying)

-£22,000 P&D maintenance and cash collection

Net Additional Cost of PoF operation is £65,800 pa

Therefore in Year 1

+£364,000 Additional Income

-£65,800 Operational Cost

-£173,000 PoF Introduction

Net Additional Income of £125,200

In year 2 the other Bury St Edmunds sites could be implemented and maybe in year 3 the Haverhill sites which are suitable. In all cases an additional income could be maintained from the revised charges and arrangements.

9.9 RECOMMENDATIONS

INCREASE CAPACITY

Additional capacity is needed now if the various long stay, short stay balance and tariff measures are not to be adopted.

If these mitigation measures are adopted and the higher quality service is to be pursued, new capacity of at least 500 spaces is recommended to be in place by around 2025.

If lower standards are acceptable to the Council this capacity is not required until 2030.

It is also recommended that the Council carry out a search for land which may be appropriate to relieve pressure in the vicinity of the Cathedral and Shire Hall.

9.10 CAR PARK OPERATION

The Council should consider installing Pay on Foot in three car parks, Parkway Surface, Parkway MSCP and the Cattle Market initially. After 12 months the Council should carry out an evaluation of the operation with a view to expanding Pay on Foot to additional car parks if the funding and operational costs are justified.

Introduction of card and contactless payment machines, to improve flexibility of payment.

9.11 TRANSFER LONG STAY - SATURDAY

9.11.1 *Parkway multi-storey*

New measures are recommended for introduction to prolong the sensible operation of the central area car parks. These measures are:-

limit the max stay to 4 hours for those arriving before 3pm,

extend the 3 hr limitation to 4 hrs to achieve the above.

provide a discount for arriving before 9.30am. It is suggested that half price for a two hour stay would be a possiblity.

introduce a separate ‘Saturday’ tariff of:-

Up to 2 hrs	£1.00 (new tariff)	purchased before 9.30am only

Up to 2 hrs	£2.00 (up from £1.50)
Up to 4 hrs	£3.00 (up from £1.80)
Over 4 hrs	£4.00 (up from £2.30) purchased after 2.00pm only

9.11.2 *St Andrews Long Stay*

The recommendations for this car park are to:-

Introduce a 4 hour tariff on Saturday to increase availability and flexibility.

Introduce a separate 'Saturday' tariff of:-

Up to 4 hrs	£3.00 (new period)
Over 4 hrs	£4.00 (up from £3.00)

This provides the potential for long stay near, but not in the centre, increases the availability of medium stay parking and provides a financial incentive to find a cheaper car park.

9.11.3 *Cattlemarket*

The recommendations for this car park are to incease the medium and long term stay tariffs such that it becomes the following throughout the week. This will assist in moving some vehicles from this extremely popular car park to some that are less so.

Up to 2 hrs	£2.00 (no change)
Up to 3 hrs	£3.00 (no change)
Up to 4 hrs	£4.00 (up from £3.50)
Up to 5 hrs	£4.50 (up from £4.00)

9.11.4 *Ram Meadow*

The recommendations are to:-

extend the two shorter tariff periods so that 2 hrs becomes 3hrs to 3 hrs becomes 5 hrs.

introduce a new tariff (all week) which would be:-

Up to 3 hrs	£1.50 (1 hour extra for no charge)

Up to 5 hrs	£2.00 (2 hours extra for 20p)
All-day	£2.50 (instead of £2.30)

This is intended to be the 'carrot' alternative to the 'stick' of the central area car parks with the purpose of attracting more users to this fringe car park thus relieving the pressure in the centre.

9.12 TRANSFER LONG STAY - WEEKDAY

9.12.1 *Parkway Multi-Storey*

It is recommended to increase the all day tariff to £3.00. Alternatively, whilst motorists appear to be self-regulating their use of this car park the situation could be kept under review.

9.12.2 *Ram Meadow* – see above

9.13 REGULAR/FREQUENT USERS

Seven Day Tickets and Season Tickets

Provided the other measures are adopted to re-direct the casual long stay motorist, the use of these regular user tickets should not prove an issue for several years. It is recommended that the use of these permits and occupancy of the car parks be kept under review on an annual basis.

Reserved Season Ticket holder spaces or Contract Parking are not considered necessary at this time. Should occupancy of both Parkway MSCP and St Andrews become close to 95% then this may be reconsidered, though this is not forecast to happen for upto 20 years.

9.14 Footnotes

[1] St Edmundsbury Core Strategy – local development framework - Dec 2010

[2] Forest Heath and St Edmundsbury councils, West Suffolk working together – website 2014 – basic demographics page

[3] Dept. for Transport – Road Transport Forecasts 2011

[4] Suffolk Traffic Monitoring Report for 2008

[5] St Edmundsbury Retail Appraisal – Jan 2012