MOTT MACDONALD

Cheshire West and Chester Parking Strategy

Action Plan and Impact Assessment - Chester

20 November 2017

Cheshire West and Chester Council

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Contents

1 Introduction

1.1 Document Context

Mott MacDonald has been commissioned by Cheshire West & Chester Council (CWaC) to undertake the Cheshire West & Chester Parking Study. The primary aim of this study is to:

> Carry out a review of all parking-related matters in Cheshire West and Chester to identify options and recommend future actions that are consistent with the corporate and sub-regional strategies and policies alongside future development and regeneration proposals.

Based on an extensive data collection and stakeholder consultation exercise, a Strategy Report was produced in 2016 which contained time-bound strategy recommendations for the following centres:

- Chester
- Ellesmere Port
- Northwich
- Winsford
- Neston and Parkgate
- Helsby
- Frodsham
- Rural areas (including Tarporley and Malpas etc).

The strategy was then subject to widespread public consultation, after which the recommendations were adopted by the Council, subject to pre-implementation Action Plans being prepared for each centre. These include Impact Assessments for any notable parking measures being proposed. The purpose of the Impact Assessments is to assess the potential economic, social, environmental and equality impacts of these measures, and to identify suitable mitigation where appropriate.

The purpose of this document is to present the Impact Assessment for Chester.

1.2 Document Structure

This Impact Assessment document is structured as follows:

- Section 2 defines the specific measures proposed for Chester in terms of on-street and off-street car parking tariff changes, potential maximum length of stay limits, and quality improvements at car parks
- Section 3 then describes the likely impact that these measures will have based on our analysis. This is separated into 3 sections:
  - Economic Impacts – mainly associated with tariff changes
  - Social and Environmental Impacts – mainly associated with potential displacement of car parking together with mitigating measures and the impact on air quality
  - Equality Analysis – mainly associated with varying impacts on protected user groups within the city
- Section 4 then provides a summary of the findings and recommendations from the Action Plan and presents a commentary on next steps to implementation

2 Definition of Proposed Parking Measures

2.1 Introduction

The purpose of this section is to provide some definition to the parking measures proposed for Chester by the Parking Strategy.

2.2 Impact Assessment Scope

The scope of the Impact Assessment for Chester is to assess the impacts and any potential mitigation required for the following measures proposed by the Parking Strategy:

1. Revision of existing off-street parking tariffs (including replacement of 'free after 3' with alternative targeted regimes, discounts and offers) to better harmonise and simplify tariffs across car parks and to better match demand to available supply throughout the day
2. Introduction of on-street charging in three locations in the city centre (City Road, Brook Street, Foregate Street) in order to better manage demand in these locations, and create a harmony with the off-street charging regime to better facilitate the aims and objectives of the wider strategy
3. Implementation of maximum stay limit at Sandy Lane car park to better manage demand at this facility
4. Implementation of a programme of car park quality review/improvement, including better compliance with standards associated with the provision of disabled bays

Further definition for each of these measures is provided in the following subsections.

It should be noted that the impact assessment does not take account of proposed special parking offers that will be introduced in addition to the core offer described here. In particular, it is proposed to introduce a 'Spend & Save' scheme in which local businesses may sign up to pay a proportion of customer's parking charges in recognition of their custom, seasonal offers in which discounted or derestricted parking may be offered at certain times of the year as a promotional campaign, and a trial of free Park & Ride travel after 2pm on certain days during the week.

2.3 Off-Street Charging Measures

2.3.1 Scope of Car Parks

The following table lists the Council owned car parks in Chester for which tariff change measures are proposed.

Table 1: Council-owned car park where measures proposed

Ref	Name	Current Control	Capacity
PU06	Cuppin Street	Charging	21
PU07	Delamere	Charging (incl FA3)	348
PU09	Garden Lane	Charging	112
PU10	Little Roodee	Charging	415
PU11	Market	Charging (incl FA3)	638
PU12	Brook Street	Charging (incl FA3)	130
PU13	Trinity	Charging	148
PU14	Watergate	Charging	127
PU16	Bishop Street	No control	83

Source: MM

2.3.2 Current Tariffs and Usage

The following chart shows the current tariff structures for the above car parks.

Figure 1: Existing tariff structures

	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours	8 hours
Trinity	£2	£4.90	£7.40	£11.70	£11.70	£11.70	£11.70	£11.70
Market	£3.70	£3.70	£4.60	£4.60	£5.60	£5.60	£8.80	£8.80
Cuppin Street & Delamere	£4	£4	£4.90	£4.90	£5.90	£5.90	£7.80	£7.80
Little Roodee & Watergate	£4	£4	£4	£5	£5	£5	£5.80	£5.80
Garden Lane	£1.20	£3.90	£4	£5	£5	£5	£5.80	£5.80
Brook Street	£1.80	£2	£4	£5	£5	£5	£5.80	£5.80
Bishop Street	£0	£0	£0	£0	£0	£0	£0	£0

Source: MM

This chart shows a lack of tariff harmonisation across car parks. Most car parks, except for Bishop Street and Trinity, offer a similar level of charging, but only Little Roodee and Watergate, and Delamere and Cuppin Street offer the exact same tariffs. One objective of the tariff review is therefore to reduce the number of different tariffs across the Council's car parks in Chester and to increase the simplicity of the offer.

Length of stay surveys were carried out at these car parks between 8am and 8pm on a school term-time weekday and Saturday in September and October 2016. The following tables show for a weekday and Saturday:

- The average car park occupancy across each survey period
- The maximum car park occupancy achieved during the survey period
- The average length-of-stay per vehicle
- Tariff change recommendations

Table 2: Existing car park usage and tariff recommendations – Weekday

Ref	Name	Car Park Occupancy		Avg Length of Stay (hrs)	Tariff Recommendation
		Avg	Max		
PU06	Cuppin Street	69%	90%	2.4	Tariff required to suit short stay market
PU07	Delamere	26%	41%	2.3	Recommend cheaper short stay to replace FA3
PU09	Garden Lane	39%	62%	4.9	Tariff required to suit multiple user types
PU10	Little Roodee	52%	86%	4.3	Recommend flat rate to suit longer stay market
PU11	Market	43%	60%	2.9	Recommend cheaper short stay to replace FA3
PU12	Brook Street	30%	44%	2.7	Recommend cheaper tariff to replace FA3
PU13	Trinity	32%	61%	1.9	Tariff required to suit short stay market
PU14	Watergate	42%	72%	4.1	Recommend flat rate to suit longer stay market
PU16	Bishop Street	88%	102%	4.5	Recommend short-stay biased charging to release capacity for shoppers

Source: Survey, 2016

Table 3: Existing car park usage and tariff recommendations – Saturday

Ref	Name	Car Park Occupancy		Avg Length of Stay (hrs)	Tariff Recommendation
		Avg	Max		
PU06	Cuppin Street	62%	90%	2.9	Tariff required to suit short stay market
PU07	Delamere	48%	95%	3.1	Recommend cheaper short stay to replace FA3
PU09	Garden Lane	36%	78%	3.5	Tariff required to suit multiple user types
PU10	Little Roodee	44%	85%	3.3	Recommend flat rate to suit longer stay market
PU11	Market	60%	92%	2.9	Recommend cheaper short stay to replace FA3
PU12	Brook Street	50%	84%	2.7	Recommend cheaper tariff to replace FA3
PU13	Trinity	37%	76%	1.8	Tariff required to suit short stay market
PU14	Watergate	46%	87%	3.1	Recommend flat rate to suit longer stay market
PU16	Bishop Street	80%	99%	4.3	Recommend longer stay charging and length of stay restriction to release capacity for short stay shoppers

Source: Survey, 2016

These recommendations can be summarised as the following aims to be met by the proposed tariff changes:

1. To create greater user differentiation between car park types, so that usage best suits the location and offer of each car park
2. To reduce the number of different tariffs to increase user understanding of the overall offer available
3. To replace the existing ‘Free After 3’ incentive with tariffs which better distribute demand across the day

2.3.3 Proposed Tariffs and Usage

In order to address the above recommendations and aims, the following chart shows the proposed tariffs for the above car parks. For reference, these tariffs are shown contrasted with the relevant existing tariffs in Appendix A, so that the tariff change per car park can be directly assessed.

All of the proposed tariffs should be kept under continuous review to ensure that they deliver (and continue to deliver) the required strategy objectives.

Figure 2: Proposed tariff structures

	1	2	3	4	5	6	7	8
Trinity & Cuppin Street	£3	£4.50	£6	£6	£8	£8	£10	£10
Market & Delamere	£2.50	£3	£3.50	£4	£4.50	£5	£5.50	£6
Little Roodee & Watergate	£5	£5	£5	£5	£5	£5	£5	£5
Garden Lane & Brook Street	£1	£2	£3	£4	£4	£4	£5	£5
Bishop Street	£0.50	£0.50	£1	£1				

Source: MM

Taking into account Figure 1 above, the rationale for each tariff change is as described in the following table.

Table 4: Tariff change rationale

Car Parks	Tariff Type	Rationale
Trinity and Cuppin Street	'City Shopper' tariff	• Stays of up to an hour have been made cheaper for Cuppin Street and longer stays more expensive to encourage use of this car park as a short-stay shopper-biased facility • The same tariff is proposed for Trinity, both to harmonise with Cuppin Street and to bring down the existing tariff level to increase usage of this car park
Market and Delamere	'City Visitor' tariff	• To replace the 'Free After 3' offer at these two car parks, the proposed tariff is cheaper for all durations than the current tariff. This will encourage increased use across the full day, longer stays and avoid increasing traffic levels in the evening peak
Little Roodee and Watergate	'Long-Stay' tariff	• A flat rate tariff is proposed for these two edge of city centre car parks to encourage longer stay use
Garden Lane and Brook Street	'Multi-User' tariff	• A cheaper tariff is proposed for these two car parks to appeal to the range of usage types served in these locations, to increase overall usage and, in the case of Brook Street, to replace the 'Free After 3' offer
Bishop Street	'Local Shopper' tariff	• This car park is currently over-subscribed, where much of the capacity is occupied by long-stay parking which limits capacity for short-stay shopper parking. It is proposed to introduce a maximum-stay restriction of four hours in order to reserve parking in this strategic location for local shoppers and support the district centre of Hoole. To mitigate against the potential displacement of long-stay demand to neighbouring streets, it is proposed to reserve the nearby Walker Street car park for long-stay use by local businesses via a permit scheme.

Source: MM

The predicted effect of these proposed tariffs on the usage of each car park is summarised for a weekday and Saturday in the following two tables. A description of the methodology applied to derive these results is attached in Appendix B.

Table 5: Predicted car park usage and change from existing – Weekday

Ref	Name	Avg Occupancy		Max Occupancy		Avg Length of Stay (hrs)	
		Predicted	Abs Change	Predicted	Abs Change	Predicted	% Change
PU06	Cuppin Street	70%	1%	87%	-3%	2.3	-8%
PU07	Delamere	26%	0%	43%	2%	2.3	3%
PU09	Garden Lane	43%	4%	68%	6%	5.0	11%
PU10	Little Roodee	54%	2%	88%	2%	4.4	14%
PU11	Market	42%	-2%	60%	0%	2.9	-3%
PU12	Brook Street	28%	-2%	39%	-5%	2.7	0%
PU13	Trinity	33%	1%	62%	2%	1.9	8%
PU14	Watergate	44%	2%	74%	2%	4.2	16%
PU16	Bishop Street	24%*	-65%	32%	-71%	1.9	-258%

Source: MM calculation

Table 6: Predicted car park usage and change from existing – Saturday

	Name	Avg Occupancy		Max Occupancy		Avg Length of Stay (hrs)	
		Predicted	Abs Change	Predicted	Abs Change	Predicted	% Change
PU06	Cuppin Street	61%	-1%	86%	-4%	2.7	-14%
PU07	Delamere	47%	-1%	97%	2%	3.1	-1%
PU09	Garden Lane	38%	3%	83%	6%	3.5	4%
PU10	Little Roodee	43%	0%	84%	-1%	3.3	4%
PU11	Market	56%	-4%	90%	-3%	2.8	-5%
PU12	Brook Street	42%	-7%	65%	-19%	2.5	-14%
PU13	Trinity	38%	1%	77%	2%	1.8	6%
PU14	Watergate	46%	-1%	86%	-2%	3.2	4%
PU16	Bishop Street	22%*	-58%	33%	-65%	1.9	-236%

Source: MM calculation

* Note that these average occupancy figures do not account for additional (currently suppressed) short-stay demand that is predicted to use Bishop Street car park following the changes proposed.

A commentary on these results for each car park is provided in the following table.

Table 7: Commentary on predicted responses to tariff changes

Ref	Car Park	Commentary on Predicted Responses
PU06	Cuppin Street	As defined above, the aim of the proposed tariff for Cuppin Street is to prioritise capacity for short-stay shopper-related uses, and it can be seen from the decrease in the average length of stay on both days that the tariff is predicted to have this effect. Shortening the average stay in a car park tends to reduce the maximum occupancy level, which is what is also predicted here. However, the forecast level is still near capacity, while the average occupancy for the car park remains largely unchanged.
PU07	Delamere	The results for Delamere show that replacing the FA3 offer with a tariff that is cheaper all day is predicted to maintain existing demand levels. On a weekday, the proposed tariff is predicted to increase stay lengths and the maximum occupancy level of the car park, which suggests a greater spreading of the demand across the day. On a Saturday, the existing high level of usage is maintained.

Ref	Car Park	Commentary on Predicted Responses
PU09	Garden Lane	The cheaper tariff at this car park is effective in increasing occupancy levels across both days. The car park can effectively absorb longer stay demand from more expensive nearby car parks thereby ensuring no net loss to Chester City Centre.
PU10	Little Roodee	As defined above, the aim of the proposed tariff for Little Roodee is to increase its use as a long-stay facility, and it can be seen from the increase in the average length of stay on both days that the tariff is predicted to have this effect. It is also predicted to increase overall occupancy on a weekday, and to maintain existing levels on a Saturday. A 24 hour tariff to cater for coaches, camper vans and lorries is likely also to be required at Little Roodee.
PU11	Market	The results for the Market car park show that replacing the FA3 offer with a tariff that is cheaper all day maintains existing maximum occupancy levels on a weekday. Some reduction in this level is seen on a Saturday, but a high utilisation of 90% is nonetheless predicted. The tariff is also predicted to shorten average lengths of stay, suggesting greater shopper use. This, in turn, has a small impact on average utilisation levels throughout the day, as less long stay parking takes up capacity.
PU12	Brook Street	Replacing the FA3 offer for this car park with a cheaper overall tariff shows average occupancy levels which are largely unchanged from existing but a maximum occupancy level which is lower, which suggests that demand is being more evenly spread across the day.
PU13	Trinity	The results for Trinity show that reducing the tariff overall to harmonise with Cuppin Street achieves the above stated aims of increasing usage of this currently under-used car park. The results also show an increase in the average length of stay in this car park, but the actual predicted level is still the shortest average stay of all the car parks listed, showing that it will continue in its short-stay shopper-biased function.
PU14	Watergate	As for Little Roodee, the aim of the proposed tariff for Watergate is to increase its use as a long-stay facility, and it can be seen from the increase in the average length of stay on both days that the tariff is predicted to have this effect. It is also predicted to increase overall occupancy on a weekday, and to maintain existing levels on a Saturday.
PU16	Bishop Street	As defined above, the aim of introducing a tariff to this car park is to reduce long-stay parking levels in order to release more capacity for short-stay shopper parking. It can be seen from the average length of stay results that this aim is predicted to be achieved, while the occupancy results show that capacity to accommodate any currently suppressed short-stay demand is released on both days. In reality, it would be expected that much of the released capacity would be refilled with short-stay parking which currently parks in the surrounding area or which may be suppressed at present due to lack of available space..

Source: MM

2.3.4 Evening and Weekend Tariffs

The Strategy Report further recommended the provision of evening and weekend tariffs in selected car parks in Chester in order to stimulate the overnight and long-stay mini-break markets. Our analysis of impact has focussed on a central core case (that of a weekday and Saturday daytime) and hence no work has been undertaken to examine the impact of these, but it should be noted that the tariffs will be targeted at providing convenient discounted parking at times not covered by the standard day time tariff and may therefore be assumed to be cheaper than the corresponding day time charges. As an example, an evening and overnight tariff for the Market car park could be equivalent to the day time hourly tariff but with a capped maximum applied of 75% of the maximum equivalent daytime stay. Therefore, for cars arriving after 6pm, the following tariff could apply:

- Up to one hour - £2.50;
- Up to two hours - £3;
- Up to three hours - £3.50; and
- Over three hours and overnight (to 10am the following day) - £4.

An all-weekend tariff would need to cover the period 6pm (on Friday evening) to 10am (on Monday morning). It is suggested that the tariff for this period should be treated like a car park season ticket, allowing multiple uses of a specific (or even several car parks), over the duration of the ticket. In the case of the Market, a season ticket costs around £125 per month. This is equivalent to approximately £4 per day. It is therefore

proposed that a weekend ticket (valid for parking anytime between 6pm on Friday to 10am on Monday (2.5 days) should cost £10 (available after 6pm only).

In addition, and notwithstanding the above, it is recommended that Little Roodee has a tariff covering 24 hours (with an associated maximum stay) as this will cater for the non-standard long stay demand at the car park (namely coaches, camper vans and lorry parking which often stay overnight). It is proposed that the 24hr tariff for Little Roodee should be as follows:

- Up to 12 hours - £5;
- Over 12 hours up to a maximum stay of 24 hours - £8.

This is a recognition of the lower demand observed in the evening and night time hours and the correspondingly lower requirement for demand management. It is further proposed that the coach parking tariff, which is tailored towards the specific coach market requirements remain at current levels for the time being since this has proved successful at delivering the aspirations of the coach strategy.

2.3.5 Season Tickets

Season tickets are currently available for car parks in Chester. In the case of Market car park, the season tickets for five or seven days parking are currently priced so as to provide a substantial discount over the turn-up fare. Following the changes described in this document, it is proposed that season ticket prices will also change. The price for these tickets at car parks, including Market, will be reviewed with a revised level of discount so as to ensure a sustainable pricing policy that offers high value for money to the customer.

2.3.6 Northgate Construction Period

Whilst the focus of this Action Plan and Impact Assessment is on a core charging scenario, it should be noted that there will be periods over the coming years in which non-standard charging regimes are required to be considered to cater for unusual or anomalous conditions. A significant period of this is anticipated during construction of the Northgate mixed-use development when parking conditions in the city will change substantially. Based on the exact phasing of these works, and the associated closure of Market and Trinity Street car parks, temporary demand management tariffs may be required to ensure adequate space and efficient turnover is available.

2.3.7 Conclusions

Overall, therefore, it is concluded that the proposed tariff changes achieve the above aims of the Parking Strategy to:

1. Create greater user differentiation between car park types, so that usage best suits the location and offer of each car park
2. Reduce the number of different tariffs to increase user understanding of the overall offer available
3. Replace the existing ‘Free After 3’ incentive with tariffs which better distribute demand across the day

The tariff changes discussed are proposed to be rolled out over the course of the first quarter of 2018.

The potential economic, social, environmental and equality impacts of these changes are considered in the Section 3 below.

2.4 On-Street Charging Measures

2.4.1 Streets in which On-Street Charging is proposed

The Parking Strategy suggests three on-street parking locations within Chester City Centre in which it is proposed to commence on-street charging. These are shown in the following table:

Table 8: Proposed On-Street Charging Locations

Name	Current Control	Capacity
City Road (incl adj Cornerhouse)	Limited Waiting	90
Foregate Street	Limited Waiting	10
Brook Street	Limited Waiting	27

Source: MM

In common with all on-street parking in Cheshire West and Chester at present, parking at these locations is currently free of charge. Limited Waiting restrictions do currently apply at all three locations between 8am and 6pm with City Road and Brook Street offering one hour free parking, and Foregate Street offering 30 minutes.

It is proposed to introduce charging in these three locations for the following key reasons:

- To better manage demand at several on-street locations of high demand to ensure a regular turnover of users accessing local shops and businesses;
- To reduce the current discrepancy between off-street and on-street charging regimes to ensure a unified charging strategy across the city centre;
- To avoid displacement of parking from nearby car parks to free on-street locations to avoid charging.

2.4.2 Proposed Tariffs and Maximum Length of Stay

Given the location of Brook Street on-street parking bays near to the existing Brook Street off-street car park, it is recommended that charges per hour in this location be harmonised with proposed charges for the car park. This would imply a tariff of £1 per hour for the first few hours of stay. It is, however, considered desirable to retain a maximum length of stay to encourage a high turnover of users to better service the local shops and businesses. At present, the maximum length of stay is set at one hour in this location, and it is recommended that this be maintained so as to continue to prioritise high turnover retail-related parking. The proposed tariff is therefore a flat rate of £1 for stays up to one hour. To restrict the ability for vehicles to simply move into an adjacent space after one hour, it is proposed that the existing condition of 'No Return within one hour' be retained.

For similar reasons, given its location on a retail dominated street, it is proposed that the same tariff and length of stay restrictions should apply to Foregate Street. This represents an increase in the maximum length of stay in this location from 30 minutes to one hour. This is seen as a trade-off between the introduction of charges (which may reduce demand in this location slightly) and increasing lengths of stay (possibly stimulating slightly longer stay demand). The 'No Return within 1 hour' condition is also proposed to apply here.

On City Road (including the southern section adjacent to the Cornerhouse business), it is considered that the nature of businesses and properties may require a longer maximum stay limit, and it is therefore proposed to increase the maximum stay to two hours. A linear hourly rate of £1 per hour would apply in this location to reflect the longer length of stay. A 'No Return within 2 hours' condition is further proposed to apply to prevent vehicles from moving into an adjacent space after the maximum time expires.

At present, the limited waiting restrictions in all three locations apply until 6pm. It is proposed to maintain this condition so that parking length of stay would remain unlimited after 6pm. It is, however proposed to introduce a small flat rate charge of £1 for all vehicles arriving between 6pm and 9pm (albeit with an unlimited maximum stay until the start of restrictions the next day). It is noted that Residential Parking Zones (RPZs) near the three on-street charging locations may need to be amended to extend until 9pm if parking is displaced onto these streets after 6pm. It is recommended that this be monitored over a period of up to 12 months after implementation to determine if it is necessary.

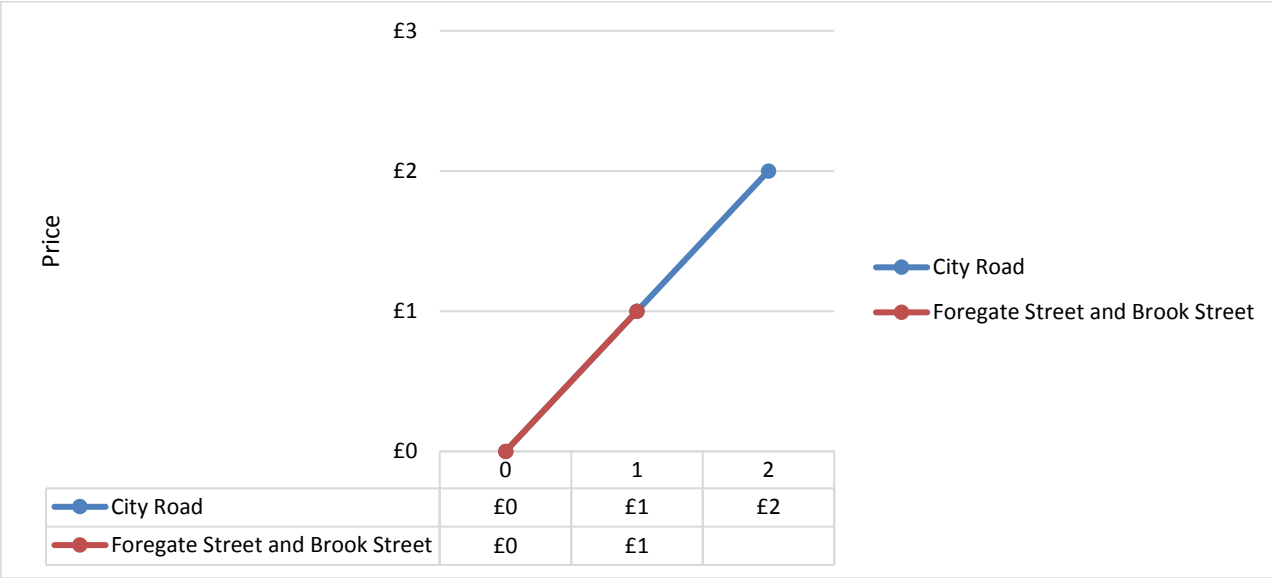
The tariff proposed for the three on-street charging locations is therefore summarised in the following table and shown in the following graph:

Table 9: Proposed On-Street Tariffs and Length of Stay Restrictions

Name	Proposed Tariff and Restrictions	Capacity
City Road (incl adj Cornerhouse)	Arrivals before 6pm: £1 per hour to a maximum stay of two hours Arrivals between 6pm and 9pm: £1 flat rate After 9pm: Free	90
Foregate Street	Arrivals before 6pm: £1 for a maximum of one hour Arrivals between 6pm and 9pm: £1 flat rate After 9pm: Free	10
Brook Street	Arrivals before 6pm: £1 for a maximum of one hour Arrivals between 6pm and 9pm: £1 flat rate After 9pm: Free	27

Source: MM

Figure 3: Proposed tariff structures for on-street charging (before 6pm)



Source: MM

Given the slight variations in the nature of businesses and use of parking spaces in each of these three on-street locations, it is recommended that the charging regime in each location be kept under review. This could lead to differential pricing regimes for each location at some time in the future. Furthermore, it may be necessary to roll this charging regime out to other on-street locations with high levels of demand at a time in the future, and it is further recommended that this be kept under review and implemented based on need and the desire to satisfy the three main points of rationale noted previously. Section 3.3 looks in more detail at potential displacement of parking as a result of introducing these charges.

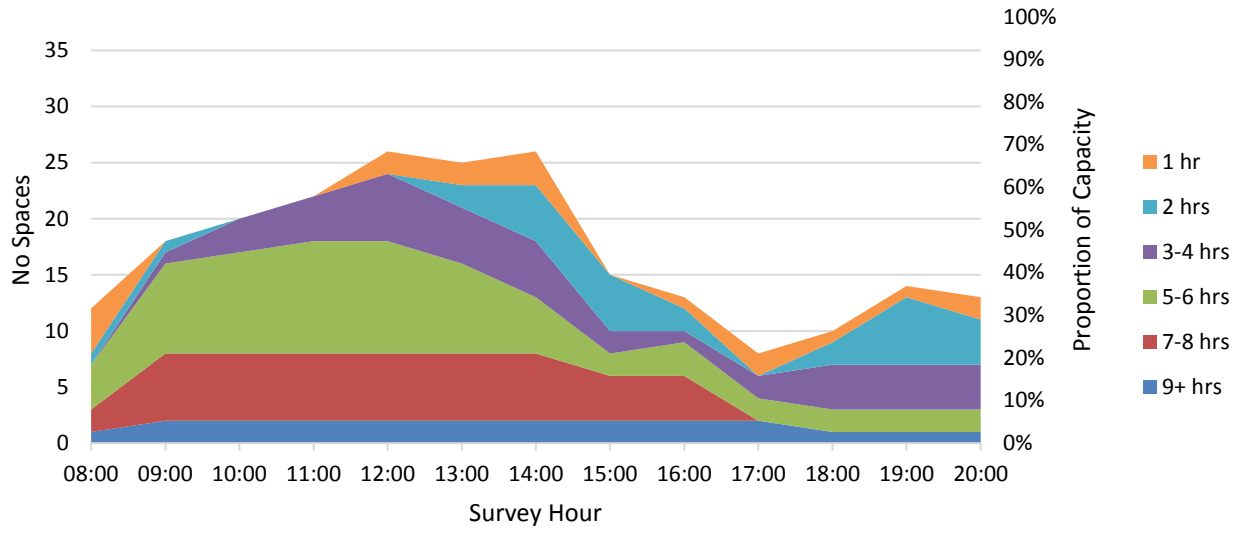
The tariff changes discussed are proposed to be rolled out over the course of the first quarter of 2018.

2.5 Sandy Lane Car Park Maximum Stay Limit

Currently there is no maximum stay restriction applied to users of Sandy Lane car park. The Cheshire West and Chester Parking Strategy recommended that the option to introduce these to better manage demand and reduce the usage of this important leisure car park by long-stay users be kept under review for potential

future implementation. As shown by duration of stay surveys and illustrated in the following graphs, there is a significant proportion of the car park's demand that is long stay in nature and therefore not appropriate for this riverside location.

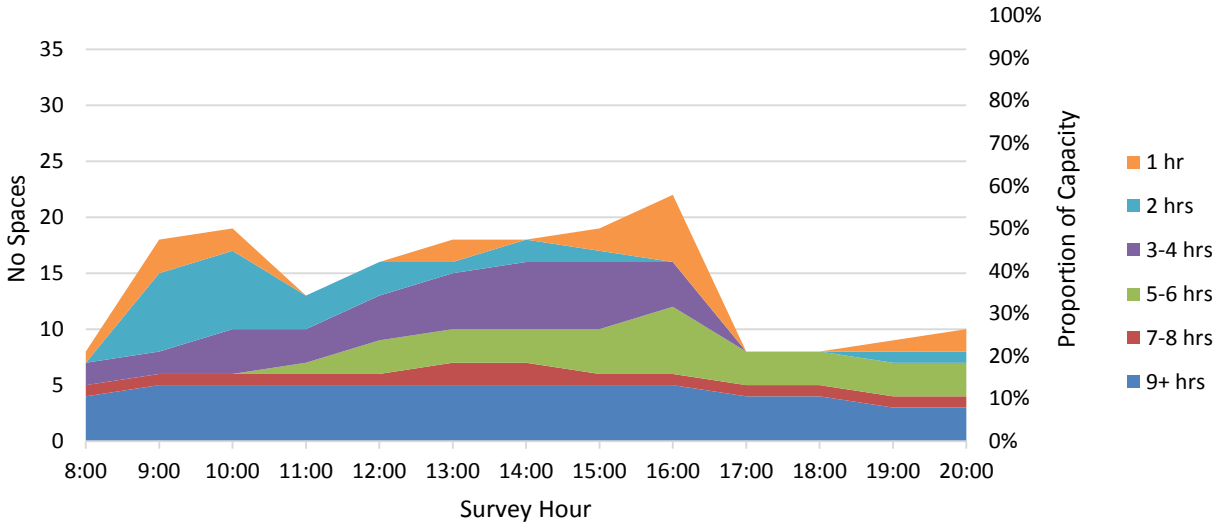
Figure 4: Observed Length of Stay Breakdown at Sandy Lane - Weekday



Source: MM survey

See Appendix D for the data table on which this is based.

Figure 5: Observed Length of Stay Breakdown at Sandy Lane - Saturday



Source: MM survey

See Appendix D for the data table on which this is based.

Since the publication of the strategy, available capacity at Sandy Lane has been observed to become further stretched with further development at Saighton Camp. There is evidence to suggest that the car park is

being used by some as a long stay commuter car park reducing the available space for shorter stay leisure users. In turn, this has led to an increase in parking in nearby streets.

It is therefore proposed that a maximum stay limit of four hours be applied to the 38 spaces at Sandy Lane and, to prevent displacement of long-stay parking onto adjacent streets at Dee Lane and Grosvenor Terrace, that the 40 bays on these streets also be restricted to four hours maximum stay. These restrictions should be valid between 8am and 6pm Monday to Saturday and include a 'No Return within 2 hours' notice to prevent vehicles from swapping spaces after four hours. This restriction will be especially useful for short-stayers on days during which there are events being held on or around the river.

It is important to note that Sandy Lane car park also has the only launch ramps for the river for some distance in either direction. With limited waiting restrictions proposed to be added to Sandy Lane, consideration will need to be given to special events and the provision of permits for boat owners and launch users that need to launch their boats from the car park. These permits are envisaged to provide special dispensation for longer stays.

Finally, if length of stay restrictions are found to be unsuccessful at meeting the objectives for the location, charging may be considered as a potential future measure, however a solid evidence base that this represents the best solution would first be required.

2.6 Car Park Quality Improvements

One element of the Cheshire West and Chester Parking Strategy is to improve the quality of car parks across the borough. This section sets out the specific improvements which should be undertaken at each car park in Chester, listed in order of priority. All car parks would benefit from real time information on spaces available on variable message signs on the key roads into the city centre. Where signage is available at present, there is inconsistency on the information provided. Improvements in internal signage refers to information boards within car parks which display information on maximum length of stay and tariffs. Improvements to bay markings includes remarking of disabled bays so that they align with the national guidelines on size and space between bays.

It should be noted that the surveys on which the following recommendations are based were undertaken in Spring 2016.

A number of car parks in Chester have had their payment infrastructure upgraded to include an ANPR-based (Advanced Number Plate Recognition) barriered pay on foot system with pay by card options available. It is recommended that car parks which have not had their payment infrastructure upgraded should have this implemented as part of the car park quality improvements.

Next to each car park is a red / amber / green mark to indicate the priority of carrying out quality improvements at car parks. Poor quality car parks are given a high priority score and should be improved sooner than better quality car parks.

It is proposed that these improvements will start to be rolled out incrementally from January 2018.

Trinity St – High (Red)

Trinity Street car park was the only publicly owned car park in Chester to be awarded a score of very poor for quality. Elements which require improvement, in prioritised order, are:

1. Surfacing, bay markings and layout
2. Lighting
3. CCTV (Closed Circuit Television)

Walker Street – High (Red)

At present, Walker Street car park is of a poor standard. The following improvements have been identified at the car park:

1. Surfacing and bay markings
2. Internal signage
3. Lighting
4. CCTV

Christleton Road – High (Red)

This car park was given a score of poor for quality. Elements requiring improvement in order of priority are:

1. CCTV
2. Lighting
3. Surfacing, bay markings and layout

Market – Medium (Amber)

To raise the standard of Market car park to a high quality, it requires the following improvements:

1. Surfacing, bay markings and layout
2. Lighting
3. Internal signage
4. CCTV

Cuppin St – Medium (Amber)

Cuppin Street car park was given a score of average for quality. Elements requiring improvement in order of priority are:

1. CCTV
2. Lighting
3. Surfacing, bay markings and layout
4. Internal signage

Frodsham St – Medium (Amber)

Frodsham Street is an average quality car park, which is specifically used for Blue Badge Holders and contract parking. For this reason, users would benefit from, in prioritised order:

1. CCTV
2. Lighting

Hamilton Place – Medium (Amber)

At present Brook Street is an average quality car park; to raise the standard to good, it requires improvements to:

1. CCTV
2. Lighting
3. Surfacing, bay markings and layout
4. Internal signage

Wrexham Road Park & Ride Car Park – Medium (Amber)

Wrexham Road Park & Ride site is of average quality. The following improvements are recommended to bring it up to a good standard:

1. Surfacing and bay markings.

In addition to the universal improvements mentioned above, a number of further improvements are suggested for all Park and Ride sites. These include improved CCTV and a general improvement to the amount and function of facilities.

Garden Lane – Low (Green)

Garden Lane is good quality, meaning no significant quality improvements are necessary. However, the car park would benefit from:

1. CCTV

Little Roodee – Low (Green)

Little Roodee is of very good quality, so no major improvements are needed. However, there is scope for the following to be improved:

1. Surfacing, bay markings and layout

Brook St – Low (Green)

Brook St is a good quality car park; it would benefit from improvements to:

1. Surfacing, bay markings and layout
2. Lighting

Watergate – Low (Green)

Watergate car park is of good quality; the following are identified as areas for improvement:

1. Surfacing, bay markings and layout

Bishop St – Low (Green)

At present Bishop St is a good quality car park. However, it would benefit from:

1. CCTV
2. Surfacing, bay markings and layout
3. Lighting
4. Internal signage

Sandy Lane – Low (Green)

To bring it up to a good standard, Sandy Lane car park requires the following improvements:

1. Lighting
2. CCTV
3. Internal signage

Tariffs are not proposed at Sandy Lane car park for the time being, but for usage of the car park to be monitored over a period of time. If it were to be decided that tariffs are required at Sandy Lane, either all the time or at selected times, payment machines and potentially entry/exit barriers would be needed.

Boughton Heath Park & Ride Car Park – Low (Green)

Boughton Heath Park & Ride car park is of good quality, however in addition to the universal improvements mentioned above, a number of improvements are suggested for all Park and Ride sites. These include improved CCTV and a general improvement to the amount and function of facilities.

Sealand Road Park & Ride Car Park – Low (Green)

Sealand Road Car Park requires improvements to:

1. Surfacing and bay markings

In addition to the universal improvements mentioned above, a number of further improvements are suggested for all Park and Ride sites. These include improved CCTV and a general improvement to the amount and function of facilities

Upton Park & Ride Car Park – Low (Green)

No particular improvements have been identified at Upton Park & Ride site, however in addition to the universal improvements mentioned above, a number of improvements are suggested for all Park and Ride sites. These include improved CCTV and a general improvement to the amount and function of facilities.

Delamere St – Low (Green)

No improvements required.

3 Parking Measures Impact Assessment

3.1 Introduction

The purpose of this section is to present an assessment of the potential impacts of the parking measures proposed for Chester and to identify appropriate mitigation where required.

3.2 Economic Impact Assessment

It is often a concern of town centre retailers that any perceived increase in town centre parking restrictions will have a negative impact on trade. The purpose of this economic impact assessment section is to identify whether such concerns are valid for the above proposed parking measures and, if so, what mitigation measures are needed.

3.2.1 Rationale for Measures

Firstly, it is important to note that the rationale behind the introduction of the measures proposed by the Parking Strategy for Chester is to better manage demand to suit the particular demands of the city centre. A brief summary of the rationale behind the measures is as follows:

Table 10: Summary of parking measure rationale

Measure	Rationale	Intended Impact on Trade
Off-street car park tariff changes	To encourage short-stay shopper-type parking in central car parks and longer-stay commuter-type parking in outer car parks to prioritise central capacity for retail-related uses	Positive
Introduction of on-street parking charges	Selective introduction of charging is proposed to improve user compliance with existing short-stay maximum-stay restrictions	Positive
Potential introduction of length-of-stay restriction at Sandy Lane car park	To prioritise capacity for short-stay visitors to riverside	Neutral
Car park quality improvements	To increase attractiveness of existing car park stock	Positive

Source: MM

When implemented in accordance with the outcome of the assessments in this section, these measures should therefore have a positive impact on the functioning of the city centre and hence on trade. These measures are also consistent with the role of a city centre which are employment and commercial hubs as well as retail centres.

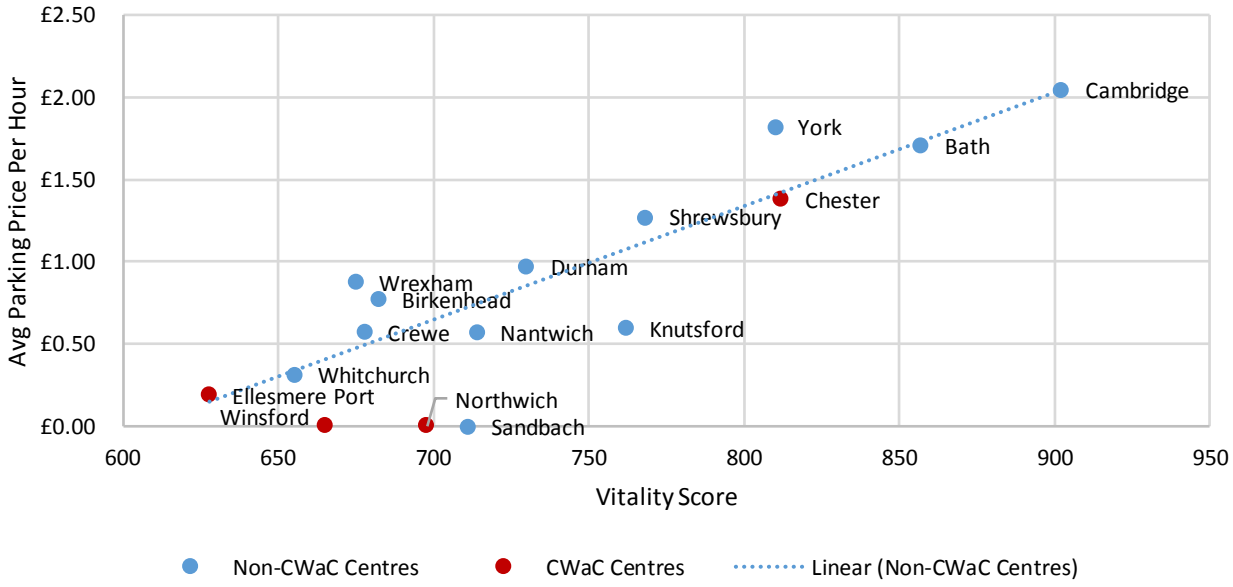
3.2.2 Proportionality of Measures

Current research suggests no evidence of a detailed quantifiable relationship between parking charges and footfall in a retail centre, as footfall is dependent on a much larger range of factors than just parking. It is not therefore possible to directly equate the above tariff change proposals to any potential impact on footfall in Chester.

However, empirical evidence does suggest that retail centres which are more attractive to shoppers and visitors are more likely to require higher parking charges to manage demand than centres which are less attractive. The following chart confirms this by comparing, for a range of centres comparable to CWaC centres, average parking prices per hour (measured across the first six hours) and retail centre vitality scores. The vitality scores are as issued by Harper Dennis Hobbs (HDH – a retail property advisory consultancy) and apply to 1,000 retail centres in the UK in 2017, taking into account a large range of factors

that reflect economic health, including retail spend, population catchment size, retail vacancy rates etc. The average parking prices are calculated from Parkopedia.

Figure 6: Average parking price vs retail centre vitality score



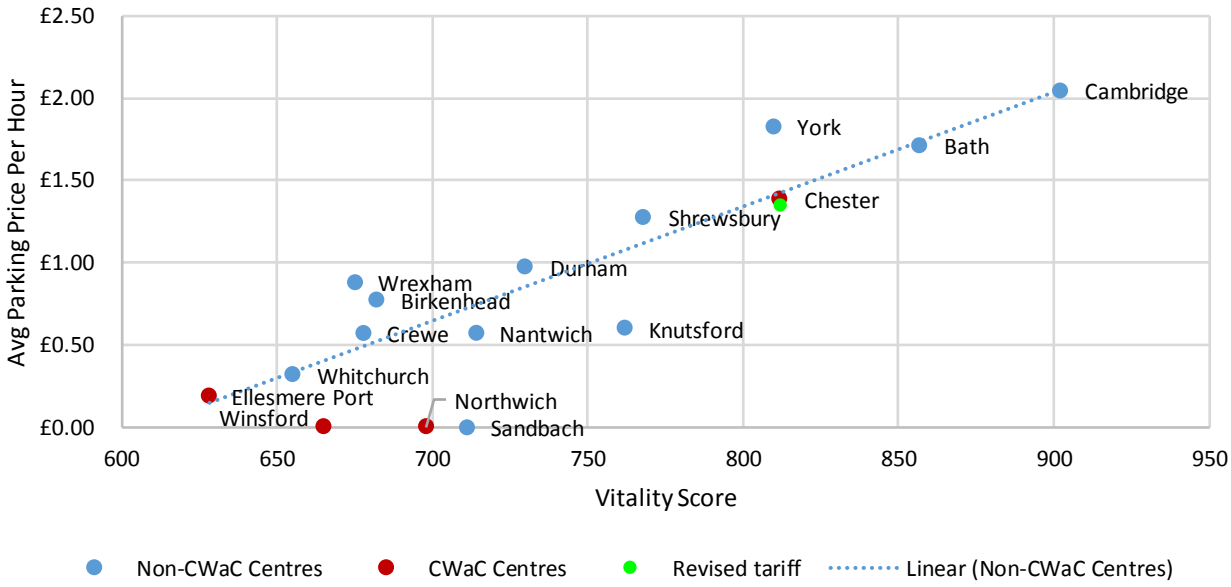
Source: Data from Parkopedia and Harper Dennis Hobbs

See Appendix D for the data table on which this is based.

This chart shows quite a strong relationship between parking price and vitality score between the comparable centres shown. It also shows that the current average parking price across all car parks (private and Council owned) for Chester is just below the average for a city of its level of vitality. The average price shown is £1.38 per hour.

Following the above proposed off-street car park tariff changes, the average price per hour (measured across the first six hours) for all car parks in Chester city centre is predicted to drop to £1.35. The following chart shows the position of this predicted new average price in green.

Figure 7: Average parking price vs retail centre vitality score – Chester revised tariff



Source: Data from Parkopedia and Harper Dennis Hobbs

See Appendix D for the data table on which this is based.

This chart shows that the revised tariff proposals for Chester do not exceed the average value for a city of its vitality level, and that the average tariff level actually reduces.

3.2.3 Assessment Conclusion

Based on a review of the rationale behind the measures proposed by the Parking Strategy for Chester, which is to positively impact the economy of Chester, and a review of the existing and proposed average parking tariff level in Chester against comparable towns, which shows favourable results, it is concluded that the proposed parking measures will not have a negative economic impact on the city, and should instead generate positive effects.

3.3 Social and Environmental Impact Assessment

The primary social and environmental impacts associated with the changes proposed for parking in Chester are related to any displacement effects as a result of changes, particularly in relation to tariffs. The following sub-sections take each car park, for which changes are proposed, in turn and note the potential impacts of any traffic displaced on adjacent streets and car parks. It assesses, in each case, the severity of any impact and also notes any potential mitigation measures that may help to reduce the severity of this. It should be noted that this analysis does not take into account the impact of additional parking offers proposed for the City Centre such as Shop & Save (the reimbursement scheme which allows local business to reward customers by contributing to the cost of their parking).

3.3.1 Bishop Street

At present the Bishop St car park is free and has no maximum stay restriction. In order to prioritise local shoppers and reduce all day parking by commuters, the new tariff is proposed to be 50p for the first two hours and then £1 for up to four hours, which is the new proposed maximum length of stay.

Based on modelled elasticities, the number of displaced vehicles has been estimated at between 40 and 70 cars per hour between 9am and 6pm on a weekday, falling to around 30 per hour between 5-9pm. A similar level of displacement is forecast on a Saturday, with 40 to 70 cars being displaced per hour between 8am and 5pm. Between 5pm and 9pm the number of vehicles expected to be displaced is around 30 per hour. The majority of displaced parking is forecast to be long stay users, which aligns with the aim of making Bishop Street a short stay car par to prioritise local shoppers and support Hoole district centre.

To cater for some of the displaced long stay users, and to mitigate against potential use of inappropriate on-street space on nearby residential streets, Walker Street is proposed to be allocated for business permit holders only, with permits available to local business to provide to their staff. Walker Street will therefore absorb some of the displaced demand to supplement the existing private non-residential parking offer in Hoole. It is likely that some users of Bishop Street currently use it as a free car park on the edge of the city centre, walking the remaining distance to the rail station or retail core. By placing a maximum stay of 4 hours and a charge on Bishop Street, it will encourage more appropriate usage of rail station and city centre parking provision.

There is likely to be some increased risk of long-stay demand displacing onto surrounding residential streets in the Hoole area, which are already busy with residential vehicles. There are some limited waiting bays with maximum stay restriction of 30 to 60 minutes, serving the retail precinct on Faulkner Street and Charles Street. The short stay nature of these will prevent long stay users displacing on to the streets immediately surrounding Bishop Street.

To the south of Bishop Street car park is a terraced residential area, centred around the streets of Lightfoot Street / Philip Street / Faulkner Street, where there are no restrictions on parking. There is potential for some displacement to spill onto these residential streets, which are already busy, which may cause issues for local residents. It is recommended that the situation is monitored initially for a period of up to one year, to ascertain whether further restrictions are required to manage the situation. If there is a significant displacement of vehicles, a Residents Parking Zone for the area could be considered, if this met with the approval of local residents.

Potential Daytime Displacement: Up to 70 vehicles

Potential Mitigation Measure: Walker Street car park proposed to be permit holders only for local businesses and potential Residents Parking Zone on surrounding residential streets.

3.3.2 Brook Street

The forecast displacement from Brook St is most pronounced after 3pm, when the cessation of the FA3 policy will be most felt. Prior to 3pm, a very small attraction of cars is forecast, with 1-2 more cars per hour expected on a weekday as a result of a cheaper tariff. On a Saturday, the pattern and increased number of cars are the same.

After 3pm, a small displacement is observed. On a weekday, the number of cars displaced is very low, with a maximum of seven cars, thereby generating minimal impacts. On a Saturday, the peak displacement is a bit higher, with a peak of 15-25 cars per hour between 3pm and 7pm. It is likely that alternative, cheaper car parks will be able to absorb any displaced demand from Brook Street. There is a recognised risk of vehicles displacing on to unsuitable residential streets nearby, such as Black Diamond and Talbot Streets. To prevent this, a Residential Parking Zone (RPZ) could be considered; it is understood that an RPZ is already under consideration in this area.

Potential Daytime Displacement: Some expected after 3pm but can be catered for in alternative cheaper car parks

Potential Mitigation Measure: Consider potential RPZ covering Black Diamond Street, Talbot Street and adjacent streets should a need for this become evident.

3.3.3 Cuppin Street

Despite the tariff at Cuppin Street increasing by around £2, the low capacity of this car park implies that the levels of displacement on both a weekday and Saturday is minimal, with a maximum of two cars displaced in any hour. As a result, and due to the existence of restrictions on adjacent streets, it is not expected that there will be any negative impacts from displaced parking.

Potential Daytime Displacement: Minimal

Potential Mitigation Measure: None required

3.3.4 Delamere

The tariff at Delamere is proposed to change to £2.50 for one hour, rising by 50p per hour after this up to £7 for stays over nine hours. This represents a drop in tariffs for all stay lengths compared to the existing full tariff. The removal of the Free after 3pm policy is likely to generate a very low level of displacement during weekday afternoons, with a maximum of seven cars being displaced in any hour. This is not considered high enough to warrant any significant concerns.

On a Saturday, this figure is higher with a maximum displacement of 21 cars at 5-6pm. The largest displacement is in the short stay users who may be able to final alternative provision in limited waiting bays nearby (e.g. on Gorse Stacks). In general, however streets are unsuitable for on-street parking around Delamere Street car park with many restrictions and challenging geometry, therefore it is more likely that these users will relocate to alternative cheaper facilities such as Garden Lane or Brook Street at which there is ample space for them to be accommodated.

Potential Daytime Displacement: Up to 21 on a Saturday afternoon.

Potential Mitigation Measure: May be catered for in alternative car parks and on-street locations - none required.

3.3.5 Garden Lane

Garden Lane has been designated as an edge of city centre, mixed use car park and a cheaper tariff will be implemented to support this. As a result, Garden Lane is forecast to attract demand throughout the day on both a weekday and Saturday, absorbing displaced demand from other car parks.

Potential Daytime Displacement: None

Potential Mitigation Measure: None required

3.3.6 Little Roodee

The tariff at Little Roodee is proposed to change from £4 for two hours up to a maximum of £5.80 for stays of over five hours, to a flat rate of £5 all day. Consequently for long stay users this represents a fall in price, and unsurprisingly on a weekday there is an attraction of vehicles long stay users arriving in the morning to take advantage of the reduced rate. On a Saturday, there is a very small displacement of vehicles (maximum of six per hour) which is not a concern with regards to negative impacts on surrounding streets and car parks.

Potential Daytime Displacement: Some expected on a Saturday but minimal

Potential Mitigation Measure: None required.

3.3.7 Market

At Market, an attraction of cars is forecast for the daytime up to 2pm, with around 5 attracted cars per hour. After 2pm, a net displacement is expected, with up to 37 cars being displaced each hour on a weekday. On a

Saturday, the pattern is similar, with a small attraction of cars up to early afternoon, followed by a net displacement in the afternoon. The peak displacement is around 70 cars per hour between 4-6pm. Whilst this figure is substantial, it is likely some of these will be temporally rather than spatially displaced, in that short stay users will arrive earlier in the day, as is one of the objectives of the changes.

For cars which are displaced, there is sufficient capacity in nearby long-stay car parks which will be able to absorb the displaced vehicles. In particular there is capacity at Garden Lane after 3pm, with over 70 spaces available at 4pm, and over 90 available after 5pm. Similar spare capacity is available on a weekday after 3pm. Spare capacity is also available at Little Roodee and Watergate car parks. Surrounding on-street locations are generally restricted however some limited waiting bays in the Weaver Street / Commonhall Street area may potentially accommodate some of the short stay displaced demand.

Potential Daytime Displacement: Up to 37 cars displaced per hour on a weekday and up to 70 on a Saturday after 3pm.

Potential Mitigation Measure: Tariff changes to incentivise longer stay parking in Garden Lane, Watergate and Little Roodee will help to provide an alternative location for some of the displaced demand. High level of waiting restrictions around Market Car Park suggest further mitigation is not required.

3.3.8 Trinity

The current tariff at Trinity is one of the highest for any council owned car park. Under the parking strategy this is proposed to reduce by around £2 for the longest stays, and to have more incremental tariff increases for shorter stays. This will enable Trinity car park to be better able to cater for short stay users. The net effect on displacement is approximately zero on both a weekday and Saturday therefore presenting no impacts as a result of displacement.

Potential Daytime Displacement: Minimal

Potential Mitigation Measure: None required.

3.3.9 Watergate

The tariff at Watergate is proposed to change in line with Little Roodee, from an incremental tariff up to a maximum of £5.80 for stays of over five hours, to a flat rate of £5 all day to attract long stay users. On a weekday, where long stay is more likely, there is a small attraction of vehicles over the day. On a Saturday there is no net displacement/attraction, as the loss of short stay users is counteracted by the gain of long stay. With a minimum of 40 spaces available throughout the day on a weekday, and 30 spaces on a Saturday, Watergate is well positioned to absorb long stay displacement from central car parks, which are designated as short stay.

Potential Daytime Displacement: Minimal

Potential Mitigation Measure: None required.

3.3.10 On-Street Charging Locations

In addition to the off-street car parks, consideration must be given to the potential for displacement for proposed on-street charging locations. Whilst it is not currently possible to predict displacement as a result of modelled elasticities as for the off-street car parks (due to a lack of survey data), it is possible to look at potential adjacent locations that may be impacted by any displacement activity from the three on-street charging locations of City Road, Brook Street and Foregate Street.

Considering City Road, local residential streets immediately adjacent are predominantly covered by existing Residents Parking Zones (RPZs). This includes Crewe Street and Francis Street to the west and Queen's

Road and Queen's Avenue to the east. The existence of these zones will significantly reduce the potential for parking to be displaced from City Road after the implementation of charges.

In the case of Brook Street, a similar situation exists with a Residents Parking Zone covering Francis Street and Egerton Street to the south. Charles Street has waiting restrictions (and is too narrow for much of its length) making it unlikely to be used for displaced parking. Further RPZs on the northern side of Hoole Way further restrict this potential for displacement, although there may be a need to consider further RPZs on the residential streets of Black Diamond Street, Talbot Street etc. It is understood that an RPZ scheme in this area is already under consideration, but the implementation of charging on nearby streets may add a further impetus to this going forward.

Finally for Foregate Street, traffic restrictions (including Blue Badge only bays) on Foregate Street make the opportunity for displaced parking generally limited. To the south, Bath Street and Forest Street are also subject to an RPZ with limited waiting also in effect.

In each of these three cases, existing RPZs in close proximity should be monitored over the course of 12 months to determine if the restrictions should be extended until 9pm where this is not already the case, in response to the proposals.

To summarise, whilst it is unclear what the total number of displaced users from the on-street bays will be, the opportunities for this to impact negatively on the environment or community of local residential streets is so limited as to not be considered a significant issue. In addition, the increase in maximum stay limit may actually serve to attract additional demand to these locations ensuring a more vibrant local business community.

3.3.11 Summary

Table 11: Summary of Impacts

Car Park	Summary
Bishop Street	Limited waiting restrictions prevent long stay users displacing to immediate area around car park. Displacement to nearby terraced residential areas is a possibility; situation to be monitored to decide on further restrictions such as RPZ
Brook Street	Minimal displacement expected
Cuppin Street	Minimal displacement expected
Delamere	Limited displacement expected after 3pm. Sufficient capacity to cater for this in alternative cheaper car parks and in limited waiting bays
Garden Lane	No displacement so no negative impacts
Little Roodee	Minimal displacement expected.
Market	Displacement expected after 3pm. Long stay users can displace to Garden Lane, Watergate and Little Roodee, Short stay users may use on-street limited waiting
Trinity	Long stay users can displace to Garden Lane, Watergate and Little Roodee
Watergate	No displacement so no negative impacts
On-street charging locations	Limited displacement options and longer maximum stay may attract additional demand

Car parks in Chester offer a combined supply of car parking for the whole city. Changes in prices means consumers may substitute their current parking location for another location based on price, because car parks are close substitutes for one another. Market forces work to reallocate demand leading to a balancing out effect between car parks. Overall, there is more than sufficient capacity across the city to absorb any car parking displaced by changes in tariffs. Most car parks are, in any case, offering a reduction in either long stay or short stay prices, in order to prioritise short stay users such as shoppers in the central car parks, and to encourage long stay users to park in more peripheral car parks.

Displacement is anticipated to be highest in the afternoon as a result of the removal of the Free After 3pm offer. On both a weekday and Saturday, the displacement of short stay users (up to three hours) is greater

than for longer stay users, and this is concentrated in the afternoon. This indicates that at present, the Free after 3pm policy is distorting demand towards certain car parks in the afternoon. The removal of this policy will lead to cars being redistributed to more suitable car parks and spread out throughout the day due to tariffs being the same all day. This is likely to have positive impacts on congestion and a positive environmental impact by redistributing vehicles throughout the day rather than having a concentration of vehicles arriving around 3pm and leaving around 5-6pm, adding to the evening peak congestion and air quality issues associated with the Chester Air Quality Management Area.

It is recommended that the impact of adjusting car park tariffs is given time to bed in and for users' behaviour to be monitored. A key area that needs to be observed is around Bishop St car park in Hoole, where reasonably high levels of displacement are expected and the surrounding roads already have high levels of on-street parking.

The scenarios presented here are worst case, where cars displace locally within the city. However, there is a possibility that a proportion of car park users in Chester, particularly long stay users, will opt to use the Park & Ride facility which is offered, rather than driving in to the city centre, and this is to be welcomed and encouraged. Overall it is not considered a likely prospect that users will choose to displace outside of Chester City Centre entirely since many of the proposed tariffs actually offer a reduction over existing levels and will actually prove more flexible and responsive to the needs of the user.

3.4 Equality Analysis

The third and final set of potential impacts that will be reviewed in light of the proposed changes associated with the Cheshire West and Chester Parking Strategy are those linked to equality and diversity. As a local authority and public organisation, Cheshire West and Chester Council has a duty to evaluate the impact of each of its schemes on protected groups. It does this by completing an Equality Analysis to capture the level of impact under a number of strategic headings.

This assessment has been completed for the Chester components of the Parking Strategy and is appended to this document as Appendix C. The following sub-sections summarise each of the main findings in cases where there is considered to be a non-neutral impact on equality and diversity.

3.4.1 Race and Ethnicity

There is a potential barrier to using parking services for those whose first language is not English. The strategy will need to consider prioritised options for communication to contain this impact.

Impact: Low Negative

3.4.2 People with Disabilities

The parking action plan includes a programme of car park quality improvements, including ensuring compliance with standards for the number and size of disabled parking bays.

Impact: Medium Positive

3.4.3 Age

Some concerns have been raised regarding the introduction of on-street charging, replacement of 'Free after 3pm' and introduction of new tariff structures, including weekend tariffs, that these proposals could have a negative impact on age categories with traditionally lower levels of income such as school leavers, students and senior citizens. Length of stay surveys and economic analysis undertaken as part of strategy development indicate that revised proposals will not significantly increase the average tariff paid and an increased number of tariff options will increase flexibility and choice.

Impact: Low negative

3.4.4 Carers

The parking action plan includes a programme of car park quality improvements, including ensuring compliance with standards for the number and size of disabled parking bays. This could potentially benefit the carers of disability groups.

Impact: Low positive

3.4.5 Areas of Deprivation

The relationship between air pollution, social deprivation and health inequalities is a complex issue. While higher relative concentrations of the pollutants nitrogen dioxide (NO2) and sulphur dioxide (SO2) are observed in the more deprived deciles in England, the overall level of inequality is reduced by high concentrations of these pollutants also being observed in the least deprived deciles. A report presented to Department of Environment, Food and Rural Affairs[1] found that the relationship between distribution of pollutant concentrations and areas of social deprivation is complex and depends on the pollutant in question and the different cities and regions of the U.K.

Consequently it is difficult to draw general conclusions that apply everywhere. A report prepared for the World Health Organization Europe[2] identifies that environmental nuisances, including ambient air pollution, are thought to contribute to health equalities and that there are two major mechanisms, which may act independently or synergistically. Disadvantaged groups are recognised as being more often exposed to air pollution (differential exposure); they may also be more susceptible to the resultant health effects (differential susceptibility). In general terms, however, there is usually a general positive impact on health, particularly for those in deprived communities who are thought to have increased susceptibility, through a reduction in congestion/pollution, as may be realised as a result of increased tariff choice spreading parking demand more evenly across the day.

Impact: Low negative

3.4.6 Health and Wellbeing

The proposals to provide improved car park quality, and increased choice in respect of tariff options. This is likely to have a beneficial effect on the health and wellbeing of residents and visitors. In general terms, there is usually a positive impact on health through reductions in congestion/pollution, as may be realised as a result of increased tariff choice spreading parking demand more evenly across the day. It is also likely that take-up of Park & Ride services will increase further reducing vehicle related congestion and pollution in the city centre.

Impact: Low positive

3.4.7 Summary

To summarise, the equality analysis has awarded the scheme a **'Low Impact'** score and recommends a process of continuous monitoring with outcomes to be reviewed in three years.

[1] Air Quality and Social Deprivation in the UK: an environmental inequalities analysis (AEAT/ENV/R/2170, June 2006)

[2] Environment and health risks: a review of the influence and effects of social inequalities (World Health Organization Regional Office for Europe, 2010)

4 Findings, Recommendations and Next Steps

4.1 Findings

From the analysis undertaken in this Action Plan for Chester in respect of the Cheshire West and Chester Parking Strategy, it has been determined that no significant adverse impact may be expected as a result of the changes proposed. The results may be summarised as follows:

4.1.1 Economic Impacts

Based on a review of the rationale behind the measures proposed by the Parking Strategy for Chester, which is to positively impact the economy of Chester, and a review of the existing and proposed average parking tariff level in Chester against comparable towns, which shows favourable results, it is concluded that the proposed parking measures will not have a negative economic impact on the city, and should instead generate positive effects.

4.1.2 Social and Environmental Impacts

The primary impacts are due to the potential for displaced demand from existing off and on-street parking locations as a result of the changes to tariffs. It has been determined that, in the vast majority of cases, this displacement may be considered to be negligible. In the few situations in which there is likely to be some generated displacement (e.g. at Market and Delamere Street after 3pm) it is likely that much of this demand may be absorbed in nearby cheaper car parks such as Garden Lane, Brook Street, Watergate and Little Roodee, and that some of the short stay demand may use alternative facilities including existing on-street limited waiting locations. Given the overall spare capacity within Chester City Centre, it is not considered likely that any of this demand will displace outside of Chester City Centre itself, although a proportion may transfer to Park and Ride and this is to be welcomed and encouraged.

4.1.3 Equality Analysis

The equality analysis has awarded the scheme a ‘Low Impact’ score and recommends a process of continuous monitoring with outcomes to be reviewed in three years.

4.2 Recommendations

Based on an extensive data collection and stakeholder consultation exercise, a Strategy Report was produced in 2016 which contained time-bound strategy recommendations for Chester. These include:

- Revision of existing off-street parking tariffs (including replacement of ‘free after 3’ with alternative targeted regimes, discounts and offers) to better harmonise tariffs across car parks and to better match demand to available supply throughout the day
- Introduction of on-street charging in three locations in the city centre (City Road, Brook Street, Foregate Street) in order to better manage demand in these locations, and create a harmony with the off-street charging regime to better facilitate the aims and objectives of the wider strategy
- Potential implementation of maximum stay limit at Sandy Lane car park to better manage demand at this facility
- Implementation of a programme of car park quality review/improvement, including better compliance with standards associated with the provision of disabled bays

These are proposed in order to meet the following three objectives:

- To create greater user differentiation between car park types, so that usage best suits the location and offer of each car park
- To reduce the number of different tariffs to increase user understanding of the overall offer available
- To replace the existing 'Free After 3' incentive with tariffs which better distribute demand across the day

It is considered that the recommendations on tariffs and quality will achieve these aims without significant negative impact under the headings described above. As such the recommendations are upheld following this analysis.

4.3 Next Steps

Following the publication of this Action Plan for Chester, the following programme of measures is recommended:

- Implementation of Car Park Improvement Programme: Incrementally from January 2018
- Traffic Regulation Order (TRO) process for on-street charging: 20 November – 7 January 2018
- Implementation of on-street charging: January – March 2018
- TRO process for changes to tariffs/introduction of tariffs/length of stay restrictions: December 2017
- Introduction of changes to tariffs/introduction of tariffs/length of stay restrictions: January/February 2018

Appendices

A. Tariff Comparison Charts

Figure 8: Existing and proposed tariffs – Trinity and Cuppin Street

	1	2	3	4	5	6	7	8
Trinity - existing	£2	£4.90	£7.40	£11.70	£11.70	£11.70	£11.70	£11.70
Cuppin Street - existing	£4	£4	£4.90	£4.90	£5.90	£5.90	£7.80	£7.80
Trinity & Cuppin St - proposed	£3	£4.50	£6	£6	£8	£8	£10	£10

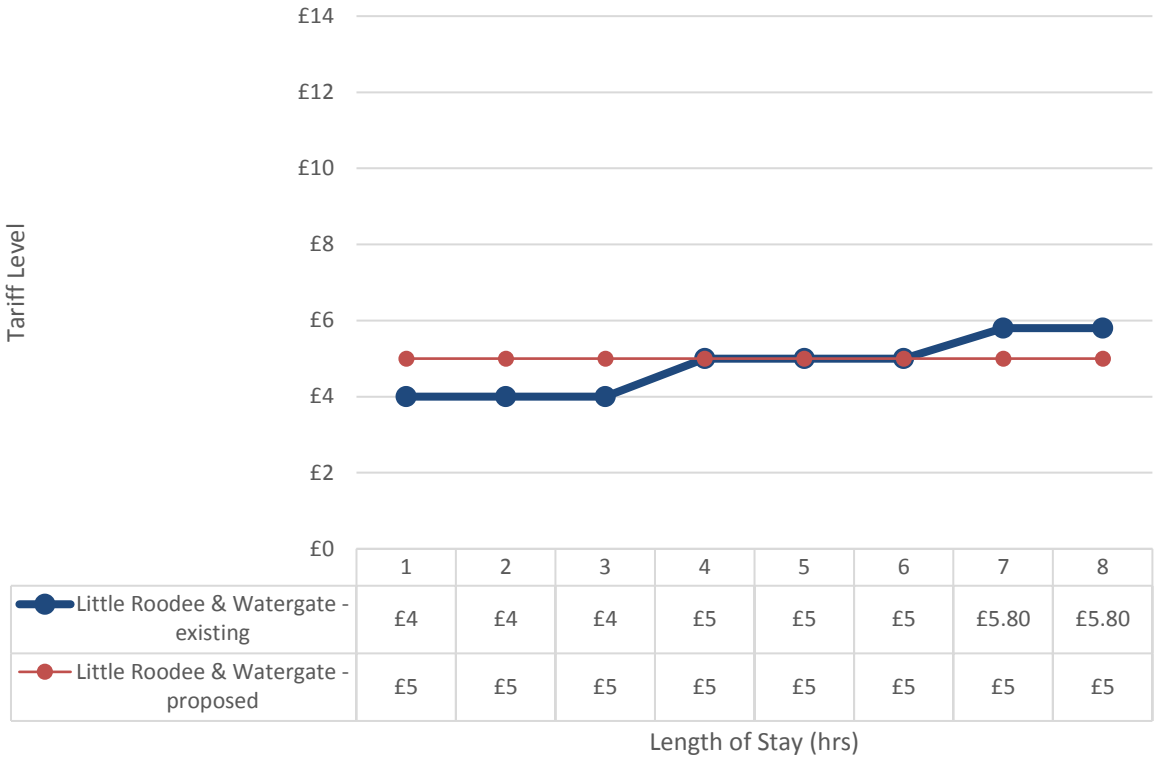
Source: CWaC and MM

Figure 9: Existing and proposed tariffs – Market and Delamere

	1	2	3	4	5	6	7	8
Market - existing	£3.70	£3.70	£4.60	£4.60	£5.60	£5.60	£8.80	£8.80
Delamere - existing	£4	£4	£4.90	£4.90	£5.90	£5.90	£7.80	£7.80
Market & Delamere - proposed	£2.50	£3	£3.50	£4	£4.50	£5	£5.50	£6

Source: CWaC and MM

Figure 10: Existing and proposed tariffs – Little Roodee and Watergate



	1	2	3	4	5	6	7	8
Little Roodee & Watergate - existing	£4	£4	£4	£5	£5	£5	£5.80	£5.80
Little Roodee & Watergate - proposed	£5	£5	£5	£5	£5	£5	£5	£5

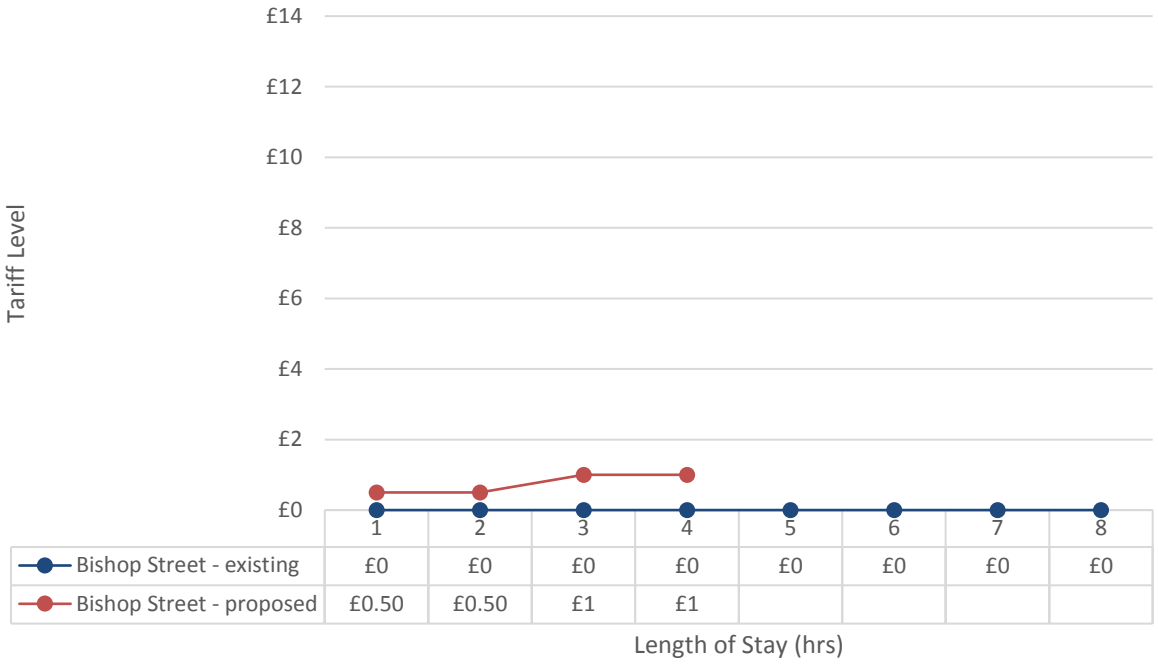
Source: CWaC and MM

Figure 11: Existing and proposed tariffs – Garden Lane and Brook Street

	1	2	3	4	5	6	7	8
Garden Lane - existing	£1.20	£3.90	£4	£5	£5	£5	£5.80	£5.80
Brook Street - existing	£1.80	£2	£4	£5	£5	£5	£5.80	£5.80
Garden Lane & Brook Street - proposed	£1	£2	£3	£4	£4	£4	£5	£5

Source: CWaC and MM

Figure 12: Existing and proposed tariffs – Bishop Street



Source: CWaC and MM

B. Tariff Change Impact Prediction Methodology

B.1 Introduction

The purpose of this appendix section is to summarise how the demand response to tariff changes in off-street car parks has been calculated.

B.2 Demand Elasticities

Following the principle of supply and demand in a competitive environment, parking demand is generally inversely related to parking price. So if price goes up, demand is likely to go down, and vice versa.

The scale of this response, however, depends on the 'elasticity' level of the demand. If demand is highly elastic to change, then large responses can be seen from small changes in price. But if it is relatively inelastic, then lower response levels would be expected.

The degree of elasticity of the parking market for any particular car park depends on a range of factors, including the location and appeal of the car park, and the degree of competition, but researchers have derived average values based on empirical evidence. The average values employed for this analysis are taken from the 2010 Transport Research Laboratory document, 'Parking Measures and Policies Research Review', and are as follows:

Table 12: Parking demand elasticities employed

Parking Duration	Elasticity Value
0-2 hours:	-0.1
2-4 hours:	-0.3
4-7 hours:	-0.5
7+ hours:	-0.9

Source: Parking Measures and Policies Research Review, TRL, 2010

In practice, what these elasticities mean is that, for users who park for up to two hours, a 10% parking charge increase would result in a 1% drop in demand, while the same increase for users who park over 7 hours would result in a 9% drop in demand. 10% decreases in the price would yield the opposite result.

B.3 Application to Charged Car Parks

For car parks where there is already charging, the application of the above elasticities is straightforward. So, for example, if the price for parking up to two hours increases by 10%, demand for this duration would fall by 1%, while if it increased by the same amount for stays of over seven hours, demand for this duration would fall by 9%. 10% *decreases* in the price would yield the opposite result.

B.4 Application to Non-Charged Car Parks

For car parks where there is currently no charge, the application of the above elasticities is less straightforward, as the introduction of a charge cannot be represented as a percentage change of the existing situation. Instead, a market-value parking-charge-per-hour is estimated for the car park from which a drop to zero would represent a 100% price drop and a demand increase as per the above elasticity values. The demand response for the reverse situation of increasing the tariff from zero is then pro-rata'd according to what proportion of the estimated market-value price the increase represents.

For example, if a car park which is currently free is estimated to have a potential market value of 50p per hour, then the introduction of a 50p per hour charge would equate to a 100% price increase and therefore a decrease in demand according to the above elasticities as follows:

- 0-2 hours: -10%
- 2-4 hours: -30%
- 4-7 hours: -50%
- 7+ hours: -90%

The introduction of tariffs which are lower or higher than the estimated market value would then generate a pro-rata demand response. For example, the introduction of a 25p per hour charge would generate half the response level, as follows:

- 0-2 hours: -5%
- 2-4 hours: -15%
- 4-7 hours: -25%
- 7+ hours: -45%

B.5 Limitations

It should be noted that this is a simplified method of predicting demand responses to tariff changes in individual car parks, in the absence of any current evidence that would allow more sophisticated modelling. Such a method, however, inevitably comes with limitations which should be noted in the interpretation of the results. Particular limitations are:

- The elasticities are drawn from research, but represent an average response for all car parks in all situations. In reality, actual elasticities would likely vary per town and car park, and by time of year, day of week, time of day and user type. In the absence of more bespoke data, however, and in the interests of consistency, these averaged elasticities are the best data available for the purposes of this exercise.
- The elasticity approach indicates how demand may increase of decrease in a particular car park, but it cannot identify where affected demand would displace to or from. Judgment is required to assess this.
- Because the demand response is proportional to existing demand levels, even large price changes will only generate small responses if the existing demand level is low. This means that the response to measures aimed to stimulate new market sectors for a car park are likely to be underestimated.
- On a similar basis, the method is not able to take account of constrained demand. For example, if a tariff is introduced to a free car park to displace long stay parking so that short-stay shopper parking has priority, this method will show an overall drop in demand. In reality, however, the capacity released by displaced long-stay parking could be directly replaced by short-stay demand which is currently being suppressed. Judgment is therefore required to recognise where demand constraints may be in effect.
- Lastly, it is noted above that the method requires an estimate of a car park's potential market-value tariff in the case where a tariff is introduced to a car park where there is currently no charge. Though a reasonable estimate of market-value can be made through appropriate comparison, this additional user input to the process renders the outcome more subject to uncertainty.

C. Completed Equality Analysis

Chester Parking Action Plan

Main aims, purpose and outcomes and how does it fit in with the wider aims of the organisation:

In 2016 a borough wide parking strategy was developed with recommendations to provide a consistency of quality and management of local authority parking stock. Following a period of public consultation this was approved by full council in June 2017. Parking Action Plans have now been produced for key local centres to progress the implementation of the strategy.

Lead officer: Ken Prior (Manager, Parking Services)

Stakeholders: Vanessa Griffiths (Manager, Regulatory Services)

Equality analysis is a valuable tool to help embed equality into everything we do

While process is important, equality analysis is essentially about outcomes

Lack of evidence of discrimination is not evidence of a lack of discrimination

It is not acceptable to say that a policy is applied uniformly to all groups and is therefore fair and equal. Applying a policy or procedure consistently may result in differential outcomes for different groups.

For each of the areas below, an assessment needs to be made on whether the policy has a **positive, negative or neutral impact**, and brief details of why this decision was made and notes of any mitigation should be included. Where the impact is negative, this needs to be given a **high, medium or low assessment**. It is important to rate the impact of the policy based on the current situation (i.e. disregarding any actions planned to be carried out in future).

High impact – a significant potential impact, risk of exposure, history of complaints, no mitigating measures in place etc.

Medium impact –some potential impact exists, some mitigating measures are in place, poor evidence

Low impact – almost no relevancy to the process, e.g. an area that is very much legislation led and where the Council has very little discretion

	Neutral	**Positive**	**Negative**
Target group / area			

Race and ethnicity (including Gypsies and Travellers; migrant workers, asylum seekers etc.)			Barrier to using services for those whose first language is not English. – Will need to consider prioritised options for communication to contain this impact. **LOW IMPACT**
Disability (as defined by the Equality Act - a person has a disability if they have a physical or mental impairment that has a substantial and long-term adverse effect on their ability to carry out normal day-to-day activities)		The parking action plan includes a programme of car park quality improvements, including ensuring compliance with standards for the number and size of disabled parking bays. **MEDIUM IMPACT**	
Gender	Identified no aspects of this work that will have any disproportional impact on this group.		
Gender identity (gender reassignment)	Identified no aspects of this work that will have any disproportional impact on this group.		
Religion and belief	Identified no aspects of this work that will have any disproportional impact on this group.		
Sexual orientation (including heterosexual, lesbian, gay, bisexual)	Identified no aspects of this work that will have any disproportional impact on this group.		

Age (children and young people aged 0 – 24, adults aged 25 – 50, younger older people aged 51 – 75/80; older people 81+. The age categories are for illustration only as overriding consideration should be given to needs)			Some concerns have been raised regarding the introduction of on-street charging, replacement of 'Free after 3pm' and introduction of new tariff structures, including weekend tariffs, that these proposals could have a negative impact on age categories with traditionally lower levels of income such as school leavers, students, and senior citizens. Length of stay surveys and economic analysis undertaken as part of strategy development indicate that revised proposals will not significantly increase the average tariff paid and an increased number of tariff options will increase flexibility and choice. **LOW IMPACT**
Carers		The parking action plan includes a programme of car park quality improvements, including ensuring compliance with standards for the number and size of disabled parking bays. This could potentially benefit the carers of disability groups. **LOW IMPACT**	
Rural communities	Some concerns have been raised regarding the introduction of on-street charging Replacement of 'free		

	after 3' and introduction of new tariff structures, including weekend tariff that these proposals could have a negative impact on car reliant individuals. Length of stay surveys and economic analysis undertaken as part of strategy development indicate that revised proposals will not increase the average tariff paid and an increased number of tariff options will increase flexibility and choice.		
Areas of deprivation			The relationship between air pollution, social deprivation and health inequalities is a complex issue. While higher relative concentrations of the pollutants nitrogen dioxide (NO2) and sulphur dioxide (SO2) are observed in the more deprived deciles in England, the overall level of inequality is reduced by high concentrations of these pollutants also being observed in the least deprived deciles. A report

			presented to Department of Environment, Food and Rural Affairs[1] found that the relationship between distribution of pollutant concentrations and areas of social deprivation is complex and depends on the pollutant in question and the different cities and regions of the U.K. Consequently it is difficult to draw general conclusions that apply everywhere. A report prepared for the World Health Organization Europe[2] identifies that environmental nuisances, including ambient air pollution, are thought to contribute to health equalities and that there are two major mechanisms, which may act independently or synergistically. Disadvantaged groups are recognised as being more often exposed to air pollution (differential exposure); they may also be more susceptible to the resultant health effects (differential susceptibility). In general terms, however, there is usually a general positive impact on health, particularly for those in deprived communities who are thought to have increased susceptibility, through a reduction in

[1] Air Quality and Social Deprivation in the UK: an environmental inequalities analysis (AEAT/ENV/R/2170, June 2006)

[2] Environment and health risks: a review of the influence and effects of social inequalities (World Health Organization Regional Office for Europe, 2010)

			congestion/pollution, as may be realised as a result of increased tariff choice spreading parking demand more evenly across the day. **LOW IMPACT**
Human rights	Identified no aspects of this work that will have any disproportional impact on Human Rights.		
Health and wellbeing (consider both the wider determinants of health such as education, housing, employment, environment, crime and transport, as well as the possible impacts on lifestyles and the effect there may be on health and care services)		The proposals to provide improved car park quality, and increased choice in respect of tariff options. This is likely to have a beneficial effect on the health and wellbeing of residents and visitors. In general terms, there is usually a positive impact on health through reductions in congestion/pollution, as may be realised as a result of increased tariff choice spreading parking demand more evenly across the day. It is also likely that take-up of Park & Ride services will increase further reducing vehicle related congestion and pollution in the city centre. **LOW IMPACT**	
Procurement/partnership (if project due to be carried out by contractors/partners etc, identify steps taken to ensure equality compliance)	Equality compliance is embedded within the council's policy and procedure with regards to infrastructure works		

	undertaken by the council's term contractor and with regard to procurement of car park payment and management technology.		

Evidence (see guidance note for details of what to include here):

A 12-week public consultation was undertaken as part of the development of the borough wide parking strategy. The consultation was widely publicised including media releases, publication on the Council website and through the Council's social media channels and public events.

The consultation documents were made available on the Council's website were provided on request in hard copy format. Consultation documents were available in a variety of formats (including audio, Braille, large print, and other languages) and consultation surveys could be completed on-line or by completing a printed copy.

The feedback received has influenced the development of the strategy. Proposals to introduce charging for disabled parking has not been progressed following concerns received that in some cases individuals with a disability may have a lower income and introducing charges would have a negative impact on this group.

At the request of the councils Scrutiny Panel an economic analysis of impact of introducing the Chester Car Parking Action Plan on the economic performance of Chester and modelling of the demand response to the changing tariff has been undertaken. In addition, a social/environmental analysis of impact of introducing above measures (e.g. displacement, triggering the need for any mitigating measures such as additional restrictions or RPZs; or air quality benefits or disbenefits.

This further work has concluded that the proposed tariff changes will:

1. Create greater user differentiation between car park types, so that usage best suits the location and offer of each car park
2. Reduce the number of different tariffs to increase user understanding of the overall offer available

3. Replace the existing ‘Free After 3’ incentive with tariffs which better distribute demand across the day

Improving the quality of car parks through these aspects will improve the experience for users and make them feel safer. This will likely improve the perception of the city centre, particularly for visitors and encourage visitors to return.

Waiting restrictions will prevent long stay users displacing to immediate area around car park. Displacement to nearby terraced residential areas is a risk; situation to be monitored to decide on further restrictions.

Actions required	**Key activity**	**Priority**	**Outcomes required**	**Officer responsible**	**Review date**
Review impact of Parking Action Plans	Monitor for adverse trends	Medium	Trends adversely affecting residents and visitors are identified at an early stage	Manager Parking Services	November 2019

Sign off	
Lead officer:	Ken Prior – Manager, Parking Services
Approved by Tier 4 Manager:	Vanessa Griffiths - Manager, Regulatory Services
Moderation and/or Scrutiny	
Date:	
Date analysis to be reviewed based on rating (high impact – review in one year, medium impact - review in two years, low impact in three years)	Low impact - 2021

Please forward the completed Equality Analysis to the Equality and Diversity Managers for publishing on the Council’s website

D. Supplementary Data Tables for Figures

D.1 Figure 4: Observed Length of Stay Breakdown at Sandy Lane – Weekday

	Parking Duration							
	9+ hrs	7-8 hrs	5-6 hrs	3-4 hrs	2 hrs	1 hr	Total	% Utilisation
8am	1	2	4	0	1	4	12	34%
9am	2	6	8	1	1	0	18	51%
10am	2	6	9	3	0	0	20	57%
11am	2	6	10	4	0	0	22	63%
12pm	2	6	10	6	0	2	26	74%
1pm	2	6	8	5	2	2	25	71%
2pm	2	6	5	5	5	3	26	74%
3pm	2	4	2	2	5	0	15	43%
4pm	2	4	3	1	2	1	13	37%
5pm	2	0	2	2	0	2	8	23%
6pm	1	0	2	4	2	1	10	29%
7pm	1	0	2	4	6	1	14	40%
8pm	1	0	2	4	4	2	13	37%

D.2 Figure 5: Observed Length of Stay Breakdown at Sandy Lane – Saturday

	Parking Duration							
	9+ hrs	7-8 hrs	5-6 hrs	3-4 hrs	2 hrs	1 hr	Total	% Utilisation
8am	4	1	0	2	0	1	8	23%
9am	5	1	0	2	7	3	18	51%
10am	5	1	0	4	7	2	19	54%
11am	5	1	1	3	3	0	13	37%
12pm	5	1	3	4	3	0	16	46%
1pm	5	2	3	5	1	2	18	51%
2pm	5	2	3	6	2	0	18	51%
3pm	5	1	4	6	1	2	19	54%
4pm	5	1	6	4	0	6	22	63%
5pm	4	1	3	0	0	0	8	23%
6pm	4	1	3	0	0	0	8	23%
7pm	3	1	3	0	1	1	9	26%
8pm	3	1	3	0	1	2	10	29%

D.3 Figures 6 and 7: Average parking price vs retail centre vitality score

Town	Population*	Vitality Score**	Av Parking Price per hour
Wrexham	61,603	675	£0.88
Shrewsbury	71,715	768	£1.27
Nantwich	17,424	714	£0.57
Whitchurch	9,781	655	£0.32
Middlewich	13,595		£0
Birkenhead	88,818	682	£0.77
Sandbach	17,976	711	£0
Deeside	53,568		£0.05
Knutsford	13,191	762	£0.60
Crewe	83,650	678	£0.57
Northwich	27,914	698	£0
Winsford	29,797	665	£0
Neston	14,698		£0
Helsby	5,168		£0
Frodsham	8,820		£0
Bath	88,859	857	£1.71
Durham	65,549	730	£0.97
York	153,717	810	£1.82
Cambridge	131,800	902	£2.05
Chester (Current)	82,459	812	£1.38
Chester (Proposed)	82,459	812	£1.35
Ellesmere Port (Current)	60,787	628	£0.19
Ellesmere Port (Proposed)	60,787	628	£0.18

* CWaC population stats taken from 2014 BRES data
** Vitality Score from Harper Dennis Hobbs (2017)