



# STOCKPORT

METROPOLITAN BOROUGH COUNCIL

SERVICES TO PLACE – HIGHWAYS & TRANSPORTATION – FEASIBILITY AND ROAD SAFETY TEAM

## FEASIBILITY STUDY REPORT

### 4271 –High Lane Car Park, Marple



**Signed**

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## Appendices

<b>A</b>	Scheme Location Plan
<b>B</b>	Scheme Proposals/Options
<b>C</b>	<del>Statutory undertakers service plans</del>
<b>D</b>	<del>Miscellaneous site Information</del>

## **1.0 Executive Summary**

- 1.1 The Feasibility and Road Safety Team have been commissioned to review options to improve the parking spaces layout at the High Lane Car Park.
- 1.2 The report looks at alternative layouts at the car park.
- 1.3 The layouts provided are indicative and are based on an OS background so as to gauge an understanding of the impacts of different car park layouts in order to make an informed decision on the preferred option.
- 1.4 No consultation has been carried out with any stakeholders and this would be required to confirm which design is feasible based on the feedback.

## 2.0 Introduction

As part of their delegated budget, the Marple South & High Lane Ward have approved funding to carry out a feasibility study to look at the different options available to alter the layout of parking bays at High Lane Car Park. Reporting on the different layout options available, with possible increase in parking bay capacity and expected costs for each proposal. For the feasibility study, a budget of £1,000 has been allocated.

High Lane Car Park currently has 49 parking bays, which includes 4 (approx. 8%) of them being disabled parking bays. There are also two unofficial bay-sized areas, that are either side of a homeowner's garage access. These areas have not been included in the car park's capacity total, however vehicle users currently park their vehicles in these areas. 4271\_Existing High Lane provides a drawing of the existing car park layout and includes notes from the site visit that was carried out. In the existing drawing of the car park it shows that were originally some charity bins of the north side of the car park. These bins have since been removed and are not included in the option drawings.

All of the scheme costs discussed for each option in this report may change during the detailed design stage of the project.

## 3.0 Design Options

### 3.1 Option 1 – One-way system with one exit route and parking spaces either side of aisle - See Drawing F/4271/Opt1

This option reviews the concept of the car park having a one-way system going all the way around with one entrance route and one exit route and having spaces on both sides of the aisle. Currently the car park is split into two sections (north side and south side) with a grass verge in between the sections. The south side of the car park already has one entrance and one exit route with a one-way aisle and spaces either side. However, the north side currently has a block of 28 spaces (including 4 disable spaces) in the middle of the section. Vehicle users currently have the option to either go around the block of the spaces and exit the car park north of the grass verge or go straight on and exit by passing through the south side of the car park i.e. there are two exit routes in the car park.

Option 1 looks at the idea of breaking the block of 28 in the middle of the north side (two rows of 14) and have one row be adjacent and parallel to the grass verge and have the other row adjacent and parallel to the northern boundary of the car park. This would leave a gap between the two rows to become the new one-way aisle. Since a row of spaces has been moved so that they are adjacent to the grass verge means that vehicle users can only exit the car park via entering the south side of the car park. This could be considered a safer layout for the car park as it provides a clearer route for all vehicle users entering and exiting the car park and keeps the accessibility simple.

Furthermore, due to the space available on the north border of the car park, there can be a row of spaces greater than 14, therefore increasing the overall car park capacity. In the current car park layout there are four spaces in the most southern border of the car park. For Option 1, these four spaces have been relocated so that an extra space can be provided. This takes the overall parking space count for this option to 52, which is an increase of 3 from the original. There are still 4 disabled spaces in this option.

#### 3.1.1 Option 1 – Scheme Costs

• Burning off existing markings and re-marking car park	£2,000.00
• Folding Bollard	£500.00
• Contingencies @ 15%	£375.00
• Fees (design and supervision Only @ 20%)	£500.00
• <b>Total</b>	<b>£3,375.00</b>

\* The above fees do not include area consultation or submission of area committee reports and any potential statutory undertaker's diversions/alterations.

#### 3.1.2 Stakeholders

Further consultation will be required with the following stakeholders

- Local businesses
- Local residents
- Greenspace

- Allotments
- Parking
- Local Groups
- Ward Councillors



### **3.2 Option 2 – Spaces rotated 90 degrees on the north side of the car park to better use the area - See Drawing F/4271/Opt2**

This option involves taking the block of 28 spaces in the north side of the car park and rotating them 90 degrees so that they are facing long-ways. The area in the north side is relatively square, whereas the dimensions of parking bays are rectangular, so this option was put forward to see if it could be used as a more efficient way of distributing the parking bays.

As it turns out, with this layout strategy, there is enough room to provide two blocks of 12 parking spaces, which makes 24 parking spaces, and then there is also enough room left to place an extra 5 parking spaces in the northern-east corner of the car park. This totals the number of parking spaces for the north side to 29, which is one more than the original car park layout. Furthermore, the extra space that can be added in the southern area and was discussed in option 1 has also be added in option 2. There is also a kerb on the south side of the grass verge. With the current layout there is an unofficial parking space next to the kerb (this has not been counted for the total parking bay count). For option 2, this kerb has been removed and this allows there to be enough room to place a disabled parking space. Whilst, the removal of the kerb would increase the scheme costs, it does bring the car park capacity for option 2 to 52, which is 3 more than the current layout.

One potential issue with this design layout is that the two blocks of spaces in the north side are both adjacent to the grass verge, and the aisle width between the two blocks is only dimensional suitable for traffic to be one-way. This may make it difficult for vehicle users to access and exit certain parking spaces, especially if the car park was to become full in this layout.

#### **3.2.1 Option 2 – Scheme Costs**

• Burning off existing markings and re-marking car park	£2,000.00
• Removal of Kerb	£4,000.00
• Folding Bollard	£500.00
• Contingencies @ 15%	£975.00
• Fees (design and supervision Only @ 20%)	£1,300.00
• <b>Total</b>	<b>£8,775.00</b>

\*The above fees do not include area consultation or submission of area committee reports and any potential statutory undertaker's diversions/alterations.

#### **3.2.2 Stakeholders**

Further consultation will be required with the following stakeholders

- Local businesses
- Local residents
- Ward Councillors
- Greenspace
- The Allotments
- Parking
- Local groups

### **3.3 Option 3 – 70-degree parking spaces on north side and added spaces on south side of car park - F/4271/Opt3**

This option is like that of Option 1 with regards to segregating the block section of parking spaces in the north side of the car park. However, this option looks at the concept of having 70-degree parking spaces instead of straight 90-degree spaces. The dimensions with regards to space length and aisle width is slightly different for a 70-degree parking space in comparison with a straight parking space, therefore influencing the efficiency of the surface area of the car park.

With the 70-degree parking space dimensions used, there is enough space to allow two exit routes/aisles for the north side, similar to the original layout of the car park in this regard. Using 70-degree parking spaces for the north side of the car park, a total of 29 spaces can be achieved. This is only one more parking space than the original layout.

From experience of parking in angled parking spaces, they can sometimes be more difficult to access in and out of. For the sake of one extra space with this layout option for the north side of the car park, it may not make up for potentially a downgrade in accessibility.

In this option, it has also been observed that there is a bit of free space in the south side of the car park, which can be used to provide extra parking spaces without the aisle width being too narrow for vehicle users. As the drawing F\_4271\_Opt3 shows, three extra spaces can be added to the row of spaces in the south east corner of the car park. This takes the car park capacity for this option to a total of 55, which is 6 more than the original layout.

There is a potential issue with the three added spaces to the south east corner of the car park. They could potentially hinder access to the three parking spaces in the south west corner. These three spaces are still accessible, however the difficulty accessing them is increased. Furthermore, the current car park has a locked gate wide enough to allow vehicles to access it. Any vehicle users wanting to open and use the gate could have trouble getting their vehicle to drive in-between parked vehicles in this layout.

#### **3.3.1 Option 3 – Scheme Costs**

• Burning off existing markings and re-marking car park	£2,000.00
• Folding Bollard	£500.00
• Contingencies @ 15%	£375.00
• Fees (design and supervision Only @ 20%)	£500.00
• <b>Total</b>	<b>£3,375.00</b>

\* The above fees do not include area consultation or submission of area committee reports and any potential statutory undertaker's diversions/alterations.

#### **3.3.2 Stakeholders**

Further consultation will be required with the following stakeholders

- Local businesses
- Local residents
- Ward Councillors
- Greenspace

- The Allotments
- Parking
- Local groups

### **3.4 Option 4 – Removal of grass verge in the centre of the car park – F/4271/Opt4**

This option reviews the removal of the grass verge that currently sits in the centre of High Lane Car Park. Due to the surface area of the grass verge, there is a good opportunity to provide a greater capacity for the car park.

The issue with the removal of the grass verge is the costing of it. Despite the cost being a major drawback, the option of removing the grass verge has been put forward in this feasibility study. This is due to it being the best option for increasing the car park capacity, which is the overarching aim of this project.

With the removal of the grass verge, a layout with an increased capacity of 66, has been drawn up (see drawing F\_4271\_Opt4). This includes an extra disabled space, and furthermore it is at least 11 more spaces than any of the first three options, and 17 more spaces than the existing car park layout.

Of the 66 spaces, 23 of them have replaced the grass verge area. This is over a third of the car park's spaces, which demonstrates the significance the grass verge has in hindering the car park's capacity. Comparatively with the other options, there is very little concern with accessing each individual space. Therefore, this option should be strongly considered if the scheme costs are not an issue.

#### **3.4.1 Option 4 – Scheme Costs**

• Burning off existing markings and re-marking car park	£2,000.00
• Removal of grass verge and relocation of existing trees and lighting	£40,000.00
• Folding Bollard	£500.00
• Contingencies @ 15%	£6,375.00
• Fees (design and supervision Only @ 20%)	£8,500.00
• <b>Total</b>	<b>£57,375.00</b>

\* The above fees do not include area consultation or submission of area committee reports and any potential statutory undertaker's diversions/alterations.

#### **3.4.2 Stakeholders**

Further consultation will be required with the following stakeholders

- Local businesses
- Local residents
- Ward Councillors
- Statutory Undertakers
- Greenspace
- The Allotments
- Parking
- Local groups

### **3.5 Option 5 – Convert grassed area on north side into an extension of the car park – F/4271/Opt5**

This option reviews the possibility of using part of the grassed area, which is north of the where the car park's boundary and converting it into an extension for the car park. Currently the car park is squared off and bounded by a standard timber fencing. However, surrounding the car park is a large grassed area/park that people can access and walk through. Due to the area of the park being quite large, some of the space can be seen as excess, and could be put to better use extending the car park and increasing its capacity.

The main issue with converting grassed area north of the car park is the costing of it. It would require removing the timber fencing, any existing trees (two trees within the area of the extension) and laying down suitable surfacing for vehicle users to access the car park and all of the spaces. Despite the cost being a major drawback, the option of converting the grassed area has been put forward in this feasibility study. This is due to it being one of the better options for increasing the car park capacity, which is the overarching aim of this project.

This proposed layout increases capacity to 82, which has been drawn up (see drawing F\_4271\_Opt5). This includes an extra two disabled spaces, and furthermore it is 16 more spaces than Option 4, and 33 more spaces than the existing car park layout. The two unofficial spaces have been relocated and turned into official spaces, which has also improved the car park capacity. Furthermore, each individual space still remains accessible to vehicle users.

#### **3.5.1 Option 5 – Scheme Costs**

• Extension of fencing, relocation of existing trees and resurfacing extension	£50,000.00
• Burning off existing markings and re-marking car park	£2,000.00
• Folding Bollard	£500.00
• Contingencies @ 15%	£7,875.00
• Fees (design and supervision Only @ 20%)	£10,500.00
• <b>Total</b>	<b>£70,875.00</b>

\* The above fees do not include area consultation or submission of area committee reports and any potential statutory undertaker's diversions/alterations.

#### **3.5.2 Stakeholders**

Further consultation will be required with the following stakeholders

- Local businesses
- Local residents
- Ward Councillors
- Statutory Undertakers
- Greenspace
- The Allotments
- Parking
- Local groups

### **3.6 Option 6 – Convert grassed area on north side into an extension of the car park (smaller extension than Option 5) – F/4271/Opt6**

This option reviews a variation of Option 5. Option 5 looked at the possibility of using part of the grassed area, which is north of the where the car park's boundary and converting it into an extension for the car park. As mentioned, this provided a much greater amount of additional spaces (33 more than the original car park layout). However, the extension in Option 5 is an extra 16 metres in length, which takes up quite a lot of the grassed area, and furthermore it is a very costly option.

The significant increase in capacity drawn up in Option 5 when extending the car park cannot be overlooked, hence why this option of a reduced extension has been proposed. With less surface area to cover than Option 5, it will significantly reduce the price (however, still expensive), whilst also increasing the car park capacity by more than any of the first 3 options. Furthermore, the extension for this option has been drawn up in a way so that it avoids removing and relocating the existing trees north of the car park. This can be a costly procedure.

With this layout proposed an increased capacity of 66, has been drawn up (see drawing F\_4271\_Opt6). This includes an extra disabled space, and furthermore it is 17 more spaces than the existing car park layout. The two unofficial spaces have been relocated and turned into official spaces, which has also improved the car park capacity. Furthermore, each individual space still remains accessible to vehicle users.

#### **3.6.1 Option 6 – Scheme Costs**

• Extension of fencing and resurfacing extension	£30,000.00
• Burning off existing markings and re-marking car park	£2,000.00
• Folding Bollard	£500.00
• Contingencies @ 15%	£4,875.00
• Fees (design and supervision Only @ 20%)	£6,500.00
• <b>Total</b>	<b>£43,875.00</b>

\* The above fees do not include area consultation or submission of area committee reports and any potential statutory undertaker's diversions/alterations.

#### **3.6.2 Stakeholders**

Further consultation will be required with the following stakeholders

- Local businesses
- Local residents
- Ward Councillors
- Statutory Undertakers
- Greenspace
- The Allotments
- Parking
- Local groups

## **4.0 Conclusions**

The Feasibility and Road Safety Team recommends Option 5 as the most feasible option as it is the option that provides the most parking spaces for High Lane Car Park, which is the overarching aim of this project. However, it is also by far the most expensive option, and this may hinder the final decision. As a more cost-effective option, the Feasibility and Road Safety Team recommends Option 1. It improves the capacity of the car park, whilst also improving the accessibility and safety of the car park with a simplified one-way entrance and exit route.