

A Review of Weekend Closures on Chesterfield Avenue in the Phoenix Park, 2012



March 2013

Executive Summary

At 1752 acres (709 hectares) the Phoenix Park is among the largest in a European capital city. Its blend of landscape, sporting and recreational activities coupled with a variety of state institutions and historic features makes it unique among European parks. In September 2011, the Phoenix Park Conservation Management Plan set out a vision to “*protect and conserve the historic landscape character of The Phoenix Park*”. Furthermore, Action 9.1 of the Conservation Plan sets out “*to manage the levels of traffic within The Phoenix Park and reduce through traffic*”.

The use of Chesterfield Avenue as a busy arterial traffic route has long conflicted with this objective. In effect, the use of Chesterfield Avenue is not consistent with its setting and designation. The Phoenix Park Transportation Study completed in 2006 reflected this long term objective of reducing the environmental impact of traffic travelling through the Phoenix Park.

Between April 2012 and September 2012, and as part of the celebrations of the 350th Anniversary of the Phoenix Park, a section of the main east-west route (Chesterfield Avenue) was closed to traffic during weekends. The OPW commissioned AECOM to study and report on the findings of a qualitative and quantitative review of the pilot closures during 2012 in order to measure the benefits and impacts of weekend closures, and hence understand the case for a more permanent arrangement.

During 2012, the Phoenix Park hosted some 1,500 events, ranging from club events to large public events. It is estimated that these events catered for in excess of 100,000 visitors to the Park over the year, and the closure of Chesterfield Avenue was a central part of planning for these events. Throughout that period, it was noted by Park Management that the consistency of the arrangements on Chesterfield Avenue greatly simplified the process of making the necessary arrangements for closures, thereby reducing the administrative burden on both the OPW and An Garda Síochána. Furthermore, the obligation on the OPW to prepare and disseminate information to the public on the details of each closure was reduced, as the seasonal closure allowed a single bulletin to be in force throughout the full duration from April to September.

In response, 2012 was a highly successful year in terms of event planning, with a number of relatively new events held. These included the Mad Hatters Tea Party, which required a long table setting along the centreline of Chesterfield Avenue, a traditional Dancing at the Crossroads event, which built on the historic setting of the Phoenix Roundabout, in addition to a large number of road races. During those periods where events were not in place, the quiet setting of Chesterfield Avenue during the weekend period became an attraction in itself, and led to an increase in the concentration of roller-blading, walking and cycling.

Public feedback suggested a majority of those using the Park favoured the closures, citing it as positive for encouraging families to use the Park and walk in the area where cars were excluded, the removal of traffic noise and pollution from this area, and requesting that more events such as street parties be organised to make more use of the closure. Importantly, An Garda Síochána also expressed support for the closure and noted that it made traffic management much simpler and reduced the requirement for their resources when there was an event in place within the Park.

In order to quantify the traffic impact of the closure of Chesterfield Avenue, a further closure was implemented during the weekend of 1st and 2nd December 2012, with advance notice provided to road users. The closure was implemented from 10pm on Friday 30th November, until 4pm on

Saturday 1st December 2012. Traffic information was collected over a 2-week period on key roads through the Park to understand the impact of the closures on overall traffic volumes, and the level of traffic displacement onto local roads.

The analysis shows that the impact of the closure leads to a direct rerouting of traffic from Chesterfield Avenue onto the North Road, with traffic volumes on Chesterfield Avenue (east) reducing by less than 10%. It is concluded that the closure therefore had an insignificant impact on traffic displacing onto external roads, and that the impact of the closure is therefore predominantly local. In fact the very fact that closures have continued throughout the year (with 38 closures reported) suggests that traffic impacts have been wholly manageable. On this basis, there is no traffic-related rationale for abandoning the current proposal for weekend closures on Chesterfield Avenue.

Examining the alternative routes within the Park, the maximum diversion for traffic travelling through the Park is approximately 800m, equating to an additional travel time of approximately 2 minutes. This is not deemed to be a significant impact in the context of journeys to and from the City Centre from the north-western fringes of the metropolitan area.

On the basis of a more detailed review of the public feedback, the logistical issues associated with opening/closing Chesterfield Avenue, and seeking to maximise the benefit of the closures, it is concluded that the weekend closures of Chesterfield Avenue should be reintroduced during 2013, but with the following modifications:

- The closure would operate annually between 9pm Friday and 9pm Sunday between May 1st and September 30th each year;
- Provision of a new cycle track alignment on Odd Lamp Road to facilitate 2-way running by cars on that road;
- Provision of a concise information pack outlining seasonal arrangements for traffic circulation and access to car parks, and dissemination of this information via the website, media outlets and information leaflets; and
- Continuous monitoring of the use of the Park by visitors during the summer months.

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1.0 Overview

1.1 Context

At 1752 acres (709 hectares) the Phoenix Park is among the largest in a European capital city. It remains larger than all of London's parks put together and is more than twice the size of New York's Central Park. The Phoenix Park's blend of landscape, sporting and recreational activities coupled with a variety of state institutions and historic features makes it unique among European parks. In 1986 the Phoenix Park was designated as a National Historic Park. This designation recognises the Phoenix Park's listing by I.C.O.M.O.S., a UNESCO sponsored organisation, which aims to promote the conservation of Historic Parks and Gardens.

In September 2011, the Phoenix Park Conservation Management Plan set out a vision to *“protect and conserve the historic landscape character of The Phoenix Park and its archaeological, architectural and natural heritage whilst facilitating visitor access, education and interpretation; facilitating the sustainable use of the Park's resources for recreation and other appropriate activities, encouraging research and maintaining its sense of peace and tranquillity”*. Furthermore, Action 9.1 of the Conservation Plan sets out *“to manage the levels of traffic within The Phoenix Park and reduce through traffic”*

The Plan sets out a number of **'Strategic Objectives'**, the following of which are considered to be most relevant:

7. *To facilitate an appropriate mix of recreational use and public appreciation that maximises visitor enjoyment and protects the landscape and infrastructure of The Phoenix Park;*
8. *To manage the levels of traffic within the Phoenix Park and reduce through traffic;*
9. *To facilitate public access and sustainable use of The Phoenix Park's resources.*
10. *To respect the established patterns of recreational use in The Phoenix Park.*

In addition, chapter 9 of the Plan addresses 'Access and Movement', and sets out four Specific Objectives related to ensuring access to the attractions of the Park in a way that protects the environment and amenity that the Park offers:

- SO 9.1 *To reduce the environmental impact of traffic travelling through the Park.*
- SO 9.2 *To improve access to the Park for recreational use, taking into account the requirements of connectivity between different areas within the Park, the relationship between the Park and the surrounding catchment, and general movement through the Park for non-car users.*
- SO 9.3 *To manage parking provision within the Park, primarily to serve those intending to use the Phoenix Park, and not to be compromised by commuters or other non-Park users.*
- SO 9.4 *To improve safety for all park users such that active reductions in accidents can be expected.*

On this basis, section 9.5 of the Plan provides a list of Short-to-Medium term actions (5 to 10 years). With regard to traffic issues, the following are key actions:

- Action 9.1 Develop a universal access and mobility policy for the Park, together with ancillary maps and publications, which would enable critical areas to be*

identified and monitored. It would also help to define ultimate capacity levels for particular areas of the Park, where in the future, due to continued visitor growth, it may be necessary to restrict access at particular times.

Action 9.2 Consider restricting unnecessary traffic from the Park, but in so doing take account of the function of certain vehicular routes through The Phoenix Park, as well as addressing the impact of closure on any particular route on the surrounding area. Restriction of unnecessary and or through traffic at the weekends and off-peak hours will also be implemented.

Action 9.6 Limit through traffic at weekends and off-peak hours to facilitate increased recreational use of the Park.

The use of Chesterfield Avenue as a busy arterial traffic route carrying in the region of 10,000 vehicles per day has long conflicted with this objective.

In effect, the use of Chesterfield Avenue is not consistent with its setting and designation. Indeed, the Phoenix Park Transportation Study completed in 2006 reflected the long term objective of reducing the environmental impact of traffic travelling through the Phoenix Park.



The Mall, London, is closed to traffic on Sundays and Public Holidays, and during the hosting of special events

1.2 The Closure of Chesterfield Avenue in 2012

Between April 2012 and September 2012, and as part of the celebrations of the 350th Anniversary of the Phoenix Park, a section of the main east-west route (Chesterfield Avenue) was closed to traffic during weekends. This 'pilot' closure also facilitated a quantification of the benefits and impacts of weekend closures, thereby allowing the case for a more permanent arrangement to be understood. The closure was accompanied by a traffic management plan which sought to provide advance information to road users, and accommodate residual traffic activities through the Park.



Roads through Central Park, New York are open to traffic during weekday morning and evening periods only. Traffic is restricted from the park during the day and all weekend

The OPW have commissioned AECOM to study and report on the findings of a qualitative and quantitative review of the pilot closures during 2012.

This report sets out a review of impacts during the existing weekend closures, the activity that took place during such closures and develops a proposal for future closures of Chesterfield Avenue. In assessing impacts, the report considers impacts on vehicular traffic, cyclists, Park amenity and recreation activities. On the basis of the assessment, the report considers the most appropriate form of closure, the period of such closures, and necessary management measures to support them.

2.0 2012: A Year in Review

2.1 Details of the 2012 Closure

During 2012, a number of roads in the Phoenix Park were closed to facilitate athletic events, motor races, street parties and live music events as part of the celebration of the 350th Anniversary of the Phoenix Park. The extent of the main avenue closure is shown in Figure 2.1, and comprises a 1.2km stretch of Chesterfield Avenue between the Phoenix Roundabout (east) and Mountjoy Roundabout (west).



Figure 2.1: Chesterfield Avenue Closure, and Alternative Routes

During the period of the closures, information was disseminated to road and Park users through:

- Regular information and updates on the Phoenix Park website;
- Information on Variable Message Signs located in the vicinity of the Park in advance of, and during, the period of the closure; and
- Information bulletins and press releases to media outlets;

The closures were implemented on weekend days between April 6th and September 30th 2012, operating between 10pm on Friday and 10pm on Sunday. Closures were achieved through the erection of temporary bollards by the park staff.

In order to support the closure, Odd Lamp Road was opened to facilitate 2-way traffic between the Phoenix Roundabout and the North Road in order to facilitate access between the western environs of the Park and the Visitor Centre, Papal Cross, and the areas surrounding the Phoenix Roundabout.

2.2 Event History: 2012

The Phoenix Park hosted some 1,500 events during 2012, ranging from club events to large public events. It is estimated that events catered for in excess of 100,000 visitors to the Park over the year. The closure of Chesterfield Avenue facilitated a number of major events including:

- Mad Hatters Tea Party;
- Road races and Fun Runs, including the Great Ireland Run;
- Cycling events;
- Motor Racing;
- Dancing at the Crossroads; and
- Various concerts;

A review of the actual 'event' closures in 2012 identified that there was a total of 38 specific closures of section(s) of roads within the Park that took place (in addition to the regular weekend closure of Chesterfield Avenue). Whilst closures were focused on weekends and public holidays, some limited daytime and evening closures did occur on weekdays during the summer months.

Table 2.1: 2012 'Event' Road Closures (in terms of day of week and time of day)

Day	Daytime	Evening	Total
Weekday (Mon-Fri)	8%	16%	24%
Weekday (Public Holiday)	10%	-	10%
Weekend (Sat-Sun)	61%	5%	66%
Total	79%	21%	100%

Looking at the seasonal spread of the closures for events, it is evident that the majority of road closures were required during the summer months, with 76% taking place between April and September, albeit with a reduction in activity during June. This corresponds with the significant rainfall, where observed June rainfall in 2012 was almost 2.5 times the mean for June.

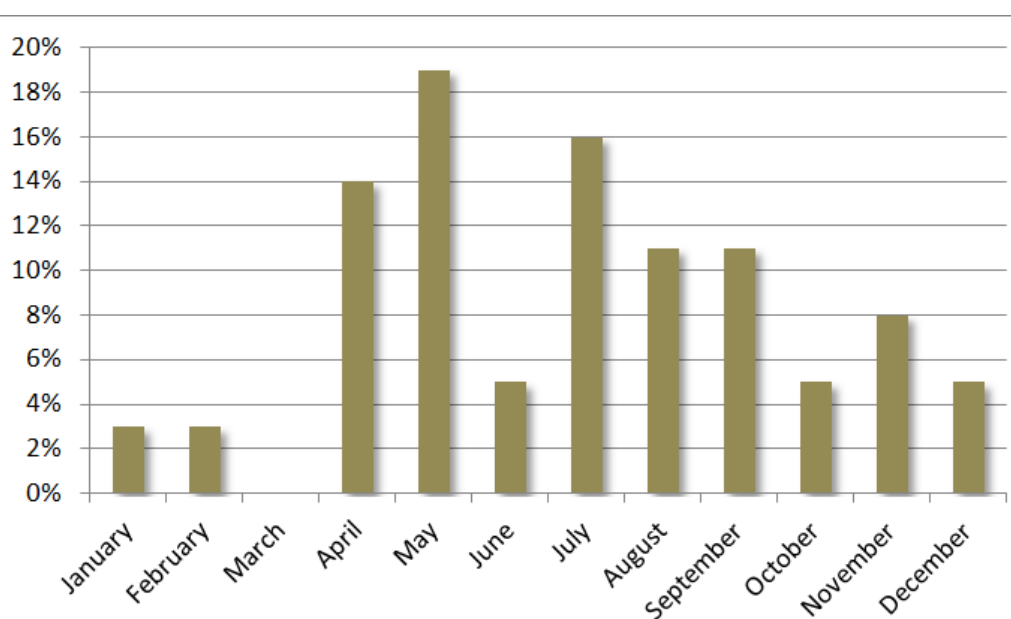
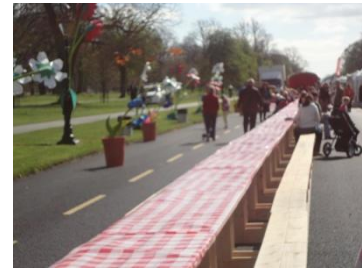


Figure 2.2: Distribution of Closures of Roads in Phoenix Park

It was noted by Park Management that the consistency of the arrangements on Chesterfield Avenue greatly simplified the process of making the necessary arrangements for closures. The planning and management of events could proceed on the basis of a greater level of certainty that closures would be in place, and thereby reducing the administrative burden on both the OPW and An Garda Síochána in the preparation and approval of closure applications.



Furthermore, the burden on the OPW to prepare and disseminate information on the details of each closure was reduced, as the seasonal closure allowed a single bulletin to be in force throughout the full duration from April to September.



In response, 2012 was a highly successful year in terms of event planning, with a number of relatively new events held. These included the Mad Hatters Tea Party, which required a long table setting along the centreline of Chesterfield Avenue, a traditional Dancing at the Crossroads event, which built on the historic setting of the Phoenix Roundabout, in addition to a large number of road races.



During those periods where events were not in place, the quiet setting of Chesterfield Avenue during the weekend period became an attraction in itself, and led to an increase in the concentration of roller-blading, walking and cycling.

2.3 *Response of Park Users*

During the month following the end of the closures in summer 2012, the OPW carried out a public opinion exercise on to gauge reaction to future proposed closures of Chesterfield Avenue. The feedback suggested a majority of those using the Park favoured the closures, citing it as positive for encouraging families to use the Park and walk in the area where cars were excluded, the removal of traffic noise and pollution from this area, and requesting that more events such as street parties be organised to make more use of the closure. A number of submissions were made suggesting its extension either for a longer period or for a greater area of the roads within the Park.



In relation to negative feedback, it was noted that many of the issues raised related to the method of implementation as opposed to the closure itself, and which have been considered as part of the recommendations set out in Section 4 of this report.



Importantly, An Garda Síochána also expressed support for the closure and noted that it made traffic management much simpler and reduced the requirement for their resources when there was an event in place within the Park.

3.0 Review of the Existing Transport Environment

3.1 Context

The role of Chesterfield Avenue in the broader road network of the Greater Dublin Area has long been acknowledged. Although routing through a public park, Chesterfield Avenue provides traffic with a direct link between Castleknock/Blanchardstown and Dublin City Centre via the Liffey Quays. The result is a relatively high traffic volume using Chesterfield Avenue, at approximately 10,000 vehicles per day on weekdays, reducing to 8,000 vehicles per day at weekends. Highest traffic volumes are on the eastern section of Chesterfield Avenue (east of the Papal Cross) where weekend traffic flows are in excess of 9,000 vehicles per day.

This volume of traffic on Chesterfield Avenue is clearly inconsistent with its setting within a Park of National and International importance.

In terms of providing access to the Park itself, Chesterfield Avenue forms the main spinal access route through the Park, and is used for on-street car parking along both sides of the Avenue, which is particularly heavily used on weekdays towards the Parkgate Street end (commuters and Court attendees), and on the sections near to the Zoo and popular leisure routes (walking and jogging) at weekends and holidays.

3.2 Baseline Traffic Conditions

A series of traffic surveys were undertaken in November 2012 to establish baseline traffic volumes through the Phoenix Park, and to understand the impact of closures. The results of a counter located on Chesterfield Avenue, to the east of the Papal Cross, is presented below in Figure 3-1. The data shows the relative similarity in volume and demand profile across the day for Saturday and Sunday, with a clear peak of morning and evening activity on weekdays.

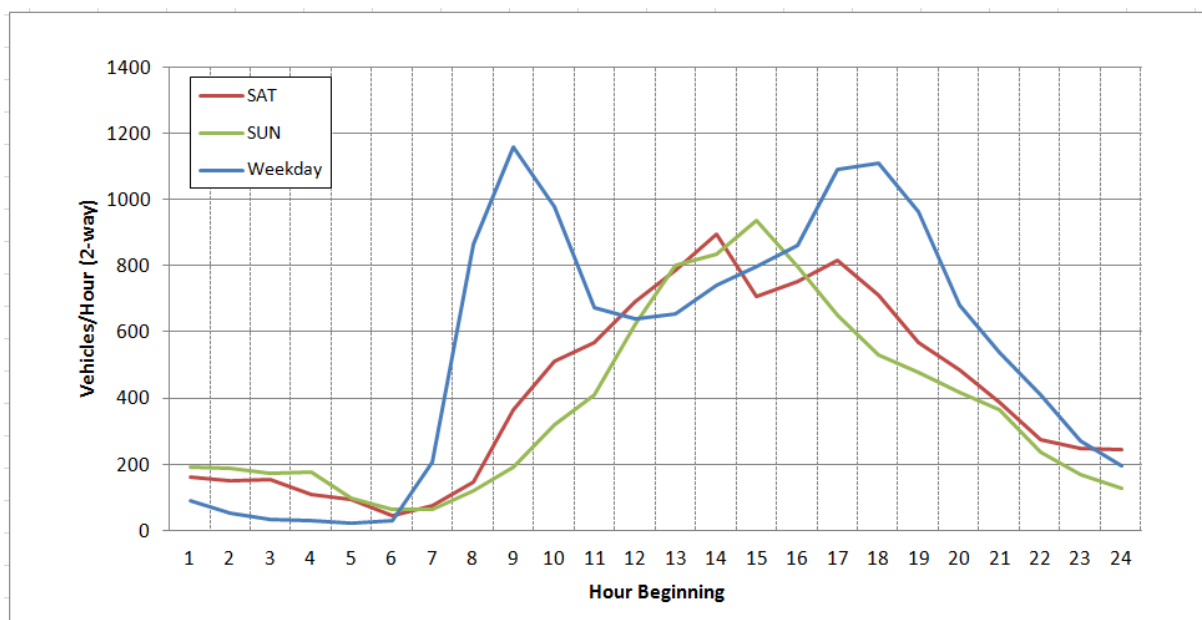


Figure 3-1: 2-Way Traffic Flows on Chesterfield Avenue, East of the Papal Cross (Nov 2012)

3.3 *Past History of Road Closures within Phoenix Park*

Chesterfield Avenue was closed to traffic for approximately 12 weeks from October to December 2011 for the reconstruction/upgrade works. The closure impacted on a significant length of Chesterfield Avenue, and diversions were in place in order to manage weekday and weekend traffic volumes using the Park.

A report on the impact of the full closure during that period highlighted substantial reductions in traffic flow through the Phoenix Park as a result of the closures, with much of this traffic reassigning to other east-west routes outside the Park. Nevertheless, the closures also had a notable impact in suppressing traffic demand, with up to 30% of displaced traffic not accounted for by measurements of traffic flow increases on other routes.

Following the completion of the construction works, the Chesterfield Avenue route re-opened and typical daily traffic volumes in 2012 returned to pre-closure levels.

4.0 Traffic Impact Assessment of Closure

4.1 General Impact of the Closure

During the period of the pilot weekend closures during the summer of 2012, it became evident that the traffic volumes through the Park were being managed relatively well by the residual road network, and whilst the closures did lead to some diversion for individual road users, they did not lead to unmanageable levels of congestion.

Examining the alternative routes within the Park, the maximum diversion for traffic travelling through the Park is approximately 800m, equating to an additional travel time of approximately 2 minutes. This is not deemed to be a significant impact in the context of journeys to and from the City Centre from the north-western fringes of the metropolitan area.

The closures included the opening of the Odd Lamp Road to facilitate 2-way traffic, allowing direct access between the North Road and the Visitor Centre/Phoenix Roundabout. It was noted that the provision for 2-way operation on the Odd Lamp Road required traffic to over-run the area of the carriageway that is defined as a cycle track, thereby reducing the level of service for cyclists.

4.2 Measuring Traffic Impact

It was considered appropriate to undertake some quantification of the impact of the closure of Chesterfield Avenue on the local road network to inform the current review exercise. As such, a further closure was implemented during the weekend of 1st and 2nd December 2012, with advance notice to road users. The closure was in place from 10pm on Friday 30th November, until 4pm on Saturday 1st December 2012.

The closure was implemented in the manner that had been established for closures throughout 2012, and involved the closure between the Phoenix Roundabout and the Mountjoy Roundabout. The primary diversion route during the period of the closure was via North Road and Odd Lamp Road to connect the two roundabouts, with a secondary southern diversion route via Ordnance Survey Road, Glen Road and Acres Road. To facilitate the diversion, the Odd Lamp Road was opened to all traffic during the period of the closure.

Traffic information was collected on key roads through the Park to understand the impact of the closures on overall traffic volumes using the Park, and the level of traffic displacement onto local roads. The impact of the closure on traffic flows through the Park as measured by the traffic surveys is outlined in Table 4-1.

Table 4-1: Traffic Impact of Chesterfield Avenue Closure (Saturday Midnight – 4pm)

Site	No Closure	With Closure	Impact
1. Chesterfield Avenue (west of North Road)	4,885	4,961	+76
2. Ordnance Survey Road	2,585	3,414	+829
3. North Road	1,510	6,348	+4838
4. Odd Lamp Road	23	4,364	+4341
5. Chesterfield Avenue (east of Papal Cross)	6,210	5,634	-576

The analysis shows that the impact of the closure leads to a direct rerouting of traffic between Chesterfield Avenue and the North Road, with traffic volumes on Chesterfield Avenue (east) reducing by less than 10%. It is concluded that the closure therefore had an insignificant impact on traffic displacing onto external roads, and that the impact of the closure is therefore predominantly local.

Although it is not yet understood the extent to which traffic entering/exiting the Park has a destination within the Park during these periods, this behavioural response would suggest that traffic using the Park is reluctant to divert – possibly due to a high volume of such traffic having a destination in, or close to, the Park.

4.3 *Conclusion*

The closures of Chesterfield Avenue that have been implemented throughout 2012 have led to a significant volume of data and feedback regarding their impact. The most notable conclusion perhaps is the relatively limited impact that the weekend closures have had – in fact the very fact that closures have continued throughout the year (with 38 closures reported) suggests that traffic impacts have been wholly manageable, even though such impacts have been quite localised as discussed earlier. As such, there is no traffic-related rationale for abandoning the current proposal for weekend closures on Chesterfield Avenue.

5.0 The Case for Weekend Closures

5.1 Introduction

On the basis of the discussion presented thus far, this section of the report examines the various issues associated with weekend closures on Chesterfield Avenue, with a view to defining the optimal solution for implementation of future closures.

5.2 Opening and Closing Times

The opening and closing of Chesterfield Avenue (10pm on Friday evening and 10pm on Sunday Evening) is subject to strict Health and Safety procedures implemented by park staff. The selection of times for the opening and closing are selected to minimise the risk of vehicles becoming trapped on the closed section of Chesterfield Avenue. Nevertheless, the works at 10pm take place during the hours of darkness during most of the year, except perhaps for June and July.

The implementation of the closures during the morning period would conflict with existing duties required for the opening of a number of Park gates, and hence would be required to take place prior to 6am, which would also require working in the hours of darkness. It is considered that 9pm might be a more appropriate time to implement and lift restrictions.

5.3 Seasonal Impact

The analysis presented here has demonstrated that the traffic impact of the closures can be easily accommodated by other roads within the Park. Nevertheless, it can be argued that the benefit of the closure of Chesterfield Avenue will only accrue where there is active and passive recreation of the closed section during the period of the closure.

The impact of weather on use of the Park has been shown earlier in this report, with lower levels of activity and organised events during periods of poor weather. This leads to a lower number of significant events taking place during the winter months.

Site visits during the summer demonstrated good levels of recreation on the closed section of Chesterfield Avenue, including walking, cycling, roller blading and other passive activities. In fact, the closed road became an attraction in itself, leading to clusters of parking activity at each end of the closure. Nevertheless, during the winter closure on 30th November and 1st December 2012, the level of active and passive recreation was notably reduced as a result of the cold weather.

In addition, many of the comments from the public engagement referred to the poor lighting on alternative routes through the Park, and resulting safety concerns. These issues are most relevant during the winter months.

It is therefore sensible that the closures are focused on the summer period, but that the period of the closure is formalised, running from 1st May until 30th September each year. This information could be provided year-round via the various communication channels, and could support the holding of significant events during that period. The period of the closure can be monitored based on the demand for events and the general level of use of the park (and in particular Chesterfield Avenue) during the beginning and end of the summer season.

5.4 *Usage of Space*

The public usage of the section of the park will grow over the coming years as it becomes established as a fixed closure in the summer months and to this end the OPW should seek facilitate appropriate events on the section of road such as farmers markets, community events etc

5.5 *Access and Parking*

At present, Chesterfield Avenue is used for car parking along much of its length, with the key concentrations of parking adjacent to the Castleknock Gate, the Gough Roundabout end of Chesterfield Avenue, and close to Dublin Zoo. It was noted during the closures, and indeed raised in the public submissions, that access to parking became a concern. Although parking locations are set out on the Phoenix Park website, access and navigation through the Park became a challenge. It is considered that such can be easily rectified through the provision of seasonal-specific information on parking via the website, via information leaflets, and supported by limited signage at key entrances.

5.6 *Cycling*

The impact of the 2-way operation of Odd Lamp Road on cycling has been noted. It will be important to identify an alternative alignment for the Odd Lamp Road cycle track as part of the implementation of the scheme. It would appear sensible to identify a new stretch of cycle track adjacent to the road that would be constructed to a similar design standard to the existing tracks on Chesterfield Avenue.

5.7 *Management and Information*

The benefit of a formalised arrangement regarding the closure of Chesterfield Avenue will be the ability to provide a consistent and clear message on seasonal arrangements via the various methods of communication. This will reduce the burden on Park staff to provide constant information feeds for each closure. On the basis of a seasonal closure, it is considered that a compact information bulletin can be prepared for dissemination by web, media and via information leaflets setting out the details of the closure and associated parking and access arrangements. This would remain in force pending any future change in the seasonal closure arrangements.

This means that the amount of ongoing work undertaken by Park Rangers is limited to actually opening and closing the 'barriers' at each end of the closure section for the days and times that the closure is operation. Advanced static signs could display that Chesterfield Avenue is closed during weekends during the period of the Closure (May to September).

5.8 *Conclusion*

It is therefore concluded that the weekend closures of Chesterfield Avenue should be reintroduced during 2013, but with the following modifications:

- The closure would operate annually between 9pm Friday and 9pm Sunday between May 1st and September 30th each year;
- Provision of a new cycle track alignment on Odd Lamp Road to facilitate 2-way running by cars on that road;

- Provision of a concise information pack outlining seasonal arrangements for traffic circulation and access to car parks, and dissemination of this information via the website, media outlets and information leaflets; and
- Continuous monitoring of the use of the Park by visitors during the summer months.

