REPORT

# Draft Peterborough Car Parking Strategy

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Royal HaskoningDHV
Enhancing Society Together

**HASKONINGDHV UK LTD.**

Westpoint
Peterborough Business Park
Lynch Wood
Peterborough
PE2 6FZ
United Kingdom
Mobility & Infrastructure
VAT registration number: 792428892

+44 1733 3344 55 **T**
info@uk.rhdhv.com **E**
royalhaskoningdhv.com **W**

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| Author(s): | Phil Marshall |

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| Drafted by: | Phil Marshall |
| Checked by: | Phil Marshall |
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| Approved by: | Sarah Simpson |
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## The Parking Strategy and its Recommendations

The ambition for Peterborough is to create a thriving and vibrant city centre, in a way which respects the declared climate emergency. The strategic aim of the public car parking strategy therefore is to support the council's ambition for the city centre by ensuring that the city is accessible to everyone in the future.

The car parking strategy aims to achieve this with objectives to:

1 Facilitate the economic development of the city centre;

2 Support the diversification of city centre activities, including creation of the University;

3 Improve accessibility to the city centre for all;

4 Address the climate emergency;

5 Support modal shift from private car to more sustainable modes; and

6 Improve public health.

The strategy must allow substantial flexibility in implementation in order to reflect the inevitably changing circumstances that occur over the Local Plan period. A series of strategy measures have been designed to address the stated aims, with the expectation that the implementation of measures is carefully monitored to ensure effectiveness.

1. In the immediate short term, Car Haven should be renamed to reflect its location rather than its use.

2. Where there is a marginal case for retaining all spaces in larger car parks, development should be considered for those sites which screens retained public car parking. This could be achieved by over-building and retaining car parking as an undercroft facility, or by developing the site frontage with retained car parking effectively screened from the roadside to the rear of the development. The latter would enable development to be phased with investment in active or sustainable transport modes to enable a further phased reduction in car parking.

3. Where car parking is desirable to be retained in specific locations because of a lack of alternative options, for example in Bishop's Road, Car Haven or Regional Pool, a Feasibility Study should be carried out for decking existing car parks. Notwithstanding the need to ensure views of the Cathedral are not disturbed, decking of these car park(s) could be secured at least in part by contributions associated with development in the city. Any decking should be accompanied by landscape enhancements on the associated street frontage incorporating street trees and other soft interventions, to improve the adjoining streetscape.

4. Any review of the city's Local Plan could usefully include supporting documents to establish the specific aims for the city's social, environmental and economic assets. This may include: city-wide economic strategy; development areas' master plans or investment plans; River Nene strategy; or guidance notes and development briefs (for example, in relation to the provision of purpose-built student accommodation).

5. Peterborough city centre has a surplus of car parking spaces. At present less than 60% of spaces are occupied at peak times. It is recommended that as a minimum approximately 370 spaces should be removed to facilitate other uses. This is expected to have a marginal effect on revenue and reduce maintenance liabilities.

6. Car park occupancy should remain under review using agreed and consistent metrics; if demand does not return to pre-pandemic levels then it may be appropriate to remove further parking spaces in addition to the quantum identified in this Strategy.

7. On the basis that recent assessments demonstrate there is a surfeit of spaces, it is recommended that Dickens Street car park is immediately closed. This car park is poorly utilised, with considerable spare capacity available at the nearby Wellington Street car park to cater for displaced demand. Maintenance costs exceed ticket revenue at Dickens Street therefore a disposal strategy should be developed for the site to maximise development receipts.

8. In addition to the closure of Dickens Street, further car parking capacity should be removed now to establish a new baseline of provision. A key element of this will be to provide appropriate levels of Blue Badge parking, a known omission from most existing car parks and which (due to the larger space requirements) result in a small net reduction in total car parking spaces.

9. A substantial volume of parking spaces, up to 225 spaces, should be removed from Wellington Street or in combination with spaces removed from Regional Pool as a result of University development in the immediate short term.

10. Acland Street car park should not be reopened. Consideration could be given to relocating coach layover from Pleasure Fair Meadow to Acland Street, to enable the development of the former per its allocation in the Local Plan. Alternatively, a disposal strategy could be developed for this site aligned with the city's wider cultural and regeneration ambitions.

11. In the short to medium term the Regional Pool and London Road car parks can be closed as the sites are redeveloped.

12. As each development proposal is brought forward the car parking monitoring metrics should be reviewed to ensure adequate parking provision is retained, and Supplementary Planning Documents developed to identify site-specific requirements on this basis.

13. The redevelopment of Pleasure Fair Meadow and Wellington Street car parks could retain an element of public car parking. This could be delivered through over-build development which may enable the city council to benefit from longer term leasehold receipts.

14. Adopt the proposed pricing changes for the city council car parks. These price adjustments have been development cognizant of the inflationary forces in play at the time of writing and therefore modest changes are proposed. Based on current levels of demand, these adjustments have the potential to increase revenues by some 17% which exceed the level of revenue identified as required.

| Name | Weekday Rates | | | |
|---|---|---|---|---|
| | Up to 1hr | Up to 2hrs | Up to 3hrs | Additional |
| Brook Street | £1.50 | £2.50 | £3.50 | 10 hours - £7.00 (+£2.00) |
| Bishops Road | £2.00 (+£0.20) | £3.50 (+£0.40) | £4.50 (+£0.40) | 4 hours - £5.50<br>10 hours - £7.00(+£0.50) |
| Car Haven | £2.00 (30 mins) (+£0.50)<br>£3.00 (1 hr) (+£1.00) | £4.00(+£0.50) | £7.00(+£2.50) | N/A |
| Riverside | £2.00 (+£0.20) | £3.50 (+£0.40) | £4.50 (+£0.40) | 4 hours - £5.50<br>10 hours - £10.50 (+£4.00) |
| Pleasure Fair Meadow | £2.00 | N/A | N/A | 24 hours - £5.00 (+£1.00) |
| Trinity Street | £2.00 (+£0.10) | £3.50 (+£0.40) | £4.50 (+£0.40) | N/A |

15. To encourage more short stay use of Riverside car park it may be appropriate to restrict season ticket use by applying a premium to use this facility.

16. It is recommended that a premium is charged for on-street short term parking in the immediate short term, with typical prices increased from £1.50 to £2.00 per stay. It is important that demand continues to be reviewed, with the most under-utilised reallocated for alternative uses.

17. In the immediate short term, a modest fee should be payable for the use of EV chargers throughout Peterborough city centre. This would provide a further revenue stream and is comparable to the situation in similar towns and cities.

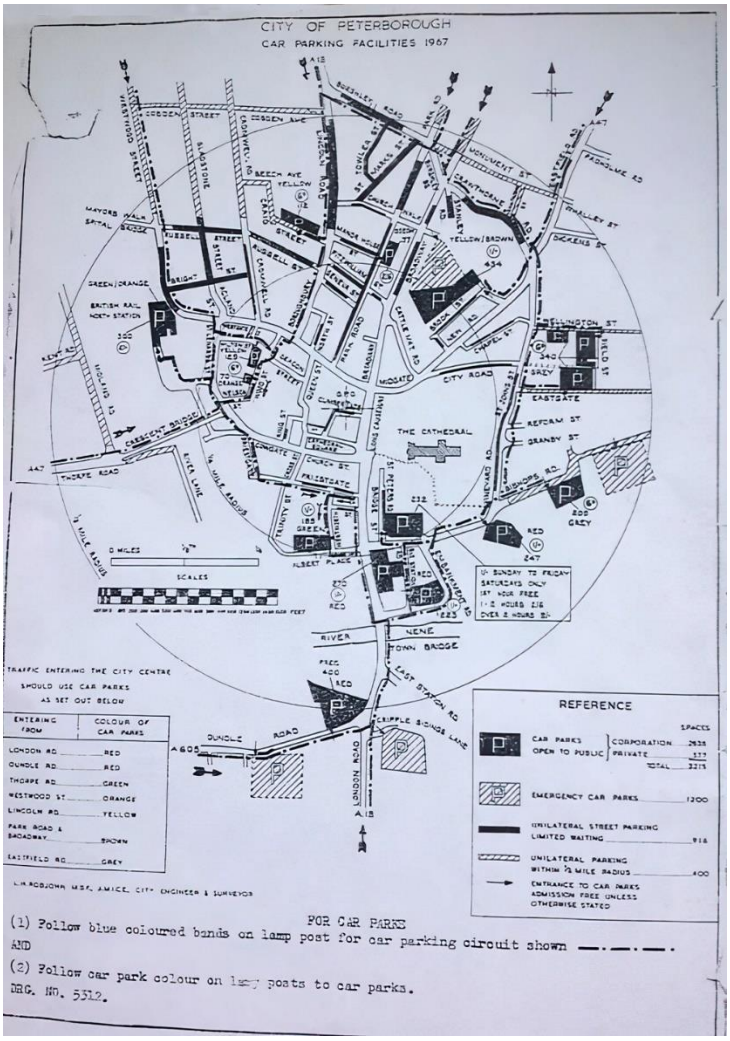
18. Feasibility Study and strategic outline business case should be prepared, examining the provision of Phase one roll-out of EV chargers, coupled with a pricing structure for all EV chargers in the city. This pricing structure should provide differentiated pricing to enable all local residents to benefit from a reduced price, and a preferential rate for residents without the possibility of domestic charging.

19. In the immediate short term, Blue Badge parking should be provided at all of the City Council's car parks. Where possible, these should be provided with a form of weather cover as recommended by the DfT's Inclusive Mobility guidance.

20. Blue Badge holders are able to access spaces which are wider and which provide more space for people with reduced mobility to move safely and comfortably in proximity to their own and other vehicles. The parking tariffs that are in place for off-street Blue Badge parking spaces, should be retained.

# 1 Context

Some 50 years ago, transport was characterised by experimentation and increasing car ownership[1]. In response the 1963 report “Traffic in Towns” identified a need for cities to be widely reconstructed in order to accommodate the increasing numbers of cars. By the late 1960s, Peterborough had more than 13 car parks, with several additional “emergency” car parks. These early car parks at Bishops Road, Lincoln Road, Oundle Road and Brook Street, have been in continuous use as car parks over the intervening period.




In the early 1970s, Peterborough Development Corporation designed the city’s new towns with a “lavish road system”[2] to serve a wide range of new shopping and leisure facilities. Part of the holistic master plan for the city was extensive areas of car parking, to house the vehicles transporting shoppers and workers. The established car parking facilities were retained, and substantial additional car parks provided at Northminster and Queensgate through demolition of housing and establishments such as the Queensgate Hotel.

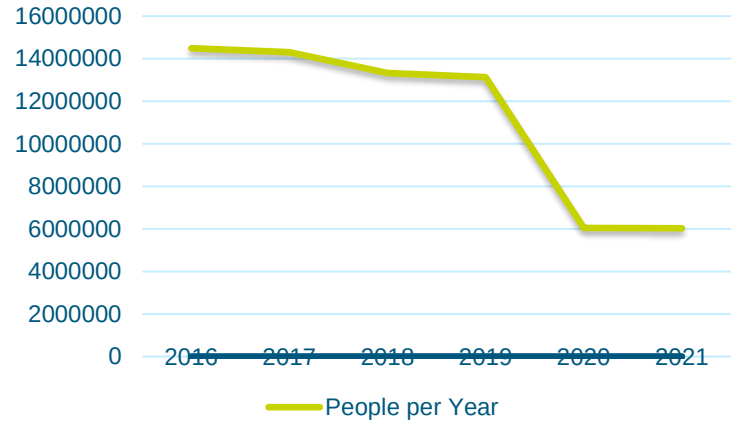
From the 1980s onwards, there was little in the way of change in the city’s car parking until the demolition of the Market multi-storey car park in 2019. As a result, Peterborians have become used to a level of car parking which is much more generous than is the case in similarly sized cities and, as a result, more recent changes at Northminster, Wirrina and Regional Pool car parks have been met with considerable concern for any knock-on effects on the city’s economy. However, the belief that car parking drives city centre footfall is not correct, and belies the deeper challenges that Peterborough city centre faces in recovering from the Covid-19 pandemic.

## 1.1 The City Centre as Destination

The Covid-19 pandemic has affected Peterborough city centre as it has for towns and cities across the country. As a result, the numbers of people visiting the city centre fell precipitously in 2020 and that drop was sustained in 2021. Visitors to Queensgate shopping centre more than halved over that period. Given the downward trend in visitor numbers between 2016 to 2019, it is more important than ever for a vital city centre, that those numbers increase quickly and a sustainable increase is achieved.

[1] *The History of the Transport System in the UK, Government Office for Science, 2018*
[2] *https://youtu.be/BHNSLkhRVZo*

*Figure 1.1 Annual Visitor Numbers at Queensgate Shopping Centre*




The Centre for Cities High Streets Recovery Tracker[3] collates data on visitor numbers and spend in large towns and city centres across the UK. Data for early 2022 suggests that while footfall has increased to pre-lockdown levels, total spend has fallen considerably. Against a pre-lockdown baseline for spend by city centre visitors, Peterborough ranks as the fifth worst in the country, just ahead of Aberdeen, Basildon, Slough and Aldershot.

*Table 1.1 Centre for Cities Recovery Scores for Peterborough (April 2022)*

| | Peterborough | Average City |
|---|---|---|
| Weekday Score to Recovery | 93 | 85 |
| Weekend Score to Recovery | 130 | 115 |
| Night time Score to Recovery | 135 | 113 |
| Overall Score to Recovery | 104 | 93 |
| Spend Index | 90 | 102 |

**Against a pre-lockdown baseline of 100*

Compared with the average city, Peterborough's higher footfall is not translating into higher spend which could contribute to a more vital city centre. The car parking strategy therefore needs to anticipate (or at least not preclude) work which would:

1. Increase the duration of stay for the average visitor to the city centre; and
2. Ensure that pricing of car parking does not present a barrier to visitors to the city.

Given the substantially higher average spend by cyclists and pedestrians (typically 40% higher per month than is spent by drivers), combined with the need for the city centre to provide an attractive destination for all types of use, the role that car parking plays directly and indirectly to increase car use or detract from the economic or environmental attractiveness of the city must be fully appreciated and addressed. This can be achieved by making the city's car parking less visible or less obvious perhaps, in time, incorporating more and more visible cycle parking in locations which are most accessible and convenient for cyclists. In so, the city's car parking can be used to help transform Peterborough's car-centred historic layout, to a more visible embodiment of its ambition to become the Environment City.

Overbuilding council operated car parks is increasingly popular means of increasing funding receipts while retaining important assets. The Barn Road scheme in Norwich retains a public car park while providing new student accommodation above. Landscaping has been used to screen the car park from both the quieter St Swithin's Road (see **Insert 1.1**), as well as the elevation adjoining the Inner Ring Road (see **Insert 1.2**).

[3] https://www.centreforcities.org/data/high-streets-recovery-tracker/

*Insert 1.1 Barn Road, Norwich – Seen from St Swithin's Road*

*Insert 1.2 Barn Road, Norwich – Screening the Car Park Adjacent the Inner Ring Road*

**Recommendation**

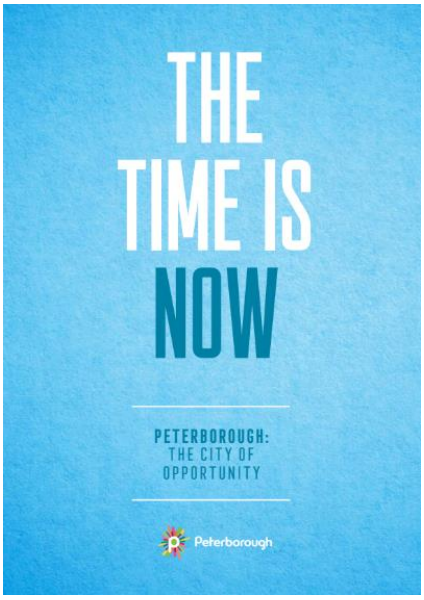
In the immediate short term, Car Haven should be renamed to reflect its location rather than its use.

Where there is a marginal case for retaining all spaces in larger car parks, development should be considered for those sites which screens retained public car parking. This could be achieved by over-building and retaining car parking as an undercroft facility, or by developing the site frontage with retained car parking effectively screened from the roadside to the rear of the development. The latter would enable development to be phased with investment in active or sustainable transport modes to enable a further phased reduction in car parking.

Where car parking is desirable to be retained in specific locations because of a lack of alternative options, for example in Bishop's Road, Car Haven or Regional Pool, a Feasibility Study should be carried out for decking existing car parks. Notwithstanding the need to ensure views of the Cathedral are not disturbed, decking of these car park(s) could be secured at least in part by contributions associated with development in the city. Any decking should be accompanied by landscape enhancements on the associated street frontage incorporating street trees and other soft interventions, to improve the adjoining streetscape.

# 2 Peterborough's Growth Ambitions

The city of Peterborough has ambitious aspirations for change over the coming years: for economic growth, a new university to provide a step change in the city's educational offer and to close the skills gap, and to meet the challenges presented by the climate emergency. These ambitions are set out in a suite of documents including:




- Peterborough Local Plan 2019;
- The Time is Now, Peterborough Development Brochure;
- Draft Public Realm Strategy 2021;
- The Local Transport Plan 2020;
- Transport Vision for Peterborough;
- Local Cycling and Walking Infrastructure Plan 2020 – 2029 (LCWIP);
- Peterborough Cultural Strategy;
- Station Quarter draft master plan;
- Council Carbon Management Action Plan; and
- Environment Capital website and projects.

These documents have been generated at different times and by different parts of the Council or associated organisations, but there are strong overlaps between them. They all aim for ***growth and ambition*** for the city, with ***environment or nature*** at its core and with ***culture, greater education and employment opportunities and a creative energy*** to result from their implementation. However, there is no overarching strategy for the city which establishes the principles for spatial and economic development in the city.

It is an important consideration that transport in general, and car parking in particular, should be means to achieve the ends identified in these documents and to help in the recovery from the Covid-19 pandemic. At present, the absence of a clearly articulated overarching strategy across policy areas for the city means that, to a certain extent, transport matters are considered in isolation from the desired social, economic and environmental outcomes. There is therefore, potential for decisions to made with respect to transport, which may unwittingly delimit the council's ability to achieve its aims in future.

**Recommendation**

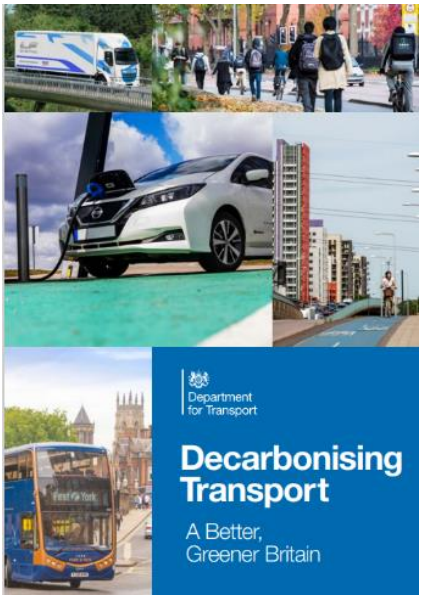
Any review of the city's Local Plan could usefully include supporting documents to establish the specific aims for the city's social, environmental and economic assets. This may include: city-wide economic strategy; development areas' master plans or investment plans; River Nene strategy; or guidance notes and development briefs (for example, in relation to the provision of purpose-built student accommodation).

## 2.1 Transport Planning Context

In addressing these ambitions, changes to transport infrastructure will need to be informed by, and compliant with, policies for environmental change through mode shift away from private cars, a reduction

in carbon consumption in the city, and improved air quality. In the future, as for now, car parking will play an important part in ensuring Peterborough is a vital and accessible place to live and work.

The national policy context for transport planning is defined by the National Planning Policy Framework; Decarbonising Transport and its associated mode shift targets; road safety strategy and the adoption of Safe System principles in transport planning, design and network management; and the adoption of the Decide and Provide (sometimes referred to as the Vision and Validate) method of transport planning. To achieve the requirements to decarbonise transport, including the objectives of the LCWIP to 2025, a paradigm shift will be needed in the volume of people walking and cycling, to and through the city. The review of the city's car parking will need to take this shift into account. However, car parking will remain an important consideration to ensure the city centre is highly accessible for everyone. The city's car parks generate a useful revenue stream for the council which can be used to further support the wider ambitions for the city. However, as an asset, the land on which car parks are located may derive greater benefits for the city in being used for purposes in addition to, or other than, car parking.




Further, recent years have seen a significant change in the way that we work, shop and enjoy leisure time. Even before the Covid-19 pandemic, an increase in our use of online shopping was contributing to a fall in in-person shopping trips to retail centres and supermarkets across the UK, and Peterborough is no exception to this trend. Increased investment in public transport and active transport has also led to accelerated mode shift away from private car use in some areas, although the city has not witnessed such a stark change in use compared with other cities. This has been further compounded by the benefits of the shared economy; with new business models such as Uber and Beryl Bikes supporting changing travel patterns for some demographics, and particularly for people under the age of 35[4].

This Car Parking Strategy for the city has been prepared to respond to the changing nature of travel, as well as the city's ambitious regeneration programme. This programme seeks to build on existing assets and create new modern infrastructure to create more sustainable economic growth within the city. The proposed development in the city centre will include residential and commercial centres alongside a new university, and this will necessarily change travel patterns in the city. While those travel patterns are being explored by other strategy documents including the emerging Transport Strategy for Peterborough, the potential impacts of this future development on car parking are important to be understood.

The council acknowledges that a modal shift away from private car use needs to occur in the city centre to enhance the historic core as well as to support climate change policies. The city has low levels of bus service provision and a small network of cycling-specific infrastructure, with recent decisions such as the extension of the prohibition of cycling on Bridge Street[5], and the loss of Capability Fund award due to lack of support for cycling[6] reinforces the impression that Peterborough does not support active travel. This will need to be changed in the immediate short term, and the car parking strategy has been developed with this national priority in mind.

[4] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/673177/young-peoples-travel-whats-changed-exec-summary.pdf
[5] Public Spaces Protection Orders - Peterborough City Council
[6] https://cambridgeshirepeterborough-ca.gov.uk/news/great-leap-forward-for-walking-and-cycling-as-combined-authority-board-signs-over-long-awaited-government-cash/

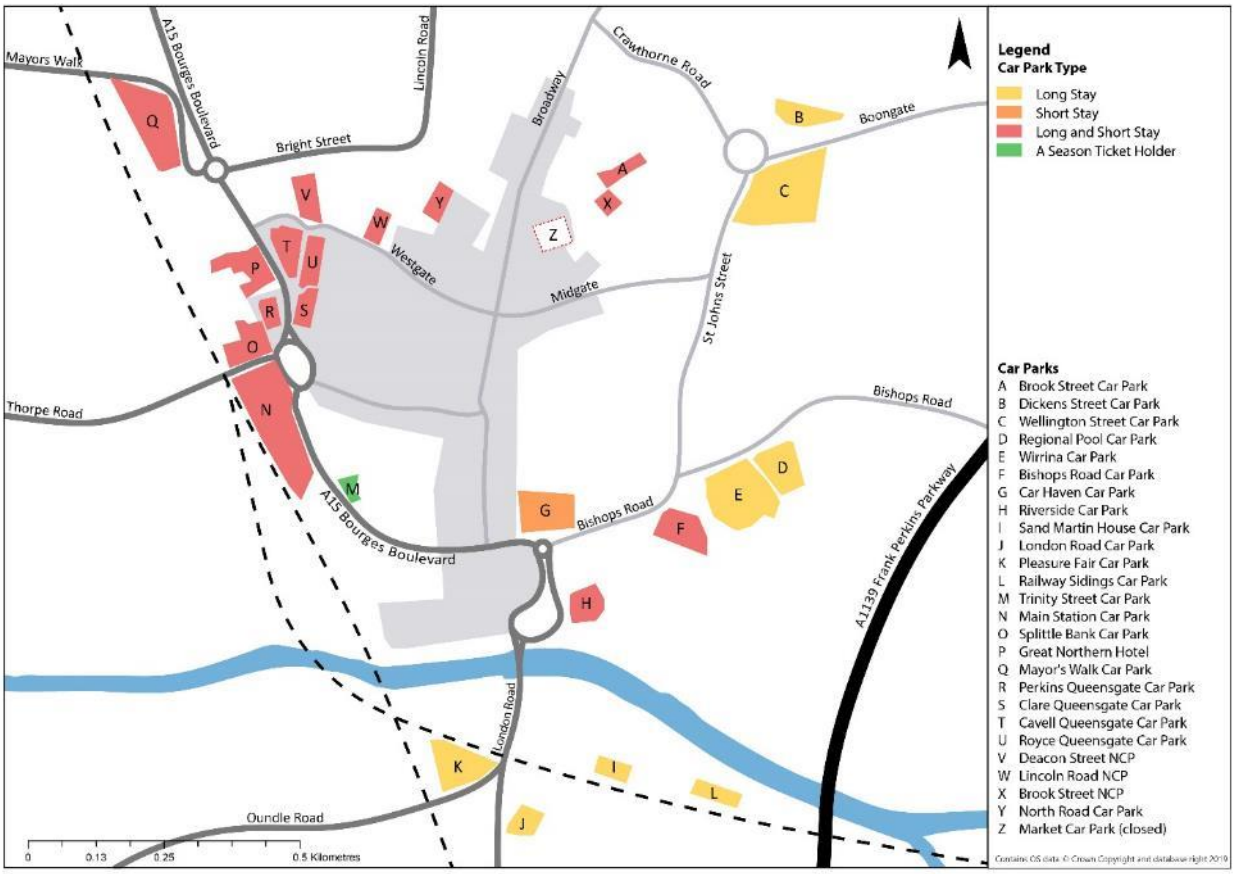
# 3 Quantity of Parking

## 3.1 Public Car Parking in Peterborough City Centre

Peterborough benefits from a high volume of car parking, provided at locations across the city centre. The current car parking provision is a mix of surface and multi-storey off-road car parks, and on-street pay and display. Two of the largest car parks in the city, associated with Queensgate and the Railway station, are operated and managed privately with a further substantial private car park operated by NCP being located on Brook Street. Around half of the city's car parking is operated by the council.

In total the city has approximately 6,415 public car parking spaces provided in the car parks shown in **Insert 3.1** to serve a population of 203,000 people. Of these spaces, 2,632 are under the council's control.

Insert 3.1: Car Park Locations in Peterborough City Centre




This Car Parking Strategy considers public parking within the centre of the city. It is recognised that private car park operators will modify their operations to reflect market forces, adjusting prices or the mix of long- and short-stay spaces to reflect changing demand. The local authority is unlikely to have the ability to directly change or influence private car operators. Thus delivery of some strategy measures could require mechanisms such as amendments to planning policy where the parking is not controlled by the council.

By contrast, the council has the power to use the publicly operated car parking as one of many tools to change the nature of transport infrastructure in the city. There is also a rich vein of existing data regarding

the publicly operated car parks. For these reasons, although it does draw on data relating to the privately operated car parks, this Car Parking Strategy primarily assesses publicly operated car parks which are located in the City Centre and the impacts of growth on those.

## 3.2 Off-Street Car Parks

Within Peterborough, there are some 24 off-street car parks currently operational within the city centre as shown at **Insert 3.1**.

There are 2,632 car parking spaces controlled by the council. Of these the majority (1,465 spaces) are long stay, 903 are designated long or short stay spaces, and 214 are for short stay use. A further 50 spaces are provided for season ticket holders only on weekdays.

### 3.2.1 Privately Controlled Car Parks

There are five private car park operators in the city centre, responsible for 12 privately owned car parks Queensgate operate four car parks, Network Rail and NCP both control three car parks and the Great Northern Hotel and Napier control one each.

Between the nine car parks, a total of 4,087 car parking spaces are provided by private owners. This is 57% of the total off-street car parking spaces available in Peterborough.

### 3.2.2 Market (Northminster) Car Park

In August 2019 the Market multi-story car park was closed for safety reasons. The 720 space car park was located in the Northminster area of Peterborough. A temporary 100 space surface car park was provided on the site until March 2022, but is now permanently closed. For completeness, the location of this former car park is also shown in **Insert 3.1**.

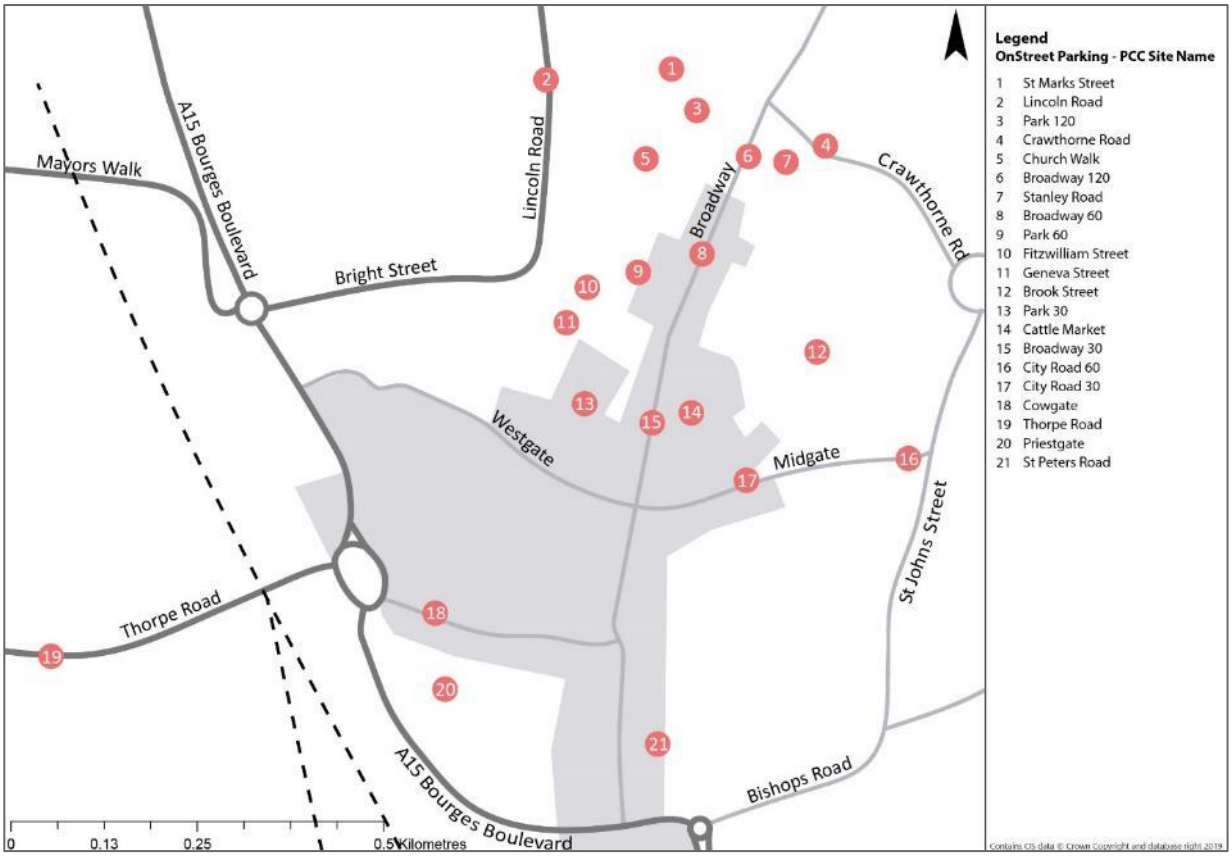
### 3.2.3 Wirrina Car Park

In October 2020 the Wirrina surface car park was permanently closed to facilitate the construction of Anglia Ruskin University - Peterborough. The 361 space car park was located to the south of Bishop's Road in the Embankment area of Peterborough. The car park and the spaces within it have not been replaced. Despite this significant reduction in parking supply, local car parks remain underutilised. For completeness, the location of this former car park is also shown in **Insert 3.1.**

## 3.3 On-Street Car Parking

In addition to the formal off-street car parks, there are 384 on-street pay and display car parking spaces in Peterborough. The maximum length of stay ranges from 30 minutes to two hours with their locations identified at **Insert 3.2**.

Insert 3.2: On-Street Car Park Locations




On-street car parking is limited in the centre of Peterborough, with most located towards the northern edge of the city centre, and in the suburbs immediately beyond. Approximately 5% of the total number of car parking spaces available in Peterborough is provided on-street.

## 3.4 Queensgate Shopping Centre

Annual footfall data has been provided by the Queensgate Shopping Centre. This is summarised as **Table 3.1**.

*Table 3.1 Queensgate Annual Footfall*

| Year | Demand | Percentage of 2016 demand |
|---|---|---|
| 2016 | 14,493,621 | 100.0% |
| 2017 | 14,301,878 | 98.7% |
| 2018 | 13,329,320 | 92.0% |
| 2019 | 13,133,809 | 90.6% |
| 2020 | 6,042,664 | 41.7% |
| 2021 | 6,027,816 | 41.6% |

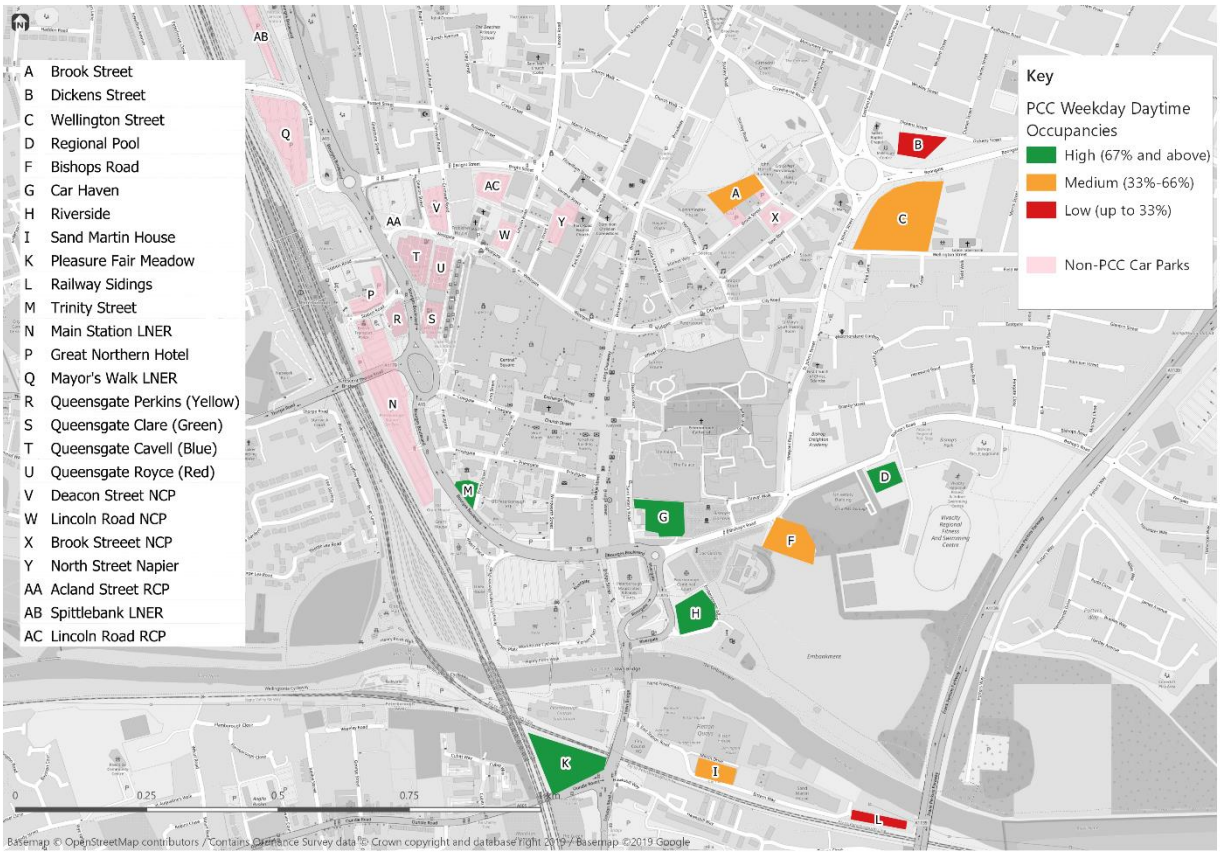
From Table 3.1 it is apparent that annual demand at Queensgate was gradually reducing between 2016 to 2019, with 2019 demand representing 90.6% of that experienced in 2016. The variety of restrictions and closures due to the Covid-19 pandemic resulted in a significant reduction in footfall in 2020 and 2021.

## 3.5 Overall Off-Street Parking Demand

Parking demand information is available for council controlled car parks by virtue of ticket sale data. The latest available ticket sale data has been assessed (March 2022). The data was processed to take account of conditions post Covid-19, including the usage of season tickets. Where ticket sale information was not available (in the case of Sand Martin House and London Road) 2019 data was utilised to provide a robust assessment. Further information regarding the data processing is provided within **Annex A**.

Typical occupancy data for City Council car parks is summarised within **Inserts 3.1 and 3.2** for peak weekday and weekend daytime situations respectively.

**Insert 3.1 – Peak Weekday Daytime Car Park Occupancies**



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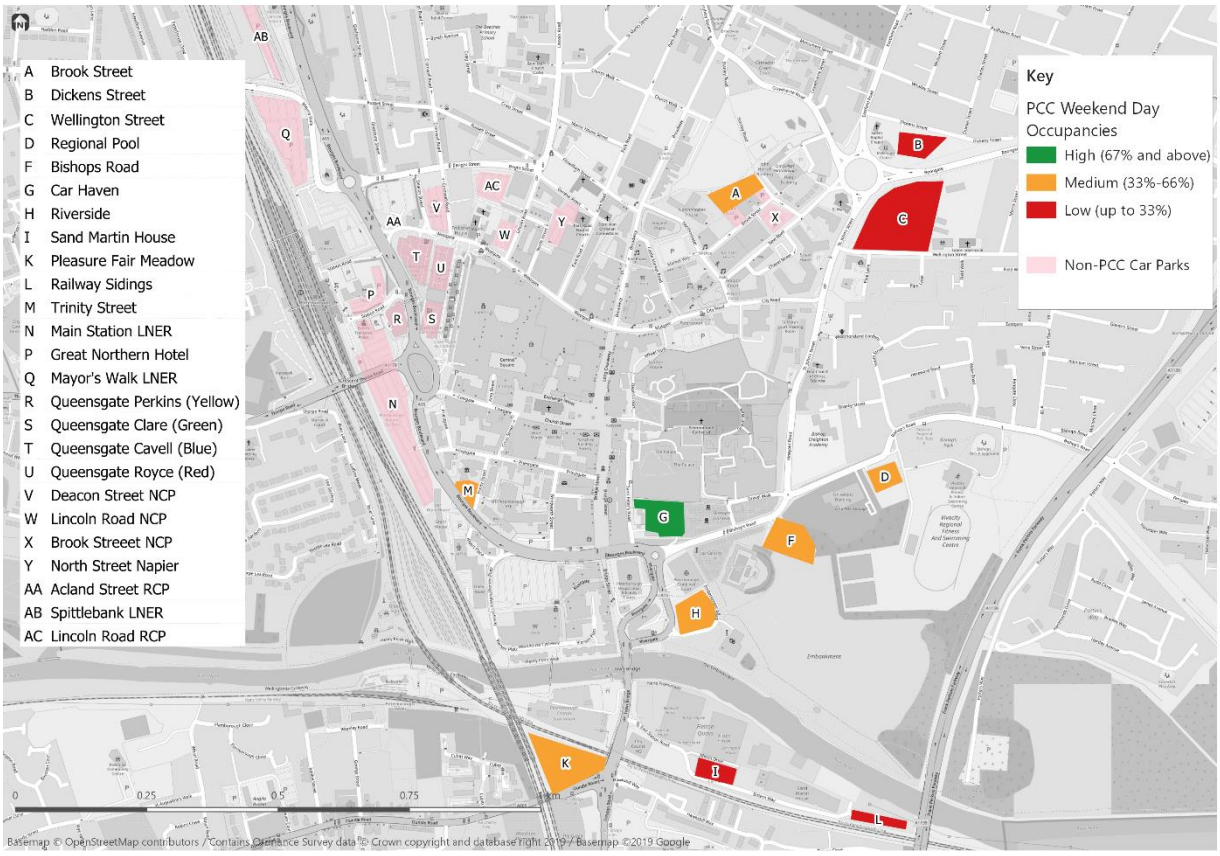
### Insert 3.2 – Peak Weekend Daytime Car Park Occupancies




The latest assessment of parking demand expects a peak weekday demand of 1,556 vehicles within the council operated car parks. This demand equates to an occupancy of 59%, despite the removal of Wirrina and Northminster car parks. By way of comparison a similar exercise conducted in 2020 calculated demand to be 2,034 vehicles, equating to an occupancy rate of 68.0% (including the Wirrina car park).

From the overall demand calculations it is apparent that parking demand has fallen by around a quarter from October 2019 to March 2022. Whilst the lingering effects of the Covid-19 pandemic will have inevitably affected data from March 2022, very few formal restrictions were in place at this time. It is expected that most of the observed change in demand is reflective of changes in both short stay demand (due to increased on-line shopping) and long stay demand (due to increased working from home and conversion of offices to residential). The use of the 2019 demand data is therefore considered a robust basis for forecasting, which allows for a significant increase in demand compared with the current situation.

An ideal peak occupancy rate for car parks would be approximately 90%, ensuring that the assets were well utilised, but allowing some capacity headroom to avoid users searching for spaces. On this basis a maximum of 2,260 car parking spaces should be provided within the City Council's car parks. This would equate to a removal of approximately 370 existing spaces, i.e. over and above the 461 spaces already removed at Northminster and Wirrina. The strategy for space removal / reallocation is discussed in **Section 4**.

**Recommendation**

Peterborough city centre has a surplus of car parking spaces. At present less than 60% of spaces are occupied at peak times. It is recommended that as a minimum approximately 370 spaces should be removed to facilitate other uses. This is expected to have a marginal effect on revenue and reduce maintenance liabilities.

Car park occupancy should remain under review using agreed and consistent metrics; if demand does not return to pre-pandemic levels then it may be appropriate to remove further parking spaces in addition to the quantum identified in this Strategy.

# 4 Parking Locations

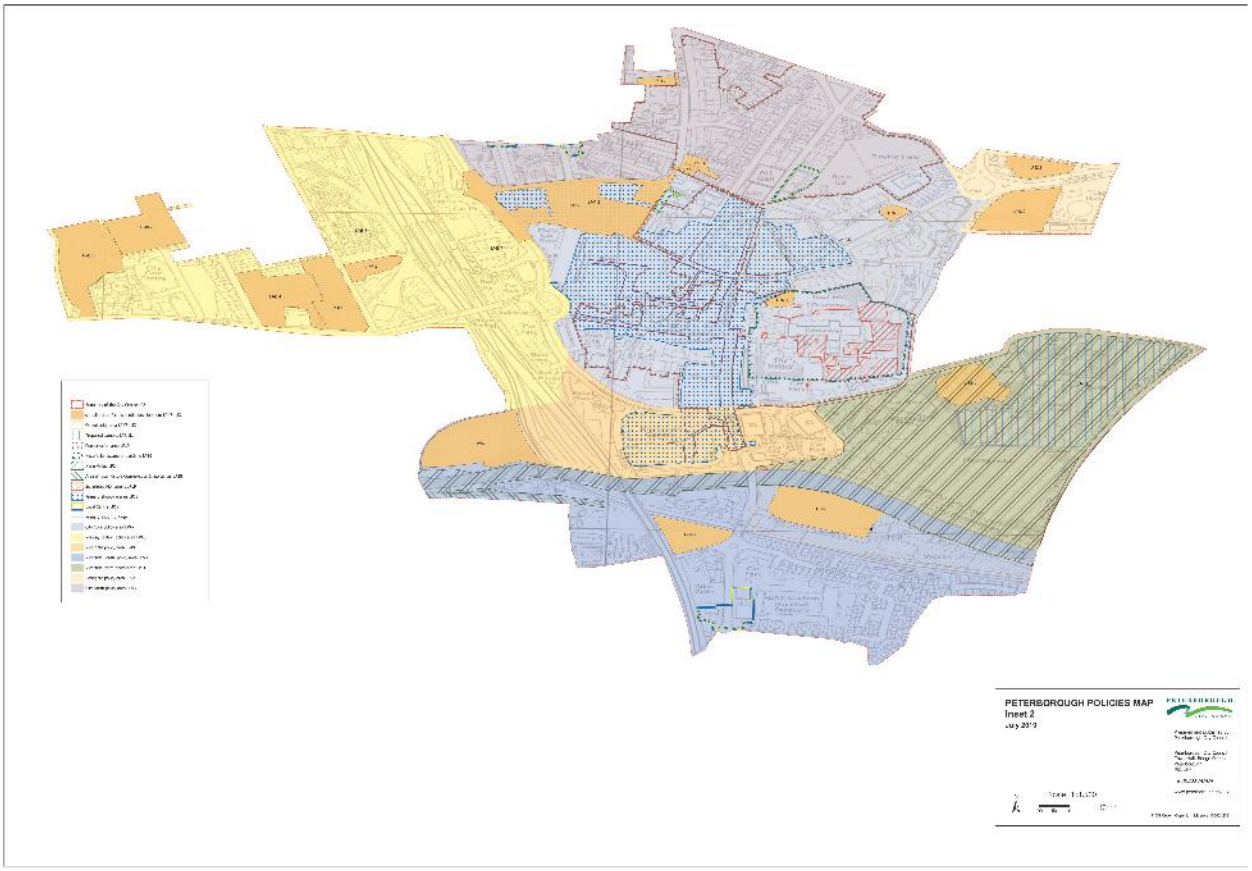
## 4.1.1 Peterborough Local Plan Site Allocations

The Peterborough Local Plan, adopted in July 2019 sets out the most appropriate planning policies for the growth and regeneration of Peterborough and the surrounding villages up to 2036. The strategic priorities of the Plan relevant to the Strategy include:

- To facilitate the delivery in full of the homes and jobs identified as being needed in the district;
- Peterborough City Centre to continue to provide a regional destination for shopping and leisure;
- Ensure necessary infrastructure is in place to support growth; and
- Implement the council's Environment Capital Agenda creating sustainable development.

Policy LP13 sets out the parking requirements for new developments for Peterborough and specifically the city centre and the core city centre areas as shown in the Peterborough Policies Map Inset 2 as reproduced below in **Insert 4.1**. Within the city centre area, proposals (excluding residential) are required to make use of existing public car parks before the provision of additional car parking spaces is considered. There is a presumption against the provision of additional car parking spaces within the core city centre area which is in line with Policy LP47 which seeks to improve the public realm in the area.

*Insert 4.1 Showing the Extent of Peterborough City Centre, with the City Core Area in Pale Blue (Source: Peterborough Policies Map Inset 2)*



The Plan also sets out the quantum of parking required for new developments. Whilst the Plan does not specify a quantum of disabled and electronic charging bays, the plan advocates that all development requiring parking provision should be designed to provide appropriate disabled parking spaces and incorporate facilities for electric plug-in and other ultra-low emission vehicles, or as a minimum the ability to easily introduce such facilities in the future.

A number of existing car parks are specifically designated for development within the Local Plan, namely:

- Dickens Street – LP52.1 (residential development)
- Wellington Street – LP52.2 (mixed use, including retail and leisure uses and car parking)
- Wirrina – LP51 (University of Peterborough Campus, or residential development)
- Pleasure Fair Meadow car park – LP50.2 (mixed use, including leisure and commercial)

Other car parks sit within overall policy designations within the Local Plan and hence could be considered for future redevelopment subject to masterplan proposals:

- Riverside – Policy LP49: Rivergate Policy Area
- Regional Pool – Policy LP51: Riverside North Policy Area
- Bishops Road – Policy LP51: Riverside North Policy Area
- Sand Martin House – Policy LP50: Riverside South Policy Area
- London Road – Policy LP50: Riverside South Policy Area
- Railway Sidings – Policy LP50: Riverside South Policy Area

Car Haven, Brook Street and Trinity Street sit within the City Core policy area (Policy LP47), governed by parking provision in LP13. It is noted that the NCP Brook Street car park is allocated for redevelopment, however the council's Brook Street car park is not allocated.

The area around Peterborough station is covered by Policy LP48, with masterplans developed to accommodate redevelopment including car parking.

## 4.2 Short Term Public Car Parking Provision

From **Section 3** it is apparent that there is a surfeit of car parking spaces in central Peterborough. A number of the public car parks have already been closed to facilitate development proposals. A series of potential short term interventions are proposed to deliver an initial reduction of around 370 spaces:

- Permanent closure of car parks;
- Reduction in physical size of car parks to facilitate screening or redevelopment opportunities;
- Increase in blue badge and electric vehicle charging bays, reducing quantum of parking; and
- Repurposing of car parks from public to private use.

**Recommendation**

On the basis that recent assessments demonstrate there is a surfeit of spaces, it is recommended that Dickens Street car park is immediately closed. This car park is poorly utilised, with considerable spare capacity available at the nearby Wellington Street car park to cater for displaced demand. Maintenance costs exceed ticket revenue at Dickens Street therefore a disposal strategy should be developed for the site to maximise development receipts.

In addition to the closure of Dickens Street, further car parking capacity should be removed now to establish a new baseline of provision. A key element of this will be to provide appropriate levels of Blue Badge parking, a known omission from most existing car parks and which (due to the larger space requirements) result in a small net reduction in total car parking spaces.

**Table 4.1** sets out the anticipated reductions in parking at each site to accommodate BB and EV spaces. It is noted that current Blue Badge and EV provision varies between car parks; e.g. Sand Martin House was relatively recently constructed and hence is expected to already have adequate provision. **Sections 7 and 8** provide further detail on the proposed changes.

*Table 4.1 Short Term Parking Strategy*

| Car Park | Current Capacity | Blue Badge Space Reduction | Electric Vehicle Charging Reduction | Short Term Capacity |
|---|---|---|---|---|
| Bishops Road | 244 | -7 | 0 | 237 |
| Brook Street | 136 | -4 | -1 | 131 |
| Car Haven | 214 | -6 | -3 | 205 |
| Pleasure Fair Meadow | 316 | -9 | -1 | 306 |
| Railway Sidings | 79 | -2 | 0 | 77 |
| Regional Pool | 195 | -6 | -1 | 188 |
| Riverside | 162 | -5 | 0 | 157 |
| Sand Martin House | 400 | -6 | 0 | 394 |
| Trinity Street | 50 | -2 | -1 | 47 |
| Wellington Street | 671 | -20 | -2 | 649 |
| London Road | 90 | -3 | -1 | 86 |
| **Total Provision** | **2557** | **-70** | **-10** | **2477** |

Note: reduction in spaces due to increased Blue Badge and Electric Vehicle charging spaces to be reviewed at design stage.

The measures proposed in Table 4.1 are expected to be implemented in the short term, and would result in a reduction of 137 spaces. A further 225 could then be removed to result in the total provision equating to 2,270 public parking spaces remaining.

On the basis of current usage levels, it is expected that a further 225 spaces could be removed from Wellington Street car park, to facilitate the redevelopment of the site. Wellington Street car park has experienced a considerable decline in usage post-pandemic, and thus it is suggested to concentrate parking and reduce maintenance liabilities.

Car park usage should continue to be monitored to assess whether demand increases or remains as observed in February 2022. Given the low overall demand for parking spaces in the city centre it is not considered appropriate to create a further car park at Acland Street. Such a facility would be in direct competition with underutilised private facilities at Queensgate and the railway station. It would appear more appropriate to redevelop the site, in alignment with the city's cultural and regeneration strategies.

**Recommendation**

A substantial volume of parking spaces, up to 225 spaces, should be removed from Wellington Street or in combination with spaces removed from Regional Pool as a result of University development in the immediate short term.

Acland Street car park should not be reopened. Consideration could be given to relocating coach layover from Pleasure Fair Meadow to Acland Street, to enable the development of the former per its allocation in the Local Plan. Alternatively, a disposal strategy could be developed for this site aligned with the city's wider cultural and regeneration ambitions.

## 4.3 Medium Term Public Car Parking Provision

From **Section 4.1** it is notable that public car parks have already been allocated for redevelopment within the Local Plan. The precise level of future parking demand should be assessed in advance of planning applications for the sites, once details are available of the development proposals.

In the absence of firm redevelopment proposals, **Table 4.2** sets out a potential medium term strategy for the city council's car parks. The strategy has been developed on the basis that demand remains broadly consistent with that observed in March 2022. This would result in a requirement for approximately 1,729 spaces, including a 10% allowance for circulation. Parking demand across the city should be reviewed periodically and if substantial increases are identified then the changes proposed should be reviewed accordingly.

*Table 4.2 Medium Term Parking Strategy*

| Car Park | Short Term Capacity | Change | Medium Term Capacity | Strategy |
|---|---|---|---|---|
| Bishops Road | 237 | | 238 | No change |
| Brook Street | 131 | | 132 | No change |
| Car Haven | 205 | | 206 | No change |
| Pleasure Fair Meadow | 306 | -200 | 106 | Redevelop site, reduce public parking |
| Railway Sidings | 77 | | 79 | No change |
| Regional Pool | 188 | -188 | 0 | Redevelop site, remove public parking |
| Riverside | 157 | | 158 | No change |
| Sand Martin House | 394 | | 400 | No change |
| Trinity Street | 47 | | 48 | No change |
| Wellington Street | 649 | -290 | 359 | Redevelop site, reduce public parking |
| London Road | 86 | -86 | 0 | Redevelop site, remove public parking |
| **Total Provision** | **2477** | **-764** | **1713** | |

Note: reduction in spaces to be reviewed prior to determination of major planning applications.

The medium term strategy anticipates that the Regional Pool site is likely to be redeveloped as part of expansion of the University. It would be expected that as part of the redevelopment public parking would be removed, with some operational parking for the University provided.

Pleasure Fair Meadow is also expected to be developed, either for a new facility to replace the Regional Pool, or for alternative uses. Historically the car park was well patronised, however post-pandemic usage appears to be lower. It is expected that demand in the vicinity could be transferred to Sand Martin House and Railway Sidings. A limited amount of public parking is likely to be required at Pleasure Fair Meadow, if a public facing sports / leisure use is proposed.

The Wellington Street car park is also designated for redevelopment within the Local Plan. Historically the car park has been well utilised, however at present the car park is considerably underutilised. This change appears to be due to the reduction in office worker patronage, reflecting increased working from home and the conversion of some local offices into residential. These trends are likely to continue, in which case it would be appropriate to reduce parking supply when the site was redeveloped.

The London Road car park does not relate well to the city centre, with alternative provision available at Sand Martin House and Railway Sidings. It is expected that there would be no requirement for replacement public parking provision when the site is redeveloped.

**Recommendation**

In the short to medium term the Regional Pool and London Road car parks can be closed as the sites are redeveloped.

As each development proposal is brought forward the car parking monitoring metrics should be reviewed to ensure adequate parking provision is retained, and Supplementary Planning Documents developed to identify site-specific requirements on this basis.

The redevelopment of Pleasure Fair Meadow and Wellington Street car parks could retain an element of public car parking. This could be delivered through over-build development which may enable the city council to benefit from longer term leasehold receipts.

# 5 Pricing

## 5.1 Current Peterborough Parking Charges

**Table 5.1** compiles the parking charges for all off street car parks in Peterborough.

Table 5.1 : Current Off Street Parking Charges

| Name | Weekday Rates | | | | | Sat/Sun rates | Season Rates |
|---|---|---|---|---|---|---|---|
| | Up to 1hr | Up to 2hrs | Up to 3hrs | Additional | Evenings | | |
| Brook Street | £1.50 | £2.50 | £3.50 | 10 hours - £5.00 | £2.00 (5pm – 7am) | Same as weekday rate | Council rates apply |
| Dickens Street | £1.00 | £2.00 | £3.00 | 24 hours - £4.00 | £2.00 (5pm – 7am) | Same as weekday rate | Council rates apply |
| Wellington Street | £1.50 | £2.50 | £3.50 | 24 hours - £4.50 | £2.00 (5pm – 7am) | Same as weekday rate | Council rates apply |
| Regional Pool | N/A | N/A | £1.00 | 4 hours - £3.30<br>7 hours - £5.50 | N/A | Same as weekday rate | N/A |
| Bishops Road | £1.80 | £3.10 | £4.10 | 4 hours - £5.50<br>10 hours - £6.50 | £2.50 (5pm – 7am) | Same as weekday rate | Council rates apply |
| Car Haven | £1.50 (30 mins)<br>£2.00 (1 hr) | £3.50 | £4.50 | N/A | £2.50 (5pm – 7am) | Same as weekday rate | N/A |
| Riverside | £1.80 | £3.10 | £4.10 | 4 hours - £5.50<br>10 hours - £6.50 | £2.50 (5pm – 7am) | Same as weekday rate | Council rates apply |
| Sand Martin House MSCP | £2.00 | £3.50 | £4.50 | 10 hours - £10.50 | £2.50 (5pm – 7am) | All day - £4.50 | N/A |
| London Road | All day - £15.00 | | | | | | N/A |
| Pleasure Fair Meadow | £2.00 | N/A | N/A | 24 hours - £4.00 | N/A | Same as weekday rate | Council rates apply |
| Railway Sidings | £2.00 | £3.50 | £4.50 | 10 hours - £10.50 | £2.50 (5pm – 7am) | All day - £4.50 | N/A |

| Name | Weekday Rates | | | | | Sat/Sun rates | Season Rates |
|---|---|---|---|---|---|---|---|
| | Up to 1hr | Up to 2hrs | Up to 3hrs | Additional | Evenings | | |
| Trinity Street | £1.90 | £3.10 | £4.40 | N/A | N/A | Same as weekday rate | Year - £1,000 |
| Main Station | £2.00 per hour, £5.00 (09:30 – 04:30), £15.00 (all day 04:30 onwards), £49 (Week), £195 (Month), £460 (Quarter), £1385.00 (Year) £12.00 (Friday – Monday) | | | | | £5.00 | Quarter - £460<br>Year - £1385 |
| Spittle Bank | £7.00 (Off Peak), £15.00 (Day), £49.00 (Weekly), £195.00 (Monthly), £445.00 (Quarter), £1385.00 (Year) | | | | | | Quarter - £445.00<br>Year - £1385.00 |
| Great Northern Hotel | £2.00 | £4.00 | £6.00 | 4 hours - £8.00<br>5 hours - £10.00<br>6 hours - £12.00<br>24 hours - £15.00 | N/A | 1 hour - £1.00<br>2 hours - £2.00<br>3 hours - £3.00<br>4 hours - £4.00<br>24 hours - £5.00 | N/A |
| Mayor's Walk | £7.00 (Off Peak), £2.00 (Hour), £15.00 (Day), £49.00 (Weekly), £195.00 (Monthly), £460.00 (Quarter), £1385.00 (Year) | | | | | | Quarter - £445.00<br>Year - £1385.00 |
| Queensgate Shopping Centre | 2 hrs - £2.00 with £1 increase for every added hour up to £12.00 for 9 hours | | | | £17.00 (5:30pm – 7am) | Sunday all day - £2.00 | N/A |
| Deacon Street | £3.00 | £4.00 | N/A | 24 hours - £8.50 | N/A | 24 hours - £3.50 | N/A |
| Lincoln Road | £3.00 | £4.00 | N/A | 24 hours - £9.00 | N/A | 24 hours - £3.50 | N/A |
| NCP Brook Street | N/A | £2.50 | N/A | 24 hours - £5.00 | N/A | Same as weekday rate | N/A |
| North Street | 2 hrs - £2.50, 3 hrs - £3.00 with £1 increase for every added hour up to 8 hrs - £8.00 and 24 hours - £9.00 | | | | Overnight - £2.00 | Same as weekday rate | N/A |

Where council season tickets apply as shown in **Table 5.1**, the rates shown in **Table 5.2** are chargeable.

Table 5.2: Season charge rates of car parks in Peterborough

| Permit Length | Weekly | Monthly | Quarterly | Annual | Discounted Rate (10+) |
|---|---|---|---|---|---|
| 5 day | £19.30 | £75.59 | £215.02 | £839.93 | £799.22 |
| 7 day | £26.29 | £105.82 | £302.38 | £1176.21 | £1118.90 |

The parking charge data is shown geographically as **Inserts 5.1 and 5.2** for weekday short stay and long stay respectively.

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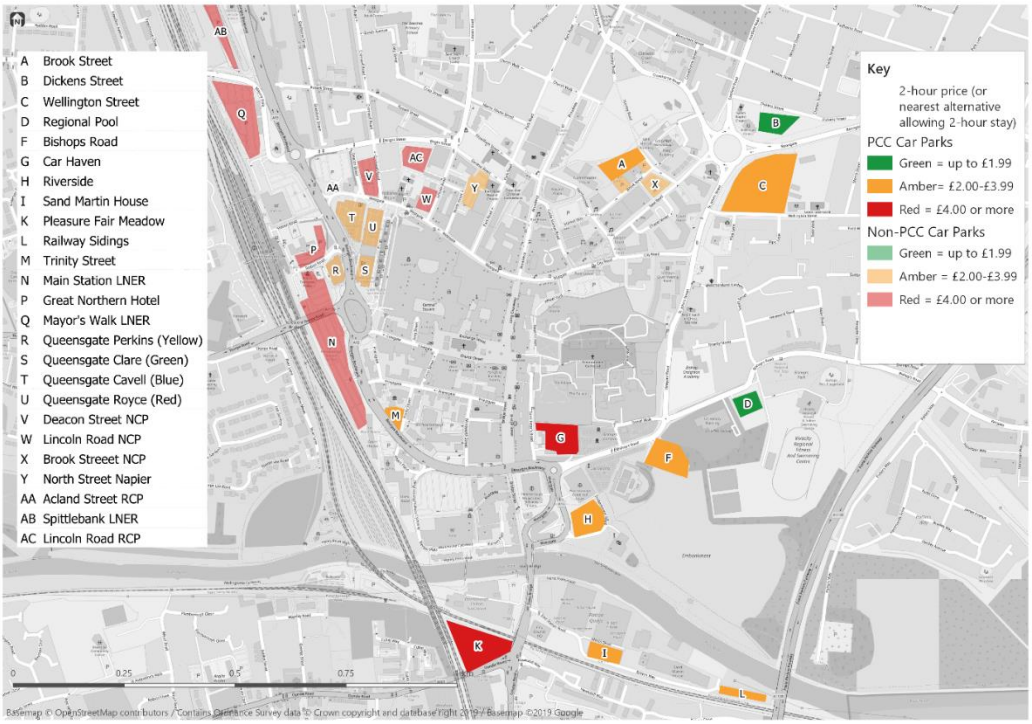
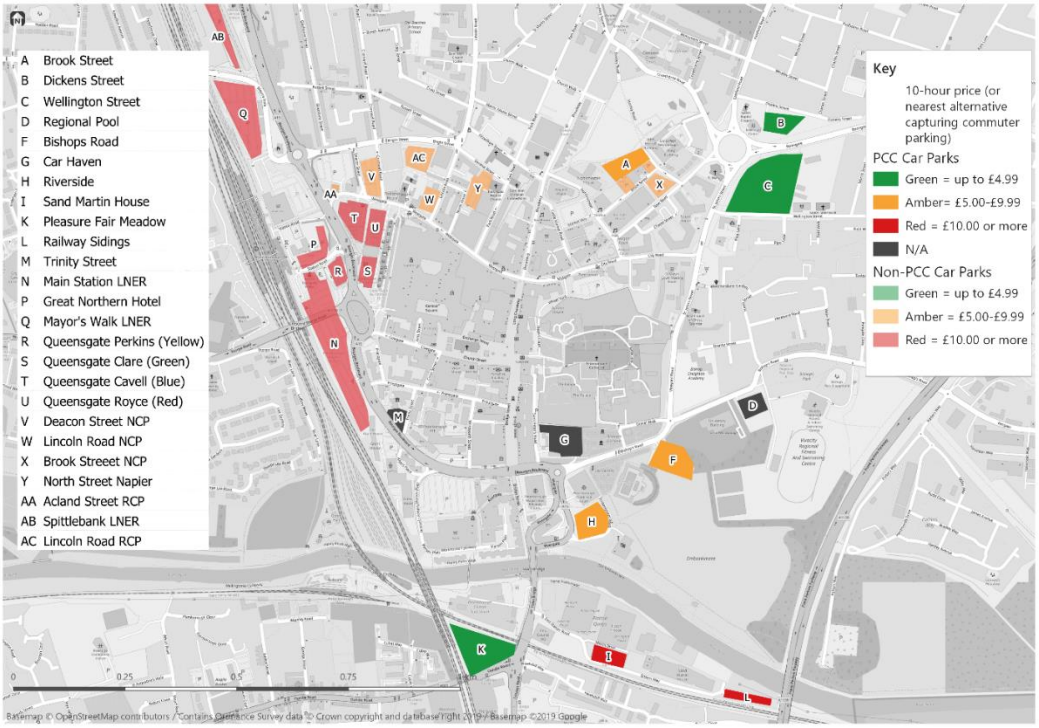
### Insert 5.1 – Short Stay Parking Charges




### Insert 5.2 – Long Stay Parking Charges




From a review of **Table 5.1** it is apparent that there are a wide variety of charges for parking across the city centre. It is clear that of the council's car parks premium rates apply for Car Haven, Sand Martin House and Railway Sidings. There are differentials in place between car parks in the same area, e.g.

Dickens Street is less expensive than Wellington Street, and Pleasure Fair Meadow is cheaper than Sand Martin House and Railway Sidings. However Riverside and Brook Street have a similar pricing structure, and this is close to that of Car Haven.

A comparison of council operated and private car parks suggests some parity between sites, for example the NCP Brook Street car park operates at similar rates to the facility adjacent. Many of the private sites appear geared more toward all day parking, with short term rates higher than equivalent council operated facilities. It is likely that many of the private car parks are seeking to attract Peterborough Station users, for instance NCP Lincoln Road charges 60% of the Station all day rate.

The Queensgate shopping centre charges lower rates for short stay parking than many of the city council short stay car parks. Despite this disparity in parking, it does not appear that the Queensgate car parks are oversubscribed. It is thus expected that parking behaviour is primarily based on convenience of the location, especially for short stay trips. It is notable that long stay parking at Queensgate is limited; this suggests increased price sensitivity for such parking, which is marginally more expensive than at Peterborough Station.

Peterborough Station operates three car parks, with Mayor's Walk providing short term parking as well as long stay. It is notable that all day parking at the station is priced at a considerable premium to other car parks (except the adjacent Queensgate). Whilst all day parking at many of the council's car parks is 56% less (e.g. Riverside and Bishops Road), these car parks are around 1km from the station, which is likely sufficient distance to discourage use by station users.

## 5.2 Future Charges

This section considers changes to the current parking charges at the council's car parks. It should be noted that Peterborough has a range of local centres providing comparison shopping (for example the Brotherhood Shopping Park), which offer considerable free parking. As such the ability to generate additional revenue from the city centre space given over to parking must be tempered by ensuring that the charges do not discourage trade away from the centre into other locations nearby. **Table 5.3** sets out the proposed parking charges, with increases highlighted in green.

Table 5.3 : Revised Off Street Parking Charges

| Name | Weekday Rates | | | |
|---|---|---|---|---|
| | Up to 1hr | Up to 2hrs | Up to 3hrs | Additional |
| Brook Street | £1.50 | £2.50 | £3.50 | 10 hours - £7.00 (+£2.00) |
| Bishops Road | £2.00 (+£0.20) | £3.50 (+£0.40) | £4.50 (+£0.40) | 4 hours - £5.50 |
| | | | | 10 hours - £7.00(+£0.50) |
| Car Haven | £2.00 (30 mins) (+£0.50) | £4.00(+£0.50) | £7.00(+£2.50) | N/A |
| | £3.00 (1 hr) (+£1.00) | | | |
| Riverside | £2.00 (+£0.20) | £3.50 (+£0.40) | £4.50 (+£0.40) | 4 hours - £5.50 |
| | | | | 10 hours - £10.50 (+£4.00) |
| Pleasure Fair Meadow | £2.00 | N/A | N/A | 24 hours - £5.00 (+£1.00) |
| Trinity Street | £2.00 (+£0.10) | £3.50 (+£0.40) | £4.50 (+£0.40) | N/A |

The changes proposed in Table 5.3 reflect that many city centre car parks have unused capacity, and so increasing prices significantly could discourage usage. The parking tariffs at Queensgate shopping centre have remained unchanged for some nine years. Given inflationary pressures, it is likely that the existing tariffs will be reviewed in the short term. The modest increases proposed in **Table 5.3** should not offset the benefits of convenience and proximity to the city centre destinations.

It is proposed to maximise revenue from the most popular Car Haven car park by increasing charges. The car park is the most conveniently located for the city core, and thus must focus on short stay trips. The charge for up to three hours is proposed to be considerably increased, to encourage a higher turnover of spaces.

Charges are also proposed to be slightly increased at Riverside, Trinity Street and Bishops Road, reflecting their relative convenience for access to the city core. It is proposed to considerably increase long stay prices at Riverside, to encourage a transfer of these users to other locations, and increase the turnover of spaces.

It is expected that users of the recently closed Northminster car park are likely to transfer to Brook Street as the closest alternative. To encourage an increased turnover of spaces, long stay prices at Brook Street are proposed to be slightly increased.

It is notable that Pleasure Fair Meadow car park has considerably lower all day parking charges than Sand Martin House and Railway Sidings. It is proposed to slightly increase the all-day parking rate to maximise revenue from Pleasure Fair Meadow.

In combination, these measures would be expected to increase existing revenue generation by approximately 17%.

Recommendation

Adopt the proposed pricing changes for the city council car parks. These price adjustments have been development cognizant of the inflationary forces in play at the time of writing and therefore modest changes are proposed. Based on current levels of demand, these adjustments have the potential to increase revenues by some 17% which exceed the level of revenue identified as required.

The forecast is based in no overall change in demand compared with today's levels but takes account of the following changes:

- Dickens Street is assumed to be closed, with the limited demand transferring to Wellington Street;
- Users of the temporary Northminster car park have transferred to Brook Street;
- The increase in three hour parking charges at Car Haven displaces half of three hour tickets to Bishops Road; and
- The increase in 10 hour parking charges at Riverside displaces half of these users to Bishops Road.

No account is taken of extra revenue being generated at Car Haven and Riverside by virtue of more short stay spaces becoming available at the most well used car parks, so there is distinct scope for total revenues to increase subject to the city centre's function as a destination.

It is also noted that car park usage was approximately one quarter lower in March 2022 than observed in October 2019. There is thus considerable potential for parking revenues to increase if demand were to return to pre-pandemic levels. Car park patronage should continue to be monitored to determine changes in demand.

A review of season ticket usage should be undertaken as a priority. It is understood that between 2019 and 2022 the number of season tickets sold has reduced by 4%, however full time tickets have reduced by 32.6%, and occasional use tickets increased by 52.7%. The overall usage of season tickets within car parks is likely reduced, however this information does not register on the daily ticket sales data.

The usage of Riverside car park by season ticket holders should also be reviewed. Based on 2019 data the majority of vehicles parked during a weekday were using a season ticket.

Recommendation

To encourage more short stay use of Riverside car park it may be appropriate to restrict season ticket use by applying a premium to use this facility.

# 6 On-Street Car Parking

On-street parking is managed by the council and hence charging rates have more consistency. Season tickets do not apply to on-street pay and display parking locations in Peterborough as shown in **Table 6.1**.

Table 6.1: Existing situation and charge rates of Peterborough on-street parking locations

| Location | Number of Spaces | Number of Machines | Maximum Stay | Tariff |
|---|---|---|---|---|
| Broadway 30 | 5 | 1 | 30 mins | Up to 30 mins - £1.50 |
| Broadway 60 | 15 | 2 | 1 hour | Up to 1 hr - £1.50 |
| Broadway 120 | 10 | 1 | 2 hours | Up to 2 hrs - £1.50 |
| Brook Street | 13 | 1 | 30 mins | Up to 30 mins - £1.50 |
| Cattle Market | 13 | 1 | 30 mins | Up to 30 mins - £1.50 |
| City 30 | 6 | 1 | 30 mins | Up to 30 mins - £1.50 |
| City 60 | 16 | 1 | 60 mins | Up to 1 hr - £1.50 |
| Church Walk | 17 | 1 | 2 hours | Up to 2 hrs - £1.50 |
| Cowgate | 8 | 1 | 60 mins | Up to 1 hr - £1.50 |
| Crawthorne Road | 29 | 2 | 2 hours | Up to 2 hrs - £1.50 |
| Fitzwilliam Street | 15 | 1 | 60 mins | Up to 1 hr - £1.50 |
| Geneva Street | 6 | 1 | 60 mins | Up to 1 hr - £1.50 |
| Lincoln Road | 70 | 1 | N/A | Up to 2 hrs - £1.50<br>over 2 hrs - £4.00 |
| Park 30 | 23 | 2 | 30 mins | Up to 30 mins - £1.50 |
| Park 60 | 16 | 2 | 60 mins | Up to 1 hr - £1.50 |
| Park 120 | 31 | 2 | 2 hours | Up to 2 hrs - £1.50 |
| Priestgate | 19 | 2 | 30 mins | Up to 30 mins - £1.50 |
| Stanley Road | 15 | 1 | 2 hours | Up to 2 hrs - £1.50 |
| St Marks Street | 4 | 1 | 2 hours | Up to 2 hrs - £1.50 |
| St Peters Road | 23 | 1 | 30 mins | Up to 30 mins - £1.50 |
| Thorpe Road | 30 | 0 | N/A | All day - £4.00 |

From a review of **Table 6.1** it is apparent there is little premium for using the on-street spaces in the city core rather than the off street spaces provided in the car parks located on the edges of the core. As spaces are provided at a range of locations, there is potential that short stay visitors will enter the city core and search for spaces, rather than heading for an off-street car park with ample available parking.

With proposals to increase the cost of off-street parking, it is necessary to also increase on-street car parking to ensure there is not an incentive to park on-street.

Recent ticket sale data shows considerable variance in the usage of spaces. In some cases spaces appear to be used less than once per day. There is considerable potential to reduce or reallocate on-street spaces to ensure best use of the public realm.

At present the vast majority of on-street charges are £1.50, except Lincoln Road and Thorpe Road, where longer stays incur a £4.00 charge. Where short stay on-street charges increased to £2.00, then this revenue would increase by approximately 33%, equating to approximately £30,000 additional revenue per year.

**Recommendation**

It is recommended that a premium is charged for on-street short term parking in the immediate short term, with typical prices increased from £1.50 to £2.00 per stay. It is important that demand continues to be reviewed, with the most under-utilised reallocated for alternative uses.

# 7 Provision for Electric Vehicles

## 7.1 Introduction

This section investigates the current electric vehicle (EV) charging network currently installed across the council's car parks and assesses the future demand of EV charging in the city. It should be noted that this review does not take into account where sites have existing electrical supply constraints to the site or where Distribution Network Operators (DNO) have supply constraints/limitations in certain areas.

Additionally, this review does not take into account the financial viability associated with providing EV chargers at the various sites and the return on investment possible. It is envisaged interaction with a service provider, such as Polar or Pod Point could investigate this.

## 7.2 Background

With the council declaring a Climate Emergency in 2019, the following key goals associated with electric vehicles were identified;

- Make the council's activities net-zero carbon by 2030;
- providing electric vehicle infrastructure and;
- replacing all council vehicles with electric or hybrids.

In Bloomberg's Report on the outlook of EVs in 2020, the report predicted that EVs' share of global sales is relatively flat in 2020 at around 3%, but then is forecast to rise to 7% in 2023 with sales of around 5.4 million. By 2025, EVs are predicted to hit 10% of global passenger vehicle sales, rising to 28% in 2030 and 58% in 2040[7]. The published vehicle registration records from the Society of Motor Manufacturers and Traders (SMMT), reflect a strongly increasing growth in EV registrations over the past three years as shown in **Table 7.1**.

Table 7.1 : UK 2020 Vehicle Registrations[8]

| | 2019 | 2020 | 2021 | % Change 2019 - 2021 | Market Share 2019 | Market Share 2020 | Market Share 2021 |
|---|---|---|---|---|---|---|---|
| Diesel | 548,480 | 261,772 | 135,773 | -75.25% | 25.4% | 16% | 8.2% |
| Mild Hybrid Diesel | 30,019 | 60,953 | 98,753 | +228.97% | 1.4% | 3.7% | 6.0% |
| Petrol | 1,389,507 | 903,961 | 762,103 | -45.15% | 64.3% | 55.4% | 46.3% |
| Mild Hybrid Petrol | 38,003 | 119,179 | 198,025 | +421.08% | 1.8% | 7.3% | 12.0% |
| Battery Electric Vehicle | 32,911 | 108,205 | 190,727 | +479.52% | 1.5% | 6.6% | 11.6% |
| Plug-In Hybrid | 30,503 | 67,134 | 114,554 | +275.55% | 1.4% | 4.1% | 7.0% |
| Hybrid Electric | 92,720 | 109,860 | 147,246 | +58.81% | 4.3% | 6.7% | 8.9% |
| **Total** | **2,162,143** | **1,631,064** | **1,647,181** | | | | |

[7] *Electric Vehicle Outlook, BloombergNEF, 20206.7*
[8] *December & Full Year 2021 New Car Registrations - SMMT Media Centre and https://www.smmt.co.uk/2020/12/english-lockdown-stalls-november-new-car-market-as-registrations-decline-27-4/*

The UK Government's policy is to end the sale of petrol and diesel cars and vans by 2030, with the overwhelming majority of the UK car and van fleet being EV by 2040.

Powered two-wheelers (PTW) are increasingly becoming electric powered rather than combustion engine driven. In 2021 some 6.028 electric PTW (E-PTW) were registered of a total of 104,612 registrations[9]. This was an increase of 146% against the 2,451 E-PTWs registered in 2020 however, at just 5.8% of all registrations E-PTW (compared with the more than 18% market share enjoyed by plug in cars) it can be concluded that the E-PTW market is considerably suppressed. However, it should be noted that PTWs are not included in the transport decarbonisation policies and therefore fossil fuelled PTWs will continue to be on sale up to and beyond 2030.

To accommodate the growing demand, an increasing number of EV owners and drivers require public charging points: approximately a third of households in the UK do not have a driveway or garage and cannot install a home charging point, and there are plenty of other drivers who want to 'top-up' their battery while away from home[10]. The strategy for EV charging in Peterborough will therefore need to take account of all types of EV charger user.

There are three main types of EV chargers. The slow AC charging points are typically used by domestic users at their homes, as they recharge at a slower rate but have less impact on peak electrical demand. They range between 3kW and 6kW in electrical ratings.

Fast AC charging points are typically found in commercial or retail premises, due to the faster recharge times required by users. They allow for recharging at a faster rate but have an increased impact on peak electrical demand of the premises and range between 7kW to 22kW in electrical ratings.

Rapid changing points are typically located at motorway services, or at the growing number of EV charging stations, where users require shorter recharge times due to the short duration they stay at the premises. They allow rapid charging of the EVs but have increased power demands associated with them, when designed for peak/fast charging, and range from 50kW and upwards.

Due to the nature of the sites investigated within the city council's car parks, only fast and rapid charging points have been considered. For short stay car parks, fast and/or rapid charger points would be proposed to allow users to recharge their vehicles in shorter durations. Whereas should commercial vehicles such as delivery vehicles be expected to make up a proportion of users, rapid charger points would be recommended, noting the increased electrical requirements associated with rapid chargers. For long stay parking, fast charging would be proposed, noting slow chargers could be fitted as well.

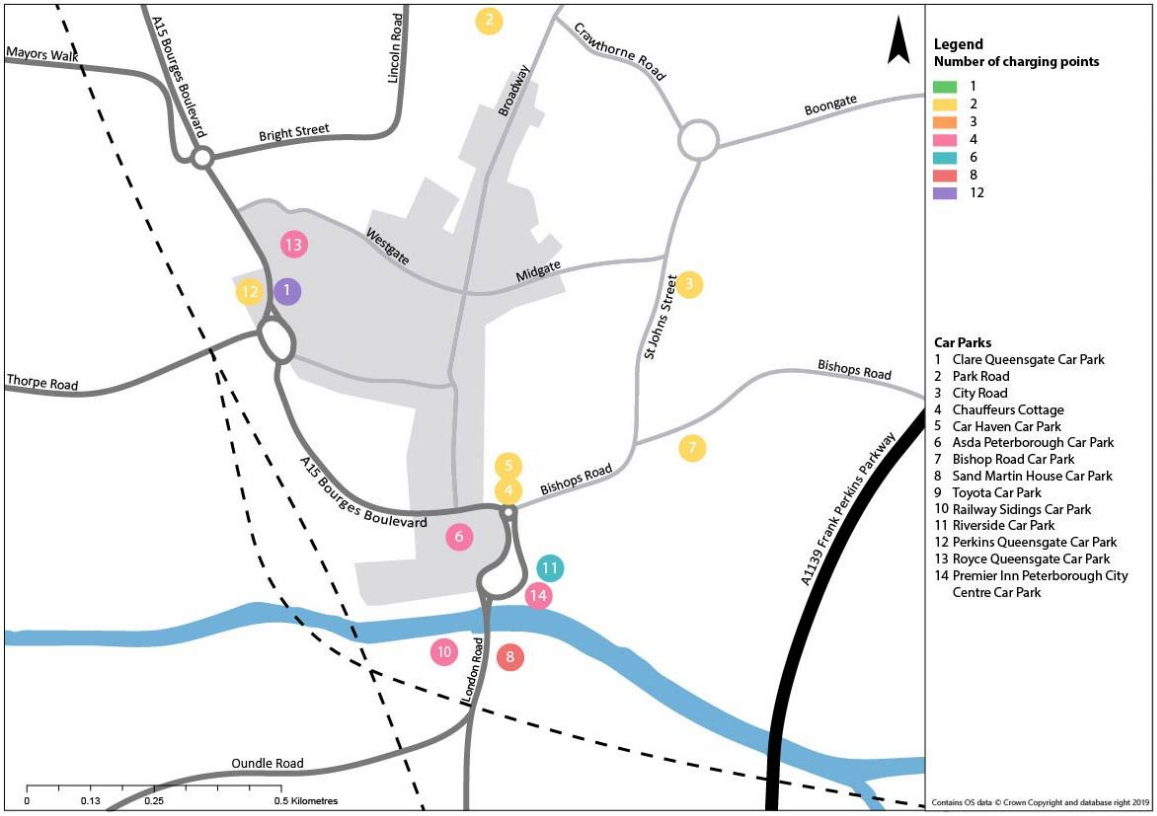
For the purposes of this study, while EV charger ratings denote the peak rating of the chargers, these can be constrained by the utility supply feeding the sites, dependent on the size of the electrical supply to the premises and current usage of the premises.

## 7.3 Existing Peterborough EV Charging Infrastructure

Currently there are several EV charging providers across Peterborough city centre, including Pod Point, Polar, Genie Point, VendElectric, NewMotion, Zap-Work, and the vehicle dealerships. These are located across the city centre as set out in **Insert 7.1**.

Insert 7.1 On-Street Electric Vehicle Charging Point Locations

[9] https://www.mcia.co.uk/downloads/download/672
[10] *Developing an electric vehicle charging infrastructure, Energy Saving Trust, 2020*

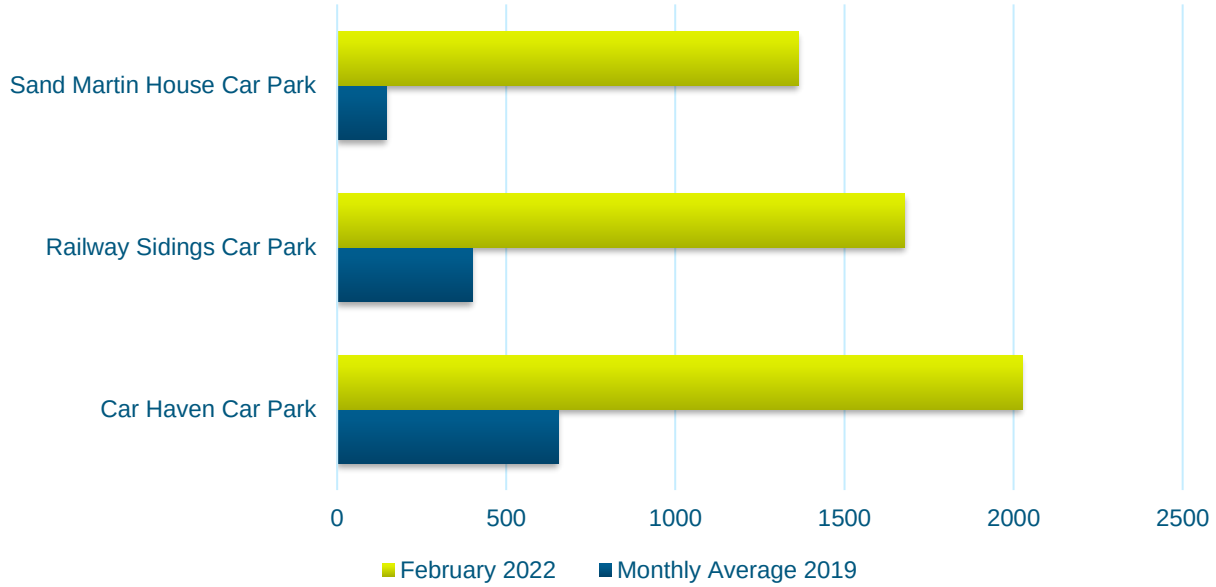



Of the EV charging points in the city, 16 have been in use since 2019 at:

- Bishops Road (Two charging points);
- Car Haven (Two charging points);
- Sand Martin House (Eight charging points) and;
- Railway Siding (Four charging points).

Data on current levels of use of EV charging points has been supplied, although it should be noted that the usage data for Bishops Road was only available for half of the year 2019. The average monthly usage of the council's charging points for 2019 is reflected in **Insert 7.2**.

Insert 7.2: PCC Car Park EV Charging Infrastructure Average Monthly Usage (kWh)




Analysis of the EV charging points suggests that while usage levels are increasing since 2019, the charging points are not fully utilised and they are all working under capacity.

A visual site survey was undertaken of the car parks. Where reference is made to the available charging points, this does not take into account any electrical utility constraints or limitations that might restrict or constrain maximum charging from these EV Chargers. The methodology undertaken on this survey was to:

- Verify the location of the existing EV Chargers and;
- Undertake a non-invasive survey of the electrical infrastructure on the site, in the form of a visual assessment. Certain sites based on the infrastructure currently located on them, such as Car Haven and Sand Martin House, are envisaged to have a more extensive electrical infrastructure (and assumed larger utility supply) associated with the site, while others had limited electrical infrastructure (such as Dickens Street).

The principal outcomes of the survey are identified in **Table 7.2.**

| Brook Street | Railway Sidings | Wellington Street | Regional Pool | Bishop's Road |
|---|---|---|---|---|
|  |  |  |  |  |
| Brook Street Car Park currently has no EV charging points. It is considered that that this site has limited electrical capacity due to the presence of only external lighting and a parking payment machine. | Railway Sidings car park is an outdoor car park with four 7kW EV charging points. This car park has electrical supplies to external lighting, parking payment machine and EV chargers. | Wellington Street car park has no EV charging points. The car park has limited electrical capacity due to the presence of external lighting and parking payment machines. | Regional Pool car park has no EV charging points. This car park has limited electrical capacity due to the presence of only external lighting and parking payment machine located on the site. | Bishops Road Car Park has two EV charging points (2 x 7kW) located near the entrance. This car park has limited electrical capacity due to the presence of only external lighting and a parking payment machine located on the site. |

| Car Haven | Riverside | Sand Martin House | Trinity Street | Pleasure Fair Meadow |
|---|---|---|---|---|
|  |  |  |  |  |
| Car Haven Car Park has two EV charging points (1 x 3kW and 1 x 7kW). This car park has electrical supplies to, a welfare building, parking payment machine and EV chargers, implying a more developed electrical network and higher electrical capacity to the site. | Riverside Car Park currently has no working EV charging points. This car park is likely to have limited electrical capacity due to the presence of only external lighting and a parking payment machine. | Sand Martin House car park is a multi-storey car park with eight 7kW EV charging points. This site's EV charger provision is unique in the city as it includes dedicated EV charging facilities for the council's EV fleet. | Trinity Street car park has no EV charging point provision. This car park is likely to have limited electrical capacity due to the presence of only external lighting and a parking payment machine. | Pleasure Fair Meadow car park currently has no EV charging points. This car park has limited electrical capacity due to the presence of only external lighting and a parking payment machine on the site. |

## 7.4 Future Usage

Based on the Energy Saving Trust's research, there could be 8 -11 million hybrid or electric cars on the UK's roads by 2030. This would equate to approximately 25 - 35% of the vehicle fleet at that time. On the basis that around one third of households do not have access to a driveway or garage, approximately 10% of vehicles would be seeking charging. It is thus suggested that 10% of all public car parking spaces should have charging points by 2030. For the council's off-street sites, this would equate to some 328 spaces to be provided with EV charging points by 2030, an increase of 314 spaces.

At this early stage of infrastructure development, such a level of provision is clearly not needed in the immediate short term. However, as EV charging demand increases the case for charging to be paid for rather than a free service becomes more compelling, and this is compounded when combined with roll-out of more spaces. The over-supply of car parking land within the city centre, provides the means by which EV charging points can be incrementally provided, with the net reduction in spaces (due to space requirements for the charger unit) contributing towards the managed reduction of capacity. The first phase of charger roll-out could provide all car parks with a minimum level of provision, as set out in **Table 7.3**.

*Table 7.3 Phase One EV Charger Programme*

| Car Park | Existing Provision | Proposed First Phase Outcome | Net Change in Chargers |
|---|---|---|---|
| Bishops Road | 2 | 2 | 0 |
| Brook Street | | 2 | 2 |
| Car Haven | 2 | 8 | 6 |
| Pleasure Fair Meadow | | 2 | 2 |
| Railway Sidings | 4 | 4 | 0 |
| Regional Pool | | 2 | 2 |
| Riverside | 6 | 6 | 0 |
| Sand Martin House | 4 | 4 | 0 |
| Trinity Street | | 2 | 2 |
| Wellington Street | | 4 | 4 |
| London Road | | 2 | 2 |
| TOTAL | 18 | 38 | 20 |

On the basis that Dicken's Street car park is not included in the immediate short term, this first phase of delivering more EV chargers would mean that EV chargers would comprise some 1.5% of a total 2557 car parking spaces.

As a consequence of the provision of EV chargers there would be a small net decrease in total car parking spaces. This is due to the size of the charger units themselves which typically require an area approximately equivalent to half a parking space. On this basis, the additional 20 parking charger spaces would result in a net decrease of 10 spaces which is well within the levels of reduction which could be achieved in the immediate short term.

While the provision of additional EV chargers is desirable, the potential for revenue to be secured via these chargers is a necessary consideration. A review has been carried out of fees payable for EV charging in off-street car parks in similarly sized, or local, towns and cities as detailed in **Table 7.4**.

*Table 7.4: Comparison of Peterborough Car Parking Provision to the Parking Provision within other Towns and Cities*

| City/Town | Council Operated EV Charging Point Fees | In Council Operated Car Parks, are EV Charging Fees AND Parking Tariffs Concurrently Payable? | Fees For EV Charging In Residential Areas |
|---|---|---|---|
| Norwich | None | Fee for parking. No additional charge for EV charging | N/A |
| Peterborough | None | No fee for parking while charging. No charge for EV charging | N/A |
| Bournemouth | Fast: 35p/kWh, Rapid 43p/kWh | Fee for parking, in addition to the fee for EV charging | N/A |
| Cambridge | Per membership type and charging speed[11] | Fee for parking, in addition to the fee for EV charging | N/A |
| Northampton | None | N/A | £1.50 connection fee plus 30/pkWh |
| Warrington | Per membership type and charging speed* | Fee for parking, in addition to the fee for EV charging | N/A |
| Bedford | Per membership type and charging speed | Fee for parking, in addition to the fee for EV charging | Per membership type and charging speed* |

The review of similar towns and cities has identified that Peterborough is unusual in charging neither a fee for EV charging nor for parking while charging.

Usage of the existing EV chargers across the council's parking sites, is driven to a degree by the assigned usage of the site (whether approximately short or long stay) and its location relative to localised business/city centre. An example of this would be Railway Sidings Car Park, which has a high electrical usage (in terms of energy drawn in the form of kWh from these EV charge points) than the Sand Martin House site. Certain of the sites are more developed in terms of apparent electrical infrastructure, such as Car Haven and Fletton Quays sites. The council would need to make further enquiries with the local DNO regarding the feasibility and indicative cost of providing this additional level of LV power to these locations.

[11] *Membership: Fast/slow: 28p/kWh, Rapid: 32p/kWh, Ultra-rapid (100+kW): 38p/kwh. Pay As You Go: Fast/slow: 33p/kWh, Rapid: 38p/kWh, Ultra-rapid (100+kW): 44p/kWh. Contactless / guest: Fast/slow: 35p/kWh, Rapid: 40p/kWh, Ultra-rapid (100+kw): 50p/kWh. (Membership refers to owning a membership to the charging point provider, i.e. BP Pulse).*

Existing EV chargers across the council's car parks are 7kW, being fast chargers, noting that there are fast and rapid chargers available at certain on street locations and private developments/businesses.

**Recommendation**

In the immediate short term, a modest fee should be payable for the use of EV chargers throughout Peterborough city centre. This would provide a further revenue stream and is comparable to the situation in similar towns and cities.

Feasibility Study and strategic outline business case should be prepared, examining the provision of Phase one roll-out of EV chargers, coupled with a pricing structure for all EV chargers in the city. This pricing structure should provide differentiated pricing to enable all local residents to benefit from a reduced price, and a preferential rate for residents without the possibility of domestic charging i.e. tenents, and those living with no access to off-street car parking.

# 8 Car Parking Accessibility

The Equality Act 2010 created a public sector equality duty, that requires authorities to:

- eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010;
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

To assist authorities in discharging their duties with respect to transport, the Department for Transport's Inclusive Mobility was published in December 2021. With respect to car parking, the guidance notes that off-street car parking should provide car parking designated for Blue Badge holders and other disabled drivers and passengers.

In addressing the quantity of Blue Badge spaces to be provided, the guidance recommends providing six percent of a car park's spaces for Blue Badge holders in areas which are, *"associated with shopping areas, leisure or recreational facilities, and places open to the general public".*

At present, very little Blue Badge parking is provided in the City Council's car parks. Given the duties established in the Equality Act, this should be remedied.

**Recommendation**

In the immediate short term, Blue Badge parking should be provided at all of the City Council's car parks. Where possible, these should be provided with a form of weather cover as recommended by the DfT's Inclusive Mobility guidance.

Blue Badge holders are able to access spaces which are wider and which provide more space for people with reduced mobility to move safely and comfortably in proximity to their own and other vehicles. The parking tariffs that are in place for off-street Blue Badge parking spaces, should be retained.

As Blue Badge spaces are larger than standard car parking spaces, their provision would result in a small reduction in car parking capacity. Translating the recommended Blue Badge provision to the City Council's car parks (excluding Dicken's Street) would result in a small net reduction in total provision across the city as set out in **Table 8.1**.

*Table 8.1 Recommended Blue Badge Spaces to be Provided*

| | Current Standard Spaces | Proposed Blue Badge Spaces | Net Reduction in Spaces |
|---|---|---|---|
| Bishops Road | 244 | 15 | -7 |
| Brook Street | 136 | 8 | -4 |
| Car Haven | 214 | 13 | -6 |
| Pleasure Fair Meadow | 316 | 19 | -9 |
| Railway Sidings | 79 | 4 | -2 |
| Regional Pool | 195 | 12 | -6 |
| Riverside | 162 | 10 | -5 |
| Sand Martin House | 400 | 24 | -6 |
| Trinity Street | 50 | 4 | -2 |
| Wellington Street | 671 | 40 | -20 |
| London Road | 90 | 6 | -3 |
| **Total** | **2632** | **155** | **-70** |

# Appendix A – 2020 Data Review and Summary Findings

# A1 Methodology Overview

This section of the report describes the methodology adopted to develop the evidence base for the Car Parking Strategy.

Typically, a parking study would be informed by bespoke traffic surveys, undertaken to count flows into and out of key car parks, establish initial occupancy and to determine the duration of stay. These surveys are usually undertaken outside school holiday periods to ensure that they represent typical demand. Given the substantial change in travel patterns due to the Covid-19 pandemic, current traffic flows and patterns cannot be considered representative and nor are they likely to return to a representative base any time soon. For this reason, baseline information has been collated from a number of sources, including surveys used to inform the third Peterborough Traffic Model (known as PTM3), reviews of Pleasure Fair Meadow car park and ticketing data supplied by the council. The work undertaken has used a number of means to ensure that the methodology is robust and representative. For transparency, the methodology notes the points at which routine procedure was not possible because of COVID-19 effects.

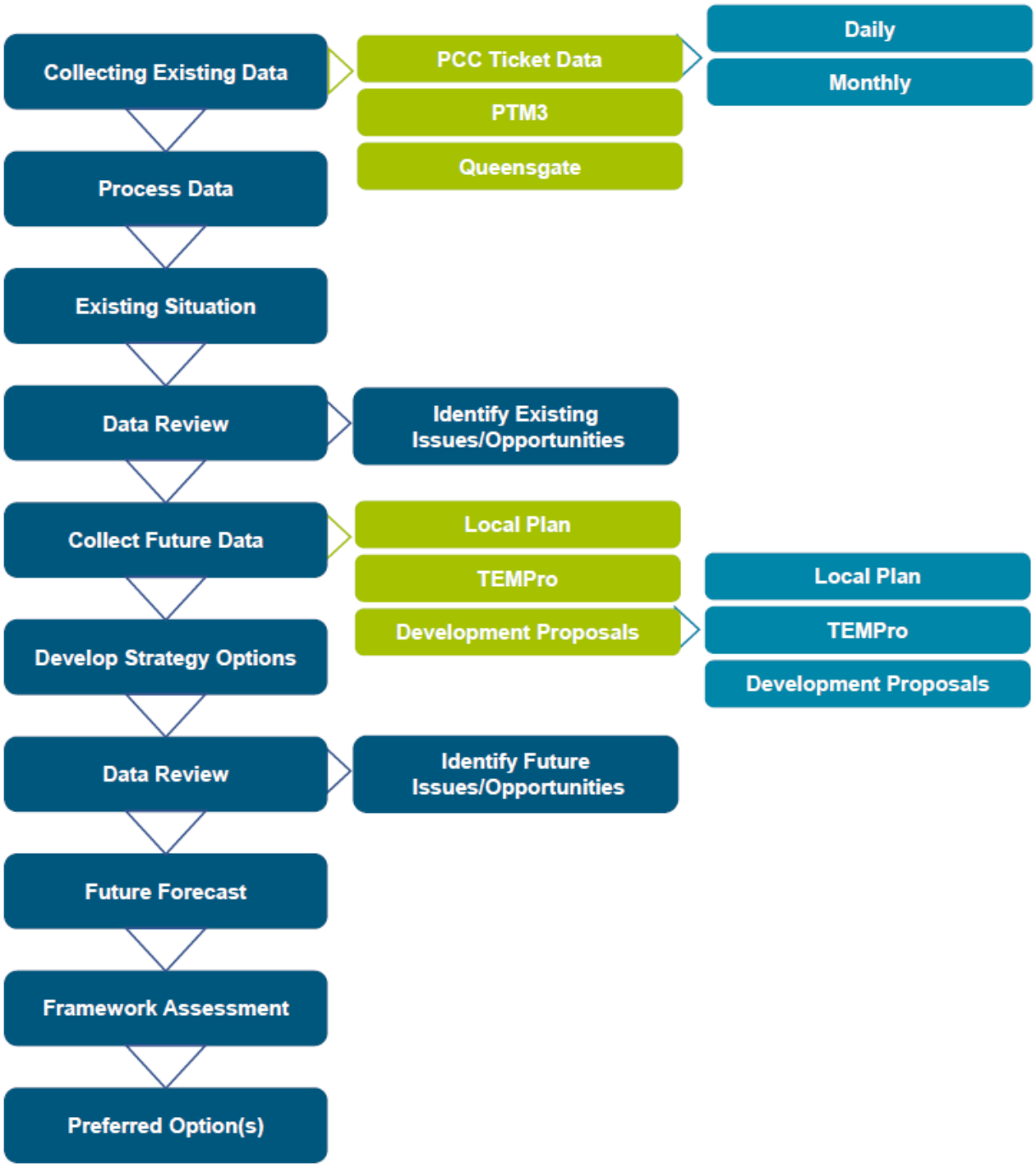
## A1.1 Study Methodology

Due to Covid-19 impacts, it was agreed that the representative car parking and traffic surveys that would traditionally be used in a car parking study could not be undertaken. In their place, other data sources were agreed with the council and obtained from relevant parties. The absence of standard sources of data has led to a more iterative approach to data collection, resulting in a comprehensive dataset which enables trends to be examined in a way which is not typically the case in Strategy development thereby resulting in a robust analysis.

A gap analysis was carried out each time data was received and analysed. This iterative process ensured that evidence gathered was adequate and suitable to withstand necessary scrutiny. Once the data identified in the gap analysis was acquired, the data was processed to achieve consistency between different sources. For example, growth factors have been calculated from the data, to enable the strategy to take account of ticketing machine data and RINGO payment app data. This process of using growth factors enabled useful data to be identified, as well as constraints and opportunities present within the car parking areas, and subsequent data. Using the datasets, metrics for current occupancy and turnover were calculated which created the basis for the Existing Situation.

The Future Situation is based on future forecast data which has been calculated to ensure the resulting data is robust. Growth factors were used to reflect predicted changes in population, and car ownership in the data. A commentary of proposed developments, including the University of Peterborough, has also been included.

Methodology Process Map



## A2 Data Review

As the option of conducting traditional traffic and parking surveys was not available, a comprehensive search was carried out for data relating to car parking in the city. This included historic capacity and occupancy data, ticketing information, revenue information, traffic flow information from the PTM3, traffic survey data on the roads within the city centre, and historic parking surveys. This section details the data received and its applicability for the study.

### A2.1 Sources

Ticketing data has been obtained for the car parks under the council's control, and additional data has been secured for other major car parks in the city. The datasets that are available and used in producing the evidence base are summarised in **Table A.1**.

Table A.1 An Overview of Data Sources Informing the Evidence Base

| Data | Date(s) | Coverage | Notes |
|---|---|---|---|
| Car Park capacity | N/A | All council car parks | Data provided by the council and augmented by site visits |
| Flowbird parking ticket transactional data | 26th September 2019<br>28th September 2019<br>2nd October 2019<br>16th October 2019*<br>27th November 2019**<br>29th November 2019** | All council car parks*** | Data provided by the council |
| RINGO parking ticket transactional data | 26th September 2019<br>28th September 2019<br>2nd October 2019<br>16th October 2019*<br>27th November 2019**<br>29th November 2019** | All council car parks*** | Data provided by the council |
| Car Park Occupancy Survey (Pleasure Fair Surveys) | 27th November 2019<br>29th November 2019 | Pleasure Fair Car Park | Surveys commissioned by Royal HaskoningDHV (carried out by Tracsis) |
| Parkeon Data | 2nd October 2019 | Sand Martin House Car Park | Data provided by the council |
| Ticket Sales | 2018 - 2019 | All council car parks | Monthly sales |
| Traffic surveys (PTM3 Surveys) | 2nd October 2019 | Peterborough Station Car Park<br>Car Haven Car Park<br>Pleasure Fair Meadow Car Park<br>Sand Martin MSCP / Sand Martin House Car Park<br>Riverside Car Park<br>Bishops Road Car Park<br>Wirrina Car Park<br>Regional Pool Car Park<br>Wellington Street Car Park | Surveys commissioned by Skanska (carried out by Tracsis) |

| Data | Date(s) | Coverage | Notes |
|---|---|---|---|
| Network Rail | 2018 to 2040 | Station Car Parks | Observed and forecast station throughput |
| * Data available only for the Riverside Car Park<br>** Data available only for the Pleasure Fair Meadow Car Park<br>*** Excluding Sand Martin House Car Park | | | |

## A2.2 Car Park Capacities

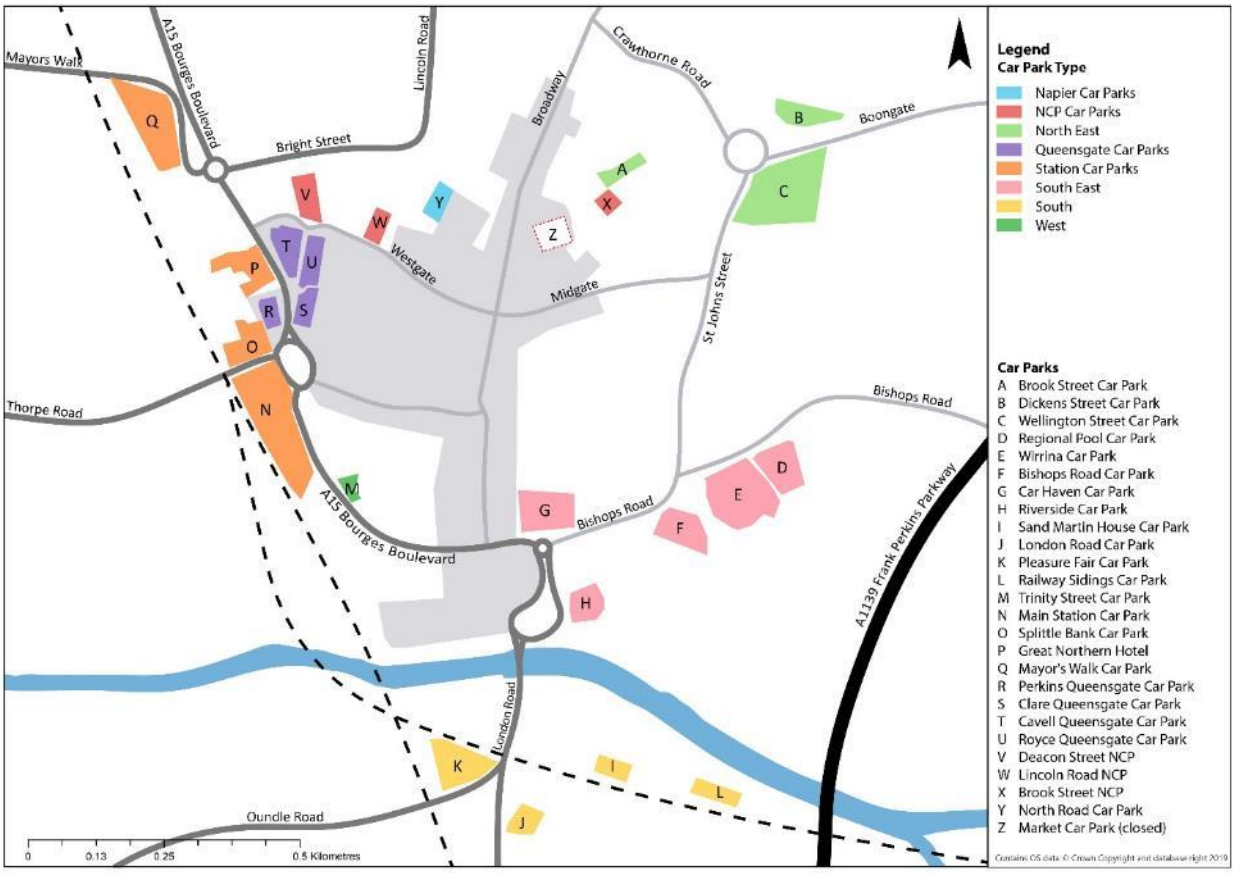
The capacity of each public car park was provided out the outset, and further site visits were undertaken to establish the number of Blue Badge spaces at each car park. **Table A.2** sets out the capacity of each public car park.

Table A.2 Public Car Park Groupings

| Grouping | Car Parks | Car Park Type | Number of Car Parking Spaces | Number of Blue Badge Spaces (inc. in total) |
|---|---|---|---|---|
| North-Eastern | Brook Street | Long and Short Stay | 136 | 4 |
| | Dickens Street | Long Stay | 171 | 1 |
| | Wellington Street | Long Stay | 671 | 2 |
| South-Eastern | Bishops Road | Long and Short Stay | 244 | 7 |
| | Car Haven | Short Stay | 214 | 10 |
| | Regional Pool | Long Stay | 195 | 4 |
| | Riverside | Long and Short Stay | 162 | 7 |
| | Wirrina | Long and Short Stay | 361 | 0 |
| Southern | Sand Martin House | Long Stay | 400 | 0 |
| | Pleasure Fair Meadow | Long Stay | 316 | 0 |
| | Railway Sidings | Long Stay | 79 | 0 |
| | London Road | Long Stay | 90 | 0 |
| Western | Trinity Street | Season Ticket Holders Only (8am to 6pm) | 50 | 0 |

To establish geographic demand, the public car parks have been grouped by geographical locations. This approach allows the identification of those car parks drivers are likely to circulate between when finding spaces. The groupings also largely follow car park type i.e. long stay and short stay as identified below.

Car Park Location Plan by Group




It should be noted that Trinity car park is the only car park in the West group. This is due to its unique service level, as it provides parking for season ticket holders only between 08:00hrs and 18:00hrs.

## A2.3 Flowbird and RINGO Parking Ticket Data

The council's car parks operate both Flowbird and RINGO transactional systems. Data from these systems have been made available for the following car parks:

- Brook Street Car Park;
- Dickens Street Car Park;
- Wellington Street Car Park;
- Regional Pool Car Park;
- Wirrina Car Park;
- Bishop's Road Car Park;
- Car Haven Car Park;
- Riverside Car Park;
- Pleasure Fair Meadow Car Park;
- Railway Sidings Car Park and;
- Trinity Street Car Park;

Information regarding on-street ticket sales has also been made available for the majority of locations at:

- Broadway;
- Brook Street;
- Cattlemarket Road;
- Church Walk;
- City Road;
- Cowgate;
- Crawthorne Road;
- Fitzwilliam Street;
- Geneva Street;
- Lincoln Road;
- Park Road;
- Priestgate;
- St Marks Street;
- St Peters Road;
- Stanley Road; and
- Thorpe Road.

Both parking systems compile information regarding the time of purchase and duration of stay. However, the data does not provide information on the departure time of the vehicles. As a result, for the purposes of this study, the duration of parking tickets purchased was used as a proxy in determining the departure times of the vehicles (i.e. arrival time + duration of the ticket = departure time). Proxies have been calculated and used in this report to supplement where there are gaps in data. When calculating a proxy data with similar characteristics are used for robustness, i.e. the same type of car park.

The arrival and departure times derived for each car park were subsequently used to build an occupancy profile of the car park across the day.

Data can be extracted from the Flowbird and Ringo systems for any day within the last two years; the dates chosen for review, therefore, relate to the timings of other available data sources. The 2019 survey dates for which ticketing data has been obtained are subsequent to the closure of the Market MSCP. To facilitate additional analysis, further data was obtained for the same months in 2018.

It is noted that the long stay car parks also allow parking via season ticket. The daily use of car parks by season ticket and staff permit holders is not included within the ticket sales data. Season tickets and staff permits can be used in:

- Brook Street Car Park;
- Dickens Street Car Park;
- Wellington Street Car Park;
- Regional Pool Car Park;

- Wirrina Car Park;
- Bishops Road Car Park;
- Riverside Car Park and;
- Pleasure Fair Meadow Car Park;

In addition, Trinity Street is for use by permit holders only between 08:00hrs and 18:00hrs Monday to Friday.

A separate system of premium staff permits is used in Car Haven, Railway Sidings and Sand Martin multi-storey car parks.

**Table A.3** sets out the season tickets in circulation on 2nd October 2019. In total 1,725 permits were in circulation.

Table A.3 Season Tickets in circulation, 2nd October 2019

| Permit Type | Number of Permits |
|---|---|
| Car Haven Annual | 15 |
| Chief Executive | 2 |
| Council Staff Car Park | 586 |
| Council Staff Car Park (Annual) | 8 |
| Elected Member | 50 |
| General Council Car Parks | 130 |
| General Council Car Parks (7 days) | 1 |
| Leader of the Council | 1 |
| Monthly Council Car Park | 4 |
| Occasional Staff | 579 |
| Season Ticket Daytime | 289 |
| Season Ticket Night | 15 |
| Trinity Street 5 Day | 40 |
| Trinity Street 7 Day | 9 |
| **TOTAL** | **1,725** |

Source: Council records

## A2.4 Pleasure Fair Meadow Surveys

Parking surveys were commissioned by Peterborough Investment Partnership in November 2019, focused on the Pleasure Fair Meadow, Railway Sidings and London Road car parks. The surveys observed vehicle arrival and departures between 07:00hrs and 19:00hrs on a typical weekday and a weekend, avoiding peaks associated with home football matches and nearby major events. These car park surveys included initial occupancy counts each day to enable an occupancy profile of the car park to be constructed.

These surveys were undertaken by a third-party contractor, using specialist equipment. Hence data is only available for the times and dates specified. It is not possible to retrospectively obtain further information.

## A2.5 Parkeon Data

The Sand Martin House car park utilises a separate operating system to other council car parks, with barriers controlling entry and exit. The Parkeon system is, therefore, able to be interrogated to provide vehicle arrival and departure times which can be used to build an occupancy profile of the car park.

Data can be extracted for any day within the last two years; the dates chosen for this review, therefore, relate to the timings of other data sources.

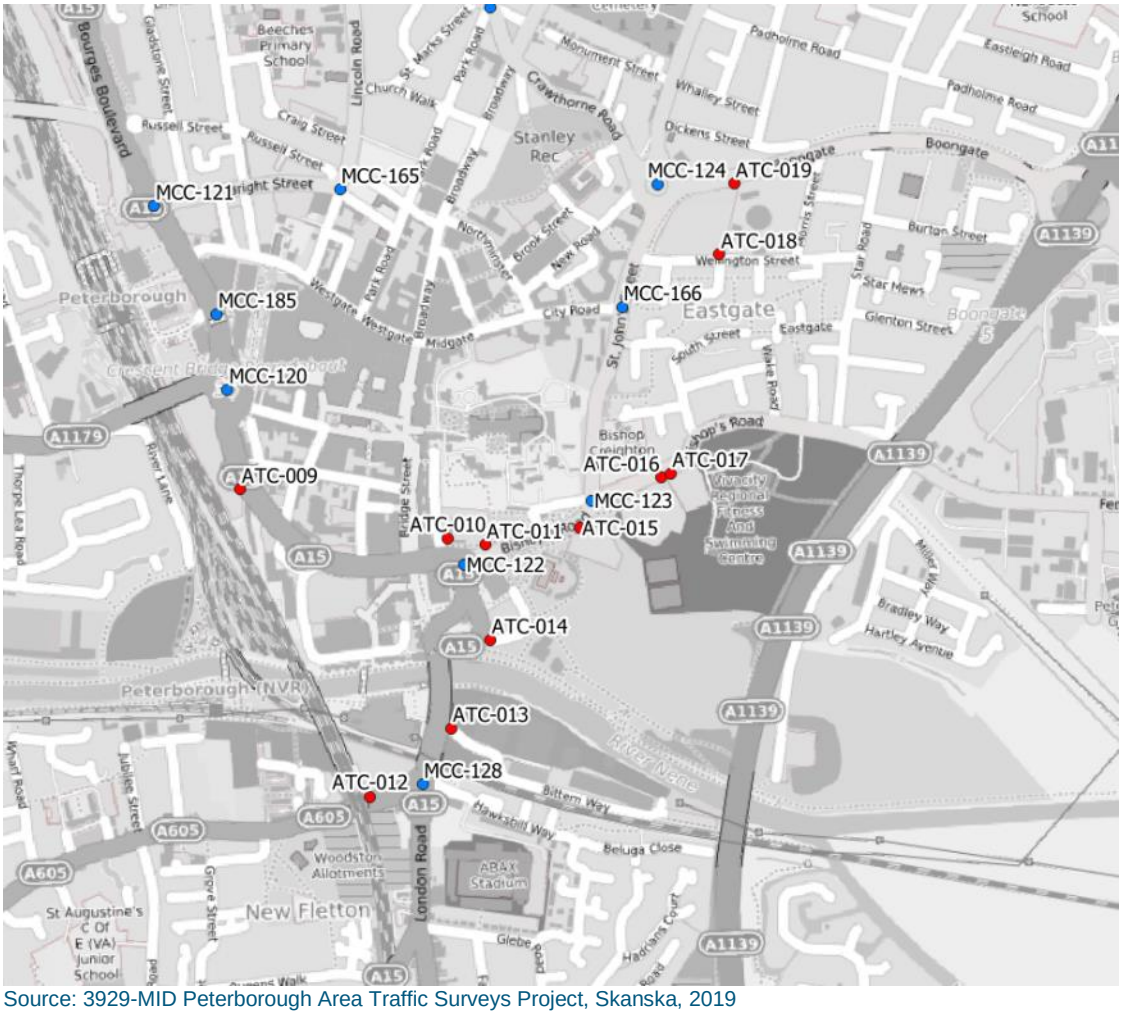
## A2.6 Council Ticket Sales

In addition to data on ticket sales at individual car parks, the council also compiles information on monthly ticket sales. This information has been provided for May 2018 to April 2020 and provides a profile of sales over the course of two years.

## A2.7 Peterborough Traffic Model 3 (PTM3) Traffic Surveys

The council has commissioned Skanska to produce an updated traffic model of Peterborough, referred to as “PTM3”. To inform model development, Skanska commissioned a range of traffic surveys of the city in September and October 2019. The insert below shows the locations and extent of surveys.

Location of Traffic Surveys




Source: 3929-MID Peterborough Area Traffic Surveys Project, Skanska, 2019

The PTM3 traffic surveys collected vehicular arrivals and departures in fifteen-minute intervals between 07:00hrs and 19:00hrs. Turning movement counts were undertaken on Thursday 26th September 2019, with automatic radar link counts undertaken on Thursday 2nd October 2019.

As the surveys were specified to inform the development of a traffic model, no initial counts were undertaken of car park occupancy.

## A2.8 Queensgate

The Queensgate operates four car parks in the west of the city centre:

- Green (Clare);
- Blue (Cavell);
- Red (Royce); and
- Yellow (Perkins).

Further annual footfall information has also been provided, summarising the annual change in pedestrian footfall at Queensgate in 2017, 2018 and 2019.

## A2.9 Network Rail

Network Rail operates three car parks in the vicinity of Peterborough station, namely:

- Mayor's Walk;
- Spittle Bank; and
- Main Station.

Data has been provided regarding passenger throughput at the station in 2018/19 and 2019/20, together with an observed modal split for car users.

## A2.10 Data Review

The variety of data sources available have been reviewed for applicability for the parking study. To consider comparable data, ticketing information was sought for the same dates as the PTM3 traffic surveys and Pleasure Fair Meadow Surveys, namely:

- 2nd October 2019; and/or
- 29th November 2019.

As the PTM3 traffic surveys were only conducted for a Wednesday, analysis has focused on a weekday. Use of previous traffic and parking survey data was crucial to validate other sources of information; this was crucial given the Covid-19 precluded the collection of bespoke surveys to inform the study.

It was clear from an initial review of the ticketing data that ticket sales alone suggested a considerable underoccupancy of 40% across all of the car parks. Consultation with the council suggested this underoccupancy would be due to the use of season tickets and staff permits. As such the validation of car park occupancy has been carried out, based on a comparison of ticketing information with other data sources.

Comparison of ticketing data with the PTM3 traffic surveys and Pleasure Fair Meadow surveys revealed broadly similar arrival profiles. Departures occurred earlier for the PTM3 and Pleasure Fair Meadow

surveys, suggesting drivers did not stay for the entire duration of the purchased ticket; this is likely to be especially the case where 24-hour tickets can be purchased.

A review of traffic count data revealed that this captured all movements into and out of many council car parks, but it did not capture complete data for all car parks. In the case of the railway station, the counts excluded Station Road to the north of the Great Northern Hotel, such that the survey was incomplete. Likewise counts in the vicinity of the station included all taxi and drop off trips to the station; this is reasonable to inform a traffic model but not acceptable when trying to establish occupancies at individual car parks. Limited qualitative information was provided by Network Rail regarding the likely occupancy of their car parks, which has been historically used by Network Rail to identify the need for additional car parking at the railway station. For this reason, a detailed analysis of the occupancy of the station car parks has been necessarily excluded from the study.

The available traffic count data does not allow occupancy of the Queensgate car parks to be determined. For this reason, a detailed analysis of the occupancy of the Queensgate car parks has also been excluded from the study.

While ticket sale information was available for on-street parking locations, this could not be validated by other sources. Given the greater potential for on-street spaces to be used by people who do not purchase a ticket, and the limited number of ticket sales compared with off-street car parks, further detailed analysis of on-street spaces has been excluded from the study.

Where parking surveys and traffic counts were available these have provided a more complete source of data than ticket sales. A series of factors were established to determine the difference in demand observed from traffic counts and ticket sales, such that these could be applied to car parks where only ticket sale data was available. The factors established are summarised in **Table** , together with the respective car park characteristics. Where traffic surveys were not available, the proxy factor to be used is also shown in **Table A.4**, reflecting the characteristics of the car park and location within the city.

Table A.4 Car Park Data Sources and Factors

| Car Park | Factor | Survey Source | Proxy | Characteristics |
|---|---|---|---|---|
| Brook Street | No survey data | N/A | Bishops Road | short & long stay |
| Dickens Street | No survey data | Traffic | Wellington Street | long-stay |
| Wellington Street | 2.19 | Traffic | | long-stay |
| Regional Pool | 2.35 | Traffic | | long-stay |
| Wirrina | 1.28 | Traffic | | long stay |
| Bishops Road | 2.13 | Traffic | | short & long stay |
| Car Haven | 1.59 | Traffic | | short stay |
| Riverside | 3.5 | Traffic | | short & long stay |
| Sand Martin House | N/A | Council | | long-stay |
| London Road | N/A | Pleasure Fair Meadow | | long-stay |
| Pleasure Fair Meadow | 3.83 | Pleasure Fair Meadow | | long-stay |
| Railway Sidings | N/A | N/A | Pleasure Fair Meadow | long-stay |
| Trinity Street | No survey data | N/A | Ticketing data | short stay |

As the Trinity Street car park is for season ticket holders only from 08:00hrs to 18:00hrs there is no applicable proxy to use to factor ticketing data. As such, the results for Trinity Street report ticket data only.

On-street ticketing data has been obtained for on-street parking under the council's control. **Table A.5** shows the summary of on-street parking locations.

Table A.5: On-Street Car Parking Locations

| Parking Location Name | Street Name | Spaces | Length of Stay Permitted (mins) |
|---|---|---|---|
| Broadway 30 | Broadway | 5 | 30 |
| Brook Street | Brook Street | 13 | 30 |
| Park 30 | Park Road | 23 | 30 |
| Priestgate | Priestgate | 19 | 30 |
| City 60 | City Road | 16 | 60 |
| Cowgate | Cowgate | 8 | 60 |

## A2.11 Impact of Season Tickets

From the data review, it was apparent that season ticket usage contributed to a significant element of parking demand. To quantify the impact of season ticket usage, the occupancy attributed to recorded ticket sales at the 11:00 to 12:00 parking demand peak has been established as 1,211 vehicles. The overall calculated parking demand at 11:00 to 12:00 was 1,856 vehicles. As such there was a 645 vehicle difference, primarily attributed to season tickets; this compares with 1,676 permits issued, showing not all permits are used at any one time.

It is noted that Trinity Street car park has been excluded from this assessment, as it is solely for season ticket holders during weekday daytime.

## A2.12 Weekend Parking Demand

A review of ticket sales was undertaken for the date of the main traffic surveys (Wednesday 2nd October 2019), the date of some supplementary surveys (Thursday 26th September) and the intervening Saturday (28th September). The findings are summarised in **Table A.6**.

Table A.6: Overall Ticket Sales / Entries to car parks, 07:00 to 19:00 hours

| Location | Thursday 26th Sept | Saturday 28th Sept | Wednesday 2nd Oct | Wednesday 2nd Oct |
|---|---|---|---|---|
| | Ticket Sales | Ticket Sales | Ticket Sales | Car Park Entries |
| Brook Street | 106 | 244 | 118 | 251 |
| Dickens Street | 17 | 8 | 21 | 46 |
| Wellington Street | 393 | 144 | 367 | 805 |
| Regional Pool | 173 | 374 | 196 | 461 |
| Wirrina | 145 | 203 | 174 | 223 |
| Bishops Road | 83 | 361 | 146 | 311 |
| Car Haven | 822 | 1137 | 885 | 1409 |
| Riverside | 274 | 420 | 169 | 591 |
| Sand Martin House | 246 | 12 | 265 | 265 |
| Pleasure Fair Meadow | 66 | 300 | 82 | 416 |
| Railway Sidings | 11 | 1 | 14 | 31 |
| Trinity Street | 12 | 126 | 25 | 25 |
| **TOTAL** | **2348** | **3330** | **2462** | **4834** |

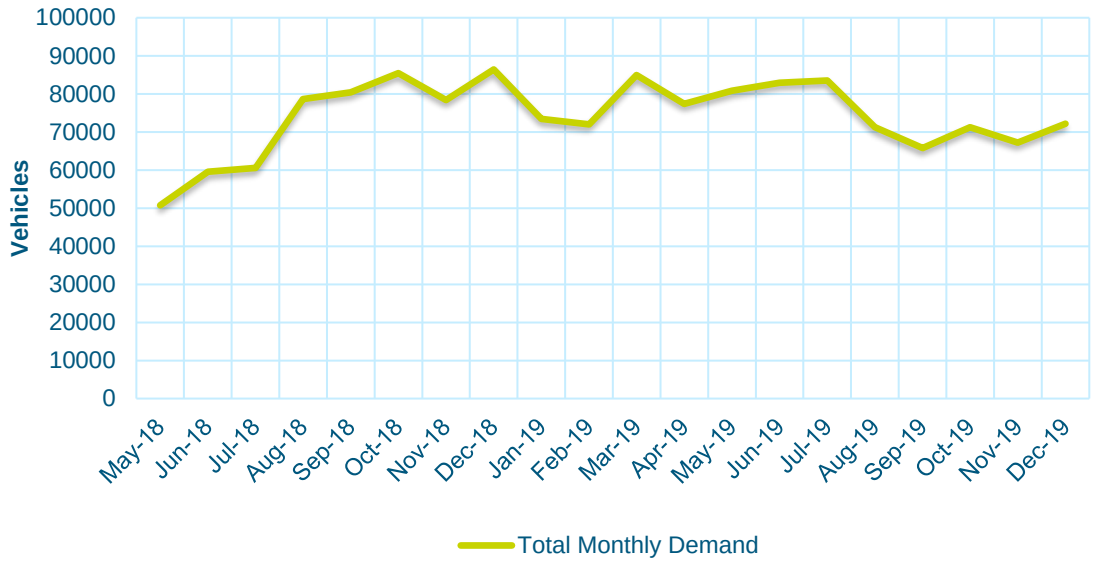
From **Table A.6** it is shown that ticket sales were almost five percent higher on Wednesday 2nd October than Thursday 26th September. It is also apparent that there were considerably more ticket sales overall (c. 35%) on Saturday 28th September than either of the weekdays. However from the data validation exercise undertaken it was clear that a considerable element of weekday demand is attributed to season tickets holders, and these users have a disproportionate effect on occupancy as most vehicles are parked for the whole working day. It is noted that there is not a comparable set of survey evidence for a weekend, however only 10 season tickets were in circulation that were valid for weekend parking, and hence season tickets would not contribute to increased demand on a weekend.

On the basis that the weekday surveyed entries to car parks are 45% greater than the ticket sales on a Saturday, data analysis has primarily focussed on weekday information as this constitutes the peak in demand.

## A2.13 Monthly Profile

Using the daily total arrival counts, a total monthly demand profile for all council car parks has been created, as summarised below.

Council Car Parks' Monthly Profile Arrivals




Monthly demand peaks for public car parks occur during the summer and Christmas periods, falling in January and autumn. This is no doubt due to an increase in shopping activity in the run up to Christmas, compounded by a modal shift towards cars to cater for multiple purchases and the potential for poor weather.

## A2.14 Closure of the Market Multi-Story Car Park

Car parking demand in 2018 and 2019 has been reviewed to establish the impact of the closure of Market MSCP on car parking demand elsewhere in the city.

**Table A.7** summaries the changes in ticket sales in 2019 compared with the corresponding month in 2018. The comparison runs from August 2019, when the Market MSCP was closed.

Table A.7: Impact of the Closure of Market MSCP

| | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Total |
|---|---|---|---|---|---|---|
| Brook St | +2335 | +1420 | +1572 | +1023 | +1395 | +2335 |
| Dickens St | -87 | -93 | -12 | +36 | +180 | -87 |
| Wellington St | +1939 | +1332 | +1173 | +1452 | +1527 | +1939 |
| Regional Pool | +1281 | +307 | +448 | +685 | +5 | +1281 |
| Wirrina | +749 | +293 | +230 | -257 | -296 | +749 |
| Bishops Rd | +462 | -410 | -479 | +359 | +596 | +462 |
| Car Haven | +1239 | +1113 | -966 | +845 | +267 | +1239 |
| Riverside | +115 | -897 | +178 | +262 | +797 | +115 |
| Sand Martin House | +852 | +1042 | +1165 | +1069 | +708 | +852 |
| Pleasure Fair | +101 | -1112 | +294 | +117 | +611 | +101 |
| Railway Sidings | +136 | -212 | -19 | +49 | +29 | +136 |

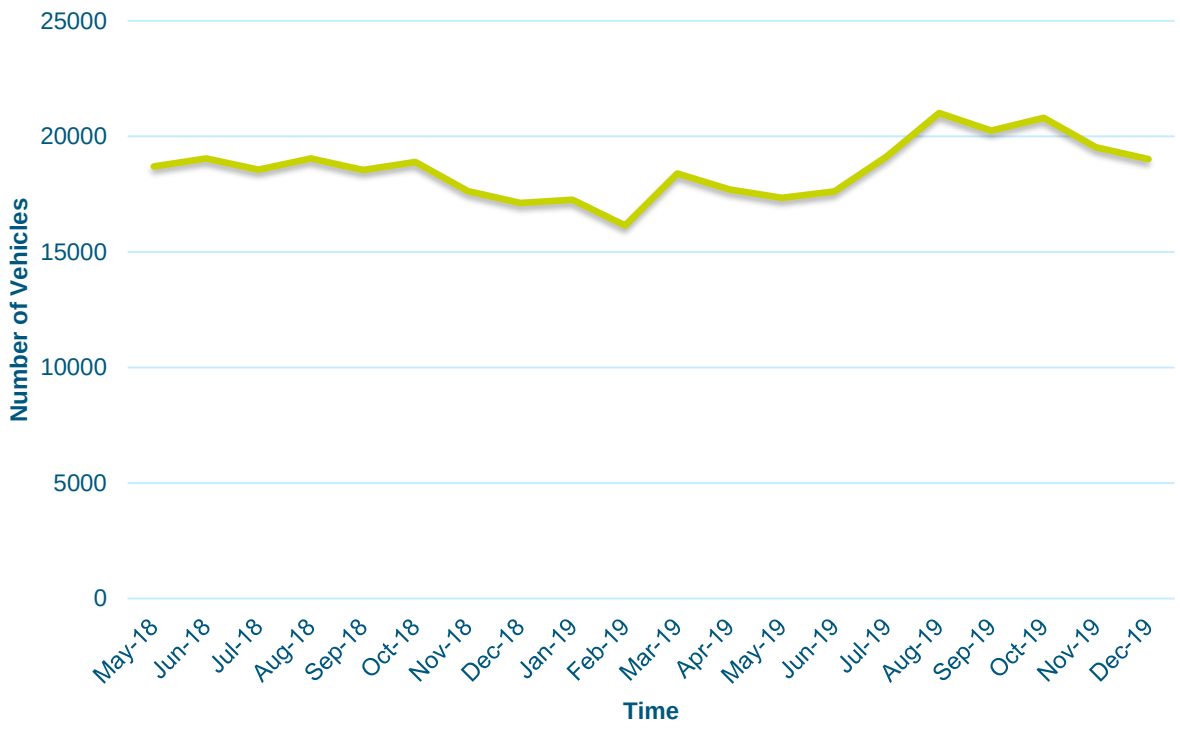
| | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Total |
|---|---|---|---|---|---|---|
| Trinity St | +175 | +135 | +182 | +361 | -143 | +175 |
| Market | -16756 | -17570 | -17949 | -17204 | -19885 | -16756 |
| Total | -7459 | -14652 | -14183 | -11203 | -14209 | -7459 |

The table shows that the main increases were experienced at Brook Street and Wellington Street. Lesser increases were experienced at Car Haven and Regional Pool. The increases shown for Sand Martin House are skewed as that car park only opened in October 2018, and demand was low until the beginning of 2019.

Overall the data suggests there was an overall 17.7% reduction in parking demand in the council's car parks between August – December 2018 and August – December 2019. It would appear the reduction in ticket sales at the Market MSCP is not offset by increases in demand at other off-street car parks.

Had the car park not closed it is estimated that approximately 97,000 people would have used the car park between August 2019 and December 2019. Whilst demand did not shift to other car parks, a review of on-street parking between May 2018 and December 2019 reveals an increase in demand from August 2019.

On-Street Parking Demand




There was a 10% increase in demand between August 2018 and August 2019, which correlates to the closure of the Market MSCP although it is noted that this increase only accounts for a small amount of the previous demand at the Market MSCP.

That the closure of an MSCP results in an increase in demand for on-street car parking, and no increase in demand at other off-street car parks raises questions regarding pricing structures and whether there is

sufficient pricing differential between on- and off-street car parking. In addition, it is clear that there is no specific demand for car parking at the location of the Market MSCP. If the demand were specific to the location, then an equivalent increase in car parking demand would have been seen at the closest car parks on closure of the Market MSCP such as Brook Street, Wellington Street and Dicken's Street.

## A3 Existing Situation

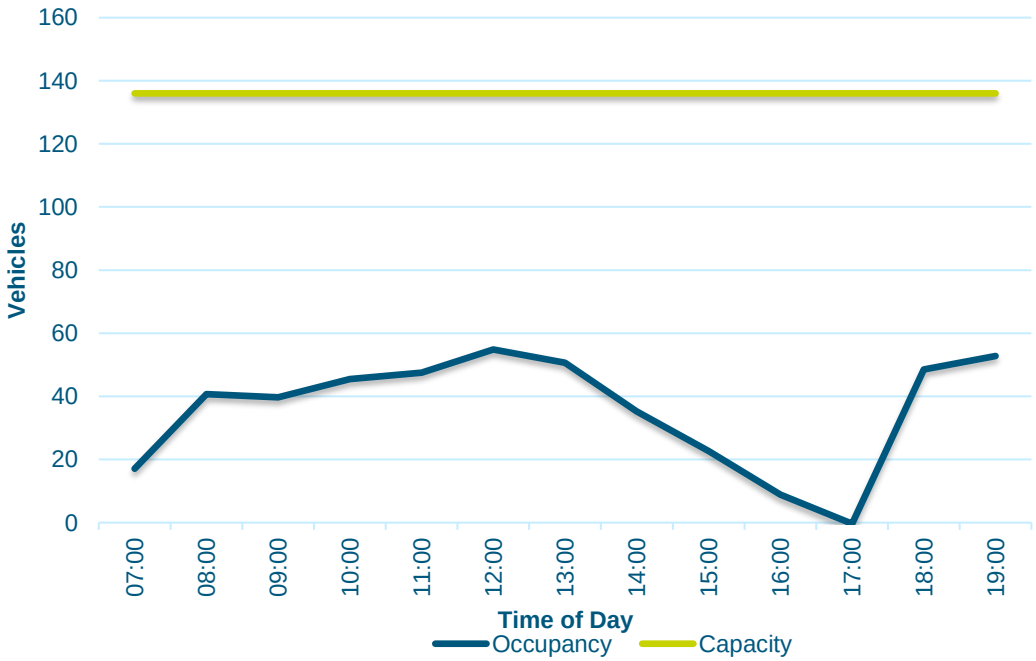
The graphs below all present weekday data between 07:00hrs and 19:00 hrs, in line with the timeframe used for the car parking surveys. Without surveys it is not possible to establish an accurate departure profile, hence the forecast occupancy profile after 19:00hrs cannot be relied upon. However, as this time is well outside of the core period for activity in the city centre, the profiles set out in this section represent the peak periods.

### A3.1 Brook Street

Brook Street car park offers a capacity of 136 spaces, including four Blue Badge parking bay. The car park is located on Brook Street adjacent to Stanley Recreation Ground to the north and City College Peterborough to the east.

No direct survey information was available for Brook Street car park. A demand profile has been created by factoring ticket sales information by the observed difference between ticket sales and traffic flows at Bishops Road car park.

Brook Street Car Park Profile




The demand, over the recorded study period, averaged 24% occupation over the study period. At the daytime peak level of occupation, a total of 55 cars were parked, at 12:00hrs to 13:00hrs. A review of the arrival surveys shows that most users parked their car for one hour, and spaces were turned over on average 1.9 times a day.

It is noted that the surveys showed demand increasing at the car park after 17:00hrs, however, the profile is based on the assumption that vehicles remained for the full duration of their purchased ticket. This assumption is reasonable during the day, however after 17:00hrs all parking at Brook Street is subject to a

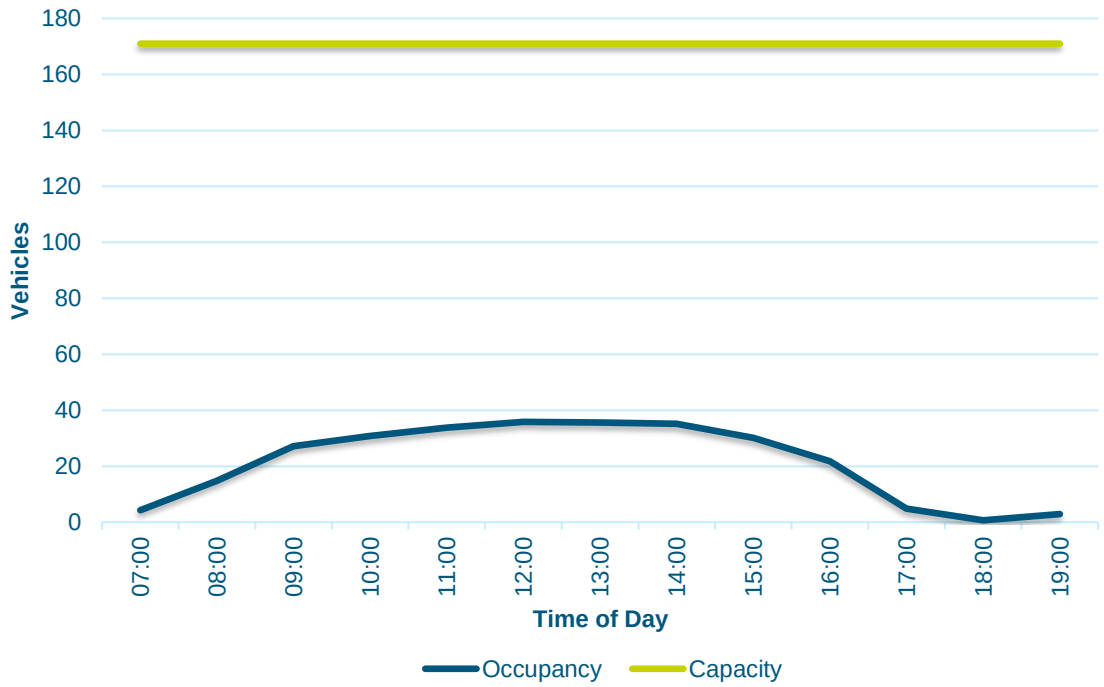
flat fee until 07:00hrs. It is apparent that evening car park users are unlikely to remain for the full duration, however without surveys it is not possible to establish an accurate departure profile. Hence the forecast occupancy profile after 17:00hrs cannot be relied upon and is likely to be lower than shown. As the period from 17:00hrs onwards lies outside of the city centre's peak parking demand this limitation is acceptable.

## A3.2 Dickens Street

The Dickens Street car park has capacity for 171 cars, including one Blue Badge bay. The car park access is located on Dickens Street, with Eastfield Road approximately 70m to the west.

It should be noted that no direct survey information was available for Dickens Street car park. A demand profile has therefore been created by factoring ticket sales information by the observed difference between ticket sales and traffic flows at the nearby Wellington Street car park.

Dickens Street Car Park Profile



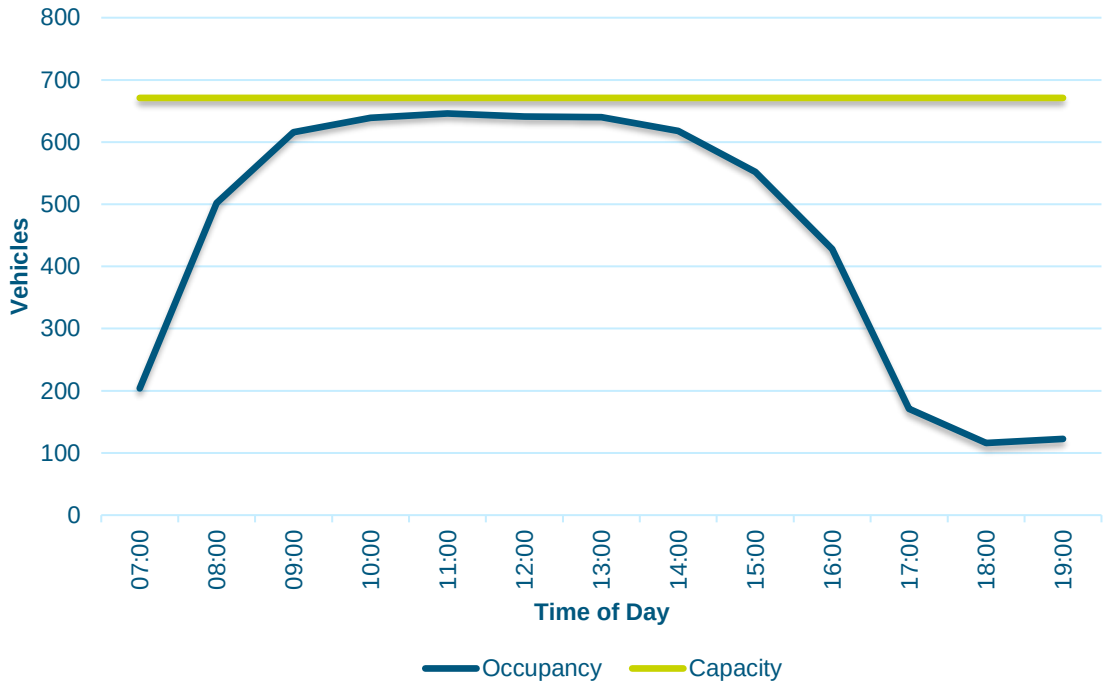

The forecast demand was, on average, 13% of full capacity. At the peak level of occupation, 36 cars were forecast to be parked between 12:00hrs -14:00hrs, which equates to 21% occupancy. A review of the arrival surveys shows that most users parked their car for between three and 24 hrs, and spaces were turned over 0.3 times a day.

## A3.3 Wellington Street

Wellington Street car park offers a capacity of 671 car parking spaces. Two Blue Badge bays are allocated at this location. The car park access is located on Wellington Street, approximately 250m to the south of the Boongate/ Eastfield Road roundabout. Egress is available onto Wellington Street and also Boongate westbound.

The traffic surveys monitored arrivals at Wellington Street and departures at both exit points to provide a robust assessment of demand at the car park.

Wellington Street Car Park Profile

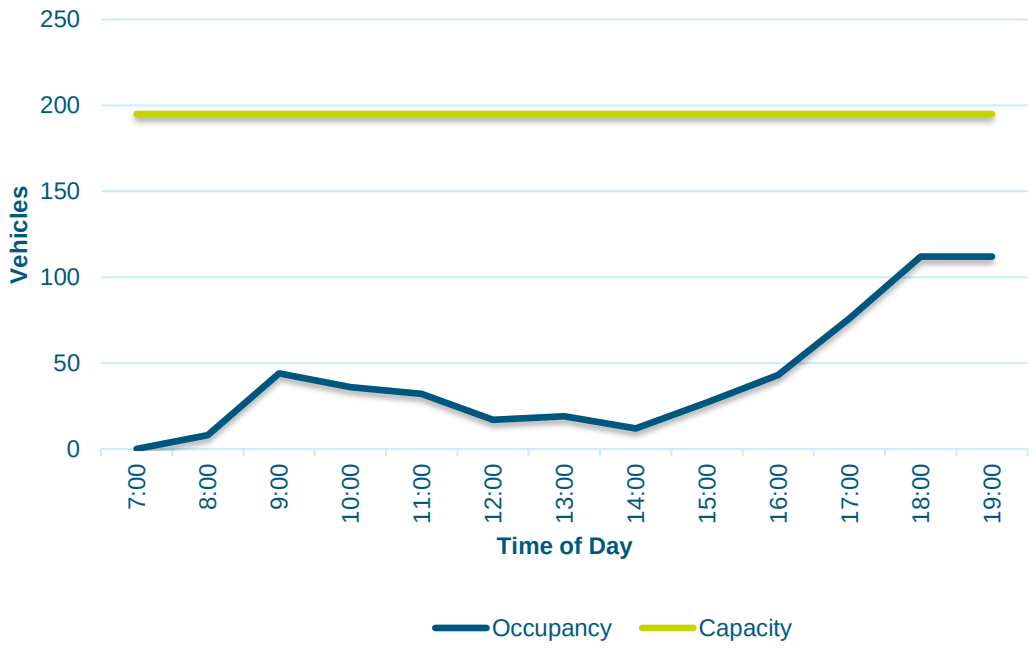



The demand over the recorded study period was, on average, 64% of full capacity according to survey data. At the peak level of occupation, the data registered 646 cars parked from 11:00hrs -12:00hrs, which equates to 96% occupancy at peak periods. A review of the arrival surveys shows that most users parked their car for between four and 24 hrs, and spaces were turned over 1.3 times a day.

## A3.4 Regional Pool

The Regional Pool car park provides 195 car parking spaces, including four Blue Badge bays. The car park access is located along Bishops Road, directly adjacent to Embankment Athletics Track. Regional Pool car park borders the Wirrina car park on the neighbouring plot of land to the west.

Regional Pool Car Park Profile




The parking demand over the surveyed period was, on average 21%. During the working day, the car park experienced limited demand, with the main peak occurring from 18:00 hrs to 19:00 hrs. At the peak level of occupation, the data registered 112 cars parked, which equates to 57% occupancy. It is noted that no data is available after 19:00hrs to establish occupancy into the evening. It would be expected that demand would reduce in the late evening, with very low levels of overnight parking.

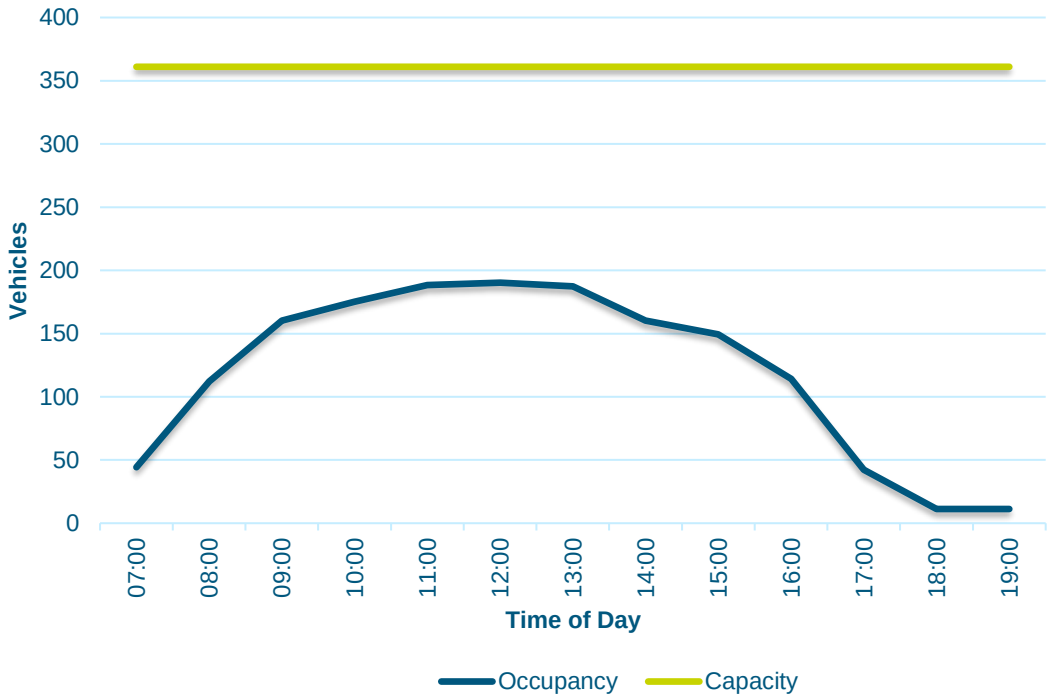
A review of the arrival surveys shows that most users parked their car for three hrs, and spaces were turned over 2.4 times a day.

## A3.5 Wirrina

The Wirrina car park offers a capacity of 361 car parking spaces. The car parking spaces are not demarcated, and there are no formal Blue Badge parking bays allocated at this location. The car park access is located along Bishops Road, with the Regional Pool and Bishops Road car parks to 10m to the east and 180m to the west respectively. Embankment Athletics Track is located to the south of the car park.

The insert below indicates the surveyed parking demand for Wirrina car park during Wednesday 2nd October 2019.

Wirrina Car Park Profile




The demand over the recorded study period was, on average, 33% of full capacity. At the peak level of occupation, 190 cars parked from 12:00-13:00, which equates to 53% occupancy at peak periods.

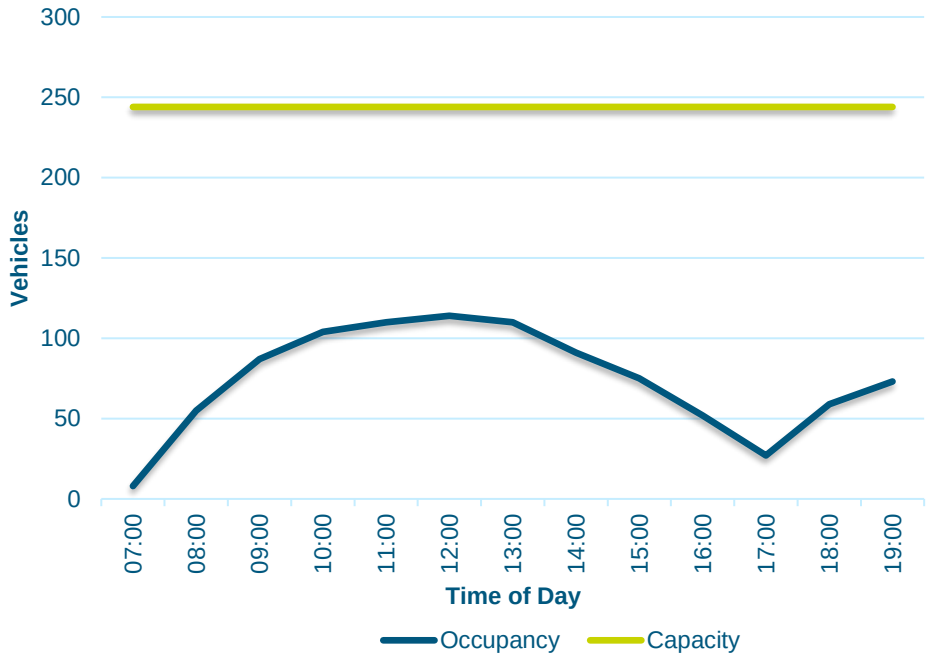
A review of the arrival surveys shows that most users parked their car for 24 hrs, and spaces were turned over 0.7 times a day.

## A3.6 Bishops Road

Bishops Road car park offers capacity for 244 spaces. It is noted that seven of the available parking spaces are designated Blue Badge parking bays. The car park access is located on Bishops Road, 40m to the west of the roundabout joining with Vineyard Road. The car park is also adjacent to Peterborough Lido Outdoor Swimming Pool.

The insert below indicates the parking demand for the Bishops Road car park, determined by surveys undertaken on 2nd October 2019. It should be noted that no initial occupancy count was conducted, and thus it must be assumed that the car park was empty at the beginning of the surveys.

Bishops Road Car Park Parking Profile

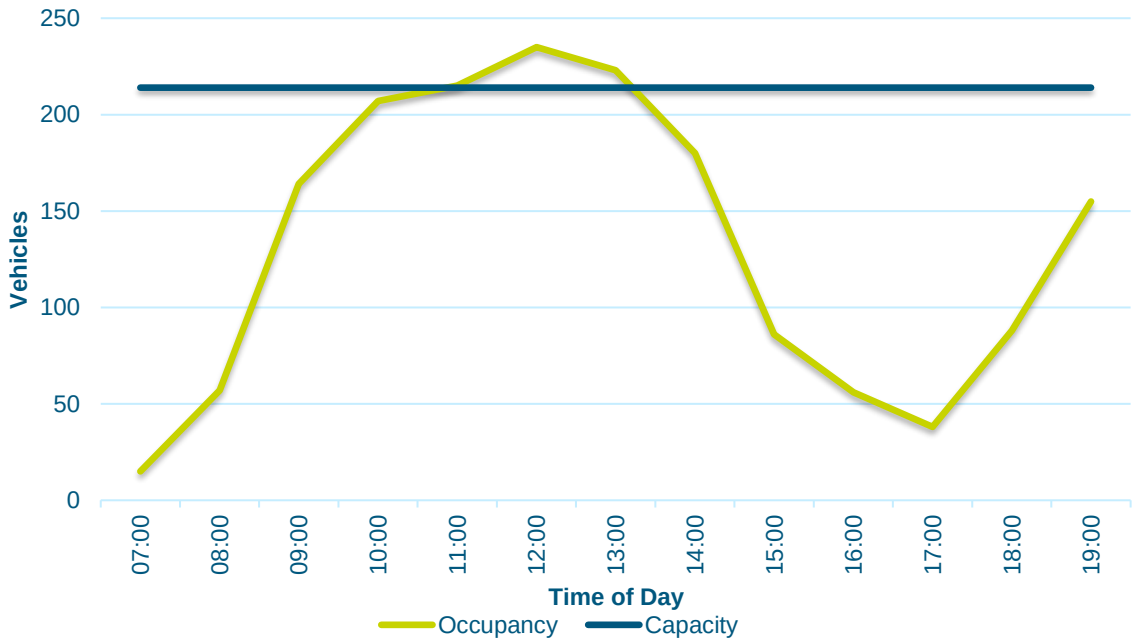



The demand, over the recorded study period, averaged 31% occupation over the study period. At the daytime peak level of occupation, a total of 114 cars were parked, at 12:00 hrs to 13:00 hrs. A review of the arrival surveys shows that most users parked their car for between one hour, and spaces were turned over 1.4 times a day.

## A3.7 Car Haven

The Car Haven car park offers a capacity of 214 car parking spaces. There are 10 Blue Badge parking bays located within this location. The car park access is located on the north flank of Bishops Road, adjacent to the Bishops Road/A15 junction.

Car Haven Car Park Profile



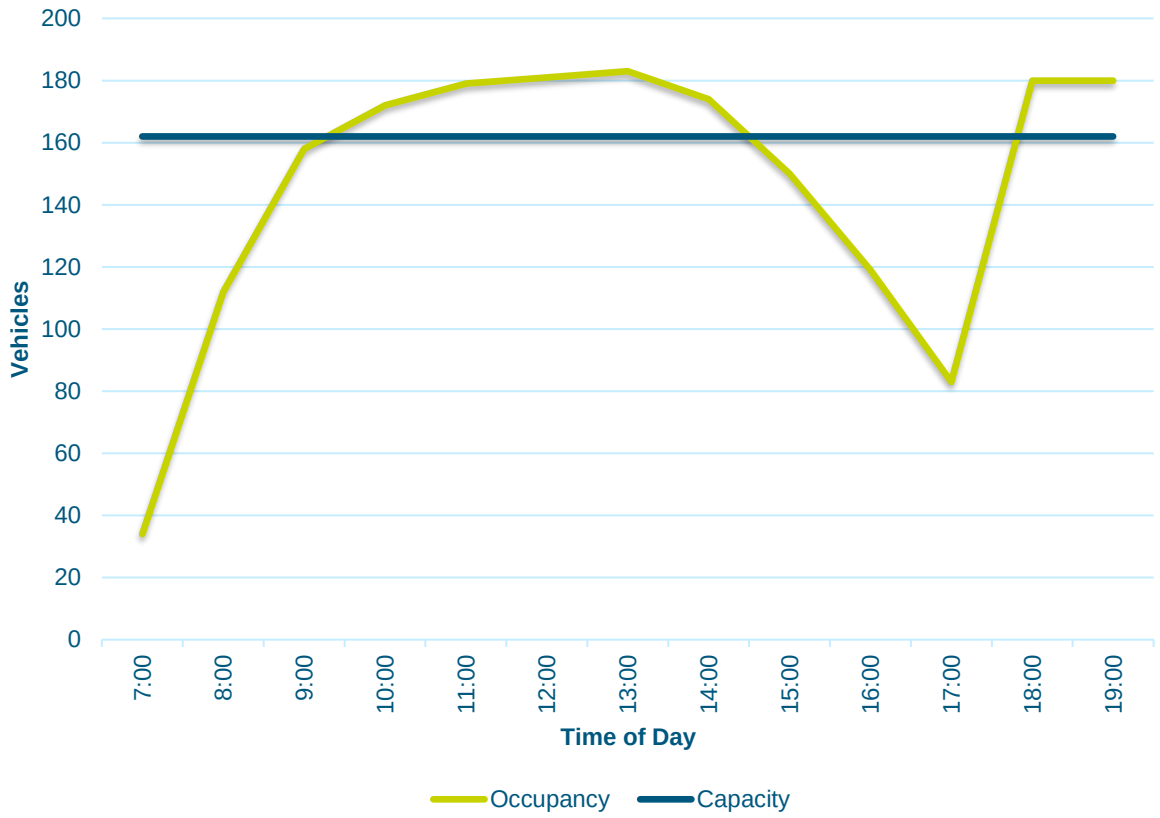

The demand over the surveyed period was, on average, 61% of full capacity. At the peak level of occupation, 235 cars were forecast to be parked between 12:00hrs -13:00hrs, which equates to 110% occupancy at peak periods. Given that short stay tickets are issued at the car park, it is reasonable to assume that spaces were occupied by more than one vehicle within an hour time period, and hence the car park operated within, or close to, capacity.

Car Haven is a very well used, with approximately 1400 vehicles using the car park over the course of a day. This demand means each space is used 7 times per day on average, an extremely high turnover, reflecting the short stay nature of the car park, with 36% of vehicles stay for less than one hour.

## A3.8 Riverside

The Riverside car park has capacity for 162 cars, including seven Blue Badge bays. The car park access is located on Embankment Road, adjacent to the Crown Court, to the north. The insert below indicates the parking demand for Riverside car park during Wednesday 2nd October 2019.

Riverside Car Park Profile



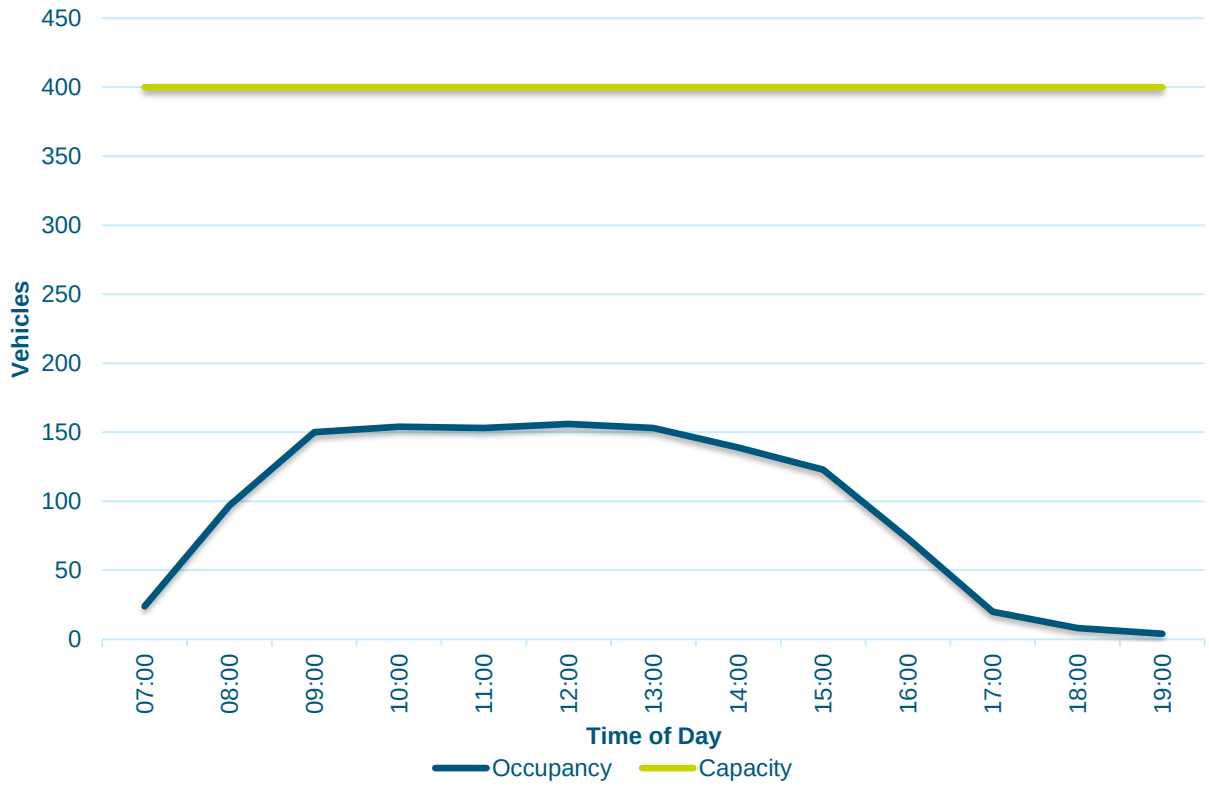

The demand over the recorded study period was, on average, 112% of full capacity. A maximum occupancy of 183 cars was calculated between 13:00hrs and 14:00hrs, equating to 142% occupancy. Given that short stay tickets are issued at the car park, it is reasonable to assume that spaces were occupied by more than one vehicle within an hour time period, and hence the car park operated within, or close to, capacity. A review of the ticket sale data shows that most users purchased 10 hrs tickets, however spaces were turned over 3.7 times a day.

It is noted that the surveys showed demand increasing at the car park after 17:00hrs, however, no traffic flows were recorded after 19:00hrs. It is therefore not possible to establish an accurate occupancy profile after 19:00hrs and the evening profile shown cannot be relied upon.

## A3.9 Sand Martin House

The Sand Martin House car park at Fletton Quays offers a capacity of 400 car parking spaces. No Blue Badge parking bays are allocated at this location. The parking demand for Sand Martin House car park on Wednesday 2nd October 2019 is indicated in the insert below.

Sand Martin House Car Park Profile

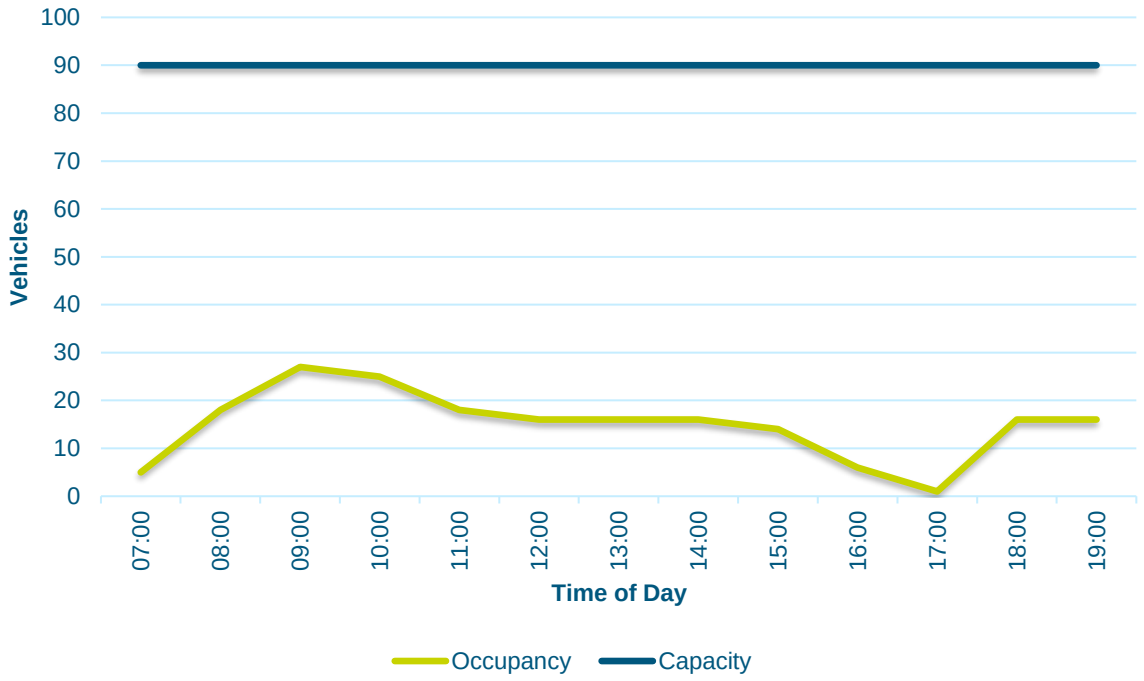



The demand over the recorded study period was, on average, 26% of full capacity according to survey data. At the peak level of occupancy, the survey data showed 156 cars parked between 13:00hrs - 14:00hrs, which equates to 39% occupancy.

## A3.10 London Road

London Road car park offers a capacity of approximately 90 car parking spaces. There are no specifically allocated Blue Badge parking bays at this location. The car park is located directly to the north-west of Peterborough United F.C, and adjacent to the A15 London Road. The access is located on Hawksbill Way. The insert below indicates the parking demand for London Road car park on 29th November 2019.

London Road Car Park Profile

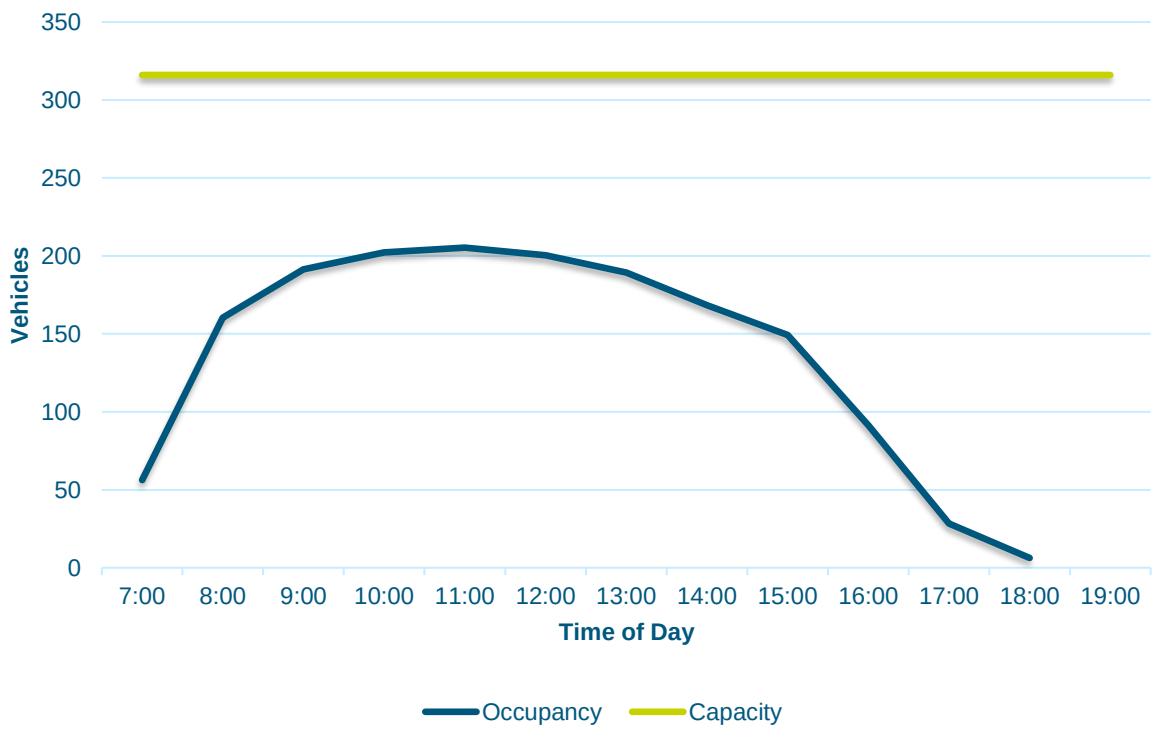



The demand over the recorded study period was, on average, 17% of full capacity. At the peak level of occupancy, the survey data showed 27 cars parked between 09:00hrs -10:00hrs, which equates to 30% occupancy at peak periods.

## A3.11 Pleasure Fair Meadow

The Pleasure Fair Meadow car park offers a capacity of 316 car parking spaces. Ten Blue Badge parking bays are allocated at this location. The car park access is located on Oundle Road, 80m to the west of the junction with A15 London Road. Full parking surveys were undertaken of the Pleasure Fair Meadow car park, including initial occupancy, and the insert below indicates the parking demand for Pleasure Fair Meadow car park during Friday 29th November 2019.

Pleasure Fair Meadow Car Park Profile




The demand over the recorded study period was, on average, 44% of full capacity. At the peak level of occupation, the surveys registered 205 cars parked between 11:00-12:00 hrs, which equates to 65% occupancy.

A review of the arrival surveys shows that most users parked their car for between one and 24 hrs, and spaces were turned over 1.1 times a day.

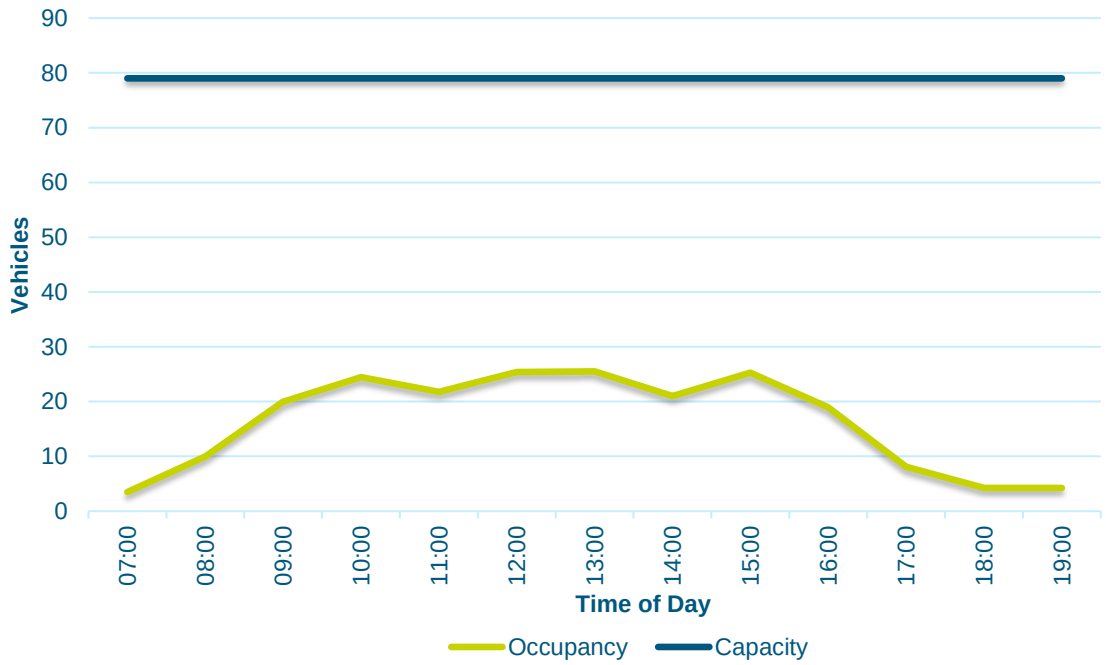
## A3.12 Railway Sidings

The Railway Sidings offers a capacity of 79 car parking spaces, all at ground level. No Blue Badge parking bays are allocated at this location. The car park access is located off Mayflower Close, at the eastern end of the Sand Martin House development. The car park is accessed via East Station Road, and is approximately 450m from the junction with A15 London Road.

It should be noted that no direct survey information was available for the Railway Sidings car park. A demand profile has been created by factoring ticket sales information by the observed difference between ticket sales and traffic flows at the nearby Pleasure Fair Meadow car park.

The insert below indicates the parking demand for Railway Sidings car park during Wednesday 2nd October 2019.

Railway Sidings Car Park Profile




The demand over the forecast period was, on average, 22% of full capacity. At the peak level of occupation, a total of 26 cars were forecast to be parked from 13:00 hrs to 14:00 hrs, which equates to 33% occupancy.

It is noted that the forecast is based on factored ticket information, which assumes that vehicles remain for the full duration of their purchased ticket, resulting in a conservative estimation of accumulated occupancy. As a long stay car park, it appears users are purchasing long-duration tickets and therefore this assumption is appropriate.

## A3.13 Trinity Street

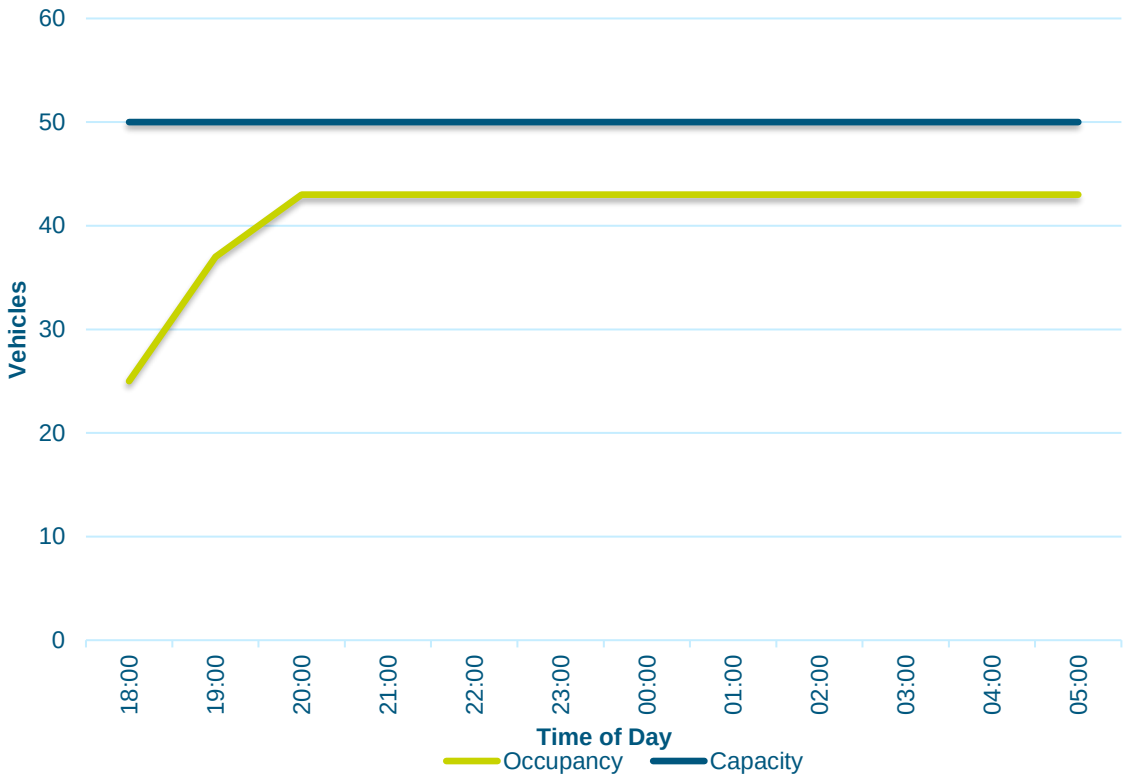
Trinity Street car park offers a capacity of 50 car parking spaces. No Blue Badge parking bays are allocated at this location. Parking at Trinity Street is restricted to permit holders only between 08:00hrs and 18:00hrs, Monday to Friday. The car park access is located on Trinity Street, which is located directly adjacent to Peterborough Museum on Priestgate to the north and the A15, some 160m to the west.

Parking at Trinity Street is restricted to permit holders only between 08:00 and 18:00, Monday to Friday. At the time of the other surveys 49 permits were issued for Trinity Street, comprising 40 five day permits and nine all week permits. This is a different situation to other city-centre car parks, which allow public access at all times.

No surveys were available for Trinity Street car park to provide an accurate profile of demand over a typical day. Given the predominantly permit holder use during the day, it is not possible to factor ticket sale information to create an accurate demand profile. As such unfactored ticketing has been used, representing demand outside the controlled times only.

The ticketed parking demand for Trinity Street car park during Wednesday 2nd October 2019 is shown below.

Trinity Street Car Park Profile




The ticket sales showed a maximum demand of 43 vehicles at 20:00hrs. It is noted that evening tickets are issued, valid until 07:00 the following morning. It is apparent that evening car park users are unlikely to remain for the full duration, however without surveys it is not possible to establish an accurate departure profile.

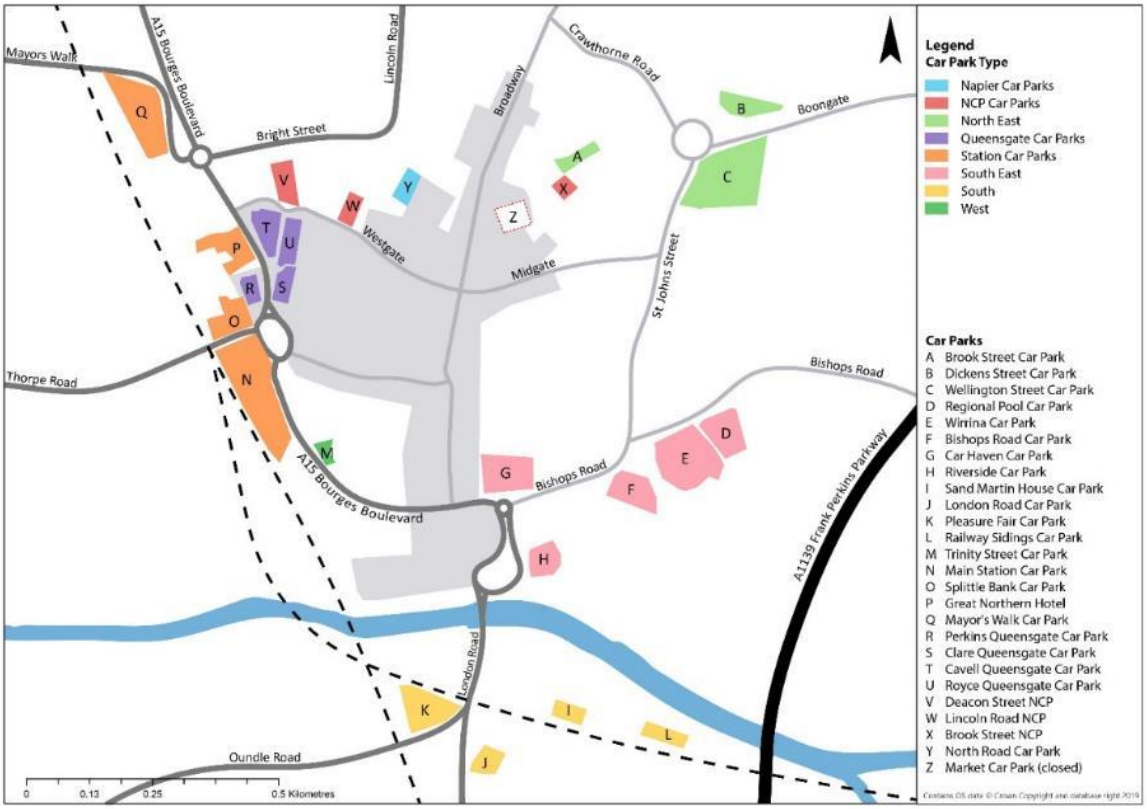
## A3.14 Groupings

**Table A.8** presents the maximum occupancy of each grouping (as shown in Error! Reference source not found.).

Table A.8: Current Occupancy per Grouping

| Grouping | Capacity | Average Occupancy (%) | Maximum Occupancy (%) | Maximum Occupancy (Number of Spaces) | Corresponding Time Period |
|---|---|---|---|---|---|
| North-Eastern | 978 | 55 | 75 | 732 | 12:00-13:00 |
| South-Eastern | 1176 | 44 | 62 | 734 | 11:00-12:00 |
| Southern | 885 | 31 | 46 | 406 | 10:00-11:00 |
| Western | 50 | 75 | 86 | 43 | 20:00-05:00 |

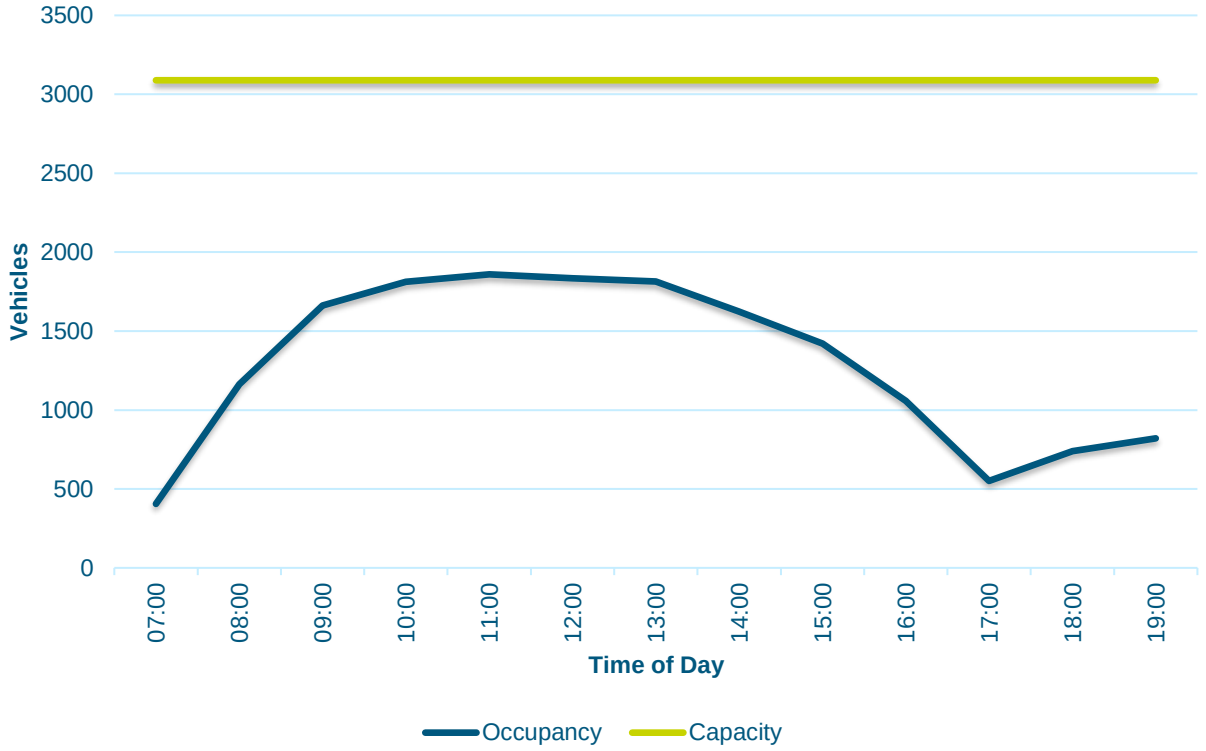
*Car Park Groupings*




## A3.15 Overall Occupancy Summary

Overall, typical weekday capacity across the surveyed off-street car parks is identified to be in the order of 2,949 spaces between 08:00 and 18:00, increasing to 3,089 spaces once Trinity Street becomes available. A summary of overall parking capacity and occupancy across all the off-street car parks is presented below.

Overall Capacity and Occupancy Summary

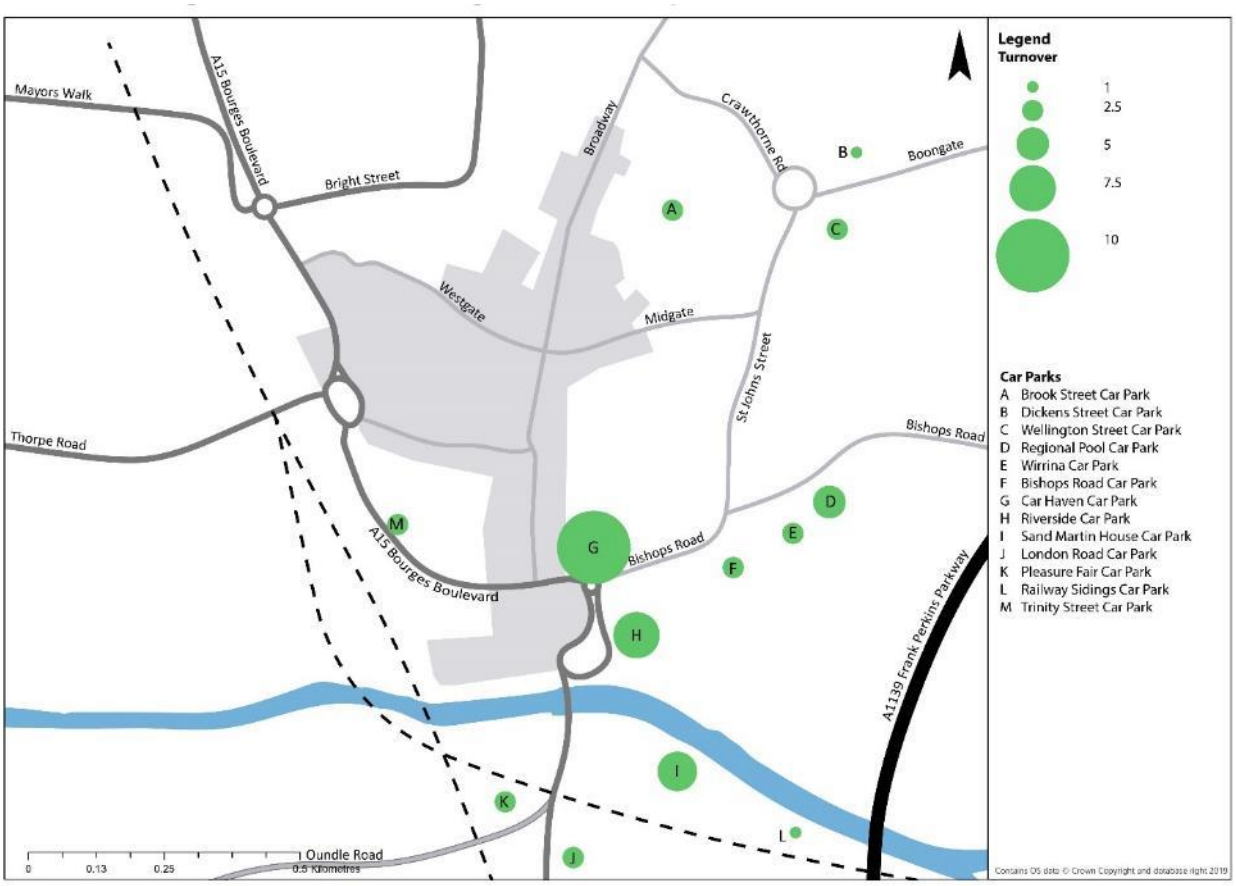



Peak weekday occupancy of the surveyed car parks occurs around midday, when 1,856 spaces were occupied, resulting in a 57% occupancy level. Notably, the rate of demand increases relatively consistently from 09:00hrs to 14:00hrs, before reducing steadily over the afternoon. As discussed for individual car parks, the post 17:00hrs occupancy forecasts are less reliable due to the more limited survey data.

## A3.16 Turnover

To assess total demand versus capacity over all the council's car parks, the average hourly demand over capacity was calculated.

Turnover Across Car Parks

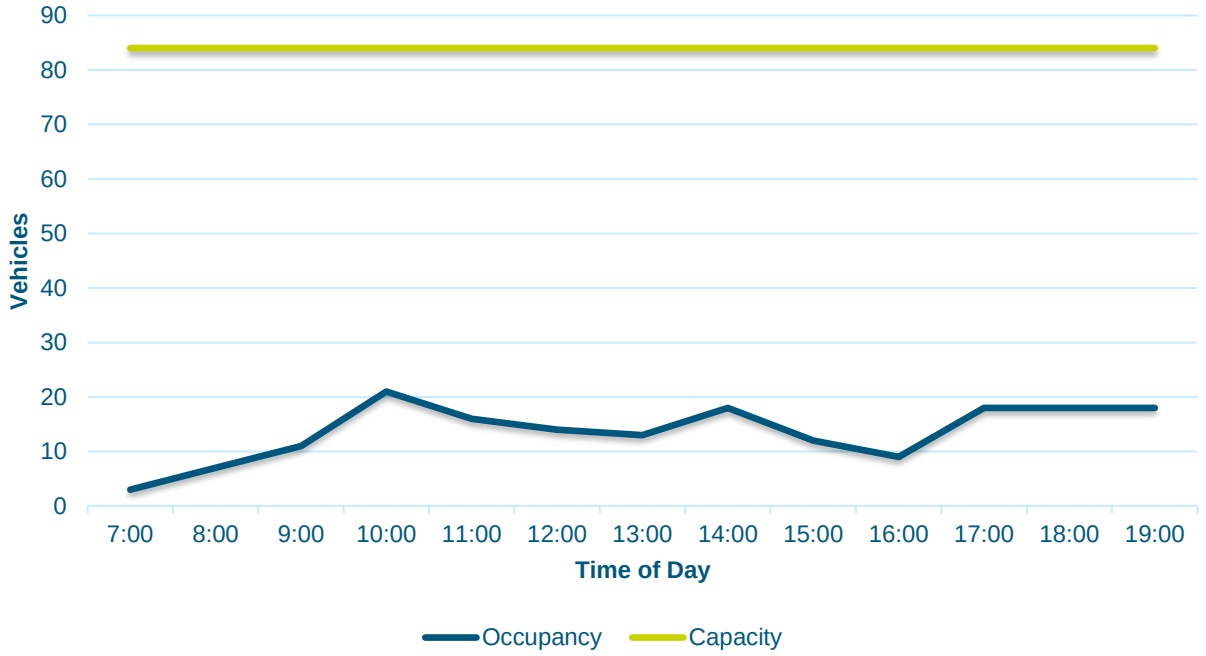



It is the car parks to the south which have the greatest turnover. Car Haven car park has a turnover of 6.8 visits per day, and Riverside car park (3), and Sand Martin House car park (3). These car parks are of different types, short stay, long stay and mixed stay parking. Therefore the likely reason these car parks have a high turnover is their geographical location. The three car parks are located along the A15, a key road bringing in traffic from the A1 and A605 to the south of the city.

## A3.17 On-Street Car Parking

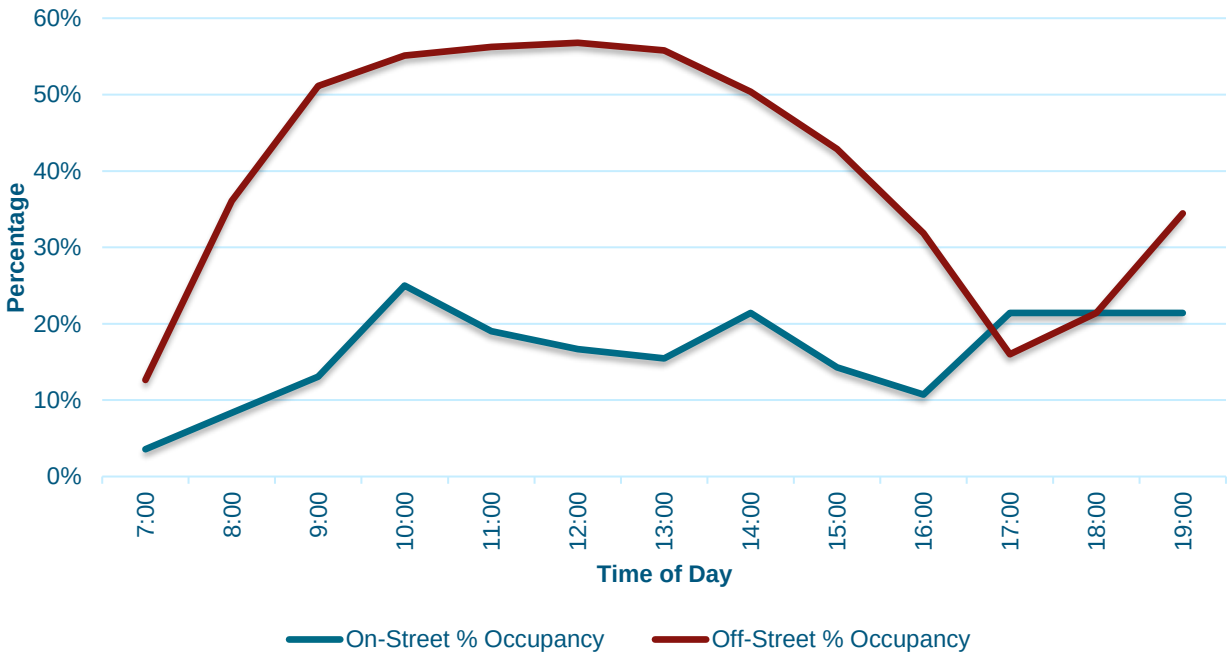
An analysis of ticket sale data at on street locations compared with capacity is presented as Error! Reference source not found.. This assessment shows low utilisation of on-street car parking spaces compared with available capacity. However it is noted that ticket sales are an incomplete dataset which excludes other uses of the spaces. There are multiple reasons for this presentation of under occupancy – spaces may not be being utilised, or spaces could be filled by those exempt from purchasing tickets i.e. residents and Blue Badge holders. For a detailed analysis of on-street parking occupancy, occupancy parking surveys would need to be completed.

On Street Car Parking Occupancy Summary




However, the dispersed nature and low numbers of on-street parking in Peterborough means that any further investigation of or changes made to on-street parking would have little influence over the Car Parking Strategy. This is further supported by a comparison of percentage occupancy of on-street parking and off-street parking.

Comparison of On and Off Street Car Parking Occupancy



On-street car parking data may also be limited by the out-of-hours free parking provided in on-street parking spaces. Users are unlikely to purchase a ticket once parking becomes free (usually after 18:00hrs). This makes data between 18:00hrs and 07:00hrs unreliable.

## A3.18 Comparing Cities and Car Parking

To understand whether Peterborough has a high or low provision of off-street car parking spaces for its population, a review of provision at local or comparably sized cities has been carried out. Using a TEMPro growth factor on top of 2011 census data, the 2020 population has been calculated. The total number of off-street car parking spaces includes privately owned car parks. **Table A.9** presents the data, including a ratio of spaces per population ratio.

Table A.9: Comparison of Peterborough Car Parking Provision with other Towns and Cities

| City/Town | Population (2020) | Number of Off-Street Parking Spaces | Parking Spaces per 100 Population |
|---|---|---|---|
| Norwich | 148,750 | 5,846 | 3.93 |
| Peterborough | 205,477 | 6,872 | 3.34 |
| Bournemouth | 208,316 | 5,858 | 2.81 |
| Cambridge | 140,927 | 3,174 | 2.25 |
| Northampton | 234,201 | 4,117 | 1.76 |
| Warrington | 214,072 | 3,076 | 1.44 |
| Bedford | 176,805 | 2,482 | 1.40 |
| Average | | | 2.43 |

From **Table A.9** it is clear that Peterborough has a very high level of car parking provision per 100 population compared with its comparable cities, and has 38% more car parking than the average. Indeed the only provision greater than Peterborough is Norwich, which is somewhat different to Peterborough in terms of tourism and economic offer. Were the now-demolished Market MSCP numbers to be included, Peterborough's provision per 100 people would exceed that of Norwich.

By contrast, Bournemouth and Warrington are comparable cities in terms of economic and tourism offer as well as total population. It is notable that these cities have substantially less car parking per 100 people than Peterborough.

## A3.19 Summary of 2020 Baseline

In summary, the data gathered identifies that of the council's car parks, only Wellington Street, Car Haven and Riverside are currently operating at or near capacity. Across the city, there is a substantial reserve capacity in car parking, even with the Market MSCP closure, with all car park groups operating well within their capacity. At the peak, the council's car parks are operating at 57% capacity.

In terms of turnover, Car Haven, Sand Martin House and Riverside are identified as having the greatest levels of turnover. It is notable that these present short- and long-stay car parks with Riverside having provision for both service levels.

On review of the provision for Blue Badge holders, it is apparent that the council's car parks currently have a very low level of provision equating to less than one percent of the total car parking capacity.

Although the review of existing parking data strongly suggests that there is a high level of over-provision of car parking in the city, it is useful to understand what level of provision is made in other cities. The cities identified in **Table A.9** are largely thriving and benefit from a high level of economic activities despite having significantly lower levels of parking. It is therefore clear, that Peterborough can afford to adjust its parking provision, without fear of causing direct economic harm.

# A4 Future Situation

## A4.1 Introduction

With a base case established, assessments can be made of future demand for parking within central Peterborough. A range of sources have been reviewed to consider potential future demand. It is noted that these sources have not been updated since the start of the Covid-19 pandemic, and hence may not represent the demand on reopening following lockdown. As it is anticipated that any effects of the Covid-19 pandemic will be short term, it is considered that the historic parking patterns can be used to create the most realistic long-term forecasts in demand or travel patterns.

As internet shopping and working from home has become more popular over recent years, there has been a declining trend in city centre footfall. At Queensgate, footfall has reduced from 14.3 million people in 2017 to 13.1 million in 2019, an 8.3 percent reduction over that period. As previously shown, there has also been a declining trend in demand for car parking in the city, with a 17.7 percent fall in car parking demand between 2018 and 2019.

Although there is a clear decline in demand for car parking in the city, it is not reasonable to use this trend as the basis for forecasting demand in future. This is because there is a clear ambition in the city for economic and population growth and it is important to ensure that demand that can be reasonably anticipated is accommodated in the future infrastructure. For this reason, although the patterns of car parking have been taken into account in the methodology in terms of people's choice in parking location, it does not assume a fall in demand to 2036. Instead, the methodology draws on existing forecasts for growth in the area to identify appropriate growth factors to apply to 2019 levels of demand. This approach therefore provides a robust, worst-case scenario for forecasting.

## A4.2 Local Plan

The Peterborough Local Plan was adopted on 24th July 2019. The Plan covers the period to 2036 and anticipates a further 17,470 new homes from 2020 to 2036, and 17,600 new jobs from 2015 to 2036. This growth equates to increases of 20% and 15% for housing and employment respectively. Whilst strategic employment sites are identified, the anticipated locations for increased city centre employment is not quantified within the Plan.

## A4.3 National Trip End Model

The National Trip End Model (NTEM) has been developed by the Department for Transport to forecast the growth in trip productions/ attractions up to the year 2051 for use in transport modelling. The NTEM forecasts take into account national projections of:

- Population;
- Employment;
- Housing;
- Car Ownership; and
- Trip Rates.

The Trip End Model Presentation Program (TEMPro) is used to derive growth factors from NTEM. **Table A.10** shows the factors derived for Peterborough from TEMPro for the period from 2020 to 2036.

Table A.10: TEMPro Growth Factors

| Criteria | 2020 value | 2036 value | Factor |
|---|---|---|---|
| Population | 205,486 | 245,080 | 1.1927 |
| Households | 86,247 | 108,560 | 1.2587 |
| Jobs | 116,054 | 121,825 | 1.0497 |

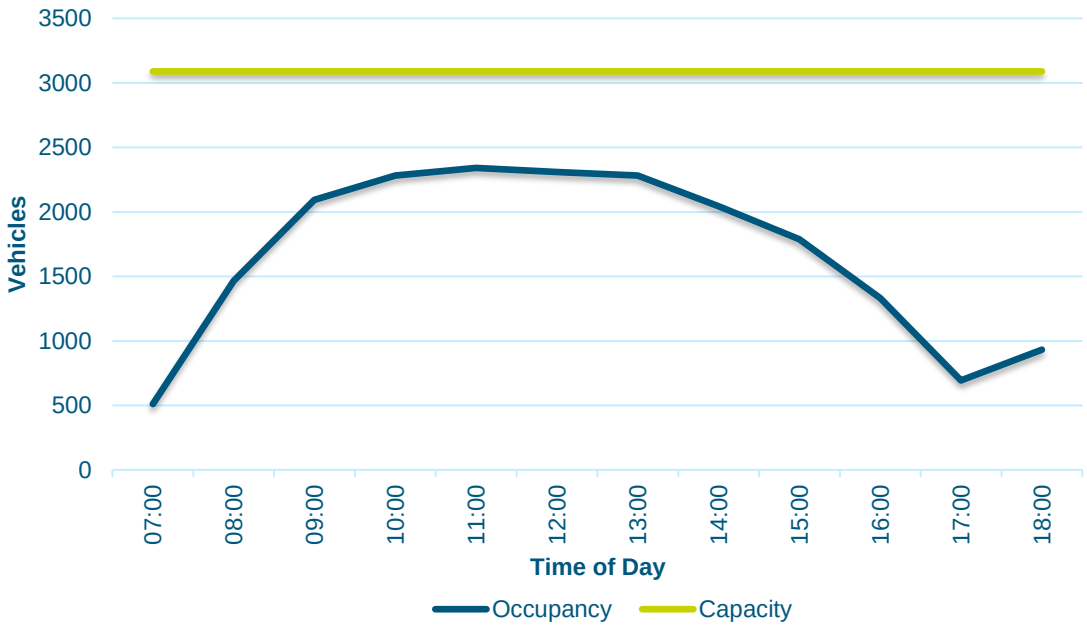
From **Table A.10** it is apparent that the anticipated increase in jobs included for in TEMPro is limited, at circa 5%. Increases in population and number of households are more significant, however, at 19% and 26% respectively which is higher than the levels of growth established in the Local Plan.

For initial forecasting, the greatest level of growth in the TEMPro factors, i.e. 1.2587 for household growth) has been applied to produce a 2036 future scenario. The use of pre-COVID-19 data and high growth factor makes the following future demand predictions very robust.

## A4.4 Overall Capacity Forecast

Overall, capacity across the public off-street car parks is 3,089 spaces; as a reference case this is not anticipated to change. 2036 demand forecasts have been created through use of the households factor set out in **Table A.10**. The insert below presents a comparison of overall future year parking capacity and occupancy across all the off-street car parks discussed above based on the TEMPro growth factor of 1.2587.

Forecast 2036 Occupancy Profile for all Council Car Parks



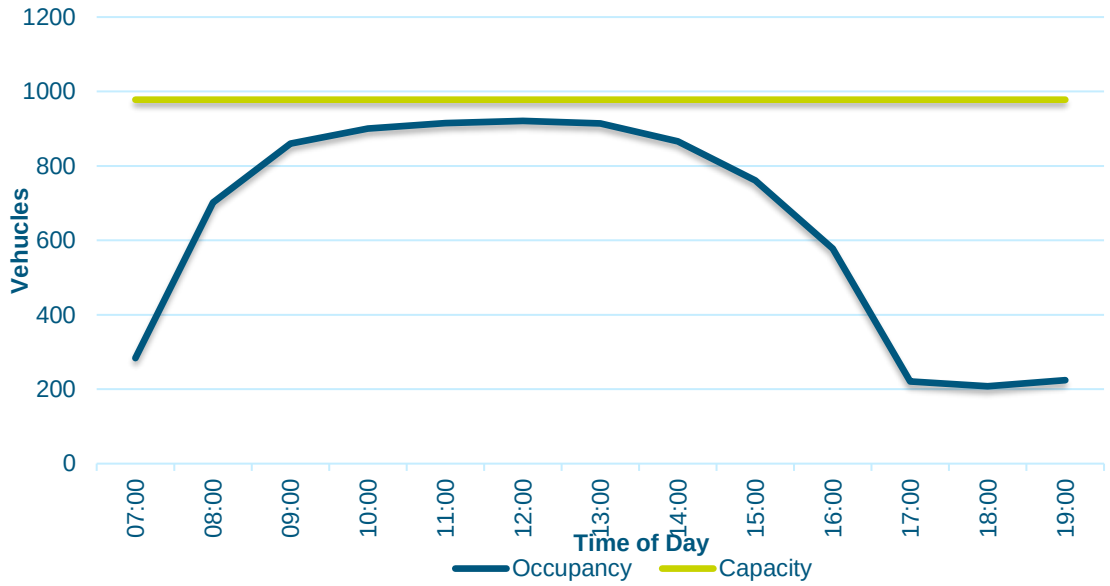

The weekday demand over the recorded study period was, on average, 51% of full capacity. At the peak level of occupancy, 2,341 car parking spaces are forecast to be required, which equates to 76% of capacity. A review of future occupancy has been carried out in the car park groupings.

## A4.5 North-Eastern Grouping

The north-eastern grouping contains 978 car parking spaces. The graph below shows the predicted 2036 parking demand for the grouping over the course of a weekday.

The 2036 forecast predicts a peak level of occupation, between 12:00 hrs and 13:00 hrs of 921 vehicles, equating to an occupancy factor of 94%. Whilst this occupancy rate suggests the grouping is nearing capacity, it should be noted that 57 spaces would remain available at peak times, and is based on a robust, likely worst-case growth factor. Of the groups comprising multiple car parks which, this group is forecast to operate closest to capacity in the forecast year.

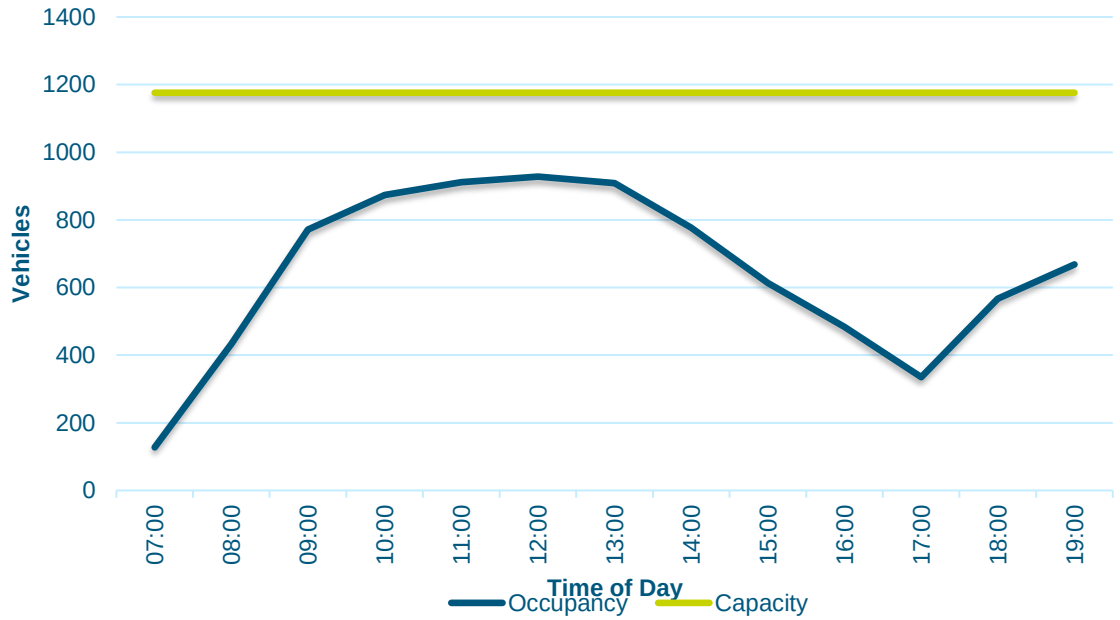
Forecast 2036 Occupancy Profile – North-Eastern Grouping




## A4.6 South-Eastern Grouping

The south-eastern grouping contains 1,176 car parking spaces. There is a predicted 2036 parking demand for the grouping over the course of a weekday. The predicted peak level of occupation, between 10:00 hrs and 11:00 hrs will be 928 vehicles, equating to an occupancy factor of 79%. This demonstrates significant residual capacity would be available.

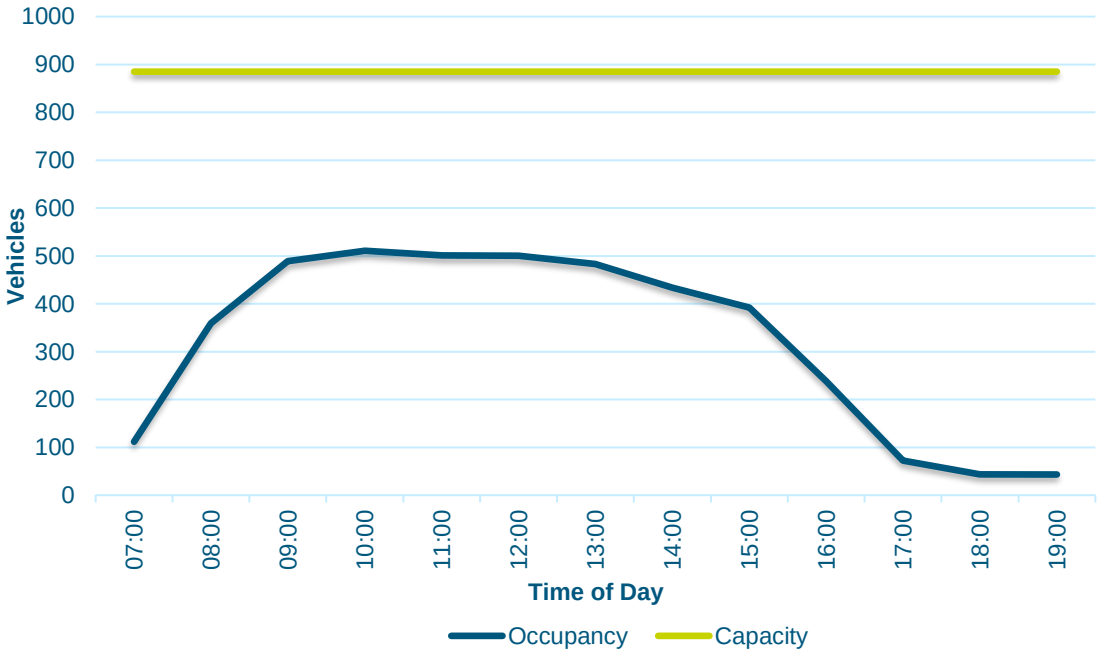
Forecast 2036 Occupancy Profile – South-Eastern Grouping




## A4.7 Southern Grouping

The southern grouping contains 885 car parking spaces. There is a predicted 2036 parking demand for the grouping over the course of a weekday. It is apparent that the grouping would have significant spare parking capacity. The predicted peak level of occupation, between 10:00 hrs and 11:00 hrs is 511 vehicles, equating to an occupancy factor of 58%.

Forecast 2036 Occupancy Profile – Southern Grouping

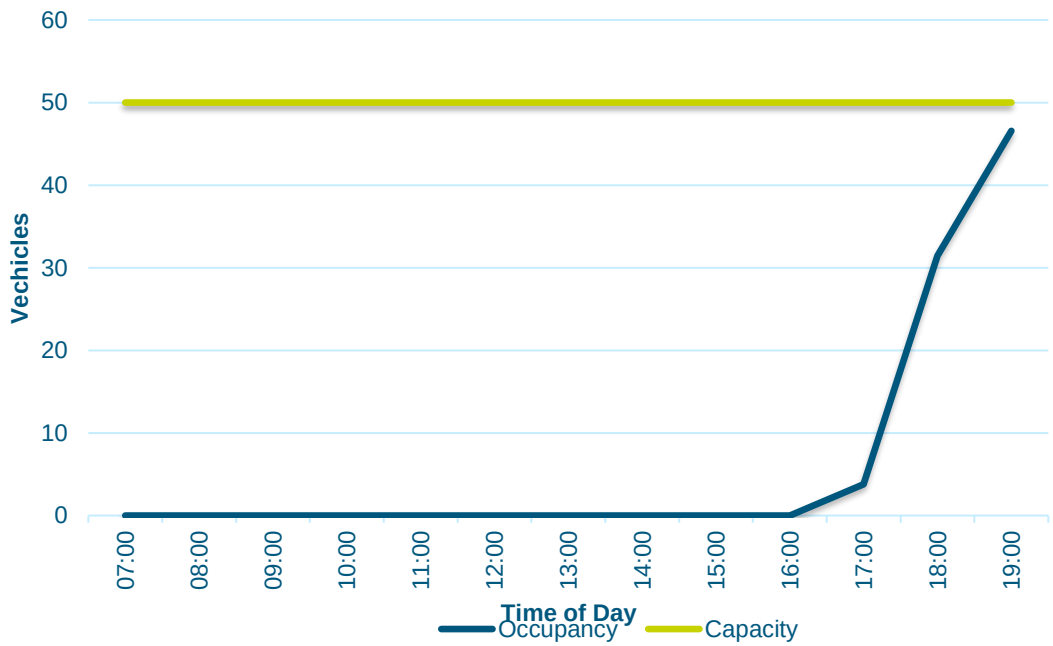


## A4.8 Western Grouping

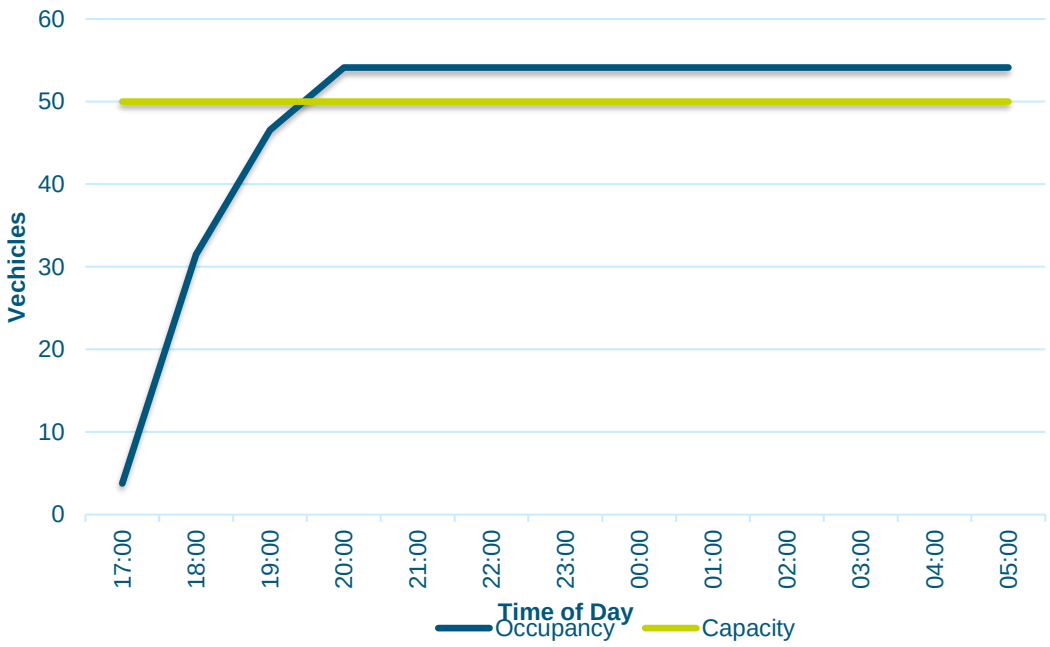
The Western grouping comprises Trinity Car Park, which contains 50 car parking spaces. The insert below indicates the predicted parking demand for the grouping over the course of one day during the future year 2036, after applying the growth factor. It is noted that the Trinity Car Park is solely used by season ticket holders during the day, and thus the forecast is not conclusive; demand can be controlled by limiting the number of season tickets issued.

During the predicted peak level of occupation, between 20:00 hrs and 05:00 hrs forecast demand is for 54 vehicles, equating to an occupancy factor of 108%, exceeding the capacity of the car park.

Forecast 2036 Occupancy Profile – Western Grouping



Forecast 2036 Occupancy Profile – Western Grouping (Overnight)




## A4.9 Car Park Occupancy

**Table A.11** presents unmitigated forecast occupancy at each public car park. No account has been taken of capacity constraints at car parks and the potential for demand to displace to other sites due to congestion or the implementation of strategy measures.

Table A.11: 2036 Forecast Car Park Occupancy

| Car Park | Capacity | Average Occupancy | Average Occupancy | Maximum Occupancy | Maximum Occupancy | Corresponding Time Period |
|---|---|---|---|---|---|---|
| | | Percentage | Number (vehicles) | Percentage | Number (vehicles) | |
| Brook Street | 136 | 32% | 43 | 51% | 69 | 12:00-13:00 |
| Dickens Street | 171 | 17% | 29 | 26% | 45 | 12:00-14:00 |
| Wellington Street | 671 | 90% | 606 | 121% | 813 | 11:00-12:00 |
| Regional Pool | 195 | 23% | 45 | 72% | 141 | 18:00-19:00 |
| Wirrina | 361 | 45% | 161 | 66% | 239 | 12:00-13:00 |
| Bishops Road | 244 | 38% | 94 | 59% | 143 | 12:00-13:00 |
| Car Haven | 214 | 78% | 167 | 17% | 29 | 11:00-12:00 |
| Riverside | 162 | 112% | 181 | 142% | 230 | 14:00-15:00 |
| Sand Martin House | 400 | 33% | 131 | 49% | 196 | 12:00-13:00 |
| London Road | 90 | 21% | 19 | 38% | 34 | 09:00-10:00 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Pleasure Fair Meadow | 316 | 55% | 173 | 82% | 258 | 11:00-12:00 |
| Railway Sidings | 79 | 28% | 22 | 41% | 32 | 13:00-14:00 |
| Trinity Street* | 50 | 6% | 3 | 63% | 32 | 20:00-05:00 |

*Data collected outside of peak hours

## A4.10 Future Demand at Queensgate Car Parks

As Queensgate is a commercial provider, their car parks are under their control. If demand was to become greater than capacity, it is expected that Queensgate would decide whether to provide more parking, increase ticket prices, encourage alternative uses (e.g. by providing Car Club spaces) or encourage the use of council car parks. It is noted that recent footfall surveys provided for the city core suggest a slight reduction in activity before COVID-19, and as such it is likely that current car parking provision at Queensgate is adequate for the medium term.

The ongoing redevelopment at the shopping centre is unlikely to significantly affect this level of demand as it is anticipated that the leisure uses to be provided will largely be associated with our of peak period (i.e. evening) trips or will be linked to existing city centre travel.

## A4.11 Future Demand at Railway Station Car Parks

Previous National Rail forecasts predicted 2.45% year on year growth of demand, equating to 47% growth from 2020 to 2036. As a result a parking strategy had been produced to address the predicted increase in demand. The strategy anticipates the construction of multi-storey car parks to the East and West of the station to consolidate and increase car parking capacity. It was anticipated that the Eastern multi-storey car park would be constructed first.
However COVID-19 has greatly impacted the usage of the UK's railways and associated infrastructure and the impact is expected to be felt into the future. It is uncertain whether National Rail will continue with implementing their parking strategy, and if they do it is unlikely to progress at the pace originally planned.

## A4.12 University Sensitivity Tests

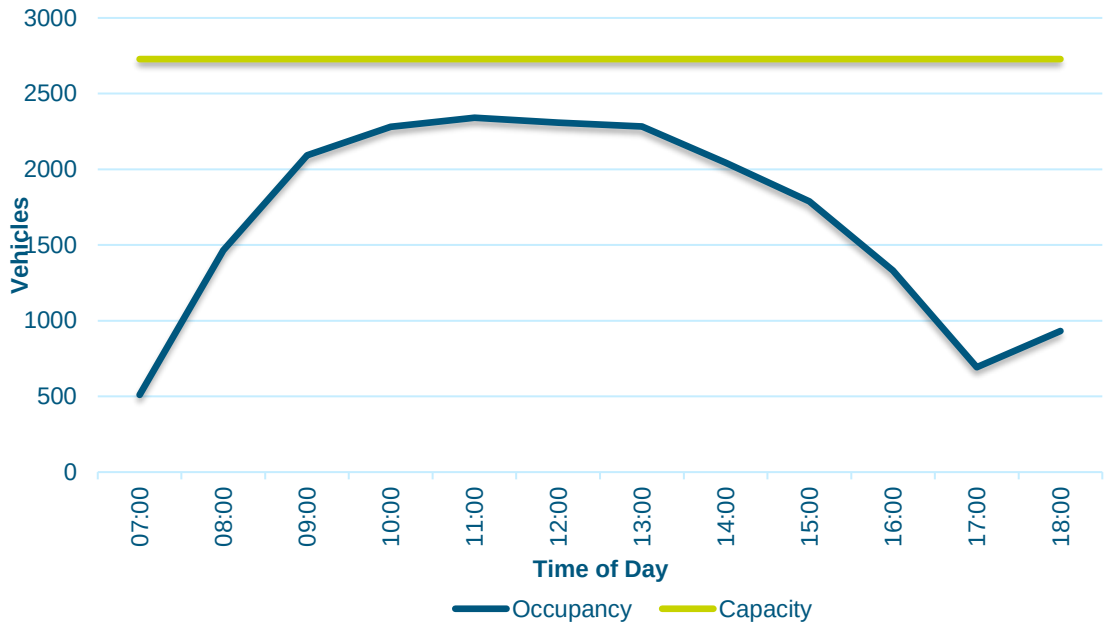
The proposed University of Peterborough could have a significant on car parking within the city. A planning application for the first phase of the University was submitted in August 2020, which proposes to build on the Wirrina car park. To understand the likely impacts a series of sensitivity tests have been undertaken on the 2036 forecasts, namely:

- Impact of closure of Wirrina car park;
- Impact of closure of Wirrina car park plus projected University demand; and
- Impact of closure of Wirrina and Regional Pool car parks, plus projected University demand.

### A4.12.1 Impact of closure of Wirrina car park

An initial test of the impact of the University is to consider the closure of the Wirrina car park in isolation. The graph below shows the impact of removing Wirrina on the overall parking provision.

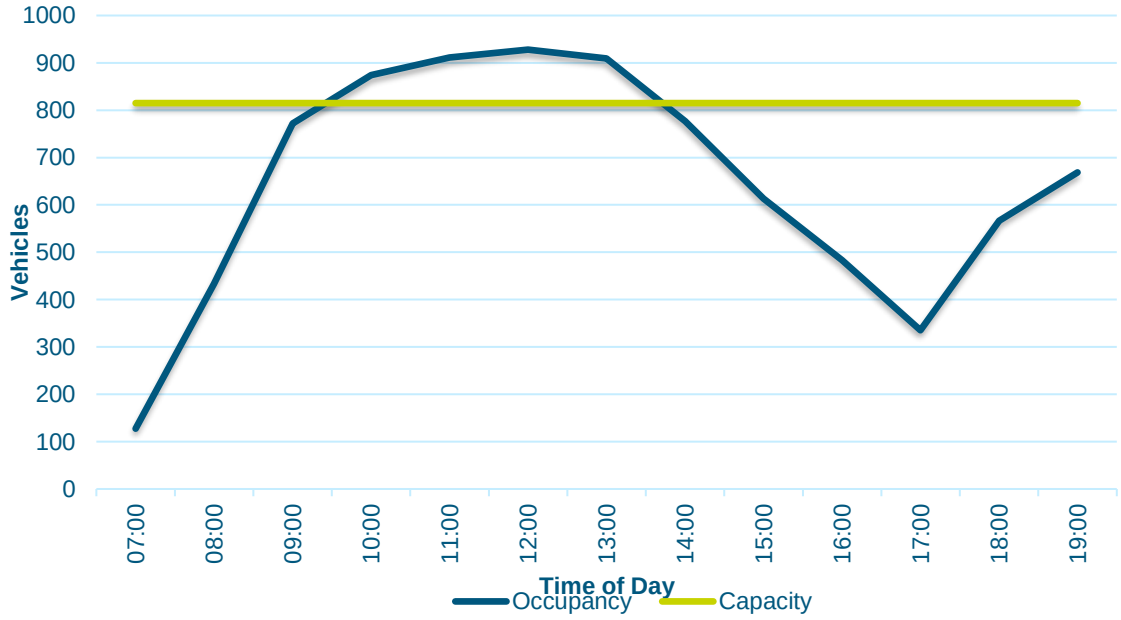
Forecast 2036 Occupancy Profile – Without Wirrina (Overall)




It is apparent that the overall demand for public parking could be accommodated within the remaining car parks were Wirrina to be closed. This would result in a peak demand of 2,341 vehicles, against a reduced capacity of 2,678 spaces, equating to 87% occupancy.

Review of the more local impacts of the closure can be undertaken by examining the South-Eastern grouping, expecting that demand remains within the local area.

Forecast 2036 Occupancy Profile – Without Wirrina (South-Eastern Grouping)



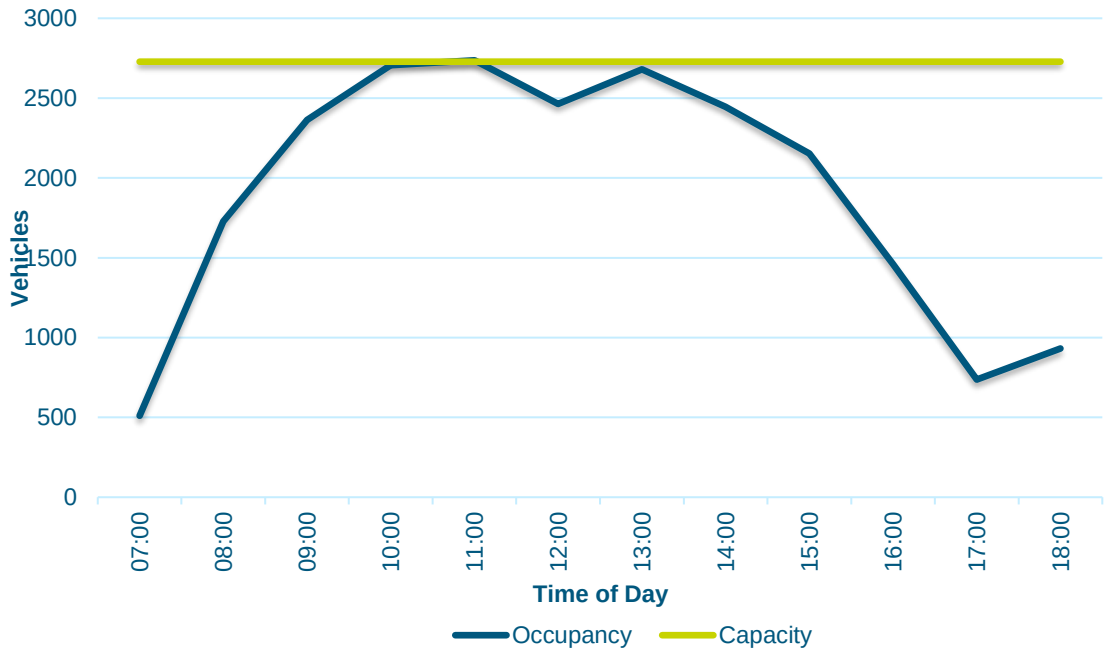
It is clear that the South-Eastern Grouping would operate over capacity between 10:00 and 14:00 with the closure of Wirrina. A maximum of demand of 928 vehicles would be expected, compared with a capacity of 815 spaces. This would result in the grouping operating at 114% capacity. Options to mitigate this impact include:

- Displace demand to other zones;
- Reduce background demand for parking down through Transport Strategy; or
- Provide more local car parking capacity.

### A4.12.2 Impact of closure of Wirrina car park plus projected University demand

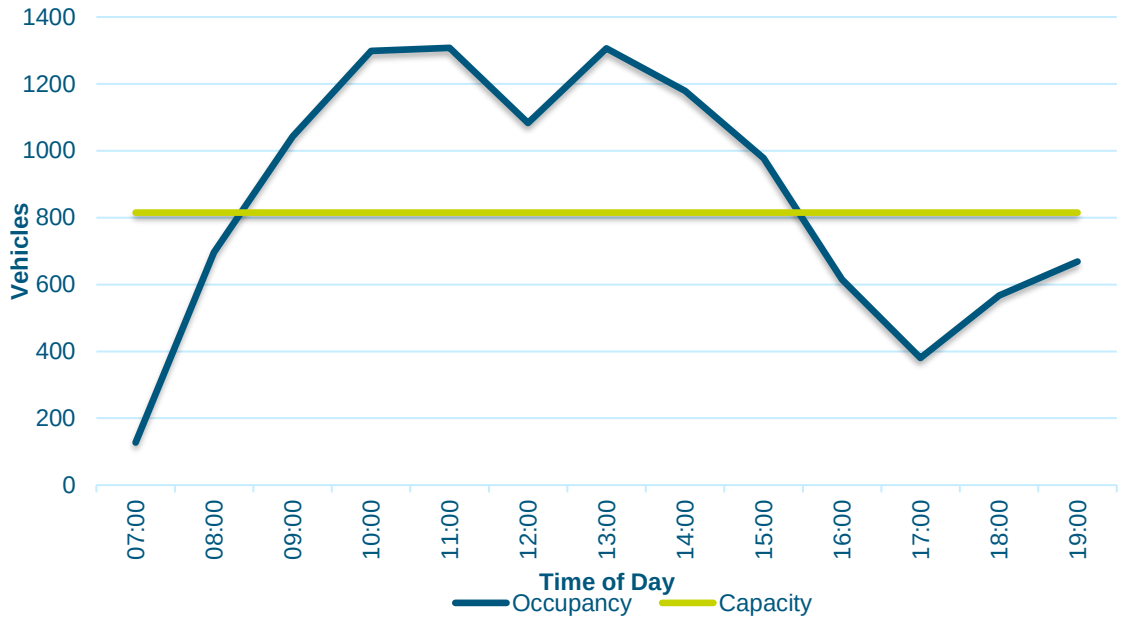
The Transport Assessment for the current University planning application includes an anticipated parking demand profile. The slightly lower Scenario 2 forecast has been added to the anticipated demand in 2036 to provide a very worst case assessment of the potential impacts. The insert below shows the forecast impact of the University across the whole of the public parking provision.

Forecast 2036 Occupancy Profile – Without Wirrina, plus University Demand (Overall)




Overall, public car park provision is forecast at capacity with the inclusion of forecast University demand and closure of Wirrina. At the 11:00hrs to 12:00hrs peak, there would be a demand for 2,737 spaces compared with a provision of 2,678 spaces, equating to 102% total occupancy. To consider the potential for displacement of current parking activity, the insert below shows the forecast occupancy of the South-Eastern grouping.

Forecast 2036 Occupancy Profile – Without Wirrina, plus University Demand (South-Eastern Grouping)




It is clear that the South-Eastern Grouping would operate significantly over capacity from 09:00hrs to 16:00hrs with the closure of Wirrina and inclusion of University demand. At the 11:00hrs peak, demand is forecast to be 1,308 vehicles compared with capacity of 815 spaces, equating to 60% excess demand. Options to mitigate this impact include:

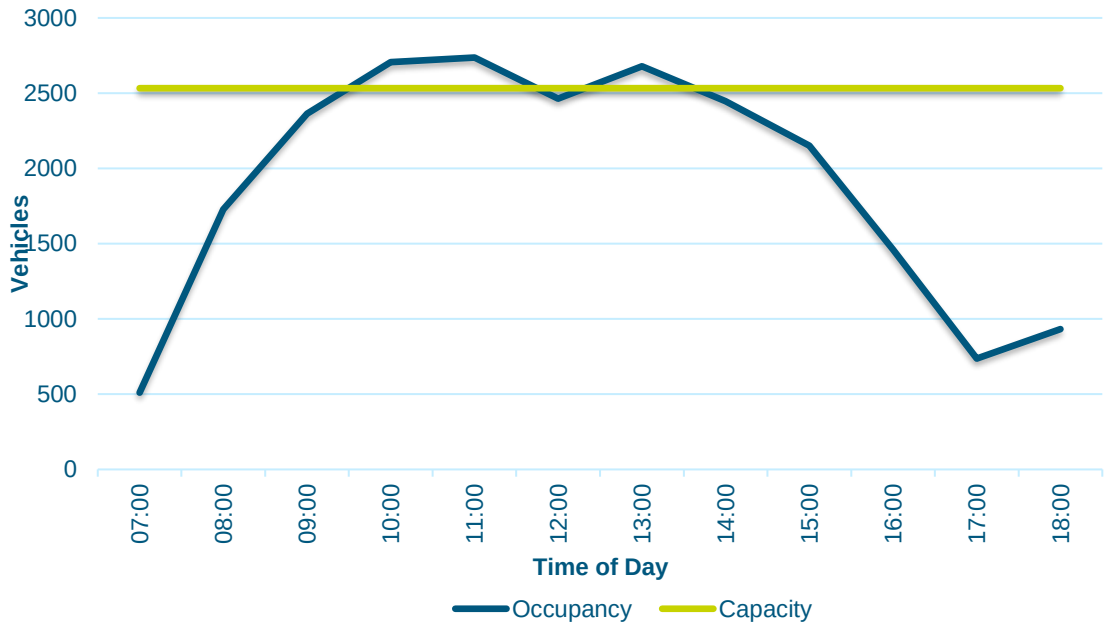
- Reduce University travel demand by designing in alternative travel options to the University proposals and more stringent Travel Plan measures consistent with Planning Policy;
- Displace demand to other zones;
- Reduce background demand for parking down by mode shift through the emerging Transport Strategy or;
- Provide more local car parking capacity through decking existing car parks as part of the wider master plan.

### A4.12.3 Impact of closure of Wirrina and Regional Pool car parks

Future phases of the University are anticipated to include expansion onto the Regional Pool site. The facilities at the Regional Pool would thus have to be provided elsewhere; currently this is expected to be at Pleasure Fair Meadow car park.

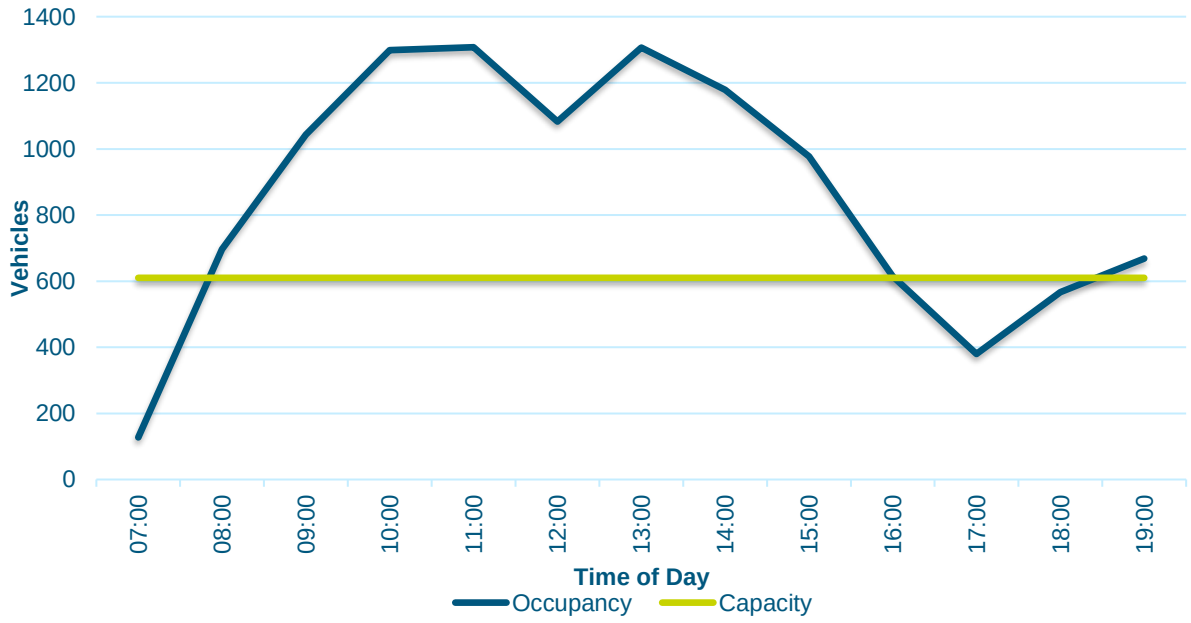
Given the uncertainty regarding the scale of future proposals, no account has been taken of the additional parking demand which may be associated in developing the scenario. The overall occupancy profile of all the public car parks in future with the University in place is indicated below.

Forecast 2036 Occupancy Profile – Without Wirrina or Regional Pool, plus University Demand (Overall)




Overall, public car parks are forecast to operate over capacity with the inclusion of forecast University demand and closure of Wirrina and Regional Pool car parks. At the 11:00 to 12:00 peak, there would be a demand for 2,737 spaces compared with a provision of 2,533 spaces, equating to 108% total occupancy. To consider the potential for displacement of current parking activity, the forecast occupancy of the South-Eastern grouping is indicated below.

Forecast 2036 Occupancy Profile – Without Wirrina or Regional Pool, plus University Demand (South-Eastern Grouping)



It is clear that the South-Eastern Grouping would operate over capacity from 08:00hrs to 16:00hrs with the inclusion of University demand and closure of Wirrina and Regional Pool car parks. At the 11:00 peak, demand is forecast to be 1,308 vehicles compared with a capacity of 620 spaces, equating to 111% excess demand.

Overall, it is concluded that the University proposals must be required to design in appropriate measures to ensure that the mode share associated with the University is highly focused on public transport, walking and cycling. This will ensure that the University proposals are in accordance with National policy and that the provision of a new University will not be to the detriment of the city's wider growth and economic-wellbeing ambitions.

## A4.13 Summary of Future Forecasts

Overall, the data shows that the council's car parks are forecast to operate well within overall capacity in the future year when TEMPro growth factors are taken into account. Although some individual car parks are forecast to be operating close to capacity, there is sufficient capacity within the car parks to accommodate the general public parking which would be displaced as a result of the closure of Wirrina car park. There is therefore potential to significantly reduce the level of parking provision in the city, thereby releasing potential for development and other opportunities to enhance the city centre. However, when the car parking demand associated with the University is taken into account, measures to directly accommodate the University's foreseeable parking demand will be needed to protect and provide flexibility for general public parking in the wider city.