East Lothian Council

REPORT TO: East Lothian Council

MEETING DATE: 28 June 2022

BY: Executive Director for Place

SUBJECT: Town Centre Parking Management: Consultation

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1 PURPOSE

1.1 The purpose of the report is to advise Council of the intent to consult on Town Centre Parking Management, the introduction of parking policies as described under the Local Transport Strategy - Parking Management, in particular the introduction of charging for on- and off-street spaces and the expansion and introduction of residential parking zones.

2 RECOMMENDATIONS

2.1 It is recommended that Council:

a) Approves the start of the consultation process in accordance with the Local Authorities' Traffic Order (Procedure) (Scotland) Regulations 1999 as amended to consult with statutory consultees, stakeholders and the public in general for the introduction of town centre parking control measures and associated parking interventions;

b) to acknowledge the requirements of Council (30 October 2018) to take forward an assessment of the demand for town centre parking on an individual town case by case basis taking into account local people's views;

c) To agree to the creation of a strategic plan that will cover the management, investment and return on town centre parking management.

3 BACKGROUND

3.1 On 30 October 2018, East Lothian Council endorsed the Local Transport Strategy and associated plans. The vision was aligned with the Council Plan, to have well-connected communities with increased use of

sustainable transport modes to access services and amenities. Key objectives were to deliver a more attractive and safer environment for pedestrians and cyclists, reduce the overall dependency on the car and reduce the environmental impact of traffic, to promote the availability and use of sustainable means to travel and maximise accessibility for all.

3.2 Primary focus of the Parking Management Strategy, contained within the Local Transport Strategy, was to provide balanced and appropriate parking facilities that support the economic, environmental and accessibility requirements of towns in East Lothian and to maximise the efficient use of parking provision.

3.3 The minute of 30 October records that an amendment was submitted by the Conservative group as below :

> The Council will assess the demand on town centre parking supply and appraise on an individual town-by-town basis, taking into account the views of local people and, where appropriate, the Council will introduce charging for off-street car parks and/or on-street parking places. All proposals for the introduction of charging for off-street car parks and/or on-street parking places will be brought to a meeting of East Lothian Council for approval.
>
> The primary view of the Council is not to charge for off-street car parks and/or on-street parking places; however, schemes will be permitted on an individual basis if need and local support for such a proposal can be demonstrated. All parking regimes would require regular monitoring.

3.4 In particular, the Conservative group reflected the Strategy should be more explicit on the introduction of on/off-street parking charges and, that in recognising the differences among the various communities, each proposal for the introduction of such charges should be considered on its own merit.

3.5 Accordingly, this report sets out a synopsis of significant changes to national, regional and local transport, policies and strategies, the material impact of road traffic management on climate, health and wellbeing benefits through improved active travel improvements incentivised through demand management proposals and charging regimes.

Town Centre First Principle and Development Growth

3.6 The ‘town centre first’ principle requires central government and local authorities to put the health of our town centres at the centre of decision-making. This should include the wellbeing of its people, inclusive economic growth, the transition to net zero and tackling inequality. This principle aligned with further support interventions and funding can contribute to town centre vibrancy, better places and destinations and conceptual 20-minute neighbourhoods, where towns and rural areas are more resilient and sustainable, enabling people to live well locally. Essentially, the vibrancy and vitality of the town centre is provided through improved safety

and accessibility, encouraging active and sustainable travel, with turnover delivered through parking management arrangements instrumental to creating parking space availability. People are able to access potentially more sustainable goods and services locally. Availability of short stay parking is beneficial to business.

3.7 East Lothian is growing. The county-wide population is forecast to grow by 23.3% between 2012 and 2037. The number of single-occupancy households is predicted to increase by 70% with inward migration from the City of Edinburgh to East Lothian driving housing demand. In 2011, car ownership per household was 1:1. In 2018, 599 cars were registered per 1000 residents. It is predicted East Lothian's population by 2026 with increase to 113,048, equivalent to 67,715 cars.

3.8 Accordingly, to understand public opinion and acceptability of interventions necessary to balance the intricacies and complexity of various components and requirements of town centre parking, it is proposed to run a consultation for 10 weeks, starting in July 2022. This will be augmented by a review and refresh of the local transport strategies, taking proper appreciation and consideration of the needs of climate change, as well as the impact of road users, including public transport operators, disabled motorists, cyclists and pedestrians.

3.9 The introduction of on- and off-street parking have the potential to generate significant income. On-street surplus can be used to balance the capital expenditure required on road asset management and enhance the public realm, deliver environmental projects, and improve public transport with off-street surplus contributing to the wider delivery of services in line with the Council Plan. As a semi-urban and semi-rural authority, investment in the Council's transport infrastructure is imperative to sustaining economic growth, the safe passage of people and goods, for all users and modes. This includes the fabric of the existing road network as well as required investment in sustainable and active travel.

3.10 As part of possible improved parking management arrangements, new supply will be investigated allowing for, compensatory capacity, sustainability and transport modes where appropriate.

3.11 If considered appropriate, any development of charging arrangements will be focussed around town centres and off street provision. This will include the recognition and importance of residential parking.

North Berwick

3.12 A detailed traffic and parking survey was carried out during the month of August 2019 with a subsequent sample exercise carried out in 2021, again in August. This data has been used to understand the level of turnover within the on- and off-street parking facilities within the town.

3.13 A number of parking management interventions were implemented within the town as part of the spaces for people programme and to aid with increased summer visitors. Certain waiting restrictions were implemented

in off-street facilities close to the town centre which were well received by the community. Residential parking demand continues to be a major source of frustration for the town's residents, particularly in and around the main town centre and beach front areas.

3.14 A demand assessment is attached as Appendix A to this report which indicates that the data is consistent with both years which highlight a pre- and during COVID-19 analysis.

3.15 The results of the study showed that the parking turnover, occupancy levels and duration of stay were all improved in 2021 when compared with 2019. Improved efficiency and vibrancy of the town is greatly aided through greater parking management and availability.

3.16 Wider economic, environmental and integrated impact assessments will be undertaken. The Health Equality Assessment Tool (HEAT) will also be applied to assess any potential parking management designs as appropriate.

All Other Towns

3.15 Traffic and parking surveys were carried out in Dunbar in December 2021, Musselburgh in March 2022, and Tranent and Prestonpans in May 2022. A date to survey Haddington is still to be determined as East Lothian Council, a major employer and obvious influence on town parking was until recently operating under emergency contingency arrangements.

3.16 The planned consultation will include a problem and opportunity assessment, consultation of possible parking designs by way of mitigation across the 6 main settlements within the county. The consultation will seek to understand the level of service, parking enforcement priorities, time, season and place constraints, parking space balance and use, scope and scale, and reasonable charge.

3.17 Officers will report back to Council with the outcome of the consultation and full technical assessment later in year.

4 POLICY IMPLICATIONS

4.1 The policy context at a national, regional and local level supports a move to increase existing and to implement new parking demand management processes across the county.

4.2 At a national level the development and publication of the National Transport Strategy (NTS), National Planning Framework (NPF4) and the Scottish Transport Projects Review (STPR2) all support moving towards more sustainable town centres. The NTS vision is that 'we will have a sustainable, inclusive, safe and accessible transport system, helping deliver a healthier, fairer and more prosperous Scotland for communities, businesses and visitors'.

4.3 The national strategy outlines how the ‘the benefits of place-making and sustainable and active travel infrastructure/modes will also play an important role in helping to re-vitalise town centres’.

4.4 At its meeting on 29 March 2022 Council was asked to approve the outline of the 2022–2027 Council Plan. The 2017–2022 Council Plan set out the vision of ‘an even more prosperous, safe and sustainable East Lothian, with a dynamic and thriving economy, that enables our people and communities to flourish’.

4.5 New and increased management of parking across the county supports the overarching objective of reducing inequalities within and across our communities, and with the development of the four thematic objectives: Growing our Economy, Growing our People, Growing our Communities and Growing our Capacity.

4.6 East Lothian’s Climate Change Strategy was adopted in 2020 in response to the climate emergency. The strategy has a significant emphasis on the need to manage journeys made by the private car across the county.

4.7 East Lothian Council – Local Transport Strategy (2018–2024). In 2018, East Lothian Council published a Local Transport Strategy sets out the challenges that town centres within East Lothian, particularly in the town of North Berwick, have been facing in the context of the wider transport network. Accessing town centres and the management of parking is a key challenge articulated throughout the strategy document.

4.8 East Lothian Council – Local Parking Strategy (2018–2024). There are a number of actions set out within the strategy to achieve many objectives when it comes to managing parking including that East Lothian Council will implement a parking management hierarchy in towns. The parking management hierarchy model states that ‘in general, on-street parking will be for the purposes of short-stay parking, especially in our town centres, as it is essential that people have easy access to shops and services to maintain the economic vitality of our towns. Medium and long-stay parking will be accommodated in off-street car parks but these are more likely to be at the edge of the town centre.’

4.9 East Lothian Council – Economic Development Strategy covering a ten-year period from 2012 to 2022, was published by East Lothian Council and was refreshed in 2018. One of the main work-streams identified within the strategy is to energise East Lothian’s town centres and rural economy. A key action to achieve this includes efforts to ‘enhance East Lothian’s town centres, improve the retail and visitor experience, and make improvements to street scenes, parking provision, amenities, etc’. The proposals contribute to this key action by providing greater accessibility to shops for visitors which can increase spend within our town centres as, if parking alongside safe active and sustainable travel is made more accessible, shoppers will be more likely to visit rather than go to another retail destination where access including parking may be more readily available.

4.10 Further, the proposals contribute to the Economic Development Strategy by offering 'the potential for increasing resident spend by improving town centres in East Lothian'. With short-stay parking freeing up spaces close to shops, residents would be able to quickly access shops and services, thereby supporting local and independent shops within North Berwick.

4.11 East Lothian Council – Town Centre Strategies (2017–2022). Town Centre Strategies have been prepared for each of the 6 main settlements in East Lothian. The purpose of the town centre strategies is to adopt a strategic approach to guide the improvement of town centres.

4.12 The vision for North Berwick town centre as articulated is 'North Berwick town centre is a vibrant heart of the town with an excellent and well used shopping and café scene. Improvement and enhancement of the town centre seeks to create a greater sense of place for all its users. The town centre is a favourite destination for visitors.'

4.13 In 2017 a design charrette was held in North Berwick to examine in detail the issues of the town centre. The results provide an informed public view expressed at a point in time. The charrette covered improving walking with wider footpaths and access at the east end of High Street; improvements to help people get around; street and public realm improvements; traffic and parking; character of the town centre; quality and amenities; sustainable and active travel; safer streets that reduced the feeling of threat from moving vehicles; and making the town centre more orientated towards people. North Berwick High Street is busy with vehicles and there is opportunity to provide a new car park to increase capacity and reduce cars circulating the town centre searching for parking.

4.14 The Citizen's Panel Survey (2018) identified a need for a wider range of shops, more parking and a more attractive town centre environment.

4.15 Action 3 from the North Berwick town centre strategy looks to progress the reorganisation of town centre car parking with the introduction of specific waiting times to off street facilities.

4.16 East Lothian Council – Active Travel Improvement Plan (2018–2024). The Active Travel Improvement Plan, published by East Lothian Council in 2018, aims to 'support and enable people to choose active travel as part of their everyday lives'. It highlights how active travel can be encouraged and facilitated across the local authority area and includes a focus on 'introducing active and sustainable travel options in our town centres to promote economic growth enabling East Lothian and Scotland to flourish, through increasing sustainable economic activity'.

Climate Change and Road Safety Benefits

4.17 Nationally vehicular traffic accounted for 35.6% of emissions in 2018. It remains the largest CO2 producing sector and presents a singular challenge to mitigate the transport sector to meet net zero targets. Transport is a derived demand, driven by the essential need to move people, goods, and services to drive economic growth. National objectives

seeks to promote walking, cycling and public transport over private car use as these present the greatest benefits to communities allowing improved mobility, safety, health and accessibility enhancements to be delivered through place making initiatives. Management of demand for parking provides a push behavioural change approach which can be incentivised with other pull initiatives to enhance the place for all users, over time.

4.18 Road collision incidents in East Lothian's towns are generally low with 21 serious injuries being recorded over the last 5 years (2017–2021). However, within the built environment an unacceptable risk remains due to the high demand of parking space and constant search for parking opportunity close to the driver's destination. On-street parking contraventions or restricted parking abuse during busy times can place the public at risk. The use of Traffic regulation orders to prohibit waiting and unloading is well understood but regrettably bad practice remains prevalent. Increasing turnover of designated parking spaces and heightened enforcement will help to change driver behaviour and safety concerns.

Legislation

4.20 The Road Traffic regulation Act 1984 – the legislation laid out in the Act provides powers to local authorities to implement parking demand management processes including tariffs for on and off street facilities.

4.21 Provision 32 within the Act describes the powers local authorities have where for the purpose of relieving or preventing congestion provision of parking spaces can be provided.

4.22 Provision 33 within the Act goes on to detail the additional powers of local authorities in connection with off-street parking places.

4.23 Provision 45 within the Act details that a local authority may by order designate parking places on roads in their area for vehicles or vehicles of any class specified in the order; and the authority may make charges for vehicles left in a parking place so designated.

5 INTEGRATED IMPACT ASSESSMENT

5.1 The subject of this report does affect the wellbeing of the community and have a significant impact on equality, the environment or economy. An Integrated Impact Assessment (IIA) will accompany full technical evaluation and public consultation to be finalised later this year.

6 RESOURCE IMPLICATIONS

6.1 Financial – The financial implications have not been determined at this stage within the report; however, the output from the consultation will have a direct impact on the Council's budget and so must be considered in line

with the Council sustainable financial planning and the delivery of the Council's financial strategies.

6.2 Personnel - Not applicable

6.3 Other – Not applicable

7 BACKGROUND PAPERS

7.1 Report to East Lothian Council on Tuesday 30th October 2018 – East Lothian Council Proposed Local Transport Strategy

7.2 East Lothian Council Proposed Local Transport Strategy 2018-24 – Draft Parking Strategy, Members' Library Ref: 142/18 (October 2018 Bulletin)

7.3 East Lothian Council Proposed Local Transport Strategy 2018-24 – Draft Active Travel Improvement Plan, Members' Library Ref: 141/18 (October 2018 Bulletin)

7.4 Policy and Performance Review Committee – 04 Roads Asset Management – Annual Status and Options Report

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Appendix A

Assessment of Car Parking Performance in North Berwick

Off- and On- Street Parking Analysis Report

East Lothian Council

April 2022

CONTENTS:

FIGURES:

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1.0 Introduction

1.1 Background

Economic growth with an improving tourism attraction in East Lothian has resulted in more car journeys into the area especially to North Berwick which has brought about a higher demand for parking with limited parking availability. North Berwick has a number of public, pseudo-private and privately owned off-street car parks, some controlled with parking time restrictions but in the main operated under unrestricted parking times.

There is substantial anecdotally evidence, through community representation and public opinion there is a shortage of parking, especially during the summer months as competing interests (tourism, business, trade, shoppers, residents), vie for space in the historic borough. With increased tourists visiting North Berwick, it was essential that an in-depth parking study be undertaken in order to obtain current parking related data. A detailed parking beat survey was undertaken in August 2019 and follow up survey to calibrate demand in 2021. The data obtained from the survey can be used to establish the levels of supply and demand necessary to make informed decisions for the efficient management of the car parks as well as the on street capacity and proffer better future parking solutions.

The outcome of this analysis will help inform the option development process, suggest improvements to evaluate and plan interventions to lessen the traffic and parking congestion and strategised for future growth of economic activity in North Berwick and apply lessons learnt across the entire county.

The aim of this study is to provide an initial overview of the performance of parking turnover of four off street and five central on street car parking facilities within North Berwick. The report evaluates and compares the performances of these parking facilities for the period between 2019 and 2021. The report also discusses the methodology used in conducting the car parking surveys.

1.2 Policy Context

The Local Transport Strategy sets out the policy context for delivery of a vision to provide well connected communities that use sustainable transport modes to access services and amenities.

In this regards, 7 objectives are set out within the LTS to achieve the vision, namely,

- To deliver a more attractive and safer environment for pedestrians and cyclists;
- To remove the overall dependence on the car and environmental impact of traffic;
- To promote the availability and use of more sustainable means of travel;
- To locate new development where it reduces the need to travel;
- To maximise accessibility for all and reduce social inclusion;
- To promote integration and interchange between different means of travel
- To maintain the transport network to a sustainable standard to ensure it meets the needs of all users.

The strategy is further supported through 5 core policies; strategic road maintenance planning, a safer East Lothian, Active travel, growth and supporting the economy and encouraging sustainable travel. These are distilled into 4 action plans of which the Parking Management plan seeks to improve economic performance, through improved access and accessibility, encourage sustainable travel by demand management and encourage a higher propensity to walk and cycle within a 20min neighbourhood.

1.3 Study Area

The study area comprises the off street and on street car parks/parking facilities in and around the central business area of North Berwick. The car parks/parking facilities surveys were conducted on Thursday 08 August 2019, Saturday 10 August 2019, Thursday 15 August 2019, Saturday 17 August 2019 and Thursday 26 August 2021 for the off street and on street car parking facilities under consideration. Only the weekday parking surveys were used for the analysis.

1.3.1 Off Street Car Parks

The marked areas in orange blocks shown in Figure 1.1 forms the study area within North Berwick where the core car parks considered for this study were surveyed.

The four off street car parks under consideration are the core public car parks:

- The Glebe Car Park
- The Law Car Park (Kirk Ports)
- The Imperial Car Park (Melbourne Place)
- The Gardeners Garden Car Park (East Road)

Figure 1.1: Car Park Locations Map

1.3.2 On Street Car Parking

The highlighted areas of the map of the town shown in Figure 1.2 forms the study area within North Berwick where the on street parking beat surveys were carried out.

The streets under consideration are the core streets within and around the busy High Street area as shown in Figure 1.3:

- Beach Road
- Forth Street
- Westgate
- High Street
- Quality Street

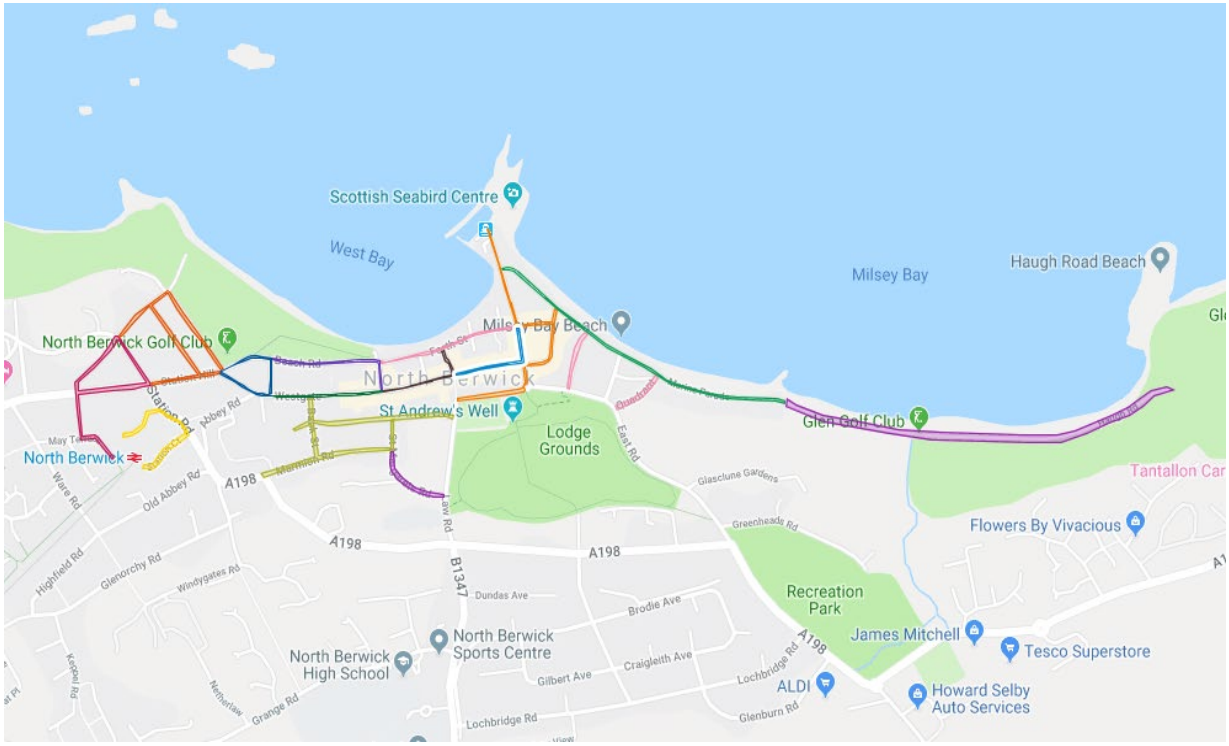

Figure 1.2: On Street Car Park Locations

Figure 1.3: The Core On Street Parking Survey Beats Location

2.0 Survey Methodology

ELC commissioned Tracsis Traffic Data Ltd to undertake two separate manual classified count of parking surveys in 2019 and 2021 for four off street car parks and on street car parking beat counts used for this study. The vehicle occupancy and duration of stay were undertaken by Manual Observation method, Camera Observation method and Automatic Number Plate Recognition (ANPR) method.

The purpose of the surveys were to determine the following operational characteristics of both the off street and on street parking provisions as follows:

- Number of spaces available
- Maximum Capacity (Accumulation)
- Duration of stay
- Parking Turnover
- Illegal and indiscriminate on street parking behaviour

2.1 Manual Observation Survey - 2019

The survey was undertaken on Thursday 15 August 2019 from 07:00 to 19:00 on a partly cloudy day. The survey was undertaken on a manual (beat) observation at 15 minutes and 30 minutes intervals for both on street and off street car parks. The data were processed at 15 minutes and 30 minutes intervals. The 15 minutes interval manual (beat) survey was undertaken for the on street car parking and the 30 minutes interval manual (beat) survey was undertaken at Glebe Car Park only in 2019 for the off street car parks. The raw data were processed and summarised by Tracsis. The final processed data was submitted to ELC for further analysis.

2.2 Camera Observation Survey - 2019

The car park survey was undertaken on Thursday 08 August 2019 from 07:00 – 19:00 on a dry day. The camera was mounted to a pole overlooking the entry and exist points of the car parks to record vehicle movements in the car parks. The data was processed at 15 minutes internals. The survey was undertaken at Imperial (Melbourne Place) Car Park, Gardeners Garden (East Road) Car Park, Law Road (Kirk Ports) Car Park, Community Centre Car Park, Recreation Park Car Park and Brodie Court Car Park in 2019. The raw data were extracted from the camera, processed and summarised by Tracsis. The final processed data was submitted to ELC for further analysis.

2.3 Automatic Number Plate Recognition (ANPR) Survey - 2021

The car parks survey was undertaken on Thursday, 28 August 2021 from 07:00 to 19:00 on a dry and bright day throughout the survey period. The ANPR cameras were mounted at the car parks overlooking the entry and exit points of the car parks surveyed to capture the number plates of the vehicles accessing the car parks and matching them when they leave the car parks. The ANPR data were processed at 15 minutes intervals. The survey was undertaken at Glebe Car Park, Law Road Car Park (Kirk Ports), Imperial Car Park (Melbourne Place) and Gardeners Garden Car Park (East Road). The raw data were extracted from the ANPR cameras, processed and summarised by Tracsis. The final processed data was submitted to ELC for further analysis.

2.4 Data Processing

As some of the data was collected in 2019 and used different methods to the 2021 data collection, the 2019 data was analysed into half hourly average duration to match the 2021 data format for comparative analysis to be undertaken for the same car park with data collected in 2019 and 2021.

The Gardeners Garden car park has two car parks A and B, one unrestricted (A) and the other controlled or restricted (B) (operated by the Sea bird centre) with both having the same entry and exit points. The controlled parking section of the car park has additional entry and exist point. The data for the unrestricted car park was collected independent of the controlled or restricted car park in 2019 as compared to 2021 when both car parks were surveyed as one car park. In order to carry out a proper comparative analysis of the car park between 2019 and 2021, the 2019 car park data had to be synchronised into one car park to match the 2021 data. In harmonising the 2019 Gardeners Garden data, the entry data of car park A (unrestricted) was added to the entry data of car park B (controlled or restricted).

Similarly, the exit data of car park A was added to exit data of car park B to form one entry point and exit point data for the Gardeners Garden car park. Again, the pre-survey occupancy and capacity of car park A and B were combined. The vehicle duration of stay for each of the car parks were also synchronised into one complete data for the 2019 data for the Gardeners Gardens car park. Once the 2019 data has been synchronised into one data source, the data was analysed and compared with the 2021 data of the Gardeners Garden car park.

The Glebe Car Park, The Law Road Car Park and the Imperial Car Park 2019 data were analysed in line with 2021 data for these car parks.

3.0 Car Park Analysis

This study reports on the analysis of the four car parks and five main on street car parking within North Berwick town centre and compare the 2019 data against 2021 data to ascertain the car parks and the street parking performances in terms of parking turnover, vehicle accumulation turnover, duration of stay and the 85th percentile of the parking facilities operating occupancy.

For this report, the car parks and the street parking operational times used for this study is from 8:30am to 5:30pm (i.e. 08:30 – 17:30). This conforms to the TTRO 102/21/KS and TTRO 167a/20/RC issued by ELC for North Berwick Glebe Car Park and High Street respectively, informing the public about the car park restrictions in place at the identified car parks and street parking areas.

As a consequence of the Spaces for People programme introduced in 2020 to protect people through physical distancing in response to covid 19, Glebe Car Park and Law Road Car Park went under different restricted parking regimes with waiting time limits in place to improve turnover and parking availability. These restrictions were still in place at the time of the 2021 parking survey. Records shows that there was no parking waiting time restrictions in place at the time of the 2019 parking surveys.

3.1 Parking Turnover

Parking Turnover which can also be referred to as turnover rates can be defined as the average times of parking or estimated number of vehicles that use each parking space throughout a period of time. Parking turnover is calculated by dividing the cumulative number of parking vehicles by the parking capacity of the facility in any given time. This is expressed as:

$$\mu_i = \frac{A_i}{D_i}$$

where:

μ_i is the parking turnover rates

A_i is the total amount of parking vehicles in the car park

D_i is the total number of parking lots/spaces in the car park

When the parking turnover rate (μ_i) is larger than 1, the demand is greater than supply and when the parking turnover rate is less than 1, the demand is less than supply. When

the parking turnover is large, it means that the car park is better utilised and operates in a more efficient way with more vehicles accessing the parking facility. The patronage of the parking facility among drivers and the usage of the parking facility tells more about the parking turnover rate of the facility. It is an important factor in determining the performance of the parking facility. If the parking facility has a parking charging regime in place, then the increase in the parking turnover value means that the revenue of the facility will increase from the parking spaces as a result of more vehicles accessing the parking spaces.

The time period used for this study for the operation of the car parks was between 08:30 to 17:30 i.e., 8:30am – 5:30pm which is the operational hours of ELC car parks.

3.2 Vehicle Parking Accumulation - Turnover

In any given time period there will be vehicles parked in a car park during its operation. The number of vehicles parked in a car park at any given time in its operation is termed as Parking Accumulation.

There were vehicles pre-occupying the car parks during the survey and these have been factored into the analysis of the total vehicle accumulation of the various car parks studied.

The differences in the car park capacity between 2019 and 2021 is due to the interpretation of the start and end point by the surveyors on site during the data collection. During the 2019 survey, a bay measurement of 4.3m were excluded from the count as anything less than 5m were not considered as a space. However, in 2021, a bay measurement of 4.6m were rounded up giving additional space. The differences are too small to affect the accumulation analysis.

3.3 Parking Occupancy and Duration of Stay

Parking occupancy is used to determine the efficiency of the car parks. It is sometimes referred to as parking index or efficiency. For this report, parking occupancy is defined as the percentage of the number of parking spaces occupied by vehicles within a specified time period during the operation of the car parking facilities in a day. The demand for car park is determined by the average occupancy of the car park.

3.4 85th Percentile of Car Park Operational Occupancy and Turnover

For this study, the 85th percentile occupancy and turnover for each of the car parks from 08:30 to 17:30 (8:30am – 5:30pm) were determined for the 9 hours duration for 2019 and 2021. The 85th percentile occupancy/turnover defines the occupancy/turnover that 85% of all the parking spaces are observed to be utilised during the car parks or street parking entire operational times. This also indicates the occupancy/turnover at which only 15% exceeds the occupancy/turnover of the car parks under consideration.

4.0 Off Street Car Park Analysis

This section reports on the analysis of the four main car parks: Glebe, Law Road, Imperial and Gardeners Garden Car Parks within North Berwick town centre. The analysis compare each of the individual car parks 2019 survey data against the 2021 survey data in order to ascertain the car parks performances in terms of parking turnover, vehicle accumulation turnover, duration of stay and the 85th percentile of the car parks operating occupancy.

4.1 Off Street Car Park Turnover

The summary of the parking turnover comparison for all the car parks between 2019 and 2021 is shown in Table 4.1. Detailed half-hour by half-hour turnover for each car park in 2019 and 2021 is shown in Table A.1 and Table A.2 in the Appendix.

Table 4.1: Off Street Parking Turnover Comparison

	2019 Turnover		2021 Turnover	
Car Park	**90mins**	**9hrs**	**90mins**	**9hrs**
Glebe	0.38	1.13	2.26	3.46
Law Road (Kirk Port)	1.38	1.90	3.00	3.45
Imperial (Melbourne Place)	1.15	2.03	1.04	1.68
Gardeners Garden (East Road)	0.91	2.48	1.12	2.13

The results show that for 90 minutes duration of stay, the Glebe car park, Law Road car park and Gardeners Garden car park were more utilised in 2021 than in 2019 when there was no waiting time restriction in place. More vehicles were able to have access to a parking space in the 90 minutes limit waiting time period in 2021 than in 2019 for these car parks. For the Imperial car park, it shows that the car park was more utilised in 2019 than in 2021. In 2021, the 90 minutes waiting time showed a 0.11 drop in turnover to the 2019 usage of the Imperial car park.

The results show that for the 9 hours of operation of the car parks from 8:30am to 5:30pm, the Glebe car park and Law Road car park had similar turnover in 2021. The two car parks were more utilised in an efficient manner in 2021 than in 2019. The vehicle turnover rate in 2021 was higher than in 2019. This could be attributed to the introduction of the parking waiting time limit in 2021 at the Glebe car park and Law Road car park having an impact on parking turnover rates.

The Imperial car park and Gardeners Garden car park showed a higher turnover in 2019 compared to 2021 for the entire 9 hours of the car parks operations. The car parks were seen to be more utilised in 2019 than in 2021, even though, there were more demand than the parking bays available at both car parks.

Overall, the Glebe car park and Law Road car park had 1.55 - 2.33 increase turnover in 2021 than in 2019 and Imperial car park and Gardeners Garden car park showed a 0.35 drop in turnover in 2021 compared to 2019.

4.2 Off Street Car Park Accumulation - Turnover

The total vehicle accumulation for each of the car parks in the 90 minutes and 9 hours of stay of the car parks operational times are shown in Table 4.2.

Table 4.2: Off Street Parking Vehicle Accumulation - Turnover Comparison

	2019				2021			
			Total Vehicle Accumulation				Total Vehicle Accumulation	
Car Park	**Capacity**	**Pre-Occ***	**90mins**	**9hrs**	**Capacity**	**Pre-Occ***	**90mins**	**9hrs**
Glebe	89	-	33	99	82	4	185	284
Law Road	21	14	29	40	22	4	66	76
Imperial	72	49	83	146	76	65	79	128
Gardeners Garden	86	11	28	54	85	17	95	181

**Pre-Occ:- Pre-Occupancy i.e. vehicles parked before survey started*

The results show that there were more vehicle accumulation in 2021 for both 90 minutes limited waiting time and the entire 9 hours of operation of the Glebe car park, Law Road car park and Gardeners Garden car park than in 2019. The Imperial car park showed more vehicle accumulation in 2019 than in 2021 for the 90 minutes duration and 9 hours of operation of the car park. Overall, 2021 has seen an increase in the vehicle turnover at most of the car parks in the centre of North Berwick.

4.3 Off Street Car Park Occupancy and Duration of Stay

The average occupancy, percentage occupancy and average duration of stay of the four selected car parks surveyed are shown in Table 4.3. Further details of the occupancy and duration at the car parks is shown in Table A.3 at the Appendix.

Table 4.3: Average Parking Occupancy and Duration of Stay of the Off Street Car Parks in 2019 and 2021

		2019			2021		
		Occupancy		Average	Occupancy		Average
Car Park	**Time**	**Average**	**%**	**Duration**	**Average**	**%**	**Duration**
Glebe	08:30-10:00	75	84.25%	07:40:35	18	22.56%	01:47:58
	08:30-17:30	77	86.70%	03:32:21	52	63.96%	01:34:11
Law Road	08:30-10:00	17	79.37%	08:23:37	10	43.94%	01:52:39
	08:30-17:30	18	85.58%	01:31:07	13	58.46%	00:52:15
Imperial	08:30-10:00	68	94.68%	02:55:59	83	110.31%	04:07:11
	08:30-17:30	82	114.20%	01:59:04	94	124.16%	01:52:19
Gardeners Garden	08:30-10:00	19	21.90%	02:25:52	29	34.12%	04:23:18
	08:30-17:30	66	76.87%	02:21:39	60	70.10%	01:50:39

The results show that there was a considerable reduction in vehicle occupancy, parking index and average duration of stay at the Glebe car park, Law Road car park and Gardeners Garden car park (8:30am - 05:30pm only) in 2021 than in 2019. Short duration of stay were recorded at these car parks in 2021 during the operation of the car parks in a day. The Imperial car park, even though recorded high parking occupancy in 2021, had a shorter average duration of stay than in 2019 for the 9 hours of operation from 8:30am to 5:30pm. It should be noted that the Imperial car park had a high pre-occupancy before the start of the car park's operating time i.e. cars parked overnight or before the day begins.

Overall, 2021 showed a considerable reduction in average occupancy and average duration of stay at the Glebe car park, Law Road car park and Gardeners Garden car park for the 9 hours of operation of the car parks in a day. The Imperial car park showed increased in average occupancy and parking index with reduced average duration of stay in 2021 compared to 2019 records during the 9 hours of operation in a day.

4.4 Off Street Car Parks 85th Percentile Operational Occupancy and Turnover

The 85th percentile occupancy and turnover of each off street car park surveyed is shown in Table 4.4.

Table 4.4: 85th Percentile of Off Street Car Park Operational Hours

85th Percentile (9hrs of Car Park Operation, 08:30 - 17:30)				
	2019		2021	
Car Park	**Occupancy**	**Turnover**	**Occupancy**	**Turnover**
Glebe	80	1.03	73	3.43
Law Road	19	1.76	15	3.38
Imperial	88	1.98	99	1.62
Gardeners Garden	90	2.47	81	2.09

The 85th percentile turnover for all the car parks range from 1.03 – 2.47 and 1.62 – 3.43 for 2019 and 2021 respectively. Similarly, the 85th percentile occupancy for all the car parks range from 19 – 90 and 15 – 99 for 2019 and 2021 respectively. These are the occupancy/turnover that 85% of the car parks spaces are occupied/turnover at or below on a typical weekday during the entire 9 hours of operation.

5.0 On Street Car Parking Analysis

This section reports on the analysis of the five main streets: Beach Road, Forth Street, High Street, Quality Street and Westgate on street car parking within North Berwick town centre. The analysis compare each of the individual on street car parking 2019 survey data against the 2021 survey data in order to ascertain the on street car parking performances in terms of parking turnover, vehicle accumulation turnover, duration of stay and the 85th percentile of the on street car parking operating occupancy.

5.1 On Street Car Parking Turnover

The summary of the parking turnover comparison for all the main streets considered car parking between 2019 and 2021 is shown in Table 5.1. Detailed half-hour by half-hour turnover for each street car parking in 2019 and 2021 is shown in Table A.4 and Table A.5 in the Appendix.

Table 5.1: On Street Parking Turnover Comparison

	2019 Turnover		2021 Turnover	
Street Parking	**90mins**	**9hrs**	**90mins**	**9hrs**
Beach Road	0.89	2.70	0.84	1.97
Forth Street	3.41	5.15	2.19	3.81
High Street	9.65	10.58	6.63	7.25
Quality Street	6.00	7.43	8.00	9.14
Westgate	7.07	7.91	5.22	6.16

The results showed that with the exception of the Quality Street which recorded high turnover in 2021, all the on street parking considered in this study showed high turnover in 2019 compared with 2021 for both the 90 minutes and 9 hours of duration of stay.

The Beach Road in the 90 minutes duration of stay showed similar turnover in 2019 and 2021. The introduction of the spaces for people measures introduced in 2020 in the town centre streets may have affected the parking turnover of the main streets considered in this study in 2021 resulting in reduced turnover.

5.2 On Street Car Parking Accumulation - Turnover

The total vehicle accumulation for the five considered street parking in the 90 minutes and 9 hours of stay for each of the on-street parking operational times are shown in Table 5.2.

Table 5.2: On Street Parking Vehicle Accumulation - Turnover Comparison

	2019			2021		
Street Parking	**Legal Parking Capacity**	**Total Vehicle Accumulation**		**Legal Parking Capacity**	**Total Vehicle Accumulation**	
		90mins	**9hrs**		**90mins**	**9hrs**
Beach Road	37	33	100	37	35	77
Forth Street	41	140	211	43	127	212
High Street	48	463	508	48	487	523
Quality Street	7	42	52	7	67	76
Westgate	70	495	554	81	443	520

The results show that there was very little difference in accumulation in the streets between 2019 and 2021. Westgate showed a slight decrease in 2021 compared to 2019, Quality Street showed a slight increase. High street also showed a slight increase with Forth Street and Beach Road being very similar when comparing the two studies.

5.3 On Street Car Parking Occupancy and Duration of Stay

The average occupancy, percentage occupancy and average duration of stay of the streets surveyed are shown in Table 5.3.

Table 5.3: Average On Street Parking Occupancy and Duration of Stay in 2019 and 2021

		2019			2021		
Street Parking	**Time**	**Occupancy Average**	**%**	**Average Duration**	**Occupancy Average**	**%**	**Average Duration**
Beach Road	08:30-10:00	28	76.13%	05:45:00	35	93.24%	08:22:30
	08:30-17:30	32	87.54%	03.00:41	34	91.07%	02:08:09
Forth Street	08:30-10:00	31	74.80%	01:11:00	30	68.60%	01:13:20
	08:30-17:30	36	88.89%	01:14:20	31	72.09%	01:24:32
High Street	08:30-10:00	33	68.75%	00:30:26	20	40.97%	00:12:45
	08:30-17:30	37	77.55%	0:28:30	24	49.07%	00:24:51
Quality Street	08:30-10:00	5	64.29%	01:18:45	5	64.29%	00:10:55
	08:30-17:30	5	71.43%	00:54:46	6	80.95%	00:44:43
Westgate	08:30-10:00	25	35.71%	00:32:19	29	35.80%	00:26:10
	08:30-17:30	41	58.85%	00:25:22	43	52.85%	00:39:52

The results show that there was a reduction in duration of stay with Quality Street and the High Street in 2021. The High Streets capacity was reduced with the introduction of the spaces for people measures. Forth Street showed a slight increase in duration of stay in 2021 as did Westgate overall when looking at the whole day. Beach Road saw the largest increase in duration of stay when comparing the two studies.

Overall, 2021 showed a comparable length of stay on the main streets within the town. As stated Beach Road saw the largest difference.

5.4 On Street Car Parking 85th Percentile Operational Occupancy and Turnover

The 85th percentile occupancy and turnover of each street surveyed is shown in Table 5.4.

Table 5.4: 85th Percentile of On Street Car Parking Operational Hours

85th Percentile (9hrs of Car Park Operation, 08:30 - 17:30)				
Street	**2019**		**2021**	
Parking	**Occupancy**	**Turnover**	**Occupancy**	**Turnover**
Beach Road	37	2.81	37	2.00
Forth Street	41	5.17	43	3.84
High Street	48	10.60	48	7.27
Quality Road	7	7.43	7	9.14
Westgate	70	7.91	81	6.16

The 85th percentile turnover for all the on street parking range from 2.81 – 10.60 and 2.00 – 9.14 for 2019 and 2021 respectively. Similarly, the 85th percentile occupancy for all the on street parking considered for this study range from 7 – 70 and 7 – 81 for 2019 and 2021 respectively. These are the occupancy/turnover that 85% of the car parks spaces are occupied/turnover at or below on a typical weekday during the entire 9 hours of operation.

6.0 Conclusion

The report looked at the comparison between 2019 and 2021 parking utilisation of four selected car parks and five selected main streets for on street parking within North Berwick town centre in the wider Local Transport Strategy context but specifically as part of ELC's Parking Strategy (ELPS) objectives:

- Objective 1 - to provide balanced and appropriate parking facilities that support the economic, environmental and accessibility requirements of towns in East Lothian, and;
- Objective 2 - to maximise the efficient use of parking provision developed to augment the Local Transport Strategy (LTS) to increase access to car parks for local economic development.

The report evaluates and compared the performances of the four selected off street parking facilities and five main street selected for on street car parking within North Berwick town centre. It discussed the different methodology used in conducting the 2019 and 2021 car parking surveys for the off and on street car parking facilities considered for this study.

The results of the study showed that the parking turnover, occupancy and parking duration were improved in 2021 when compared with 2019 during the main car parks operation in a typical day, which has improved the efficiency and vibrancy of the town through greater parking availability. In the main, the improved parking performances were due to the introduction of parking waiting time limit that restricted how long a car could stay at the car parks without being penalised.

It is also shown that as a consequence of introducing time period constraints, the performance of Gardeners Garden car park and the Imperial car park has diminished. This is likely to be displaced residents and shop workers who are searching for long stay parking.

The results showed that the on street parking turnover did not improve in 2021 when compared with 2019 with the exception of the Quality Street. There was very little difference in accumulation in the streets between 2019 and 2021. The Quality Street and the High Street showed a slight increase in accumulation in 2021.

The capacity of the High Street had diminished given the introduction of the spaces for people measures. The High Street and Quality Street showed a reduction in the duration of stay in 2021.

Appendix

Table A.1: Overall Parking Turnover Comparison between 2019 and 2021 for Glebe and Law Road Car Parks

Duration		Glebe Car Park Turnover				Law Road Car Park Turnover			
		2019		2021		2019		2021	
Min	Hour	Total Vehicle	Turnover	Total Vehicle	Turnover	Total Vehicle	Turnover	Total Vehicle	Turnover
30	00:30	18	0.20	113	1.38	19	0.90	44	2.00
60	01:00	6	0.27	29	1.73	4	1.10	16	2.73
90	01:30	9	0.38	43	2.26	6	1.38	6	3.00
120	02:00	2	0.40	22	2.52	1	1.43	4	3.18
150	02:30	20	0.63	16	2.72	2	1.52	2	3.27
180	03:00	3	0.66	22	2.99	2	1.62	0	3.27
210	03:30	0	0.66	15	3.17	1	1.67	0	3.27
240	04:00	1	0.67	6	3.24	2	1.76	0	3.27
270	04:30	4	0.72	5	3.30	0	1.76	0	3.27
300	05:00	4	0.76	4	3.35	0	1.76	0	3.27
330	05:30	6	0.83	2	3.38	0	1.76	1	3.32
360	06:00	7	0.91	1	3.39	0	1.76	1	3.36
390	06:30	7	0.99	1	3.40	0	1.76	0	3.36
420	07:00	0	0.99	0	3.40	0	1.76	0	3.36
450	07:30	2	1.01	2	3.43	0	1.76	0	3.36
480	08:00	3	1.05	1	3.44	0	1.76	1	3.41
510	08:30	0	1.05	1	3.45	2	1.86	1	3.45
540	09:00	7	1.13	1	3.46	1	1.90	0	3.45
570	09:30	8	1.22	1	3.48	1	1.95	0	3.45
600	10:00	14	1.38	0	3.48	0	1.95	0	3.45
630	10:30	8	1.47	0	3.48	0	1.95	0	3.45
660	11:00	4	1.51	0	3.48	0	1.95	0	3.45
690	11:30	2	1.53	0	3.48	0	1.95	0	3.45
720	12:00	0	1.53	0	3.48	0	1.95	0	3.45
Total		135		285		41		76	

Table A.2: Overall Parking Turnover Comparison between 2019 and 2021 for Imperial and Gardeners Garden Car Parks

Duration		Imperial Car Park Turnover				Gardeners Garden Car Park Turnover			
		2019		2021		2019		2021	
Min	Hour	Total Vehicle	Turnover	Total Vehicle	Turnover	Total Vehicle	Turnover	Total Vehicle	Turnover
30	00:30	43	0.60	42	0.55	18	0.21	42	0.49
60	01:00	21	0.89	17	0.78	28	0.53	22	0.75
90	01:30	19	1.15	20	1.04	32	0.91	31	1.12
120	02:00	8	1.26	8	1.14	41	1.38	28	1.45
150	02:30	11	1.42	13	1.32	17	1.58	24	1.73
180	03:00	10	1.56	4	1.37	24	1.86	6	1.80
210	03:30	9	1.68	5	1.43	16	2.05	6	1.87
240	04:00	4	1.74	0	1.43	6	2.12	7	1.95
270	04:30	8	1.85	5	1.50	10	2.23	4	2.00
300	05:00	5	1.92	3	1.54	5	2.29	0	2.00
330	05:30	1	1.93	2	1.57	3	2.33	2	2.02
360	06:00	2	1.96	2	1.59	6	2.40	2	2.05
390	06:30	0	1.96	0	1.59	3	2.43	3	2.08
420	07:00	1	1.97	0	1.59	2	2.45	0	2.08
450	07:30	0	1.97	3	1.63	1	2.47	0	2.08
480	08:00	1	1.99	0	1.63	0	2.47	1	2.09
510	08:30	2	2.01	1	1.64	0	2.47	2	2.12
540	09:00	1	2.03	3	1.68	1	2.48	1	2.13
570	09:30	2	2.06	3	1.72	1	2.49	1	2.14
600	10:00	0	2.06	0	1.72	0	2.49	3	2.18
630	10:30	2	2.08	1	1.74	0	2.49	1	2.19
660	11:00	0	2.08	0	1.74	0	2.49	0	2.19
690	11:30	0	2.08	0	1.74	0	2.49	0	2.19
720	12:00	0	2.08	0	1.74	0	2.49	0	2.19
Total		150		132		214		186	

Table A.3: Parking Occupancy, Parking Load, Average Duration Comparison between 2019 and 2021

			2019			2021		
			Occupancy		Average	Occupancy		Average
Car Park	**Period**	**Time**	**Average**	**%**	**Duration**	**Average**	**%**	**Duration**
Glebe	90mins	08:30-10:00	75	84.25%	07:40:35	18	22.56%	01:47:58
	9hours	08:30-17:30	77	86.70%	03:32:21	52	64.00%	01:34:11
	AM	07:00-10:00	57	64.04%	07:45:43	12	14.63%	01:27:57
	IP	10:00-16:00	79	88.48%	02:42:13	63	76.68%	01:40:52
	PM	16:00-19:00	51	57.30%	00:51:00	33	40.14%	00:29:17
Law Road (Kirk Port)	90mins	08:30-10:00	17	79.37%	08:23:37	10	43.94%	01:52:39
	9hours	08:30-17:30	18	85.58%	01:31:07	13	58.46%	00:52:15
	AM	07:00-10:00	16	77.38%	06:03:12	7	31.82%	01:45:26
	IP	10:00-16:00	18	87.90%	01:03:10	13	58.90%	00:39:11
	PM	16:00-19:00	17	79.37%	00:33:54	11	52.07%	00:33:57
Imperial (Melbourne Place)	90mins	08:30-10:00	68	94.68%	02:55:59	83	110.31%	04:07:11
	9hours	08:30-17:30	82	114.20%	01:59:04	94	124.16	01:52:19
	AM	07:00-10:00	59	82.06%	03:32:09	78	102.85%	04:41:48
	IP	10:00-16:00	85	118.17%	02:02:04	98	128.56%	01:32:44
	PM	16:00-19:00	82	114.24%	00:35:50	83	108.99%	00:42:43
Gardeners Garden (East Road)	90mins	08:30-10:00	19	21.90%	02:25:52	29	34.12%	04:23:18
	9hours	08:30-17:30	66	76.87%	02:21:39	60	70.10%	01:50:39
	AM	07:00-10:00	15	17.44%	02:3:01	25	29.02%	04:42:33
	IP	10:00-16:00	78	90.31%	02:29:37	67	78.53%	01:44:12
	PM	16:00-19:00	60	69.86%	00:55:15	48	56.37%	00:46:07

Table A.4: Overall On-Street Parking Turnover Comparison between 2019 and 2021

Duration		Beach Road				Forth Street			
		2019		2021		2019		2021	
Min	Hour	Total Vehicle	Turn Over	Total Vehicle	Turn Over	Total Vehicle	Turn Over	Total Vehicle	Turn Over
15	00:15	8	0.22	1	0.03	23	0.56	38	0.88
30	00:30	5	0.35	11	0.32	36	1.44	18	1.30
45	00:45	5	0.49	5	0.46	18	1.88	14	1.63
60	01:00	6	0.65	6	0.62	31	2.63	12	1.91
75	01:15	6	0.81	3	0.70	15	3.00	4	2.00
90	01:30	3	0.89	5	0.84	17	3.41	8	2.19
105	01:45	4	1.00	9	1.08	19	3.88	8	2.37
120	02:00	6	1.16	3	1.16	9	4.10	6	2.51
135	02:15	2	1.22	0	1.16	7	4.27	6	2.65
150	02:30	4	1.32	2	1.22	8	4.46	5	2.77
165	02:45	1	1.35	0	1.22	7	4.63	7	2.93
180	03:00	4	1.46	5	1.35	2	4.68	14	3.26
195	03:15	17	1.92	1	1.38	5	4.80	8	3.44
210	03:30	1	1.95	3	1.46	1	4.83	1	3.47
225	03:45	4	2.05	1	1.49	3	4.90	0	3.47
240	04:00	1	2.08	2	1.54	0	4.90	0	3.47
255	04:15	1	2.11	2	1.59	0	4.90	1	3.49
270	04:30	0	2.11	2	1.65	0	4.90	0	3.49
285	04:45	5	2.24	0	1.65	1	4.93	1	3.51
300	05:00	0	2.24	1	1.68	0	4.93	0	3.51
315	05:15	1	2.27	1	1.70	0	4.93	1	3.53
330	05:30	0	2.27	1	1.73	3	5.00	1	3.56
345	05:45	0	2.27	1	1.76	0	5.00	1	3.58
360	06:00	1	2.30	1	1.78	0	5.00	4	3.67
375	06:15	1	2.32	1	1.81	0	5.00	4	3.77
390	06:30	1	2.35	1	1.84	0	5.00	0	3.77
405	06:45	2	2.41	2	1.89	1	5.02	0	3.77
420	07:00	0	2.41	0	1.89	0	5.02	0	3.77
435	07:15	1	2.43	2	1.95	1	5.05	0	3.77
450	07:30	0	2.43	0	1.95	2	5.10	0	3.77
465	07:45	0	2.43	0	1.95	0	5.10	0	3.77
480	08:00	0	2.43	0	1.95	0	5.10	1	3.79
495	08:15	1	2.46	1	1.97	0	5.10	0	3.79
510	08:30	1	2.49	0	1.97	0	5.10	0	3.79
525	08:45	1	2.51	0	1.97	2	5.15	1	3.81
540	09:00	7	2.70	0	1.97	0	5.15	0	3.81
555	09:15	1	2.73	0	1.97	0	5.15	0	3.81
570	09:30	0	2.73	0	1.97	1	5.17	1	3.84
585	09:45	3	2.81	0	1.97	0	5.17	0	3.84
600	10:00	0	2.81	1	2.00	0	5.17	0	3.84
615	10:15	0	2.81	0	2.00	0	5.17	0	3.84
630	10:30	0	2.81	0	2.00	0	5.17	0	3.84
645	10:45	0	2.81	0	2.00	0	5.17	0	3.84
660	11:00	0	2.81	0	2.00	0	5.17	0	3.84
675	11:15	0	2.81	0	2.00	0	5.17	0	3.84
690	11:30	0	2.81	1	2.03	0	5.17	0	3.84
705	11:45	0	2.81	0	2.03	0	5.17	0	3.84
720	12:00	0	2.81	0	2.03	0	5.17	0	3.84
Total		104		75		212.00		165	

Table A.5: Overall On-Street Parking Turnover Comparison between 2019 and 2021 for High Street, Quality Street and Westgate

		High Street				Quality Street				Westgate			
		2019		2021		2019		2021		2019		2021	
Duration		Total	Turn	Total	Turn	Total	Turn	Total	Turn	Total	Turn	Total	Turn
Min	Hour	Vehicle	Over	Vehicle	Over	Vehicle	Over	Vehicle	Over	Vehicle	Over	Vehicle	Over
15	00:15	208	4.33	158	3.29	11	1.57	13	1.86	240	3.43	182	2.25
30	00:30	104	6.50	66	4.67	12	3.29	15	4.00	101	4.87	75	3.17
45	00:45	59	7.73	43	5.56	5	4.00	7	5.00	55	5.66	63	3.95
60	01:00	46	8.69	22	6.02	4	4.57	8	6.14	36	6.17	46	4.52
75	01:15	29	9.29	19	6.42	4	5.14	8	7.29	43	6.79	42	5.04
90	01:30	17	9.65	10	6.63	6	6.00	5	8.00	20	7.07	15	5.22
105	01:45	11	9.88	6	6.75	5	6.71	1	8.14	17	7.31	21	5.48
120	02:00	6	10.00	3	6.81	2	7.00	3	8.57	4	7.37	11	5.62
135	02:15	8	10.17	5	6.92	0	7.00	1	8.71	6	7.46	5	5.68
150	02:30	4	10.25	0	6.92	0	7.00	0	8.71	7	7.56	3	5.72
165	02:45	3	10.31	2	6.96	1	7.14	0	8.71	5	7.63	1	5.73
180	03:00	2	10.35	3	7.02	0	7.14	2	9.00	0	7.63	9	5.84
195	03:15	0	10.35	3	7.08	0	7.14	0	9.00	4	7.69	9	5.95
210	03:30	3	10.42	1	7.10	0	7.14	0	9.00	2	7.71	4	6.00
225	03:45	0	10.42	2	7.15	0	7.14	0	9.00	1	7.73	3	6.04
240	04:00	0	10.42	0	7.15	0	7.14	0	9.00	1	7.74	0	6.04
255	04:15	0	10.42	1	7.17	0	7.14	0	9.00	3	7.79	3	6.07
270	04:30	1	10.44	0	7.17	0	7.14	0	9.00	0	7.79	0	6.07
285	04:45	0	10.44	1	7.19	0	7.14	0	9.00	1	7.80	0	6.07
300	05:00	0	10.44	1	7.21	0	7.14	0	9.00	1	7.81	1	6.09
315	05:15	1	10.46	1	7.23	0	7.14	0	9.00	0	7.81	0	6.09
330	05:30	0	10.46	1	7.25	2	7.43	0	9.00	1	7.83	0	6.09
345	05:45	2	10.50	0	7.25	0	7.43	0	9.00	0	7.83	1	6.10
360	06:00	0	10.50	0	7.25	0	7.43	1	9.14	0	7.83	2	6.12
375	06:15	0	10.5	0	7.25	0	7.43	0	9.14	0	7.83	0	6.12
390	06:30	0	10.5	0	7.25	0	7.43	0	9.14	0	7.83	0	6.12
405	06:45	0	10.5	0	7.25	0	7.43	0	9.14	0	7.83	0	6.12
420	07:00	0	10.5	0	7.25	0	7.43	0	9.14	1	7.84	1	6.14
435	07:15	1	10.52	0	7.25	0	7.43	0	9.14	0	7.84	1	6.15
450	07:30	1	10.54	0	7.25	0	7.43	0	9.14	1	7.86	0	6.15
465	07:45	0	10.54	0	7.25	0	7.43	0	9.14	2	7.89	1	6.16
480	08:00	0	10.54	0	7.25	0	7.43	0	9.14	0	7.89	0	6.16
495	08:15	1	10.56	0	7.25	0	7.43	0	9.14	0	7.89	0	6.16
510	08:30	0	10.56	0	7.25	0	7.43	0	9.14	0	7.89	0	6.16
525	08:45	0	10.56	0	7.25	0	7.43	0	9.14	1	7.90	0	6.16
540	09:00	1	10.58	0	7.25	0	7.43	0	9.14	1	7.91	0	6.16
555	09:15	1	10.6	0	7.25	0	7.43	0	9.14	0	7.91	0	6.16
570	09:30	0	10.6	1	7.27	0	7.43	0	9.14	0	7.91	0	6.16
585	09:45	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
600	10:00	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
615	10:15	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
630	10:30	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
645	10:45	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
660	11:00	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
675	11:15	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
690	11:30	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
705	11:45	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
720	12:00	0	10.6	0	7.27	0	7.43	0	9.14	0	7.91	0	6.16
Total		509		349		52		64		554		499	