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Snow Hill Car Park, Nantwich
Proposed Car Park Expansion Options

Technical Note

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1 Introduction

1.1 Background

Cheshire East Council (CEC) is considering the provision of additional off-street parking spaces within the vicinity of the Swimming Pool and Fitness Centre in Nantwich.

The objectives of the note are to:

1. Identify Council land in the vicinity of Snow Hill car park
2. Determine the current layout and number of spaces
3. Develop options to identify where additional spaces could be provided
4. Identify any additional spaces on the existing car park that could be realised by alteration to the parking bays
5. Identify additional number of spaces that can be realised by extending the car park
6. Provide indicative cost estimates associated with points 4 and 5 along with any risks / constraints in implementing any proposed changes

1.2 Existing Parking Situation

Currently, Off-street car parking for use by the general public is provided at Snow Hill Car Park. The car park consists of two sections located to the north and south of Wall Lane.
The northern section of the car park has an area of approximately 4000m^2 and offers 156 parking spaces. In addition to these there are 8 parking spaces designated for the disabled badge holders and 2 motorcycle parking spaces.

The site was visited on Thursday 12th February 2015 between 11:00 and 12:00.
At the time of the visit 68 of the spaces (and 1 disabled) were occupied.
These figures represent the utilisation rates of 44% and 13% (for disabled users).

No data on the level of demand, volume of traffic or collisions have been provided at the time of writing this technical note.

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2 Proposed Options

2.1 General

The following options identify proposed increases to parking provision within or surrounding Snow Hill Car Park, along with indicative costs. Each of the options presented are within land owned by CEC.

2.2 Option 1: Existing Car Park Modifications

The first option examines the introduction of additional spaces within the existing car park.

The existing layout of the car park, i.e. bays at 90 degrees is the optimum for the available area and angled parking bays (60 or 45 degrees) would not increase the capacity.
There are however, a number of kerbed areas within the car park which can be removed and modified to create additional bays.
The maximum number of additional spaces that can be achieved is 11.
In other words the existing 156 bays will be increased to 167.
The works associated with this option involves the removal of kerbs, full depth construction and new road markings. The cost of these undertakings is expected to amount to approximately £24,800. This figure includes 15% contingency to cater for unforeseen factors.
The works costs are construction costs only and exclude design fees and traffic management.
The cost per any one extra space therefore is about £2,255 which can be used for comparison purposes with other options and also to calculate the return on any investment.

2.3 Option 2: Area A

The second option is the conversion of the grass area to the west of the existing car park denoted ‘Area A’ on the drawing.
The conversion of this land, would add an additional 22 spaces plus 2 disabled bays and a motorcycle parking area.

The proposed layout envisages the retention of the row of trees separating the area from the existing car park.

The cost of constructing a car park in Area A is estimated to be around £174,000.
The works are construction costs only and exclude design fees, traffic management, utility costs and site investigations. This figure includes 25% contingency to provide for possible unanticipated issues.

The cost of each bay for this option is approximately £7,900.

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2.4 Option 3: Area B

This option looks at the potential for a new car park in the area denoted 'Area B' on the drawing.
The access and egress to this car park is assumed to be from the existing car park.
There is sufficient space for 73 parking bays within this area. This option includes the removal of 6 trees.
The approximate cost of constructing a car park in this area is estimated to be in the neighbourhood of £318,000. This costs excludes, design fee, traffic management, utility costs and site investigation.
The contingency for this option is 30% to offer some margin of safety against possible issues met at site.

The cost of each bay for this option is approximately £4,360.

2.5 Option 4: Area C

A fourth possibility is the utilisation of 'Area C' which is the grass land located to the northeast of the leisure centre. The topography of this land is more arduous than the areas discussed in the previous options in particular the difference in level of different sections in this area is substantial.
This area has the potential to provide 151parking spaces plus 3 for the use by the disabled and 1 motor cycle parking place.
The entrance/exit to the car park would be from Wall Lane adjacent to the existing parking lay-by which would become part of the future car park.

The cost of providing a car park on this strip of land is expected to be approximately £674,000 which includes 40% contingencies to reflect the difficult terrain and the range of unknown parameters.

The cost of each bay for this option would be approximately £4,460.

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3 Conclusions

3.1 There are a number of potential options to provide additional parking spaces at this location. All the options discussed above would take place within the land owned by the Council and therefore no land purchase would be necessary.

The information provided by statutory undertakers indicates that their apparatus would not be affected; however, C2 information should be sought at preliminary design stage to verify the initial information.

3.2 Appendix B presents the breakdown of construction costs and as would be expected, the majority of the costs are expected to be consumed by earthworks requirements.
There are no apparent insurmountable physical constraints in constructing any of the options.
However, as there is a significant cost involved, it is recommended that a cost benefit analyses is carried out prior to making a decision.

3.2 Finally, it is worth mentioning that each off street parking bay in a small town centre is estimated to generate £800 pounds of revenue per annum on average. The corresponding running cost is estimated to be about £150 per year. The oversupply of parking facilities and the consequent lack of full utilisation of the facilities may prove costly in the long run.

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4 Appendix A : Sketch of Potential Layouts

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5 Appendix B: Cost Breakdown

Option 1: Existing Car Park		
Existing no. of Spaces: 156 (+2 Disabled+1M/C)	Additional No. of Spaces: 11	Potential No. Spaces: 167 (+2 Disabled + 1M/C)
200	Site Clearance	£990
500	Drainage	£900
600	Earthworks	£400
700	Pavements	£17,900
1100	Kerbing & Footways	0
1200	Signs, Road Markings & Miscellaneous	£1,400
1300	Lighting	0
Contingency @15%		£3,250
TOTAL		**£24,800**

Option 2: Area A		
Potential No. of Spaces: 22 (+2 Disabled + 1 M/C)		
200	Site Clearance	£300
500	Drainage	£4,520
600	Earthworks	£28,000
700	Pavements	£88,000
1100	Kerbing & Footways	0
1200	Signs, Road Markings & Miscellaneous	£9,400
1300	Lighting	£7,000
1400	Electrical work for lighting	£2,000
Contingency @25%		£35,000
TOTAL		**£174,000**

Option 3: Area B		
Potential No. of Spaces: 73		
200	Site Clearance	£900
500	Drainage	£7,400
600	Earthworks	£50,000
700	Pavements	£156,000
1100	Kerbing & Footways	£2,700
1200	Signs, Road Markings & Miscellaneous	£15,720
1300	Lighting	£10,000
1400	Electrical work for lighting	£3,000
Contingency @30%		£73,500
TOTAL		**£318,300**

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Option 4: Area C		
Potential No. of Spaces: 151 (+3 Disabled +1M/C)		
200	Site Clearance	£3,200
500	Drainage	£14,800
600	Earthworks	£100,000
700	Pavements	£312,400
1100	Kerbing & Footways	£5,400
1200	Signs, Road Markings & Miscellaneous	£24,450
1300	Lighting	£15,000
1400	Electrical work for lighting	£5,000
Contingency @40%		£193,000
TOTAL		**£674,000**