Draft Northampton Central Area Parking Strategy

Transport Planning

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MGWSP
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Northamptonshire County Council

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Executive Summary

The strategy set out in this document has been based on the research undertaken in both the Parking in Northampton Town Centre: Recommendations for the Creation of a Future Strategy (Feb 2011) and the Northampton Parking Strategy: Existing Situation Report October 2011. These reports have enabled the authorities involved with production of this document to create the following strategy for car parking in the Central Area of Northampton.

THE PARKING STRATEGY

The parking strategy supports the following objectives that match wider aspirations for the Central Area;

To achieve a more effective and efficient transport system, whilst taking into account:

- The economic vitality of the Central Area; and
- The parking needs of local residents, shops and businesses.

The vision of the parking strategy is 'To effectively manage the supply of parking within the Central Area of Northampton'

This will be achieved by ensuring that the parking provision up to 2026 in the Central Area of Northampton is adequate to cater for the predicted level of future demand.

Taking account of the future development and economic growth of the Town, and at the same time ensuring the highway network can accommodate the additional demand for Central Area parking, a total of ***c.***10,000 spaces will be required.

At present, the Central Area benefits from 5,433 spaces and with the additional development anticipated up to 2026 a further 3,670 spaces will be provided giving a total of 9,103 parking spaces.

The additional 897 parking spaces required for the Central Area of Northampton should be accommodated in a location supportive of the future regeneration aspirations of the town.

IMPLEMENTATION MEASURES

Section 4 of this report set out the implementation measures that are designed to maximise the use of the Central Area parking and therefore help improve and maintain the economic vitality and viability of the Town, the measures set out in this strategy are as follows;

- Regular Monitoring of car park occupancy and duration of stay;
- Investigation of the introduction of Pay-on-Foot in more Central Area car parks;

- Investigate the introduction of cashless payment methodologies in the remaining Pay and Display car parks;
- Investigate the introduction of increase enforcement within the Pay and Display car parks;
- Investigate the possibility of providing additional car parking capacity in the South east of the town;
- Change the designation of spaces within the Central Area to better reflect the balance of long and short stay parking acts;
- Encourage use of new car parks in the Central Area by users outside of business hours;
- Introduce a revised signing strategy for the Central Area car parks;
- Investigate the possibility of Park and Ride within the town to cater for future development;

ACTION PLAN

The action plan establishes the timescales for the implementation measures set out above and also assigns the responsibilities for the actions.

1 Introduction

1.1 BACKGROUND

1.1.1 MGWSP have prepared this parking strategy for Northamptonshire County Council (NCC), Northampton Borough Council (NBC) and West Northamptonshire Development Corporation (WNDC). A key requirement of this parking strategy is to support the joint vision of creating an economically successful, vibrant, attractive and less car orientated environment in the Central Area of Northampton.

1.1.2 This report builds on the matrix of potential interventions included in the Parking in Northampton Town Centre: Recommendations for the Creation of a Future Strategy (Feb 2011) and the results set out in the Northampton Central Area Parking Strategy: Existing Situation Report (October 2011), which recorded the results of surveys undertaken in the Central Area car parks.

1.1.3 This strategy should be read in conjunction with the following reports;

- Parking in Northampton Town Centre: Recommendations for the Creation of a Future Strategy (February 2011); and
- Northampton Central Area Parking Strategy: Existing Situation (October 2011)

1.1.4 The study area covered by this strategy is the area covered by the Northampton Central Area Action Plan (CAAP) this area is shown on Figure 1.

1.2 PARKING IN NORTHAMPTON TOWN CENTRE: RECOMMENDATIONS FOR THE CREATION OF A FUTURE STRATEGY (FEBRUARY 2011)

1.2.1 This report updated the baseline information from previous parking strategies and sets out the key areas that needed to be investigated further in preparation of the final strategy. This report also set out the policy context for car parking within the Central Area of Northampton.

Key Findings

1.2.2 The key result from this initial stage of the study was the high overall level of supply relative to demand. NBC currently control approximately 5,000 off-street spaces in the Central Area. There are approximately 4,100 spaces in privately operated car parks that are open to the public, and 300 on-street parking spaces, totalling over 9,000 parking spaces.

1.2.3 The NBC controlled car parks are set out below and the locations shown in figure 2. In addition to these publicly available parking spaces there are approximately 6000 Private Non Residential spaces within the Central Area.

Table 1 NBC Run Car Parks Included Within The Study (shown in Figure 2)

Zone	Ref	Car Park Name	Payment Method	Spaces
Premier Zone	1	St Peters Way	Pay and Display	278
	2	Commercial Street South	Pay and Display	50
	3	Grosvenor Multi – Storey	Pay and Display	837
	4	Abington Place	Pay and Display	27
	5	St Johns Surface Level	Pay and Display	150
	6	Albion Place	Pay and Display	105
	7	Ridings	Pay and Display	60
	8	Wellington Street	Pay and Display	43
	9	Newland	Pay and Display	59
	10	Campbell Square	Pay and Display	32
	11	Upper Mounts	Pay and Display	312
	12	Commercial Street	Pay and Display	263
	13	St Michael's Multi – Storey	Pay on Foot	616
	14	St John's Multi – Storey	Pay on Foot	585
	15	Mayorhold Multi – Storey	Pay on Foot	1054
Standard Zone	16	Horsemarket	Pay and Display	26
	17	Market Street	Pay and Display	63
	18	Marefair	Pay and Display	87
	19	Chalk Lane	Pay and Display	110
	20	Doddridge Street	Pay and Display	67
	21	Midsummer Meadow	Pay and Display	245
	22	Melbourne Street	Pay and Display	16
			Total	5085

1.2.4 The number of parking acts in Northampton has declined significantly over the last decade. Since 2004/5 it is estimated that there has been a 36 per cent decline in the number of vehicles parking. The reasons for the decline in parking are mainly attributed to the following factors:

- Increased competition from surrounding towns and cities and a perceived decline in the retail offer in Northampton in comparison to those locations;
- The increased competition from out of town retail and employment facilities in the rest of Northampton, such as at Sixfields, Riverside Park and Weston Favell, which have free car parking; and
- To a certain extent, the quality of the parking experience in Central Northampton.

1.2.5 Addressing the issue of competition with out of town shopping centres is a significant challenge for the Councils. NBC currently control approximately 35 per cent of the supply of publicly available parking in Northampton. If new developments

with parking are introduced in the Central Area of Northampton then NBC may in the future have less influence over the control of parking in the Central Area. To be able to influence parking controls and the strategy for parking it is therefore important that NBC maintain some influence on the parking regime, hence contractual arrangements may be considered for new developments in the Central Area.

1.2.6 This phase of the development of a Parking Strategy for the Central Area of Northampton considered a range of interventions from those which are relatively simple to implement to those which perhaps will take more time or have significant funding implications. These interventions are presented in the strategy matrix in Appendix 1. The categories of interventions proposed are as follows;

- Parking Charges and Payment Methods;
- Control and Enforcement;
- Location of Parking;
- Signage;
- On-Street Parking Options; and
- The Future Situation;

1.3 PARKING IN NORTHAMPTON CENTRAL AREA PARKING STRATEGY: EXISTING SITUATION (OCTOBER 2011)

1.3.1 Parking in Northampton Central Area Parking Strategy: Existing Situation (October 2011) provided an up date as to the baseline of the parking situation in the town centre as at July 2011. This was important because the data used in previous strategies for the Central Area only recorded the number of vehicles parked not the length of time they parked for. This was a key issue in refining the list of measures to be implemented in the Central Area.

1.3.2 This exercise indicated that the overall occupancy of the car parks in Northampton Central Area was 45.8% on the Tuesday and 45.5% on the Saturday. This means that at the time of the surveys there were 2997 free spaces on the Tuesday and 2958 on the Saturday.

1.3.3 When analysing the operation of a car park it is assumed that it is operating at capacity when 85% full as this enables traffic looking for a space to do so without impacting on the surrounding highway network. The results indicated that on both the Tuesday and Saturday certain car parks were observed to be operating at or over capacity, with some car parks showing occupancy in excess of 100% thus indicating that vehicles are parking outside the designated bays.

1.3.4 The peak occupancy in the Central Area as a whole was recorded between 12:00 and 13:00 on both the Tuesday and the Saturday. The detailed results of this exercise are shown in Appendix 2.

Arrival and Departure Profile

1.3.5 The July 2011 data calculated the arrival and departure profiles for the car parks included in the surveys. The peak arrival time on the Tuesday was shown to be between 09:00 to 10:00 with the peak departures 14:00 to 15:00 and 17:00 to 18:00. Whilst on the Saturday the peak arrival time was 11:00 to 12:00 with the peak departures between 15:00 to 16:00. The detailed results are included in Appendix 3.

Parking Duration

1.3.6 The results of the Tuesday surveys indicated that in the Central Area as a whole 37% of recorded parking acts were of less than one hour and a further 26% were for over 4 hours.

1.3.7 Therefore although a total of 74% of parking acts within the CAAP area were less than four hours, half of these were for an hour or less, with a further quarter for a period of up to two hours.

1.3.8 The results of the Saturday surveys indicated that in the Central Area as a whole 39% of recorded parking acts were of less than one hour and a further 8% were for over 4 hours.

1.3.9 The level of long stay parking observed on the Saturday was significantly lower than on the Tuesday with the exception of St John's Multi Storey, this is most likely due to the resident permits that are issued for this car park. The detailed results are included in Appendix 4.

1.4 PERCEPTION SURVEY

1.4.1 The perception surveys were based on questionnaires with people using the car parks within the study area. The key findings for both the weekday and weekend showed that the majority of people are travelling into the Central Area from within the borough boundaries. The majority travel in from an easterly direction with shopping as the main trip purpose. Most people use their choice car park at least once a month with over 50% using the same car park on a regular basis indicating habitual behaviour. Over 75% choose a car park because they believe it is closest to their destination. During the week most people travel in alone, at weekends the majority travel with one passenger

2 The Parking Strategy

2.1 INTRODUCTION

2.1.1 The parking strategy for Northampton Central Area, as shown in figure 1, supports the following objectives that match wider aspirations for the Town. This strategy is designed to compliment the strategic aims within the CAAP and Northamptonshire Transport Plan.

These strategies set out the aim to achieve a more effective and efficient transport system, whilst taking into account:

- The economic vitality of the Central Area and
- The parking needs of local residents, shops and businesses

2.2 THE STRATEGY

2.2.1 The vision of the parking strategy is 'To effectively manage the supply of parking within the Central Area of Northampton'

2.2.2 This will be achieved by ensuring that Central Northampton has a parking provision up to 2026 of ***c.***10,000 parking spaces (this figure includes NBC owned/operated car parks, privately owned car park open to the public and on-street spaces).

2.2.3 These spaces will be located appropriately for the future growth of the Central Area. Once this quota of parking has been reached, the town will be unable to support any further car parking and alternative ways of accessing the Central Area will need to be investigated. The interventions listed below have been selected as measures which will aid the efficient management of car parking within central Northampton.

- Parking Charges and Payment Methods;
- Control and Enforcement;
- Location of Parking;
- Signage;
- On-Street Parking Options; and
- The Future Situation;

2.2.4 The initiatives that will be implemented in relation to the above categories are set out in detail in Chapter 4 of this report.

3 Policy Update

3.1 INTRODUCTION

3.1.1 The policy section presented within the Parking in Northampton Town Centre: Recommendations for the Creation of a Future Strategy (February 2011) report, presents the initial policy background to support the work undertaken on car parking in Northampton. Since production of that document, the policy framework has change significantly with the publication of the National Planning Policy Framework. An updated policy position is presented below.

3.2 NATIONAL PLANNING POLICY FRAMEWORK (2012)

3.2.1 The National Planning Policy Framework (NPPF) came into force on the 27th March 2012. It consolidates all existing Planning Policy Statements (PPS) and Guidance (PPGs), in addition to Circular 05/2005 (Planning Obligations) and a series of Chief Planning Officer Letters.

3.2.2 Within the core planning principles is a commitment to reducing the need to travel and promoting a pattern of development to facilitate sustainable modes. The Framework goes on to establish that local Parking Standards should take account of the accessibility, type, mix and use of development; the availability of and opportunities for public transport; car ownership levels and the need to reduce the use of high emission vehicles. The quality of parking in town centres must be improved, charges must not undermine the vitality and enforcement needs to be proportional. Where practical, solutions should support reductions in greenhouse gas emissions and reduce congestion. Where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice should be protected.

3.2.3 In summary The National Planning Policy Framework views transport policies as vital in facilitating development as well as contributing to sustainability and health.

3.3 WEST NORTHAMPTONSHIRE JOINT CORE STRATEGY PRE SUBMISSION (2011)

3.3.1 The West Northamptonshire Joint Core Strategy Pre Submission (JCS) document sets out the long-term vision and objectives for the whole of West Northamptonshire for the plan period up to 2026. It includes strategic policies for steering and shaping development. Published for consultation in February 2011 it is due for Submission to the Secretary of State in December 2012 and Adoption in October 2013.

3.3.2 The JCS contains a number of policies relating to transport for Northampton. The main focus is on the need to improve access to, promote the use of and make provision for walking, cycling and public transport networks and facilities. Three that are particularly relevant to the context of a Parking Strategy for the Central Area are;

- C1: Changing Behaviour and Achieving Modal Shift;
- C5: Enhancing Local and Neighbourhood Connections which makes specific reference to promoting Park and Ride facilities for Northampton; and
- N12: Northampton's Transport Network Improvements which establishes the premise to revise parking standards across the whole of Northampton.

3.4 CENTRAL AREA ACTION PLAN (2012)

3.4.1 The Central Area Action Plan (CAAP) sets out the vision and strategic objectives for the Central Area (as shown on figure 1) up until 2026 and provides a set of policies to guide Developers. Scheduled for Public Examination in September 2012 and Adoption January 2013 the CAAP will facilitate the regeneration and transformation of the Town Centre.

3.4.2 The CAAP contains a number of development policies that will have an impact on parking supply and demand within the Central Area as they make provision for office, leisure or retail . Those of particular note include;

- Policy 17: Grosvenor Centre redevelopment;
- Policy 19: Castle Station;
- Policy 20: St Johns;
- Policy 21 Angel Street;
- Policy 22: Bridge Street;
- Policy 23 Upper Mounts/Great Russell Street; and
- Policies 26 to 29 which look at the Waterside.

3.4.3 These developments will attract more people to the Central Area over and above the anticipated population growth. This will increase the demand for parking and it will be important to balance the demand against the network capacity and land-use requirements

3.4.4 In addition to the development policies are the Accessibility and Movement policies.

- Policy 6: Inner Ring Road;
- Policy 7: Former Fishmarket/Bus Interchange;
- Policy 8: Safeguarded Public Transport Route; and
- Policy 9: Pedestrian and Cycle Movement Framework

3.4.5 These policies follow the theme of the national and strategic policies set out above. In combination these policies seek to encourage a switch to more sustainable forms of transport by enhancing the provision for walking, cycling and public transport.

3.4.6 The CAAP does recognise that private vehicles have an important role for maintaining the vitality and viability of the town. The Supplementary Planning Document being developed as a result of Policy 6: Inner Ring Road is as much about improving network capacity and flow as it is for improving the pedestrian environment and access for public transport. Policy 10: Parking establishes car parking standards which aim to balance car parking need against the competing needs of environmental protection, facilitating modal shift and congestion avoidance. Signage will be improved and where private, non-residential development does provide parking the policy requires a contractual agreement to ensure future management measures are not compromised.

3.5 NORTHAMPTONSHIRE TRANSPORT PLAN

3.5.1 The Northamptonshire Transportation Plan (NTP) was published in March 2012. It is an overarching strategy document setting out the County Council's aims, objectives and strategic policies for transportation in Northamptonshire over the coming years; it incorporates an Implementation Plan for 2012/13.

3.5.2 Within the NTP there are 27 strategic policies, which, in the context of the CAAP set out targets for modal shift, the intention to work with and consult communities, improvements to walking, cycling and public transport connections and infrastructure and improvements to the highway and network efficiency.

3.5.3 The NTP will be supported by a suite of daughter documents which will provide more detail on the policy for specific modes and locations (towns). The Central Area Parking Strategy will form part of the recommendations presented within the emerging Northampton Transport Strategy.

4 Interventions

4.1 PARKING CHARGES

4.1.1 The structure of parking charges is a key element in managing the level of demand for parking in an area. It is important that the charging regime in place doesn't discourage visitors from using the car parks or encourage use of the car over other modes of transport as both will hinder the economic viability of a Town.

4.1.2 A number of options were put forward for changes to the charging structure within the Central Area in the February 2011 report, these are as follows;

- Option 1: Reducing Charges and Simplify;
- Option 2: Generate Turnover and Simplify;
- Option 3: Reduce Charges and Encourage Longer Retail Trips; and
- Option 4: Maintain Status Quo.

4.1.3 The impact of each of these options was investigated however since these were formulated the actual parking charges within NBC car parks have been restructured. It is therefore recommended that the impacts of these alterations on the car parks within the Central Area are monitored and compared with the results of the July 2011 surveys to assess the impact these changes have had on the numbers and durations of parking acts in the car parks.

4.1.4 This will help to evaluate the level of price sensitivity (i.e. how big a change to the parking charges is needed to cause a big shift in the level of occupancy or duration of stay) within the town. Understanding the level of price sensitivity is key to any future changes to the parking charge regime as it is important that the level of parking charges does not discourage visitors from using the Central Area.

Recommendation

4.1.5 It is recommended that the occupancy and duration of stay is monitored at regular intervals in all the Central Area car parks and an assessment made as to what changes have happened. This will enable the level of price sensitivity to be assessed and will enable an assessment to be made as to whether further changes to the charging regime are required to encourage greater footfall and better economic prosperity of the Central Area.

4.2 PAYMENT METHOD AND ENFORCEMENT

4.2.1 In addition to the parking charges the payment methods available and the level of enforcement is very important. In Northampton at the moment there are two methods of payment in the NBC controlled car parks these are;

- Pay and Display; and

- Pay on Foot.

4.2.2 In deriving the existing situation in the car parks surveys were undertaken in the Pay and Display car parks owned or operated by NBC. The purpose of these surveys was to enable not just the level of occupancy to be determined but also the duration of stay. The Pay on Foot car parks were not included in these surveys as the ticket information gives an accurate assessment of both the number of vehicles and the length of time they parked for.

4.2.3 The results of duration surveys in the Pay and Display car parks were compared to the number of tickets issued in each car park on the days of the surveys this exercise indicated that there were differences in the time people were observed to park and the tickets purchased.

4.2.4 The nature of the difference between observed durations and ticket sales was shown to vary with some car parks, for example, in the Grosvenor Centre the results indicated that drivers over estimate the length of time they will be parked, whilst the results St. Peter's Way indicated that people underestimate the time they will be parked for.

4.2.5 The level of underpayment and indeed non-payment observed in some of the Pay and Display car parks is obviously a situation that should not be allowed to continue. Therefore the control of payment and providing an appropriate level of enforcement is important to ensure parking can be managed fairly and effectively for all users. To this end the options available to NBC in this situation are as follows;

- Change the method of control in key car parks; and
- Increase the level of enforcement within in the car parks.

4.2.6 Both these options are considered in more detail below.

Change of the Payment Method in NBC Car Parks

4.2.7 Pay and Display car parks mean that the driver has to assess how long they will be parked for and then pay for this in advance, whilst, Pay on Foot car parks charge the driver for the amount of time they were parked for by charging the driver as they return to their car.

4.2.8 The two payment methods encourage different behaviours with Pay and Display drivers being conscious of the time they have paid for and the need to get back to their car before their ticket expires whilst Pay on Foot drivers know that they can park for as long as they like. Therefore Pay on Foot car parks encourage longer stays and are largely self enforcing as vehicles are charged for the length of time they parked for whilst Pay and Display car parks encourage restricted parking and require enforcement to ensure that vehicles are displaying a valid ticket at all times.

4.2.9 Therefore the option available to NBC is to investigate the possibility of introducing the Pay on Foot technology in more Central Area car parks. The

advantage of Pay on Foot is as has been stated, that the car park becomes largely self enforcing as it is not possible for vehicles to avoid paying for the time they have parked.

4.2.10 However, given the nature of some of the existing car parks the introduction of pay on foot may not be possible, in this instance consideration should be given to introducing new “cashless” payment methods as set out below.

New Payment Methods

4.2.11 Given the difficulties that are likely to prevent the introduction of Pay on Foot payment in many of the Central Area car parks it is recommended that the introduction of other payment cashless methods are investigated, these include;

- Pre-Pay cards;
- Payment by debit card; and
- Pay by phone

4.2.12 The introduction of these payment methods in the Borough’s Pay and Display car parks would make it easier for people to pay and therefore make it more likely that they would pay to park.

Enforcement

4.2.13 Enforcement within the car parks operated or managed by NBC is currently undertaken by NCC through a contract on behalf of NBC. This means that the parking attendants are responsible for enforcing both on-street and off-street parking and cover the Central Area in a number of patrols or "beats".

4.2.14 The results of the comparison between the observed parking durations and the ticket sales for the same day indicates that there are a significant number of motorists in some car parks that are willing to take the risk that they will not get caught and so either park for longer than they paid for or they don’t pay to park at all. In addition to this the surveys indicated that some motorist are parking in car parks for longer periods than is the maximum permitted. The results of this is that the level of turnover in that car park is reduced and so spaces might not be available when required by shoppers.

4.2.15 The above information indicates that there is both an economic case and an operational case for increasing the level of enforcement in key car parks. However it is unclear if this can be done within the bounds of the existing enforcement contract.

4.2.16 Some detailed examples of the differences between the tickets issued and the duration of stay observed on the days of the July 2011 surveys are set out in Appendix 5.

Recommendation

4.2.17 The information above indicates a possible case for introducing more Pay-on-Foot car parks and/or changing the payment methods available. In the short term there is a likely economic case for increasing the level of enforcement in those car parks where parking offences have been observed to be taking place

- Undertake a review of parking enforcement for Pay and Display car parks.
- Explore the business case for a phased programme of introducing Pay-on-Foot technology where appropriate and for the introduction of cashless payment methods in the remaining provision

4.3 DISTRIBUTION OF CURRENT CAR PARKS WITHIN THE CENTRAL AREA

4.3.1 The distribution of car parking around the Central Area can have a major impact on travel patterns around the Town, therefore, an assessment was undertaken in to the distribution of the existing car parks in the Central Area in relation to the main points of access to the Town. This exercise focused on the following junctions on the Inner Ring Road (IRR);

- Regents Square
- Abington Square
- Bedford Road/Cheyne Walk/Derngate/Victoria Promenade
- Plough junction
- Gas St Roundabout

4.3.2 The existing car parks were allocated to the closest of these junctions, this enabled the percentage of parking spaces close to each junction to be assessed, which was compared to the amount of traffic entering the Central Area at each junction.

4.3.3 The result of this exercise identified areas with an imbalance between the number of parking spaces available and the amount of traffic entering from that direction. This is important because an unequal distribution of parking spaces can encourage traffic to circulate round the town rather than encourage parking at the point of entry.

4.3.4 For the purposes of this exercise the following existing car parks were excluded;

- Albion Place (103 spaces);
- Newlands (60);
- St Johns Surface (150); and
- The Ridings (60).

4.3.5 These car parks were excluded because they are allocated as development sites within the CAAP and will result in a loss of parking provision (373 spaces). The Grosvenor Centre currently provides c. 830 spaces. This will increase by some 750 to 1580 spaces following the proposed redevelopment. Therefore, given the loss of 373 spaces and an assumed gain of up to 750 spaces the Central Area will have an overall net gain of 377 spaces. The impact of lost provision will be experienced on the south side of the study area were there will be a potential reduction of 253 parking spaces due to the loss of Albion Place and St. John's Surface level car parks to development.

4.3.6 The table below sets out the main findings of this exercise with the full research included in Appendix 6.

Table 2 Existing Situation:

	No of vehicles entering at this junction		No of parking spaces available near this junction		Difference = Parking spaces available minus spaces needed	
	No.	%	No.	%	No.	%
Regents Square	1,678	6%	1205	23%	865	16%
Abington Square	4,271	16%	1283	24%	418	8%
Bedford Road/Cheyne Walk/Derngate/Victoria Promenade	8,990	34%	694	13%	-1126	-21%
Plough junction	5,445	21%	705	13%	-398	-7%
Gas St Roundabout	5,988	23%	1452	27%	239	4%
	26,372	**100%**	**5338**	**100%**	**0**	**0%**

4.3.7 The table above shows the largest gap between parking spaces available and spaces required is at/close to the Bedford Road/Cheyne Walk/Derngate/Victoria Promenade junction (i.e. the South East), where the minus figure denotes that there are not enough parking spaces available near this junction to accommodate the number of parking likely parking acts. Similarly there are also not enough parking spaces near the Plough junction (i.e. the South) to accommodate the number of likely parking acts. This exercise also indicates that there are too many spaces available compared to the number of parking acts at the Regents Square junction (i.e. the North). The details are included in Appendix 6.

Recommendation

4.3.8 Investigations to be made in the south eastern sector of the Central Area as to the possibility of providing additional parking spaces to help address the potential imbalance between the level of traffic and the number of parking spaces, this could help reduce traffic circulating the Central Area un-necessarily.

4.4 PROVISION OF LONG/SHORT STAY SPACES:

4.4.1 A key factor in the use of the Central Area car parks is the length of time that people park for and whether spaces are available in the areas required. In order to determine this the parking acts recorded in the 2011 surveys were split into short stay (less than 4 hours) and long stay (greater than 4 hours).

4.4.2 The results of this exercise indicate that the ratio of long to short stay parking spaces in the Central Area is not inline with the recorded parking acts. For example, long stay parking acts accounted for 26% of parking acts on the Tuesday and only 7% on the Saturday yet 71% of parking spaces in the Central Area are designated as long stay. Therefore if the allocation of long stay spaces was reduced to better reflect the number of recorded long stay parking acts then it would be possible to increase the number of short stay spaces within the Central Area and so help improve turnover to enable shoppers to find a space easily within the car park they were directed to whilst still providing sufficient spaces for those that wish to park for more than four hours.

4.4.3 The information below shows the headline findings of this research with the detailed results included in Appendix 7.

Table 3 Comparison of the Percentage Splits of Spaces and Parking Acts:

	% Short Stay Parking Acts	% Short Stay Parking Spaces	% Long Stay Parking Acts	% Long Stay Parking Spaces
Tuesday Surveys	74	29	26	71
Saturday Surveys	92	29	8	71

4.4.4 The table above shows that although the majority of the parking acts recorded in the duration surveys are short stay parking acts (on both the weekday and weekend surveys), yet the majority of car parks in the Central Area are currently allocated as long stay car parks.

Distribution Of Long/Short Stay Designations

4.4.5 The current situation in Northampton allows long and short stay parking acts along side each other in some car parks. The result of this can be to have spaces closest to the Central Area occupied by long stay parking acts which can lead to shoppers and other short stay visitors being forced in to other possibly less convenient car parks.

4.4.6 As shown above the level of long stay parking acts in the public car parks is currently relatively low. The segregation of different parking acts would help to improve the availability of spaces closest to shopping destinations by discouraging long stay parking acts and increasing the level of turnover of spaces and therefore it would be easier for shoppers to find a parking space in their chosen car park.

4.4.7 The compact nature of Northampton Central Area means that none of the existing car parks shown on figure 2 are more than a 10 minute walk from the Market Square and therefore it is suggested that all car parks within the Inner Ring Road (IRR) should be designated short stay allowing a maximum stay of four hours whilst all the car parks outside the IRR should be designated long stay with a minimum stay of four hours. The exceptions to this are; Campbell Square, which will continue to be designated long stay as the majority of parking acts recorded in this car park were in excess of four hours, Abington Place will remain short stay as the majority of parking acts are under three hours whilst, Horsemarket is to remain as it is due to the nature of the adjacent land use.

4.4.8 In addition to the above exceptions three car parks will remain mixed, these are; Mayorhold, St John's Multi Storey and Upper Mounts. The first two will remain as they are due to the high number of permits that have been issued for these car parks whilst, Upper Mounts will be segregated to provide separate long and short stay sections, this is due to the lack of long stay parking spaces close to the Regents Square junction.

4.4.9 This action would be coupled with a restriction of the use of on-street spaces to durations of less than an hour to encourage longer parking acts to use the car parks and so create space for those wishing to for example pop to the newsagents or cash point.

4.4.10 It is proposed that long stay parking acts in the short stay spaces should be discouraged by making durations of over four hours prohibitively expensive e.g. £10 or £12. Whilst in the designated long stay car parks it is recommended that the minimum stay should be four hours, care should be taken to ensure that the tariff is set at such a level as to not penalise long stay parkers but also that it doesn't encourage short stay acts in these car parks.

4.4.11 It is important to note that the separation of long and short stay parking acts alone will not change the existing usage patterns within the Central Area but coupled with the proposal to encourage use of the car park closest to the point of entry to the Central Area through the introduction of a comprehensive signing strategy, it could help improve both the environment within the Central Area by reducing the level of traffic circulating the IRR and help increase the level of footfall in the wider Central Area as people walk through the Central Area from their car park. The details of this are included in Appendix 7.

4.4.12 The development proposals for the Central Area in Northampton highlight a number of the existing car parks as being suitable sites for development. This would require a suitable replacement to retain the required level of parking within the town centre and therefore it is important that any parking provided is made available for use by members of the public when not needed for the land use it is associated with, e.g. evenings and weekends.

Recommendation

4.4.13 Reduce the number of long stay parking spaces and increase the number of short stay spaces to reflect current parking trends.

4.4.14 Separate out long and short stay parking acts making car parks out side the Inner Ring Road long stay and those inside short stay with the exceptions of the specific car parks set out above.

4.4.15 Ensure parking provision supplied by the proposed redevelopment of the Central Area is available for uses outside of business times, e.g. evenings and weekends.

4.5 SIGNAGE STRATEGY

4.5.1 The signing of car parks within the Central Area is vital if people are to be encouraged to use the closest car park to their point of access to the town. the current system of car park signing within Northampton is erratic with some car parks signed by name and some by type e.g. shoppers. However, none of the signs indicate the length of stay that is permitted in the car park.

4.5.2 A revised signing system has been designed which directs drivers to the closest car park either long or short stay to their point of entry to the Central Area. This signing strategy is combined with a resigning of the road network to ensure that visitors can exit the town easily having been directed into a certain car park.

4.5.3 The revised signing strategy is shown in the plan in Appendix 8.

Recommendation

4.5.4 Implement the signage strategy in association with the reassignment and redistribution of long/short stay spaces to encourage vehicles to park in the relevant car park closest to their point of entry into the Central Area, rather than adding to traffic by travelling across town to get to their chosen car park. The vehicle signing would be accompanied by the introduction of pedestrian signage showing the time taken to reach key destinations within the Central Area.

4.6 FUTURE CAR PARK CAPACITY IN THE CENTRAL AREA – WITHOUT DEVELOPMENT

4.6.1 The current level of car parking in Northampton is approximately 45% of capacity on both the Tuesday and Saturday. However there are a number of car parks within the Central Area that are earmarked as development sites, in addition there is a high level of growth predicted within the Northampton urban area.

4.6.2 In order to assess the impact both of the loss of spaces and the predicted growth in the population of Northampton on the level of parking in the Central Area an assessment was made of likely changes in car ownership and population in Northampton.

4.6.3 Data was extracted from TEMPRO (a DfT database that provides growth factors to future years at district, county and regional level) for car ownership in Northampton. It was assumed that all cars would have just the driver in them in order to provide a robust assessment of the likely increase in the number of cars in Northampton in the future years. This gave the following percentages;

Table 4 Percentage Increase In Car Ownership For Each Year:

	Base Year (2011) to Future Year (2021)	Base Year (2011) to Future Year (2026)
Percentage Increase in Number of Cars	17%	23%

4.6.4 These factors were applied to the base year data The results of this exercise indicate that the existing car parks will have sufficient capacity to deal with the expected future demand as a result of planned growth.

Table 5 2026 Car park Occupancy

	No. Spaces	Max No.	%
Tuesday	5155	2897	56%
Saturday	5155	3033	59%

4.6.5 From this it is possible to see that the car parks will have sufficient capacity to cater for the increase in demand as a result of the planned growth in car ownership and population within Northampton. Further details of the assessments undertaken are included in Appendix 9.

4.7 FUTURE CAR PARK CAPACITY IN THE CENTRAL AREA – WITH DEVELOPMENT

4.7.1 The previous section demonstrates that the current level of parking provision is more than enough to cater for the predicted future year demand if there is no significant development in Northampton, however as there is considerable development planned for both the Central Area and the wider Northampton urban area, therefore an assessment was undertaken looking at the impact of this planned development on the number of parking acts in the Central Area.

4.7.2 The development proposals in the Central Area will mean an increase in the number of vehicles travelling into the Central Area and therefore will increase the number of vehicles trying to park. Many of the development sites will be covered by the CAAP parking policy (appendix 10) which limits the amount of Private Non-Residential parking.

4.7.3 An assessment was undertaken into the likely level of parking required in the Central Area in the future year of 2026 incorporating developments set out in Appendix 10.

4.7.4 To understand the future level of parking that will be required to cater for the proposed developments within the Central Area a trip generation exercise was undertaken for each land use using the TRICS data base. From this exercise it has been possible to determine the number of car trips that might be generated and the times of day that these trips are likely to arrive and depart. This enabled a parking accumulation exercise to be undertaken which predicts the numbers of cars that will need to be parked throughout the day.

4.7.5 The results of this exercise indicated that the peak number of parking acts likely to be generated by the proposed developments is 5623, (this figure was recorded between 12:00 and 13:00 which is the same as the existing Central Area peak parking period).

4.7.6 Therefore in order to assess the capability of the car parking to cater for the predicted level of demand in 2026 the following exercise was undertaken;

Future Provision of Spaces

- 4,771 (NBC owned – existing minus the four car parks listed earlier)
- 362 (Sol Central - existing)
- 300 (existing on-street spaces)

Adding to these the proposed car parking expected to be required for the proposed future developments

- 770 (Grosvenor redevelopment - estimated)
- 2,900 (New development - estimated)

4.7.7 Therefore the total future provision in 2026 will be 9,103 parking spaces.

Future Parking Demand

- 2,987 (level of occupancy predicted in existing car parks in 2026)
- 5,623 (future development peak parking accumulation)

4.7.8 Therefore, the predicted number of parking acts in 2026 is 8,610.

4.7.9 The results of the exercise above indicates that the car parking in the Central Area would be at 94% of capacity, well above the 85% considered suitable for efficient operation without impacting on the surrounding road network. Therefore to ensure that the car parks within the Central Area do not exceed 85% of capacity an additional 1,026 spaces would be required giving a total of 10,129 parking spaces in the Central Area.

4.7.10 It is important to note that if the proposed developments planned for the study area were allowed unlimited parking provision then this would lead to an over provision of parking spaces and would encourage more people to drive in to the study area. This in turn would impact on the operation of the local road network and lead to increased congestion for all road users, therefore the implementation of the CAAP policy will ensure the parking for the proposed developments can be catered for whilst encouraging use of alternative modes to access the Central Area.

4.7.11 Policy C5 of the West Northamptonshire Joint Core Strategy sets out the need to promote Park and Ride facilities for Northampton and the current trend for transport policy is to encourage a switch to sustainable transport (walking, cycling, public transport) over the private car. This Parking Strategy sets a medium term recommendation to investigate locations and explore the business case for Park and Ride on key corridors. Whilst no funding mechanisms are currently identified the situation could change as the drive for modal shift takes priority from a national to local level. It is possible that, in the timescale indicated some demand could be met through the introduction of Park and Ride on key corridors into the Central Area and some through modal shift.

4.7.12 The Central Area Action Plan does recognise the importance of the private car as well as the need for modal shift. There does need to be flexibility in the level of provision of parking, to some extent this is set out in the Central Area Parking Policy. However, to ensure the Central Area has the capacity to respond to and balance parking needs against parking provision and in the context of network capacity it is recommended that the Central Area has a parking provision up to 2026 of 10,000 parking spaces. This amount includes any provision occurring as a result of the Grosvenor development and makes allowances for the anomalies of the predicted demand as described above and the 'rounding up' included as part of the parking provision figures.

Recommendation

4.7.13 Investigate the possibility of providing Park and Ride on the key corridors highlighted in this strategy as having a deficiency in the number of parking spaces by 2021.

- Implement and monitor the impact of CAAP Parking Policy.
- Explore the business case for a workplace-parking levy.
- Explore the business case for a retail-parking levy beyond the Central Area.

5 Action Plan

5.1 INTRODUCTION

5.1.1 Based on the recommendations set out in section 2 of this report the following action plan has been derived.

5.2 ACTION PLAN

5.2.1 The time scale set out below refers to the following time periods;

- Short Term – 1 to 3 years
- Medium Term – 3 to 10 years
- Long Term – over 10 years

Table 6 Parking Strategy Action Plan

Intervention	Parking Strategy Action Plan	Time Scale			Lead Authority
		Short (2012 – 2016)	Medium (2017 – 2021)	Long (2022 – 2026)	
Parking Charges	Regular Monitoring of car park occupancy and duration of stay	On-going			NBC
	Use monitoring results to review pricing structure. Determine pricing strategy and implementation	On-going			NBC
Payment Method and Enforcement	Investigation of the introduction of Pay-on-Foot in more Central Area car parks	✓			NBC
	Investigate the introduction of cashless payment methodologies in the remaining Pay and Display car parks	✓			NBC
	Investigate the introduction of increase enforcement within the Pay and Display car parks	✓	✓		NBC
Car Park Distribution	Investigate the possibility of providing additional car parking capacity in the South east of the town		✓		NBC/NCC
Long and Short Stay Parking	Reduce number of long stay parking spaces and increase the number of short stay spaces	✓			NBC
	Redistribute and segregate the provision of long and short stay spaces	✓			NBC
Signage	Implement signage strategy	✓	✓		NCC
Future Car Parking Capacity	Implement and monitor impact of CAAP Parking Policies	On going			NBC
	Investigate locations and explore business case for Park and Ride and / or peripheral car parks for Key Corridors into the CAAP area		✓		NBC/NCC
	Explore business case for workplace-parking levy	✓			NBC
	Explore business case for retail-parking levy beyond the Central Area	✓			NBC

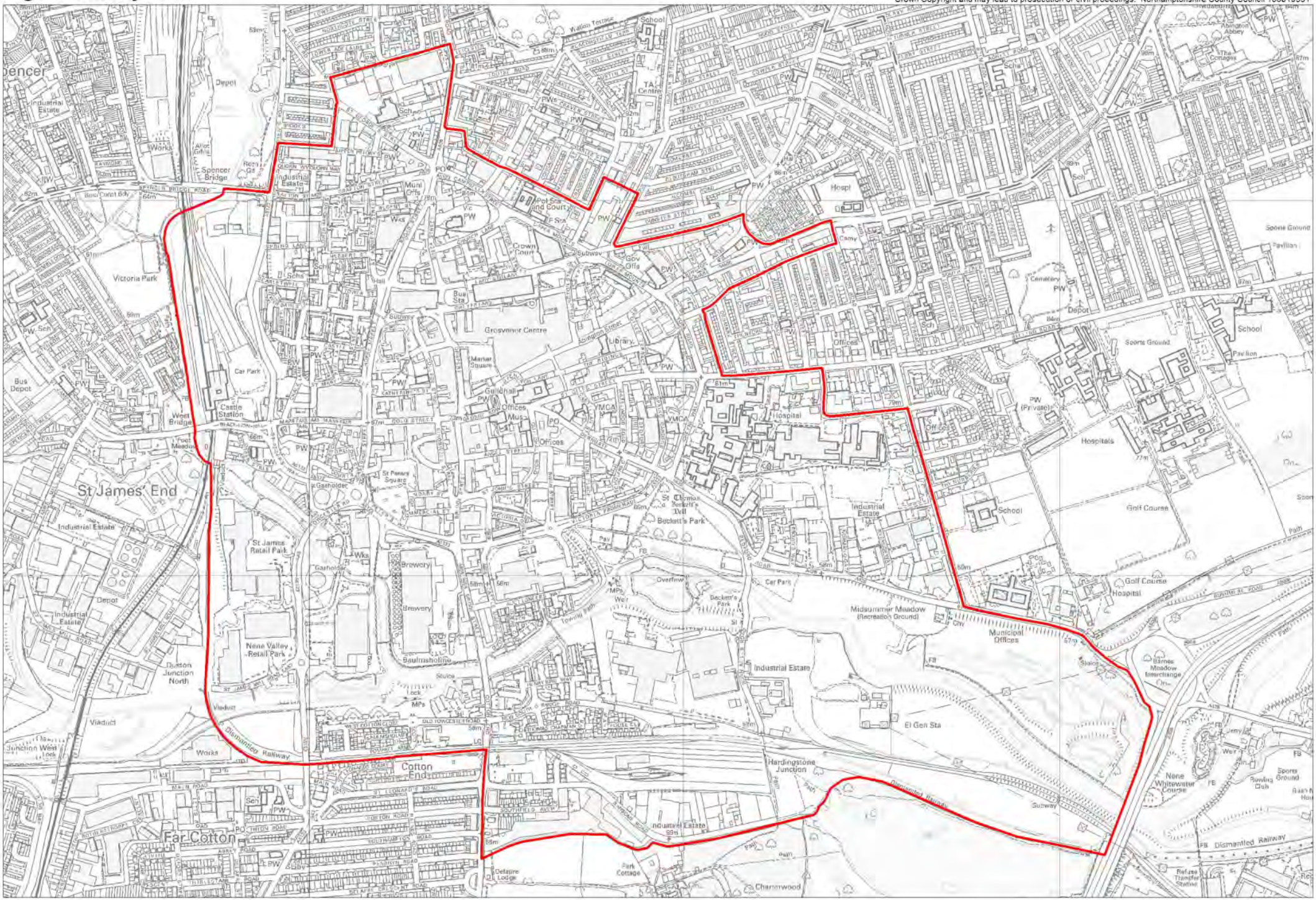
5.3 MONITORING

5.3.1 The monitoring of the effectiveness of the above actions is the responsibility of the owning local authority. The key issues are as follows;

- The parking strategy should be revisited in five years;
- The occupancy and duration of stay should be monitored on an annual basis.

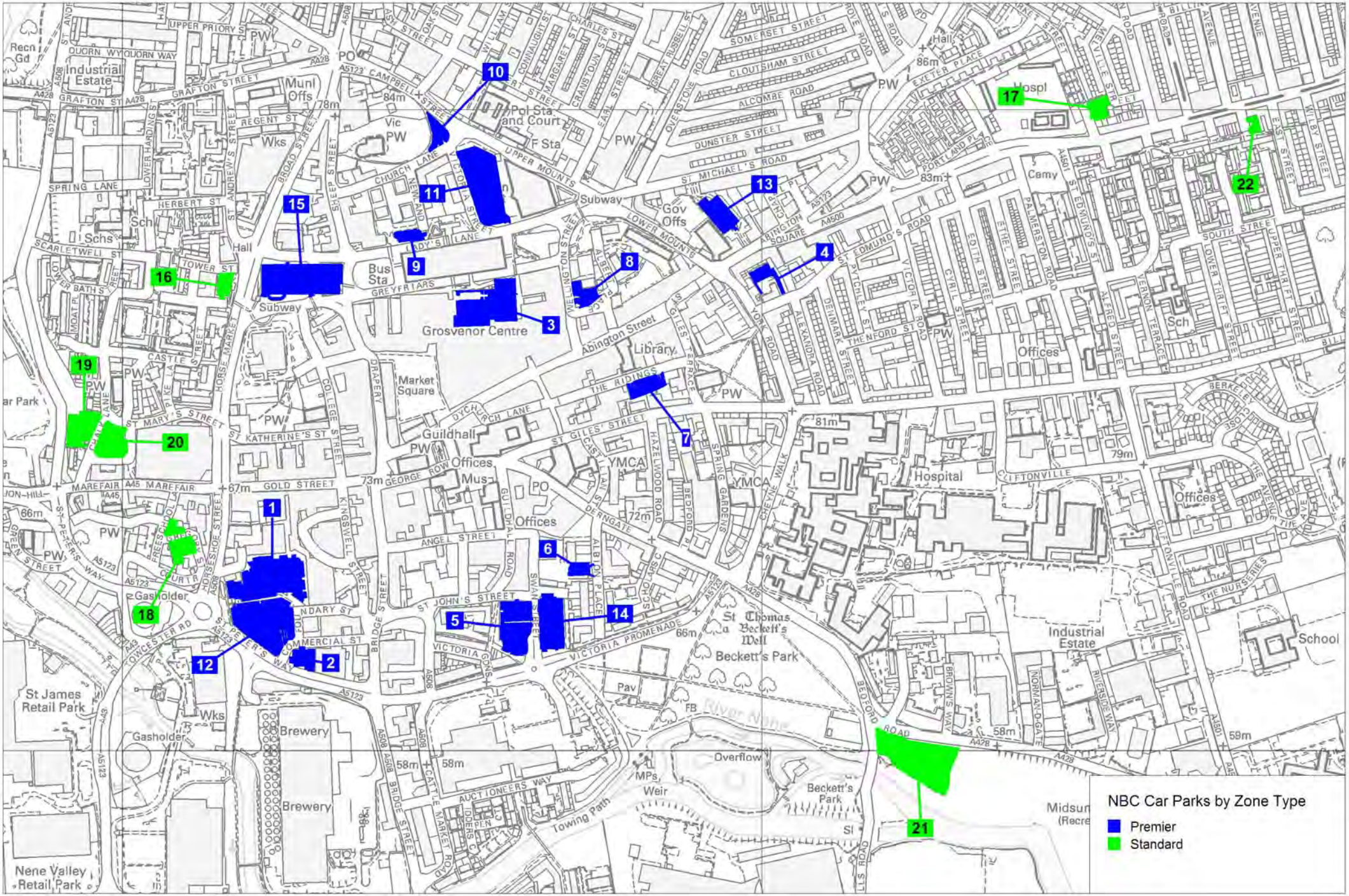
Figures

Figure 1 Study Area



Scale - 1 : 12 500

Figure 2 NBC Car Park Locations



APPENDIX NO 1: Matrix Of Interventions February 2011.

Option	Timescale		
	Short term	Medium term	Long term
Parking Charges and payment methods			
Parking charges option 1: reducing charges and simplify	✓	✓	□
Parking charges option 2: generate turnover and simplify.		✓	✓
Parking charges option 3: reduce charges and encourage longer retail trips	✓	✓	□
Parking charges option 4: maintain status quo	✓		
Review on street charges to ensure consistency of approach, and potentially introduce a very short stay payment threshold of 15 minutes, either free or at a very low cost.	✓		
Implement a revised inner/outer zoning structure with improved communication	✓		
Implement a directional zoning system	□	✓	
Consider restructuring the charging regime in the 'premier zone' car parks to encourage more short stay parking and therefore promote passing trade for town centre retailers.		✓	
Consider the introduction of 'free' initiatives: free after 3pm, free for 30 minutes etc.	✓	□	
Consider ending the distinction between short and long stay car parks		✓	
Wider adoption of the 'Pay on Foot' payment method, with associated improved payment facilities, potentially including credit/debit card and Smartcard facilities		✓	✓
Consider introducing a token system through town centre retailers to offset the cost of parking through store purchases.		✓	□
Consider implementing a Workplace Parking Levy			✓
Consider implementing a Retail Parking Levy			✓
Location of Parking			
Maintain status quo	✓		
Maintain status quo, plus potential development parking stock additions		✓	
Consider relocation of some parking stock within the Central Area, particularly opportunities to locate more parking in the 'centre east' zone			✓
Restrict the amount of additional PNR parking within the Central Area (as identified in the CAAP)		✓	
Introduce different parking standards for inside and outside the inner ring road		✓	
Signage			
Implement an improved directional signage strategy from the principal approach roads to the Central Area car parks	✓		
Implement a pedestrian car park signage strategy, aimed at improving signage both within, and to/from Central Area car parks	✓	✓	
Long term strategy to implement a Variable Message Signing (VMS) system			✓
On-Street Parking Options			
Ensuring on-street parking is well located for shops, without compromising the town centre streetscape, including consulting local traders about parking proposals as they come forward.	□	✓	
Restructure on-street charging regime to encourage more short stay parking, potentially including a free/very low cost initial period		✓	
Provide more on-street parking in key locations, including more disabled provision, with pricing structures to encourage rapid turnover		□	✓
Park and Ride			
Implement a Park and Ride policy, supported by a range of complementary measures designed to encourage use of the park and ride service			✓
Control / Enforcement			
Improving the levels of enforcement in relation to on-street parking to encourage turnover	✓	□	
Improving the level of enforcement in relation to disabled spaces in order to prevent abuse of the system	✓	□	
Opening Hours		□	
Targeted lengthening of opening hours in key car parks, in consultation with the evening economy traders		✓	
Quality		□	
Implement a general programme of security, pedestrian and other user-focussed improvements to car parks	✓	□	

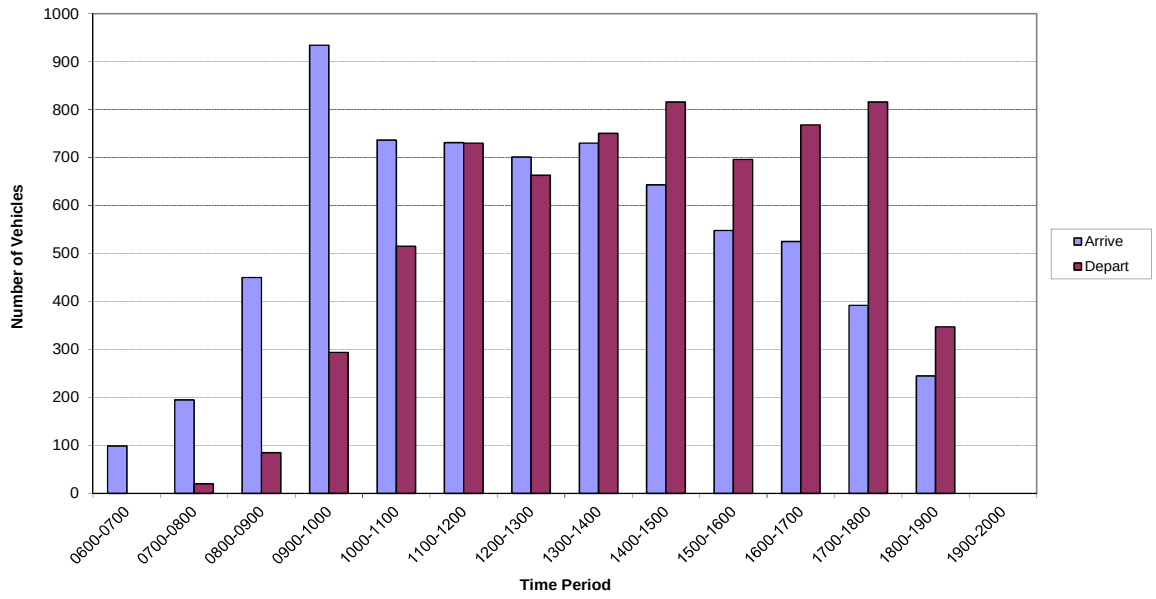
APPENDIX NO 2: Occupancy Summary

Occupancy Profile

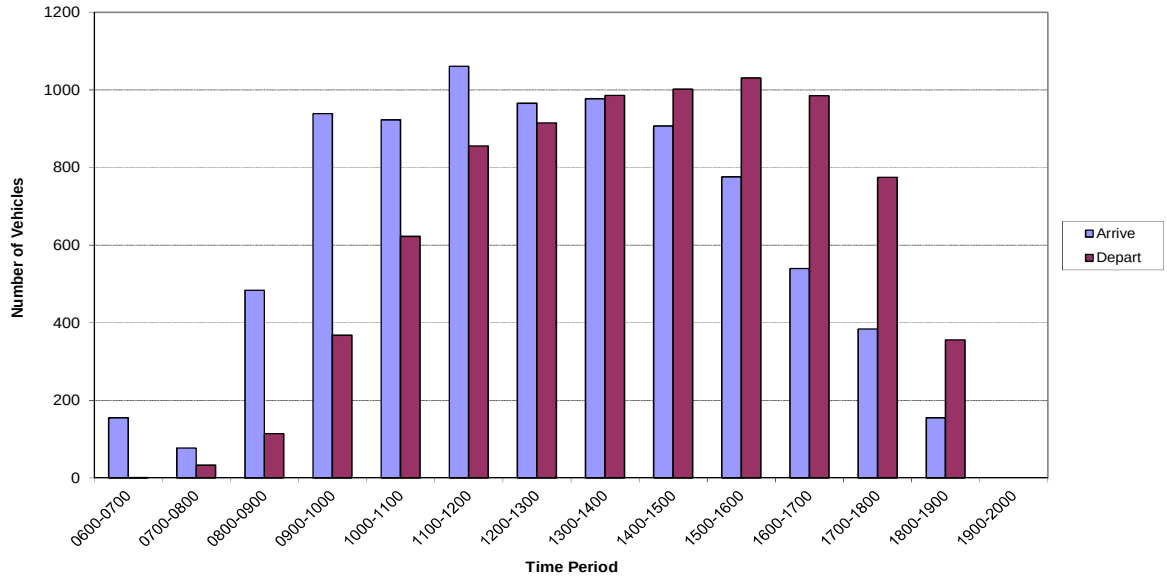
Car Park	No. Spaces	Tuesday		Saturday	
		No.	%	No.	%
Abington Place	27	23	85%	32	119%
Albion Place	105	54	51%	63	60%
Campbell Square	31	27	87%	8	26%
Chalk Lane	110	24	22%	7	6%
Commercial Street South	50	35	70%	41	82%
Commercial Street	263	86	33%	206	78%
Dodridge Street	67	13	19%	21	31%
Grosvenor Centre	834	281	34%	446	53%
Horsemarket	28	17	61%	13	46%
Marefair	87	21	24%	31	36%
Market Street	51	29	57%	19	37%
Melbourne Street	16	7	44%	4	25%
Midsummer Meadow	245	139	57%	19	8%
Newlands	60	53	88%	57	95%
Sol Central	362	281	78%	278	77%
St. Johns Surface	150	85	57%	123	82%
St. Peters Way	276	184	67%	249	90%
The Ridings	60	58	97%	68	113%
Upper Mounts	312	277	89%	108	35%
Wellington Street	37	42	114%	42	114%
St Johns Multi Story	585	232	40%	116	20%
St Michaels	616	180	29%	155	25%
Mayorhold	1054	558	53%	596	57%
Central Area	**5426**	**2429**	**45%**	**2468**	**45%**

APPENDIX NO 3: Arrival and Departure Profile

Tuesday Arrival and Departure Profile July 2011 Surveys



Saturday Arrival and Departure Profile July 2011 Surveys



APPENDIX NO 4: Duration Summary

Tuesday Duration Data

Car Park	Up to 1 hr	1-2 hrs	2-3 hrs	3-4 hrs	4-5 hrs	Over 5 hours	Total
Abington Place	43%	40%	14%	0%	0%	3%	100%
Albion Place	25%	34%	25%	8%	4%	6%	100%
Campbell Square	39%	26%	9%	6%	1%	20%	100%
Chalk Lane	31%	6%	3%	0%	3%	58%	100%
Commercial Street South	76%	17%	4%	1%	1%	1%	100%
Commercial Street	83%	10%	4%	2%	0%	1%	100%
Dodridge Street	50%	25%	6%	0%	4%	15%	100%
Grosvenor Centre	24%	44%	20%	6%	2%	3%	100%
Horsemarket	15%	23%	4%	4%	12%	42%	100%
Marefair	46%	22%	5%	7%	1%	18%	100%
Market Street	59%	28%	9%	3%	0%	0%	100%
Melbourne Street	67%	25%	3%	3%	0%	3%	100%
Midsummer Meadow	29%	13%	6%	4%	2%	48%	100%
Newlands	19%	19%	10%	2%	5%	44%	100%
Sol Central	17%	29%	25%	11%	4%	13%	100%
St. Johns Surface	29%	30%	22%	10%	4%	4%	100%
St. Peters Way	77%	23%	0%	0%	0%	0%	100%
The Ridings	37%	37%	15%	5%	4%	2%	100%
Upper Mounts	28%	24%	15%	7%	5%	22%	100%
Wellington Street	62%	24%	8%	3%	2%	1%	100%
St Johns Multi Story	3%	6%	7%	6%	4%	74%	100%
St Michaels	11%	8%	4%	2%	1%	73%	100%
Mayorhold	11%	16%	8%	4%	1%	61%	100%
Central Area	**37%**	**22%**	**10%**	**4%**	**2%**	**24%**	**100%**

Saturday Duration Data

Car Park	Up to 1 hr	1-2 hrs	2-3 hrs	3-4 hrs	4-5 hrs	Over 5 hours	Total
Abington Place	48%	27%	19%	3%	0%	4%	100%
Albion Place	16%	38%	26%	12%	5%	3%	100%
Campbell Square	7%	71%	7%	7%	0%	7%	100%
Chalk Lane	46%	21%	13%	8%	0%	13%	100%
Commercial Street South	75%	20%	3%	1%	0%	0%	100%
Commercial Street	80%	11%	6%	2%	0%	1%	100%
Dodridge Street	41%	24%	13%	8%	2%	13%	100%
Grosvenor Centre	20%	44%	24%	8%	2%	2%	100%
Horsemarket	38%	13%	8%	0%	0%	42%	100%
Marefair	39%	31%	15%	6%	2%	7%	100%
Market Street	51%	32%	11%	1%	4%	1%	100%
Melbourne Street	61%	17%	11%	6%	6%	0%	100%
Midsummer Meadow	67%	17%	11%	3%	2%	1%	100%
Newlands	19%	28%	15%	5%	3%	30%	100%
Sol Central	18%	27%	18%	6%	3%	28%	100%
St. Johns Surface	28%	38%	21%	8%	4%	2%	100%
St. Peters Way	63%	22%	12%	2%	1%	1%	100%
The Ridings	34%	33%	17%	7%	4%	5%	100%
Upper Mounts	33%	36%	20%	7%	1%	3%	100%
Wellington Street	33%	42%	15%	5%	3%	3%	100%
St Johns Multi Story	10%	28%	27%	8%	7%	20%	100%
St Michaels	20%	35%	22%	8%	3%	13%	100%
Mayorhold	20%	37%	24%	10%	4%	6%	100%
Central Area	**39%**	**30%**	**17%**	**6%**	**2%**	**6%**	**100%**

APPENDIX NO 5: Compliance Summary

An exercise was carried out to compare the breakdown of duration of stay from the surveys with the actual income data in St Peters car park. The tables below illustrate this comparison for the Tuesday surveys:

Tuesday Tariff Compliance

	Tickets Sold		Observed Durations							
			All Parking Acts		excluding <5 mins		excluding <15 mins		excluding <30 mins	
	No	%	No	%	No	%	No	%	No	%
Up to 1 hour	469	52	928	66	624	57	504	52	317	40
1-2 hours	288	32	304	22	304	28	304	31	304	39
2-3 hours	142	16	108	8	108	10	108	11	108	14
3-4 hours	N/A	N/A	29	2	29	3	29	3	29	4
4-5 hours	N/A	N/A	8	1	8	1	8	1	8	1
Over 5 hours	N/A	N/A	20	1	20	2	20	2	20	3
Total	899	100	1,397	100	1,093	100	973	100	786	100

The above data shows a clear trend that vehicles are not paying to park as only 899 tickets were issued but 1397 parking acts were recorded. However when the percentage of parking acts are examined it appears that those people that do pay are under estimating their length of stay. The exclusion of stays less than 15 minutes shows a similar level of parking to the number of tickets issued. St Peters Way has a maximum stay of 3 hours, however the survey data shows that some vehicles have parked for longer than 3 hours and therefore should not be using this car park.

The table below illustrate this comparison for the Saturday surveys:

Saturday Tariff Compliance

	Tickets Sold		Observed Durations							
			All Parking Acts		excluding <5 mins		excluding <15 mins		excluding <30 mins	
	No	%	No	%	No	%	No	%	No	%
Up to 1 hour	615	46	1,251	64	738	51	562	44	367	34
1-2 hours	455	34	432	22	432	30	432	34	432	40
2-3 hours	267	20	222	11	222	15	222	17	222	21
3-4 hours	N/A	N/A	30	2	30	2	30	2	30	3
4-5 hours	N/A	N/A	14	1	14	1	14	1	14	1
Over 5 hours	N/A	N/A	14	1	14	1	14	1	14	1
Total	1,337	100	1,963	100	1,450	100	1,274	100	1,079	100

The results set out above indicate that the payment patterns are similar to those seen on the Tuesday. This indicates that there is an enforcement issue in this car park.

APPENDIX NO 6: Car Park Distribution

An exercise was carried out using the census journey to work data for Northampton to assess where people came from for work this compared this with the percentage splits from the perception survey, the Project Angel scoping and the February 2011 Parking Study document (from the VISSIM model). The purpose of this was to see how the four data sources compared.

District/Borough of Origin

Borough/District	% Journey to Work Census Data	% Parking Strategy Tuesday Survey	% Parking Strategy Saturday Survey
Corby Borough	1%	1%	1%
Daventry District	7%	11%	12%
East Northants	3%	3%	4%
Kettering Borough	4%	6%	2%
Northampton Borough	72%	50%	53%
South Northants	7%	7%	8%
Wellingborough Borough	6%	7%	9%
Other (Outside County / Not Given)	n/a	16%	12%
Total	**100%**	**100%**	**100%**

Direction Traffic Travelling into Northampton Came From

Direction	% Journey to Work Census Data	% Parking Strategy Tuesday Survey	% AM Peak from Northampton VISSIM model	% Project Angel Scoping Note
North	23%	17%	23%	28%
South	24%	21%	21%	18%
East	34%	35%	29%	34%
West	20%	27%	27%	20%
Total	**100%**	**100%**	**100%**	**100%**

These tables show that there is little difference between the various data sources. Therefore the census data was used in the detailed analysis undertaken.

This data was used to check that if vehicles were signed to the nearest car park to there point of entry to the CAAP area rather than to the car park closest to their end location, then would there be sufficient parking or are there areas of the town that would require additional parking spaces?

This analysis involved making assumptions as to what direction/ route they would take and which of the five major junctions on the inner ring road they would use (as in the Parking in Northampton Town Centre: Recommendations for the Creation of a Future Strategy (Feb 2011)). At the same time the car parks were allocated to the closest junction out of the five major junctions to ascertain what percentage of parking spaces are available close to these junctions.

This enabled calculations to be made as to the difference between the parking spaces available and the spaces needed and to identify which areas of the town would require more car parks if this approach was to be taken.

Melbourne Street and Market Street car parks were excluded from this exercise as they are too far out of the Central Area.

This exercise was carried out for the existing situation and then for the proposed situation where due to future developments - Albion Place (103 spaces), Newlands (60) St Johns Surface (150) and The Ridings (60) will not be available but there will be an additional 750 spaces at the Grosvenor Centre. This will result in a net gain of 377 spaces.

This analysis showed that there is a shortage of parking in the South-East. It is important to note that if all the currently proposed development in the CAAP area goes ahead then this is the section of the town that will be worst affected by this as most of the developments proposed will remove current car parks in this area.

The tables below show the results of this exercise and illustrate that the location of parking spaces are encouraging vehicles to circulate the town particularly those coming in from the East and South as there are not enough spaces in car parks near their point of entry to accommodate them.

Existing Situation:

	No of vehicles entering Northampton at this junction (from census journey to work data)	% vehicles entering at this junction (from census journey to work data)	No of parking spaces available near this junction	% parking spaces available near this junction	No of parking spaces needed (distributed by junction)	Difference = Parking spaces available minus spaces needed	% Difference = Parking spaces available minus spaces required
Regents Square	1,678	6%	1205	23%	340	865	16%
Abington Square	4,271	16%	1283	24%	865	418	8%
Bedford Road/Cheyne Walk/Derngate/Victoria Promenade	8,990	34%	694	13%	1820	-1126	-21%
Plough junction	5,445	21%	705	13%	1102	-398	-7%
Gas St Roundabout	5,988	23%	1452	27%	1212	239	4%
	26,372	**100%**	**5338**	**100%**	**5338**	**0**	**0%**

The table above shows the largest gap between parking spaces available and spaces required is at/close to the Bedford Road/Cheyne Walk/Derngate/Victoria Promenade junction (i.e. the South East), where the minus figure denotes that there is not enough parking spaces available near this junction to accommodate the number of parking spaces required (based on the number of vehicles entering the Central Area at this junction). (This highlights the need for more parking in this area which could be addressed by converting the current Midsummer Meadow Car Park into a Multi-Storey Car Park). Similarly there is also not enough parking spaces near the Plough junction (i.e. the South) to accommodate the number of parking spaces required. On the opposite end of the scale there are too many spaces available compared to the number of spaces required at the Regents Square junction (i.e. the North).

Proposed Situation:

	No of vehicles entering Northampton at this junction (from census journey to work data)	% vehicles entering at this junction (from census journey to work data)	No of parking spaces available near this junction	% parking spaces available near this junction	No of parking spaces needed (distributed by junction)	Difference = Parking spaces available minus spaces needed	% Difference = Parking spaces available minus spaces required
Regents Square	1,678	6%	1520	27%	364	1156	20%
Abington Square	4,271	16%	1615	28%	926	689	12%
Bedford Road/Cheyne Walk/Derngate/Victoria Promenade	8,990	34%	551	10%	1948	-1397	-24%
Plough junction	5,445	21%	578	10%	1180	-602	-11%
Gas St Roundabout	5,988	23%	1452	25%	1298	154	3%
	26,372	**100%**	**5715**	**100%**	**5715**	**0**	**0%**

The table above shows a similar pattern to the existing situation, however the gap has increased in that there is now a larger shortage of parking spaces available in relation to the parking spaces required for the Bedford Road/Cheyne Walk/Derngate/Victoria Promenade and Plough junctions (i.e. the South-East and South) due to future developments resulting in removing parking spaces in this area.

APPENDIX NO 7: Long/Short Stay Analysis

Calculations were carried out using the duration survey data to assess the number and percentage of vehicles that park long stay (assumed to be greater than 4 hours) and short stay (assumed to be less than 4 hours).

The purpose of this exercise is to highlight any car parks that currently have a high proportion of long or short stay vehicles which will help determine where the demand is for long and for short stay car parks in terms of location. It is interesting to also note that some car parks e.g. St Peters Way have a maximum 3 hour stay restriction but some vehicles are recorded as staying longer than this which highlights an enforcement issue and perhaps also a demand for long stay parking in this area.

The results of this exercise are shown in the tables below (the highlighted cells show the car parks where the majority of vehicles park long stay in comparison to other car parks or where the split is fairly even between long and short stay parking acts):

Weekday Surveys:

Car Park	Short stay	% Short stay	Long stay	% Long stay	Total	Car Park restriction
Abington Place	95	97%	3	3%	98	Max 5 hours
Albion Place	140	90%	15	10%	155	Max 5 hours
Campbell Square	55	79%	15	21%	70	
Chalk Lane	14	39%	22	61%	36	
Commercial Street South	263	98%	5	2%	268	Max 3 hours
Commercial Street	989	99%	15	1%	1004	
Dodridge Street	42	81%	10	19%	52	
Grosvenor Centre	869	95%	50	5%	919	Max 5 hours
Horsemarket	12	46%	14	54%	26	
Marefair	61	80%	15	20%	76	
Market Street	116	100%	0	0%	116	
Melbourne Street	35	97%	1	3%	36	
Midsummer Meadow	127	51%	124	49%	251	
Newlands	50	51%	49	49%	99	
Sol Central	745	82%	159	18%	904	
St. Johns Surface	228	92%	21	8%	249	Max 5 hours
St. Peters Way	1369	98%	28	2%	1397	Max 3 hours
The Ridings	271	94%	16	6%	287	Max 5 hours
Upper Mounts	460	73%	166	27%	626	
Wellington Street	253	97%	7	3%	260	Max 5 hours
St Johns Multi Story	107	22%	372	78%	479	
St Michaels	92	26%	261	74%	353	
Mayorhold	682	38%	1129	62%	1811	
Central Area	**7075**	**74%**	**2497**	**26%**	**9572**	

Weekend Surveys:

Car Park	Short stay	% Short stay	Long stay	% Long stay	Total	Car Park restriction
Abington Place	158	96%	6	4%	164	Maximum Stay 5 hours
Albion Place	154	92%	13	8%	167	Maximum Stay 5 hours
Campbell Square	13	93%	1	7%	14	
Chalk Lane	21	88%	3	13%	24	
Commercial Street South	373	99%	2	1%	375	Maximum Stay 3 hours
Commercial Street	1616	99%	17	1%	1633	
Dodridge Street	54	86%	9	14%	63	
Grosvenor Centre	1411	97%	43	3%	1454	Maximum Stay 5 hours
Horsemarket	14	58%	10	42%	24	
Marefair	91	91%	9	9%	100	
Market Street	78	95%	4	5%	82	
Melbourne Street	17	94%	1	6%	18	
Midsummer Meadow	100	97%	3	3%	103	
Newlands	83	67%	41	33%	124	
Sol Central	477	69%	215	31%	692	
St. Johns Surface	391	94%	25	6%	416	Maximum Stay 5 hours
St. Peters Way	1935	99%	28	1%	1963	Maximum Stay 3 hours
The Ridings	268	91%	26	9%	294	Maximum Stay 5 hours
Upper Mounts	404	96%	18	4%	422	
Wellington Street	200	94%	12	6%	212	Maximum Stay 5 hours
St Johns Multi Story	165	73%	60	27%	225	
St Michaels	360	84%	69	16%	429	
Mayorhold	1443	91%	149	9%	1592	
Central Area	9826	93%	764	7%	10590	

This exercise also highlighted the percentage of short/long stay parking acts compared to the percentage of short/long stay parking spaces in the Central Area to show the gap between the percentage that want to park short/long stay and the percentage of short/long stay spaces are available. These figures are shown in the table below:

Comparison of the Percentage Splits of Spaces and Parking Acts:

	% Short Stay Parking Acts	% Short Stay Parking Spaces	% Long Stay Parking Acts	% Long Stay Parking Spaces
Tuesday Surveys	74	29	26	71
Saturday Surveys	92	29	8	71

The above table shows that although the majority of the parking acts recorded in the duration surveys are short stay parking acts (on both the weekday and weekend surveys), yet the majority of car parks in the Central Area are currently allocated as long stay car parks.

Long/Short Stay Designations

The current situation in Northampton allows all day parking acts in several car parks along side short stay parking acts. The result of this can be to have spaces closest to the Central Area occupied by long stay parking acts and can lead to shoppers and other short stay visitors being forced in to other possibly less convenient car parks. Whilst the level of long stay parking acts in the public car parks is currently relatively low due to the large amount of Private Non Residential parking available within the CAAP area. It is important to recognise that if the planned level of development within the study area comes forward and if the level of parking provided is limited in line with the various planning policies as set out in subsequent section of this report, then in order to preserve the availability of parking for visitors wishing to park for shorter periods of time it will be important to separate out long and short stay parking acts.

The segregation of different parking acts helps to improve the availability of spaces closest to shopping destinations within the CAAP area, in order to free up additional spaces and to ease enforcement within the Central Area it is proposed that car parks be designated either short stay or long stay.

The compact nature of the Central Area means that none of the existing car parks are more than a 10 minute walk to the Market Square and therefore it is suggested that all car parks within the inner ring road should be designated short stay allowing a maximum stay of four hours whilst all the car parks outside the inner ring road should be designated long stay with a minimum stay of four hours. The exceptions to this are; Campbell Square, which will continue to be designated long stay as the majority of parking acts recorded in this car park were in excess of four hours, Abington Place is proposed as short stay as the majority of parking acts are under three hours and finally Horsemarket is to remain as it is due to the nature of the adjacent land use.

This action would be coupled with a restriction of the use of on-street spaces to durations of less than an hour to encourage longer parking acts to use the car parks and so create space for those wishing to for example pop to the newsagents or cash point.

It is proposed that long stay parking acts in the short stay spaces should be discouraged by making durations of over four hours prohibitively expensive e.g. £10 or £12. Whilst in the designated long stay car parks it is recommended that the minimum stay should be four hours, care should be taken to ensure that the tariff is set at such a level as to not penalise long stay parkers but also that it doesn't encourage short stay acts.

It is important to note that the introduction of this action alone will not change the existing usage patterns within the Central Area but coupled with the proposal to encourage use of the closest car parks to the point of entry to the CAAP areas, it could help improve both the environment within the Central Area by reducing the level of traffic circulating the inner ring road as well as increasing the level of footfall

in the wider Central Area as people walk through more of the Central Area than is currently the case.

The Actual details of the designations assigned to car parks and the times of operation needs to be carefully considered to ensure that any changes made does not adversely impact any aspect of the town, for example the evening economy or resident parking, if this were to be taken forward the operational details and requirements of key areas would be investigated prior to the finalisation of any changes.

APPENDIX NO 8: Signage Strategy

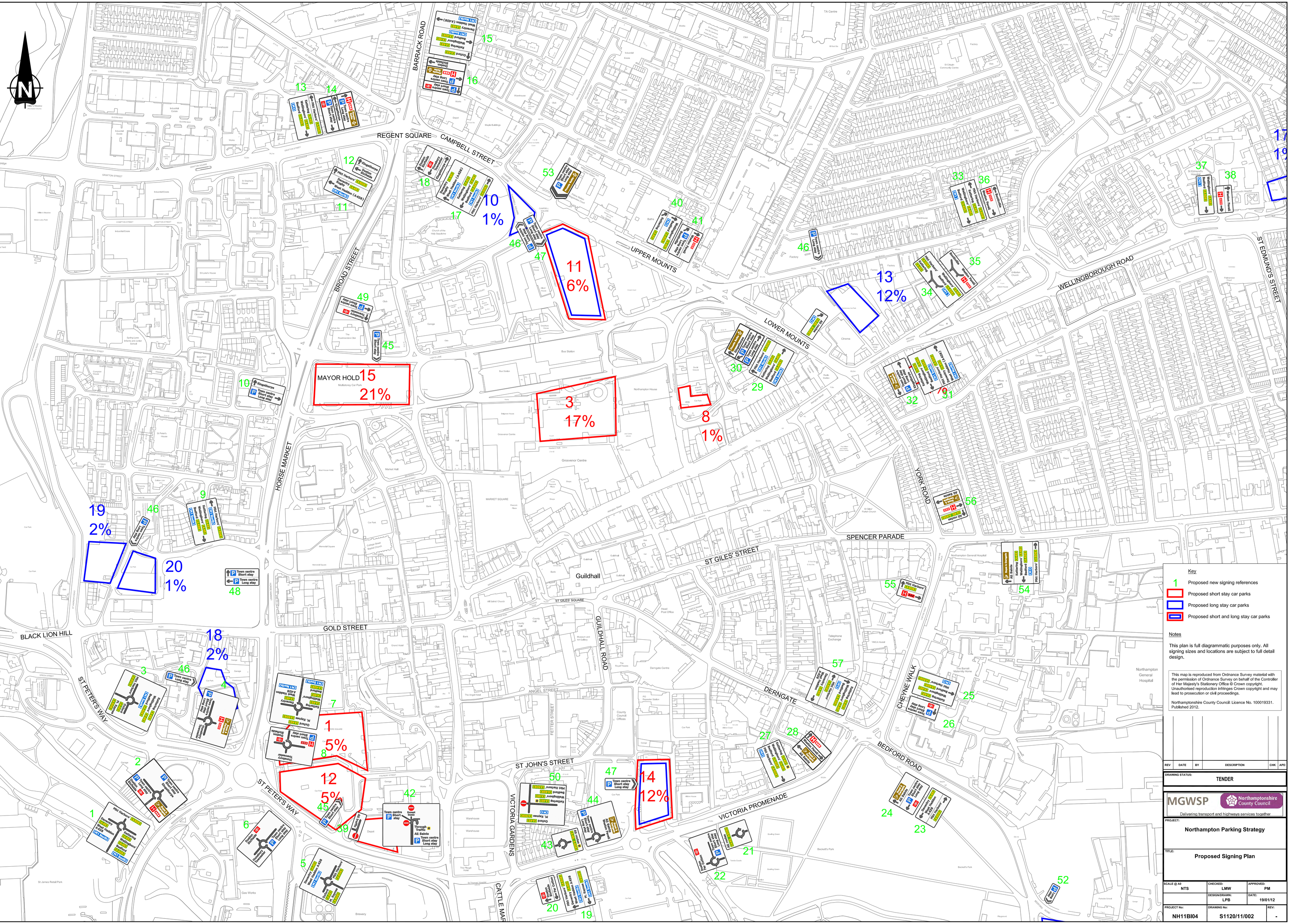
The proposed signage strategy for the Central Area is based on the revised distribution of the Central Area car parks as set out in earlier sections of this report. In addition the distribution of trips around the inner ring road junctions was also taken into account.

The key aim of the strategy was to try and encourage drivers to use the first appropriate car park (long or short stay) they come to when entering the town. In order to achieve this the information on the location of car parks and the distribution of traffic around the Inner Ring Road junctions was interrogated to highlight the routes that could be used to access each of the car parks. In addition to the information set out earlier in this report additional constraint at the junctions affected were taken into account.

This resulted in the designation of some car parks being amended to avoid unnecessarily long distances for drivers to reach an appropriate car park, this was especially the case in the south eastern area of the town due to the lack of car parks with the loss of St. John's Multi Storey and Albion Place car parks.

The proposed strategy also takes account of the need to provide signs to enable people to return their point of access and so the route signs have been revised to ensure that visitors can exit the town by the shortest/most reasonable route.

The results of this are shown on the attached plan.



Key

1 Proposed new signing references

Proposed short stay car parks

Proposed long stay car parks

Proposed short and long stay car parks

Notes

This plan is full diagrammatic purposes only. All signing sizes and locations are subject to full detail design.

REV	DATE	BY	DESCRIPTION	CHK	APD

MGWSP — Northamptonshire County Council — Delivering transport and highways services together

CAD File: N:\TRAFFIC ENGINEERING\11-12 TRAFFIC ENGINEERING\NORTHAMPTON PARKING SIGNING\NORTHAMPTON PARKING SIGNING - PROPOSED SIGNING.DWG

APPENDIX NO 9: Future Year Parking Demand (Excluding Developments)

In order to assess the number of parking spaces available in Northampton Central Area it was necessary to factor up the base year (2011) survey data to the future years of 2021 and 2026.

It is important to note that this exercise only includes the background growth in population/car ownership in the Central Area and does not include the impact of any future developments in the area.

Data was extracted from TEMPRO (Trip End Model PROgram – a DfT database that provides growth factors from chosen base years to future years at district, county and regional level) for car ownership in Northampton. Single occupancy was assumed in order to provide a robust assessment.

Percentage Increase In Car Ownership For Each Year:

	Base Year (2011) to Future Year (2021)	Base Year (2011) to Future Year (2026)
Percentage Increase in Number of Cars	17%	23%

Having applied these factors to the base year data the table below shows the change in percentage occupancy over all the car parks in Northampton Central Area (data has also been provided excluding the Albion Place and St Johns Surface Car Parks as it is assumed that these will not be available in the imminent future):

Percentage Occupancy for Northampton Central Area:

	2011 Tuesday	2011 Saturday	2021 Tuesday	2021 Saturday	2026 Tuesday	2026 Saturday
With Albion Place/St Johns Surface	49	46	58	54	61	56
Without Albion Place/St Johns Surface	52	48	61	57	64	59

The table below illustrates the number of spaces available in each of the scenarios (i.e. the number of parking spaces in Northampton Central Area minus the number of occupied spaces).

Number of available spaces in Northampton Central Area:

	2011 Tuesday	2011 Saturday	2021 Tuesday	2021 Saturday	2026 Tuesday	2026 Saturday
With Albion Place/St Johns Surface	2737	2926	2271	2493	2124	2356
Without Albion Place/St Johns Surface	2484	2673	2018	2240	1871	2103

The impact of future developments on parking in Northampton Central Area is dealt with separately.

This data has been broken down by car park and is shown in the tables below for each scenario. The car parks that are predicted to be over 85% full or less than 50% full along with where these car parks are located has been shown in each table to try and assess if there is a pattern in the location of the very full car parks and the emptier car parks.

Percentage Occupancy on Tuesday in 2021:

Car Park	No. Spaces	Max No.	%	Over 85% capacity	Less than 50% capacity	Where are these located?
Abington Place	27	27	100%	√		East
Albion Place	103	63	62%			
Campbell Square	31	32	102%	√		North
Chalk Lane	110	28	26%		√	West
Commercial Street South	44	41	93%	√		South
Commercial Street	257	101	39%		√	South
Dodridge Street	66	15	23%		√	West
Grosvenor Centre	834	330	40%		√	North
Horsemarket	28	20	71%			
Marefare	87	25	28%		√	West
Market Street	49	34	69%			
Melbourne Street	16	8	51%			
Midsummer Meadow	245	163	67%			
Newlands	60	62	104%	√		North
Sol Central	362	330	91%	√		West
St. Johns Surface	150	100	67%			
St. Peters Way	270	216	80%			
The Ridings	60	68	114%	√		East
Upper Mounts	312	325	104%	√		North
Wellington Street	37	49	133%	√		East
St Johns Multi Story	585	295	50%		√	South
St Michaels	616	211	34%		√	East
Mayorhold	1054	655	62%			
Overall	**5408**	**2852**	**53%**			
without St Johns and Albion Place	27	2852	55%			

Percentage Occupancy on Tuesday in 2026:

Car Park	No. Spaces	Max No.	%	Over 85% capacity	Less than 50% capacity	Where are these located?
Abington Place	27	28	105%	√		East
Albion Place	103	66	64%			
Campbell Square	31	33	107%	√		North
Chalk Lane	110	30	27%		√	West
Commercial Street South	44	43	98%	√		South
Commercial Street	257	106	41%		√	South
Dodridge Street	66	16	24%		√	West
Grosvenor Centre	834	346	41%		√	North
Horsemarket	28	21	75%			
Marefare	87	26	30%		√	West
Market Street	49	36	73%			
Melbourne Street	16	9	54%			
Midsummer Meadow	245	171	70%			
Newlands	60	65	109%	√		North
Sol Central	362	346	95%	√		West
St. Johns Surface	150	105	70%			
St. Peters Way	270	226	84%			
The Ridings	60	71	119%	√		East
Upper Mounts	312	341	109%	√		North
Wellington Street	37	52	140%	√		East
St Johns Multi Story	585	309	53%		√	South
St Michaels	616	221	36%		√	East
Mayorhold	1054	686	65%	√		West
Overall	**5408**	**2987**	**55%**			
without St Johns and Albion Place	5155	2987	58%			

Percentage Occupancy on Saturday in 2021:

Car Park	No. Spaces	Max No.	%	Over 85% capacity	Less than 50% capacity	Where are these located?
Abington Place	27	38	139%	√		East
Albion Place	103	74	72%			
Campbell Square	31	9	30%		√	North
Chalk Lane	110	8	7%		√	West
Commercial Street South	44	48	109%	√		South
Commercial Street	257	242	94%	√		South
Dodridge Street	66	25	37%		√	West
Grosvenor Centre	834	524	63%			
Horsemarket	28	15	55%			
Marefare	87	36	42%		√	West
Market Street	49	22	46%		√	East
Melbourne Street	16	5	29%		√	East
Midsummer Meadow	245	22	9%		√	East
Newlands	60	67	112%	√		North
Sol Central	362	326	90%	√		West
St. Johns Surface	150	144	96%	√		South
St. Peters Way	270	292	108%	√		South
The Ridings	60	80	133%	√		East
Upper Mounts	312	127	41%		√	North

Car Park	No. Spaces	Max No.	%	Over 85% capacity	Less than 50% capacity	Where are these located?
Wellington Street	37	49	133%	√		East
St Johns Multi Story	585	136	23%		√	South
St Michaels	616	182	30%		√	East
Mayorhold	1054	700	66%	√		West
Overall	**5408**	**2897**	**54%**			
without St Johns and Albion Place	5155	2897	56%			

Percentage Occupancy on Saturday in 2026:

Car Park	No. Spaces	Max No.	%	Over 85% capacity	Less than 50% capacity	Where are these located?
Abington Place	27	39	146%	√		East
Albion Place	103	77	75%			
Campbell Square	31	10	32%		√	North
Chalk Lane	110	9	8%		√	West
Commercial Street South	44	50	115%	√		South
Commercial Street	257	253	99%	√		South
Dodridge Street	66	26	39%		√	West
Grosvenor Centre	834	548	66%			
Horsemarket	28	16	57%			
Marefare	87	38	44%		√	West
Market Street	49	23	48%		√	East
Melbourne Street	16	5	31%		√	East
Midsummer Meadow	245	23	10%		√	East
Newlands	60	70	117%	√		North
Sol Central	362	342	94%	√		West
St. Johns Surface	150	151	101%	√		South
St. Peters Way	270	306	113%	√		South
The Ridings	60	84	139%	√		East
Upper Mounts	312	133	43%		√	North
Wellington Street	37	52	140%	√		East
St Johns Multi Story	585	143	24%		√	South
St Michaels	616	191	31%		√	East
Mayorhold	1054	733	70%	√		West
Overall	**5408**	**3033**	**56%**			
without St Johns and Albion Place	5155	3033	59%			

Closure of St Johns Surface / Albion Place analysis:

These two car parks are likely to be built on and so will no longer be available from February 2012.

The results of the analysis show that the majority of vehicles that parked in St Johns Surface and Albion Place came from the East, for shopping and choose these car parks as they were nearest to their destination. On the Tuesday survey the majority of the vehicles that parked at these car parks parked there for 2-4 hours and on the Saturday the majority parked for 1-3 hours.

In terms of displacing these vehicles, the nearest car park to these two car parks is St Johns Multi-Storey. Therefore it was assumed that the short stay parking acts would move to the adjacent multi storey car park and the long stay acts would be directed to Midsummer meadows or St Michaels depending on the origin of the trip.

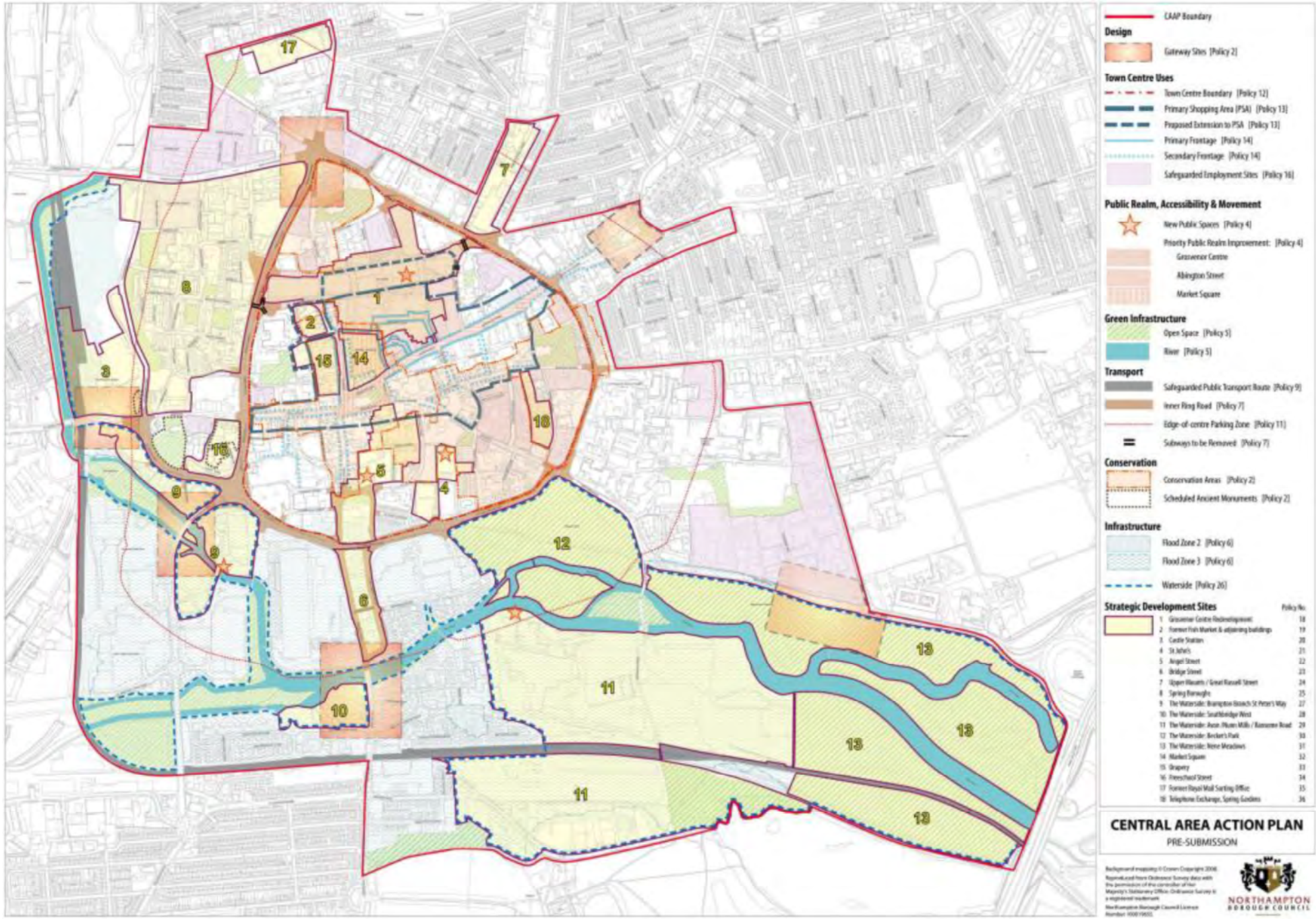
Central Area Action Plan (CAAP) on Parking Standards:

The Northampton CAAP outlines the need to balance the requirements for car parking against protecting the Central Area's overall environment, encouraging modal shift and avoiding congestion. This means providing the right type of parking in appropriate locations at the right time and balancing the availability of short and long term parking options at an appropriate cost.

The CAAP refers to the Northampton Parking Study (2011) and concludes that this means there is no need to increase the overall number of spaces within the Central Area, however there might be opportunities to increase public parking provision in some areas and reduce it in others. Spaces could be used more efficiently through improving signage to guide people to spaces; reviewing parking charges and payment methods; developing a programme of improvements to parking stock to improve the experience of users, for example CCTV, lighting levels, security measures, and considering the opening hours of some car parks to support the weekend and evening users.

APPENDIX NO 10: The Future Situation

Proposals Map – from Northampton CAAP



The Parking Policy in the CAAP (Policy 11) includes the following:

Within the Central Area unless it can be shown that there are exceptional reasons that justify additional private off-street car parking the following will apply:

- Within the Town Centre Boundary as defined on the Figure 8.1 'Proposals Map' (as shown below), no additional private car parking for non-residential development will be permitted
- Within the Edge of Town Centre Boundary as defined on the Figure 8.1 'Proposals Map', private parking provision will be at a maximum of 50% of the standards set out in Appendix E of the CAAP 'Parking Standards: Central Area Zones'*
- Elsewhere within the Central Area maximum standard set out in Appendix E of the CAAP 'Parking Standards: Central Area Zones'

Signage will be improved to direct:

- Traffic from the principal approach roads to car parks
- Pedestrians to and from car parks to key destinations

Parking demand management measures within the Central Area will be phased in over the Plan period (up to 2026). In the interim, private non-residential development provided parking spaces within the town centre and edge of town centre boundary sites (as shown on the Figure 8.1 'Proposals Map') will enter into contractual arrangements that will ensure future management measures are not compromised.

*It should be noted that Appendix E of the CAAP 'Parking Standards: Central Area Zones' includes the same standards as the Adopted 2003 Parking Supplementary Planning Guidance document (SPG).

This policy has a large impact on the parking provision for new developments in Northampton Central Area. The table below compares the extant parking policy with the CAAP for developments in the Northampton Waterside Enterprise Zone.

Future Development Parking Standards:

Site	Location	Extant Parking Standards	CAAP provision	Revised Parking Standards
12	Castle Railway Station	950	100%	950
13	St. Peters Way S	367	50%	183
14	Freeschool Street	733	50%	367
15	St. Peter's Car Park	533	0%	0
16	British Gas	1083	50%	542
17	Angel	1150	0%	0
18	Albion Place	133	0%	0
19	St. John's Surface CP	507	0%	0
20	Bridge Street	370	50%	185
21	Avon-Nunn Mills	667	100%	667
	Enterprise Zone Spaces	**6493**		**2893**

It can be seen from the table above that applying the CAAP standards to the developments at Waterside Enterprise Zone results in 2893 parking spaces being permitted which is less than half the maximum provision allowed by the extant parking Standards which are based on the size and type of development.

In addition to the sites above there are plans to enlarge the Grosvenor Centre, the current proposal sets out the provision of 36,000m^2 of additional retail space with the provision of an additional 770 parking spaces. The table below sets out the level of parking permitted by the extant parking standards.

Grosvenor Centre Parking Provision:

Site	Location	No. Spaces
	Grosvenor Centre	667

From this it is possible to see that the current proposal for 770 parking spaces represents an over provision of 100 parking spaces.

The results of this is that the current parking policies would allow for an additional 3663 parking spaces within the study area when the Enterprise Zone and Grosvenor centre additional spaces are taken into consideration.

Parking Accumulation

In order to assess the future level of parking required to cater for the proposed developments set out above a trip generation exercise has been undertaken for each individual land use. This has been done using the TRICS data base. From this exercise it has been possible to determine the number of car trips associated with each land use and the times of day these trips will arrive and depart. This enabled a parking accumulation exercise to be undertaken which predicts the numbers of cars that will

need to be parked throughout the day. The results of this exercise are set out in the table below. In undertaking this assessment it has been assumed that all trips associated with the proposed developments set out above will be new trips into the Central Area, this has been done to ensure that a robust assessment of the likely level of future parking requirements is achieved.

Future Development Parking Accumulation:

Time Range	Retail	Office	Student Flats	Hotel	Total
00:00-01:00	0	0	4	19	23
01:00-02:00	0	0	4	19	23
02:00-03:00	0	0	4	19	23
03:00-04:00	0	0	4	19	23
04:00-05:00	0	0	4	19	23
05:00-06:00	0	17	4	19	40
06:00-07:00	0	262	4	19	285
07:00-08:00	0	1090	2	12	1104
08:00-09:00	19	3215	3	5	3242
09:00-10:00	691	4115	0	3	4809
10:00-11:00	1139	4290	2	3	5434
11:00-12:00	1149	4307	2	1	5459
12:00-13:00	1485	4132	4	2	5623
13:00-14:00	1251	4190	2	2	5445
14:00-15:00	934	4210	4	1	5150
15:00-16:00	346	4007	6	1	4360
16:00-17:00	38	2888	3	2	2931
17:00-18:00	0	1140	2	8	1150
18:00-19:00	0	555	1	14	570
19:00-20:00	0	0	0	19	19
20:00-21:00	0	0	0	19	19
21:00-22:00	0	0	0	19	19
22:00-23:00	0	0	0	19	19
23:00-24:00	0	0	0	19	19

From this it is possible to see that the maximum number of cars predicted is 5623 between 12:00 and 13:00. Therefore if this figure is compared to the level of parking permitted by the various standards then the maximum level permitted by the Parking SPG would represent an over provision of approximately 693 spaces (assuming that 5623 vehicles represents 85% of the available parking).

There are two figures of predicted demand for 2026:

- 2,987 (Table 25 Tech Note (% Occupancy on Tue 2026))
- 5,623 (Table 29 Tech Note (Future Development Parking Accumulation)

Therefore, the predicted level of parking acts during peak demand time (12:00 to 13:00) in 2026 is 8,610.

- 4.771 (NBC owned – existing minus St John's Surface, Albion Place, Newlands and the Ridings)
- 362 (Sol Central - existing)
- 300(existing On-Street)

Adding to these the proposed car parking expected to be required for the proposed future developments

- 770 (Grosvenor redevelopment - estimated)
- 2,900 (New development - estimated)

Therefore the total future provision in 2026 will be 9,103 parking spaces.

However, the figure of 9,103 car parking spaces would mean that the car parking in the Central Area would be at 94% of capacity, well above the 85% considered suitable for efficient operation without impacting on the surrounding road network. Therefore to ensure that the car parks within the Central Area do not exceed 85% of capacity an additional 1026 spaces would be required giving a total of 10,129 parking spaces in the Central area rounded down to 10,000 as a result of the issues set out below.

Given the timescales involved (the future year is 14 years away) and the fact that the parking accumulation provides a robust assessment because it assumes that 100% of the trips associated with all developments within the Central Area will be new trips it is possible that the need for additional parking spaces could be provided through the introduction of Park and Ride on Key Corridors into the CAAP area.