Puffin and Pelican Crossings

- Views of Pedestrian Users -

Report of Research Findings

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outlook

This report has been prepared for Transport for London. The views expressed are those of the author(s) and not necessarily those of Transport for London.

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A. Executive Summary

Background

The main research objective was to compare the views of users of Pelican and Puffin pedestrian crossings in terms of perceived ease of use and perceptions of safety.

Face-to-face interviews were conducted July-Aug 2005 with pedestrian users of each type of pedestrian crossing: 232 users of Pelicans (10 locations round London); 309 users of Puffins (14 locations round London).

As far as was possible, research locations were selected so that the overall sample of Pelicans would be comparable with that of Puffins in terms of vehicle and pedestrian flow, vehicular non-compliance, and road width. 'Counts' of vehicle and pedestrian behaviour were also conducted at each selected location to check whether flows at both site groups were comparable.

Main Findings

- Overall, there is little to distinguish Puffin crossings from Pelican crossings in terms of pedestrian perceptions of ease of use. The vast majority of users of each type of crossing find them easy to use (94% at Puffins and 96% at Pelicans).
- There is little evidence at either type of crossing of confusion about when to start crossing (even though around one in five is unaware of the correct meaning of the flashing green man).
- Only a very small minority of users (1% at Pelicans; 4% at Puffins) reported having any difficulties at all using the crossing on the day of the interview – though, at each, around one in eight had had problems in the past.
- The specific types of difficulties encountered are similar for each type of crossing, largely relating to vehicle non-compliance. Puffin crossings had caused more problems by being out of order.
- The vast majority of users at both types of crossing agree that it is 'very easy' to see the pedestrian signals generally. Puffin crossing users less often 'strongly' agree that this is the case (though ease of seeing the signals appears to grow with familiarity: those who use Puffin crossings less often are least in agreement).

- This difference may in part be explained by the fact that Puffin crossings are rated noticeably more poorly than Pelicans in terms of the **pedestrian signals being obstructed by other users**. Three in ten Puffin users say this sometimes occurs – compared with only 7% of Pelican users.
- However, Puffins have a clear edge over Pelicans in terms of **giving pedestrians enough time to cross. 88% of Puffin crossing users agree that they have enough time; 8% disagree. This compares with 69% agreeing at Pelicans, and 19% disagreeing**.
- Pelican crossing users are also more likely to agree that cars sometimes **start moving off before everybody has got across the road** (62% vs. 53% at Puffin crossings). Indeed, in the observational 'counts' conducted, this type of 'harrassing' vehicle non-compliance was actually observed more often at Pelicans.
- These findings may explain the fact that pedestrians tend to feel slightly safer overall at Puffin crossings: 91% of Puffin users 'feel safe using this crossing to get across the road' compared with 81% of Pelican users. On balance, there is also a clear preference for Puffin crossings over what they replaced (whether this was a Pelican, Zebra, or no facility at all) although there often seems to be confusion about what the previous facility was.
- There is no suggestion that either type of crossing is more likely to encourage pedestrian non-compliance, as reported by pedestrians themselves. Levels of observed non-compliance are also similar at both types of crossing.
- In the site observations, overall levels of vehicular non-compliance were similar on average at both types of crossing. There was some suggestion, however, that non-compliance at Puffins was less likely to be of the type which endangers pedestrians (ie when pedestrians were crossing or trying to cross).
- One in ten Puffin crossing users claims to recall some kind of Puffin-related publicity 'in the last couple of years'.
- Newer Puffin crossings attract similar ratings to more established ones on most key criteria (including overall ease of use, waiting times, perceived vehicle non-compliance, and preferences vs. previous crossing facilities). However, there is some evidence that views on Puffins change over time. Recall of the position of the pedestrian signals is higher at newer sites (suggesting that this may make more of an impression when the facility is first installed). Pedestrian obstruction of the signals is less often seen as a problem at more established sites. Finally, the fact that Puffin

crossings allow more time for pedestrians to cross is more keenly appreciated at more established sites.

In summary, for the majority of users, neither type of crossing presents any particular difficulties of use. Yet Puffin crossings have two key advantages over Pelicans: the sense of there being more time to cross the road before the lights change; and the smaller perceived threat of harassment from cars when pedestrians are still crossing. Overall, Puffins are therefore slightly more likely to engender a sense of safety among pedestrians.

As many as three in ten Puffin users report obstruction of the pedestrian signal by other pedestrians. Puffin crossings might therefore benefit from a general review in terms of the provision of additional pedestrian signals to solve the problem of obstruction by other pedestrians. No other obvious areas for improvement are evident from this research.

1 Research Context and Objectives

Puffin pedestrian crossings have become more common in London over the last few years and it is the DfT's intention that Puffin pedestrian facilities will become the standard form of provision of signalled pedestrian crossings. Pelicans are used in London to replace Zebra crossings in some locations, and also being installed where no previous facility existed.

Puffin crossings differ from Pelican crossings in four key respects:

- Puffins employ nearside pedestrian signals (thus in theory aiding people with visual impairments, and encouraging pedestrians to watch approaching traffic rather than stare across the road)
- Puffin kerbside detectors (if installed) automatically cancel the green pedestrian phase in cases where the button has been pressed but no pedestrians are no longer actually waiting to cross (thus aiding traffic flow and potentially alleviating driver frustration)
- Puffin kerbside detectors also allow the length of the pedestrian phase to be varied according to the speed of pedestrians crossing the road
- There is no flashing pedestrian phase at Puffin crossings (thus potentially reducing harassment experienced by pedestrians during this phase).

In theory, therefore, the introduction of a Puffin crossing benefits pedestrians in terms of perceived and actual safety; and it benefits vehicles by minimising delays.

Only limited research has been conducted to date to evaluate the success of Puffin crossings in these respects. A recent study commissioned by the London Road Safety Unit, TfL[1] looked in detail at observable pedestrian and vehicle behaviour at 5 Puffin crossings compared with 5 Pelican crossings in London. The research report recognised the difficulty of finding exactly 'matched' Pelican and Puffin sites, and recommended that a pedestrian attitude survey would enhance understanding of the 'Pelican vs. Puffin' debate.

TfL therefore commissioned attitudinal research among pedestrians. The specific objectives of this research were to compare Pelican vs. Puffin crossings in terms of:

[1] 'Puffin Crossing Operation & Behavioural Study', TRL Ltd, February 2005

- awareness and understanding of each type of crossing
- ratings for ease of use
- perceived safety
- preferences vs other types of crossings
- willingness to misuse crossing
- nature of difficulties encountered
- perceived attitude of drivers

Further details of the methodology used and sample achieved are given overleaf.

2 Methodology and Sample

2.1 General

A total of 541 face-to-face interviews were conducted with users of a sample of Pelican and Puffin crossings across London.

In selecting suitable sampling points, we started from the assumption that views on the safety and ease of use of a particular road crossing would depend to a large extent on the **location** of that crossing. It would be no surprise, for example, to discover that pedestrians felt less safe using a Pelican crossing on a 50mph dual carriageway near the brow of a hill than they did using a Puffin crossing on a quiet suburban street. In such a case, the difference in opinion would reflect the difference in location more than it would the difference in type of crossing.

It was therefore vital for us to ensure that the spread of research locations selected were as similar as possible for both types of crossing. Suitable research locations were selected using a mixture of desk research and visits to the locations themselves. A detailed description of the sites finally chosen is given in the 'Site Description' section (see Appendices).

At **Pelican** crossings, 232 interviews were conducted at 10 locations:

- half of these were in Inner London (Lambeth, Camden, Islington, and 2 x Hammersmith & Fulham)
- half were in Outer London (Harrow, Hillingdon, Haringey, and 2 x Barking).

At **Puffin** crossings, 309 interviews were conducted at 14 locations:

- half of these were in Inner London (Camden, Kensington & Chelsea, Lambeth, 2 x Islington, and 2 x Hammersmith & Fulham)
- half were in Outer London (Hillingdon, Harrow, Haringey, Redbridge, Waltham Forest, and 2 x Barking).

Of the 14 Puffin crossings:

- 7 had replaced Pelican crossings at the same location
- 4 had replaced Zebra crossings
- 3 previously had no formal crossing facility at all.

All Puffin locations were selected on the basis that there was also a Pelican crossing nearby, and vice versa (to allow respondents to compare the two). The 'comparator' crossings were not, however, necessarily ones where interviewing was also taking place.

Puffin crossings which were installed less than 12 months before the study are referred to in this report as '**New Puffins**' (as opposed to '**Old Puffins**'). 127 interviews took place at 6 'New Puffin' crossings, and 182 at 8 'Old Puffin' crossings.

Interviews took place Monday-Saturday, at a spread of times between 8:30am and 6pm on weekdays, and between 10am and 4pm on Saturdays. All fieldwork took place between 27th July and 17th August 2005. It should be noted that these dates fell during the summer school holidays in all locations.

Where practical, interviewers were instructed to approach one in every 5 people using the crossing and invite them to take part in the interview. At crossings which were too quiet for this approach to be sensible, however, they were asked to approach everybody using the crossing.

2.2 Profile of Achieved Sample

The sample achieved at each type of crossing was as follows:

Table 1 : Profile of Achieved Pedestrian Samples			
		Pelicans % (n.)	**Puffins % (n.)**
Gender	**Male**	46 (106)	46 (141)
	Female	54 (126)	54 (168)
Age	**14-17**	5 (12)	7 (21)
	18-40	53 (124)	49 (152)
	41-60	24 (56)	28 (85)
	61+	17 (40)	17 (51)
SEG	**ABC1**	47 (108)	50 (156)
	C2DE	53 (124)	49 (150)
	Refused	0 (0)	1 (3)
Ethnicity	**White**	70 (162)	73 (225)
	Other	30 (70)	27 (84)
Disabilities	**Any**	7 (17)	11 (34)
Encumberment	**Any**	24 (55)	23 (71)
Typically use the crossing	**5+ days per week**	56 (129)	51 (158)
(Base)		(232)	(309)

The profiles of Pelican and Puffin respondents are thus very similar, allowing for meaningful comparisons to be made between the two samples.

2.3 Observational Shifts

At the same 24 crossings, observational 'counting' shifts were also conducted. These acted as a safety check that the overall samples of each type of crossing were not fundamentally different – which would invalidate comparisons between Pelicans and Puffins overall[2].

[2] It should be stressed that the observations were devised as an overall safety check on the sample frame - and were not in themselves a primary part of the research. Caution is urged in comparing observational data from specific crossings, since observations at each individual crossing were only made on one day at a particular time, and not on the day of the face-to-face interviewing. (Results are analysed by individual site in the computer tables – available separately.)

At each crossing, the following was recorded (in each case, for a period of two hours between 10:30 am and 4:30 pm on a weekday):

- total no. of vehicles of any type (30 mins in each direction)
- total no. and type of vehicular non-compliances (30 mins in each direction)
- ways in which pedestrians crossed road on or near crossing (30 mins in each direction)
- no. of traffic lanes (including bus and cycle lanes)
- speed limit in operation at the time of the shift
- no. of sides of the crossings which had pedestrian guard rails

2.4 Fieldwork Materials

Copies of fieldwork materials used are included in the appendices. These should be referred to for full question wordings.

A small number of 'pilot' interviewing and observational shifts were conducted before the main fieldwork, to allow for fieldwork materials to be fine-tuned and 'strike rates' to be tested (ie number of interviews achievable per shift).

2.5 General Note on Data

Data are edited but unweighted.

In the tables in this report, '*' indicates a result of less than half a per cent but greater than zero.

Full computer tables are available separately.

2.6 Note on Statistical Significance

The approximate 'confidence intervals' for properly drawn random samples of various sizes are shown below. These hold true at the 95% confidence level – for example if we found that 50% of 300 respondents held a particular opinion, we could be 95% certain that the percentage of our actual audience holding this view would be between 44% and 56% (ie $\pm$ 6 percentage points).

Table 2 : 95% Confidence Intervals			
Sample Size	**Approximate Result Being Checked**		
	10% or 90%	**30% or 70%**	**50%**
300	±3	±5	±6
200	±4	±6	±7
100	±6	±9	±10
	(± percentage points)		

In comparing results based on two different samples, we need to see a difference at least as large as the ones below to be sure that the difference is significant (again, at the '95% confidence level'). For example, if 20% of our sample of men held an opinion, compared with 35% of women, and there were 100 men and 100 women, then this difference of 15 percentage points would be a statistically significant one (we would be looking for a difference of at least 13 points for this to be the case).

Table 3 : Comparing Results From Two Samples			
Sample Sizes	**Approximate Result being checked**		
	10% or 90%	**30% or 70%**	**50%**
300 vs. 300	±5	±8	±9
309 vs. 232	±6	±8	±9
250 vs. 100	±7	±11	±12
100 vs. 100	±8	±13	±14
	(Minimum percentage difference needed between two groups of various sizes to be confident of statistical significance at 95% level)		

In some places in this report, we have reported on findings where the base size is too small for us to be confident in the accuracy of the result, but where the finding is of interest anyway. In such cases, suitable caveats are made (to the effect that the finding should be seen as indicative only).

Otherwise, all differences which are mentioned in the text have been tested for statistical significance.

3 Main Findings

3.1 Awareness and Understanding of Crossings

3.1.1 Awareness of Position of Pedestrian Signals

Six in ten pedestrians who have just used a Puffin crossing recall or are aware that they employ nearside pedestrian signals (table 4). This is very similar to the proportion of Pelican users who are aware that pedestrian signals are located on the far side. In both cases, over a third of users are therefore using the crossing without the position of the signals making a lasting impression on them.

Table 4 : Awareness of Position of Pedestrian Signals

	Pelicans %	**Puffins %**
The lights showing the green and red man are on the same side as you when you are waiting to cross	22	**58**
The lights showing the green and red man are on the other side of the road when you are waiting to cross	**65**	27
Don't know	13	16
Q3		
Base all	(232)	(309)

If Puffin pedestrian signals were widely seen as a dramatic improvement on (or as significantly worse than) Pelican signals, we might expect them to have made more of an impression – particularly given their relative novelty and rarity.

Frequency of use seems to be unrelated to this awareness: those using each type of crossing 3+ times a week are just as likely as others to recall the actual location of green/red men.

Those with longer experience of using Puffins are marginally **less** likely than others to recall correctly the location of the green and red men (table 5). There is no evidence that the same is true for Pelicans (the difference between more recent and longer-term users not being statistically significant at Pelicans). Likewise, awareness is very marginally higher at New Puffins than at Old Puffins. This may imply that the positioning of the green and red men at Puffins makes an

impression on people who are new to the crossing, but that over time users stop being so consciously aware of this.

Table 5 : Awareness of Position of Pedestrian Signals By Experience of Using Crossing		
	Aware of correct position %	(Base)
Pelicans		
Used for 12 months or more:	63	(174)
Started using more recently:	71	(58)
Puffins		
Used for 12 months or more:	53	(187)
Started using more recently:	66	(122)
Old Puffins:	53	(187)
New Puffins:	66	(127)

Q3

3.1.2 General Awareness of Meaning of Flashing Green Man

In order to understand whether the flashing green man was in itself confusing for crossing users, three alternative descriptions of its 'meaning' were read out to respondents. They then had to say which description they thought was correct. The three descriptions are shown in table 6 below.

The majority of crossing users have a correct understanding of the flashing green man: two-thirds are aware that they should not start crossing a road if a flashing green man is showing. The remainder are under the impression either that the flashing green man functions as a 'warning' to slower walkers, or that it is simply an extension of the green man phase.

Table 6 : Awareness of Meaning of Flashing Green Man		
Q: Let's imagine you arrive at a pedestrian crossing somewhere and see a flashing green man. Which of these statements would you say is correct according to the Highway Code?		
	Pelicans %	**Puffins %**
You shouldn't start to cross the road	65	71
It's okay to start crossing the road – but slower walkers might prefer to wait until the next green man	22	17
It's okay to start crossing the road – at any time up to when the red man is showing	11	12
Don't know	2	*
Q3 Base all	(232)	(309)

3.1.3 Confusion about When to Start Crossing at This Location

Levels of confusion about when to start crossing are similar - and low - at both types of crossing. The vast majority at each (eight in ten) deny being sometimes confused about when to start crossing the road (table 7). The proportion 'strongly' disagreeing that they are confused, however, is a little larger at Pelicans

Table 7 : Levels of Confusion about Whether to Start Crossing		
"Sometimes I am confused about whether or not I should start crossing the road at this crossing"		
	Pelicans %	**Puffins %**
Strongly agree	6	3
Tend to agree	6	14
Neither agree nor disagree	5	3
Tend to disagree	20	29
Strongly disagree	62	50
Don't know	0	1
Total agree	**13**	**17**
Total disagree	**82**	**80**
Q7d Base: all	(232)	(309)

The fact that there is more 'strong' disagreement at Pelicans may simply reflect the fact that Pelicans are a more traditional type of crossing, and people are more familiar with them. In any case, there is no evidence here that Puffins are either confusing the public by being new/different, or serving to prevent confusion.

Reported levels of confusion at New Puffin vs. Old Puffin crossings are very similar overall – even if users of New Puffins are marginally less likely to 'strongly disagree' that they are confused (table 8). If confusion was higher at New Puffins, it might have been possible to infer that Puffins take some getting used to in this respect.

Table 8 : Levels of Confusion about Whether to Start Crossing - Old vs. New Puffin Crossings		
"Sometimes I am confused about whether or not I should start crossing the road at this crossing"		
	Old Puffins %	**New Puffins %**
Strongly agree	3	2
Tend to agree	15	13
Neither agree nor disagree	2	4
Tend to disagree	23	39
Strongly disagree	56	43
Don't know	2	0
Total agree	**18**	**15**
Total disagree	**79**	**81**
Q7d Base: all Puffins	(182)	(127)

3.1.4 Recall of Publicity about Puffin Crossings

One in ten Puffin users claims to recall some kind of Puffin-related publicity 'in the last couple of years':

Table 9 : Recall of Publicity about Puffin Crossings	
Q : This kind of crossing is called a 'Puffin' crossing. Do you recall ever seeing or hearing any leaflets or other publicity in the last couple of years about how to use Puffins?	
	%
Yes	9
No	87
Not sure/don't know	4
Q16 Base: all Puffin users (309)	

There is no significant difference between newer and older crossings in this respect (9% recalling at New Puffin crossings vs. 8% at Old).

3.2 Ease of Use

3.2.1 Overall Ease of Use

Before considering more detailed questions about the crossing they had just used, respondents were asked simply to say how easy or difficult overall they found it to "use this crossing to cross the road today".

Only a tiny minority of pedestrians at either Pelican or Puffin crossings found them difficult to use on the day of the interview (table 10), Although Pelican crossings are marginally more often seen as 'very' easy to use, it would be difficult to conclude that either type of crossing presents substantial difficulties of use.

Table 10 : Overall Ease of Use of Crossing

	Pelicans %	**Puffins %**
Very easy	92	84
Fairly easy	4	10
Neither easy nor difficult	3	2
Fairly difficult	1	4
Very difficult	0	*
Total easy	**96**	**94**
Total difficult	**1**	**4**
Q1		
Base all	(232)	(309)

In fact, more established Puffins attract similar scores to newer ones (82% 'very easy' at Old Puffins vs. 87% at New Puffins). We cannot therefore conclude that Puffins are more difficult for the public to use when they are relatively new.

At both Pelicans and Puffins, perceived ease of use is very similar by gender, across different age groups, whether or not pedestrians were encumbered in some way, and comparing more vs. less frequent users of the crossing.

At Pelicans, 8 of the 9 respondents with mobility difficulties found the crossing easy to use; at Puffins, 13 out of 13 found it easy.

All respondents who answered anything other than 'very easy' were asked what specifically was not easy. No one answer was given by a large proportion; most individual reasons relate either to signal timing issues or driver behaviour (table 11).

Table 11 : Reasons for Difficulties		
(UNPROMPTED) ALL RESPONSES GIVEN BY MORE THAN ONE RESPONDENT AT EITHER TYPE OF CROSSING ARE SHOWN BELOW	**Pelicans (n.)**	**Puffins (n.)**
Summary of most common answer types		
Had to wait too long	2	8
Not enough time to get across	6	8
Vehicle non-compliance/speeding/heavy traffic	5	11
Detailed answers		
Slow between changes/takes a long time for lights to change	2	8
Need more time to cross road/lights change too quickly	3	5
Sometimes car drivers don't wait/impatient	3	3
Speed of cars	2	3
Heavy traffic/congestion	1	3
Busy all the time/gets overcrowded	1	3
Couldn't see green at first/difficult to see green man	0	3
Some drivers ignore lights	0	3
Traffic doesn't stop properly	0	3
Prefer other types of crossing	0	3
Button not working on left side	0	3
Signage not clear enough	0	2
Visibility issues (hill/blind spot)	3	1
(Don't know)	1	5
Q2 Base all not finding it 'very easy'	(19)	(48)

3.2.2 Experience of Problems in the Past

At both Pelicans and Puffins, one in eight users recalls having problems in the past when using the crossing (table 12).

Table 12 : Whether Problems Experienced in Past		
Q : Apart from today, have you ever experienced any problems when using this crossing?		
	Pelicans %	**Puffins %**
Yes	13	13
No	85	87
Don't know	2	0
Q2a Base all	(232)	(309)

At both Pelicans and Puffins, women are a little more likely than men to have experienced problems.

The likelihood that pedestrians have experienced problems in the past is very similar for different age groups at both types of crossing.

Users of older Puffins are a little more likely to say they have experienced problems in the past: 17% at Old Puffins vs. 6% at New Puffins. (This is to be expected, since by definition pedestrians have had more time to experience problems at more established crossings.)

Those who use the crossing more often (3+ days a week) are more likely to have experienced problems (15% vs. 8% of less frequent users).

The most common type of problem experienced at both Pelican and Puffin crossings is that vehicles of various types have not stopped. At Puffin crossings, issues relating to the crossing being out of order or not functioning properly are mentioned almost as often. All 11 respondents giving this type of answer were at Old Puffin locations (they had also all been using the crossing for 12 months+, and mostly used it at least three times a week). The issue of lights changing too quickly only receives significant mention at Pelicans.

A full list of answer types is shown in table 13 below. NB: base sizes are too small for us to look meaningfully at subgroups (eg different age groups) in terms of particular problems experienced.

Table 13 : Nature of Problems Experienced		
(UNPROMPTED) ALL RESPONSE TYPES SHOWN BELOW	**Pelicans (n.)**	**Puffins (n.)**
Vehicles not stopping	14	14
Not working properly	**4**	**11**
Traffic too fast/speeding	4	4
Not clear when to cross/no flashing light to tell you when to cross	1	3
Traffic using bus lanes	0	2
Cars start to move before end of green man	1	2
Have nearly been knocked down/have seen accidents	2	2
Worried that cars wouldn't stop	0	1
Drivers using a mobile and not concentrating	0	1
Need more time to cross road/lights change too quickly	**5**	**1**
Too slow/lights don't work quickly enough	4	1
Confusing not having man high up	0	1
Traffic congestion/traffic blocks the way	2	1
Cars illegally parked	0	1
Need buttons on left-hand side as well	1	1
Poor visibility (hills/bends)	1	1
When driving – lights on red for too long	0	1
Needs cameras on it	4	0
Pedestrians blocking crossing	1	0
(Don't know)	2	2
Q2b Base all who have experienced problems	(30)	(39)

3.2.3 Visibility of Pedestrian Signals

Respondents were asked to agree or disagree with two statements relating to visibility of the pedestrian signals. The first asked generally about how easy it was to see them; the second looked specifically at the issue of other pedestrians obstructing the view.

At both types of crossing, the vast majority agree that it is very easy to see the signals (table 14).

Table 14 : General Visibility of Green and Red Man "It is very easy to see the green and red men at this crossing"		
	Pelicans %	**Puffins %**
Strongly agree	68	46
Tend to agree	20	36
Neither agree nor disagree	5	2
Tend to disagree	4	7
Strongly disagree	3	8
Don't know	*	*
Total agree	**88**	**82**
Total disagree	**7**	**16**
Q7a Base all	(232)	(309)

Pelican crossing users more often 'strongly' agree with the statement above. In other words, while visibility of the red and green men is not a significant problem overall, there is still some scope for improvement at Puffin crossings in this respect.

At Pelicans, there is very little difference between those who use the crossing more often (3+ times/week) and less frequent users, in terms of ease of seeing the green and red men. At Puffins, however, more frequent users are marginally more likely to think the men are easy to see:

- 50% of more frequent Puffin users 'strongly agree' with the statement above
- 36% of less frequent users 'strongly agree'.

There is no significant difference in levels of agreement between New and Old Puffins in this respect.

Looking specifically at the issue of obstruction by other pedestrians, a clearer picture emerges: this is a significant problem at Puffins, but not at Pelicans.

Table 15 : Other Pedestrians Obstructing Red and Green Men		
"Sometimes I can't see the red and green men because there are people in the way"		
	Pelicans %	**Puffins %**
Strongly agree	1	8
Tend to agree	6	22
Neither agree nor disagree	3	7
Tend to disagree	23	24
Strongly disagree	66	38
Don't know	*	2
Total agree	**7**	**29**
Total disagree	**89**	**62**
Q7b Base all	(232)	(309)

At Puffins, those using the crossing less often are more likely to find the crossing problematic in this respect. Agreement on this score is also slightly higher at New Puffins (37%) than at Old Puffins (24%). It may therefore be the case that familiarity overcomes this problem – but it is difficult to be conclusive about this, since opinion does not in fact seem to differ by frequency of use:

- among more frequent users (3+ days/week): 8% agree and 91% disagree
- among less frequent users: 5% agree and 86% disagree.

All 9 mobility impaired respondents disagreed with the statement above at Pelicans. At Puffins, however, experiences were more mixed, with 7 agreeing and 6 disagreeing.

3.2.4 Views on Length of Wait

At both Pelicans and Puffins, three in ten agree that they have to wait too long for the green man to appear:

Table 16 : Perceived Length of Wait for Green Man		
"You have to wait too long for the green man to appear"		
	Pelicans %	**Puffins %**
Strongly agree	12	10
Tend to agree	19	21
Neither agree nor disagree	7	8
Tend to disagree	21	25
Strongly disagree	40	34
Don't know	2	2
Total agree	**31**	**31**
Total disagree	**60**	**58**
Q7c Base all	(232)	(309)

Views on waiting times are similar at New and Old Puffins.

3.2.5 Views on Time Allowed for Crossing

Puffin users are noticeably happier than Pelican users with the time allowed for them to get across the road. One in five Pelican users thinks not enough time is allowed:

Table 17 : Perceptions of Time Allowed for Crossing		
"If I start crossing when the green man is showing, I have enough time to get across the road before the traffic starts"		
	Pelicans %	**Puffins %**
Strongly agree	34	41
Tend to agree	34	47
Neither agree nor disagree	12	2
Tend to disagree	9	4
Strongly disagree	9	5
Don't know	*	2
Total agree	**69**	**88**
Total disagree	**19**	**8**
Q7e Base all	(232)	(309)

Furthermore, at Pelicans, there is some suggestion that older pedestrians have more difficulties (because of the small base sizes, we cannot be sure that the difference is statistically significant – but is nevertheless perhaps instructive that the proportion holding this view is similar across all age groups at Puffins):

Table 18 : Enough Time to Get Across Road - by Age			
	Age		
	14-40 %	**41-60 %**	**61+ %**
Pelicans agree	71	68	**60**
Pelicans disagree	16	16	**33**
Puffins agree	88	85	90
Puffins disagree	8	11	6
Q7e			
Base all Pelicans	(136)	(56)	(40)
Base all Puffins	(173)	(85)	(51)

At more established Puffins, agreement is particularly strong in this respect:

Table 19 : Perceptions of Time Allowed for Getting Across Road – Old vs. New Puffins		
"If I start crossing when the green man is showing, I have enough time to get across the road before the traffic starts"		
	Old Puffins %	**New Puffins %**
Strongly agree	**52**	25
Tend to agree	31	69
Neither agree nor disagree	3	2
Tend to disagree	5	2
Strongly disagree	6	2
Don't know	3	0
Total agree	**83**	**94**
Total disagree	**12**	**4**
Q7e		
Base: all Puffin users	(182)	(127)

Among the 9 mobility-impaired Pelican users, opinion was evenly split over whether there was enough time to get across (4 agreeing with the statement above, and 4 disagreeing). At Puffins, however, a stronger vote of confidence emerged, with 9 agreeing vs. 4 disagreeing. (These findings should of course be seen as indicative only, given the very small base sizes.)

3.2.6 Perceptions of Cars Moving Off Too Soon

Pelican users are a little more likely to think that cars 'sometimes' start moving off before everybody has got across the road (table 20). At both types of crossing, however, more than half of users see this as a problem:

Table 20 : Perceptions of Cars Moving Off Too Soon

"Sometimes the cars start moving off here before everybody has got across the road"

	Pelicans %	**Puffins %**
Strongly agree	28	18
Tend to agree	34	35
Neither agree nor disagree	9	7
Tend to disagree	15	23
Strongly disagree	11	13
Don't know	3	4
Total agree	**62**	**53**
Total disagree	**26**	**36**
Q7f		
Base all	(232)	(309)

Levels of agreement with this statement are similar across different age groups, and between newer and older Puffin crossings.

3.3 Perceptions of Safety

3.3.1 Overall Perceptions of Safety

Puffin users tend to feel slightly safer than Pelican users overall while using the crossing:

Table 21 : Overall Perception of Safety		
"I feel safe using this crossing to get across the road"		
	Pelicans %	**Puffins %**
Strongly agree	36	40
Tend to agree	45	50
Neither agree nor disagree	8	5
Tend to disagree	6	2
Strongly disagree	5	1
Don't know	0	1
Total agree	**81**	**91**
Total disagree	**11**	**3**
Q7g		
Base all	(232)	(309)

There is some suggestion that older users at Pelicans feel less safe than younger ones – though the small base sizes for individual groups make this an indicative rather than statistically significant finding. At Puffins, on the other hand, feelings of safety are similar across all age groups.

Table 22 : Overall Perception of Safety - by Age			
"I feel safe using this crossing to get across the road"			
	Age		
	14-40 %	**41-60 %**	**61+ %**
Pelicans agree	84	79	75
Pelicans disagree	10	13	10
Puffins agree	91	86	98
Puffins disagree	4	4	0
Q7e			
Base all Pelicans	(136)	(56)	(40)
Base all Puffins	(173)	(85)	(51)

New and Old Puffins attract very similar ratings in terms of views of overall safety.

Among the small group of mobility-impaired users interviewed, Puffins are better rated than Pelicans. At Pelicans, five of the nine agreed that

they feel safe, while one disagreed. At Puffins, eleven out of thirteen agreed, and none disagreed.

3.3.2 Perceived Safety – Compared with Previous Facility

Puffin users were asked if they recalled the previous facility at the same location. Those recalling were asked to compare the current facility with the previous one.

On balance, a strong preference was expressed for Puffins over what they had replaced:

Table 23 : Perceptions of Safety at Puffin Crossings Compared With the Previous Crossing Facility at Same Location	
"Would you say you felt safer using the old one or this one?"	
	Puffins %
New one – much safer	38
New one – a little safer	20
No difference	21
Old one – a little safer	10
Old one – much safer	10
Total new crossing	**59**
Total old crossing	**20**

Q9
Base all Puffin users recalling old facility (143)

Table 24 shows that views differ markedly if we look at what the previous facility actually was (though base sizes are small for individual crossing types). Unsurprisingly, preference for the new crossing is strongest where there was no facility at all previously. There is also a strong vote of confidence for locations where a Puffin has replaced a Zebra. But Puffins are also preffered at Pelican to Puffin coversion locations: twice as many prefer Puffins to the Pelicans they replaced. NB: some caution is urged with these findings, as respondents are sometimes confused as to what kind of facility used to be available on the site (see section 3.3.3 below).

Table 24 : Perceptions of Safety at Puffin Crossings Compared With Previous Crossing Facility - by Type of Previous Facility					
	All %	**Previously Pelican %**	**Previously Zebra %**	**All with previous facility %**	**Previously no facility %**
Think new crossing safer	59	48	73	56	86
No difference	21	30	7	22	7
Think old crossing safer	20	23	20	22	7
Q9 Base:	(143)	(88)	(41)	(129)	(14)

Base: all Puffin users recalling old crossing
NB small base sizes for individual types of facility

Comparing Old with New Puffin crossings, there is little difference - either in the proportions who recall the previous facility (44% and 50% respectively), or in their preferences:

- Old Puffins: 20% prefer previous; 61% prefer current (base 80)
- New Puffins: 21% prefer previous; 56% prefer current (base 63)

3.3.3 Puffins vs. Previous Facilities – Reasons for Preferences

Puffin users thinking the pre-Puffin facility safer were asked to say in their own words why they held this opinion. They gave a variety of explanations for their preferences – with no one particular reason standing out. Issues relating to the visibility of the pedestrian signals were mentioned by several (table 25):

Table 25 : Reasons for Preferring Previous Facility at Puffin Locations	
(UNPROMPTED) MOST COMMON RESPONSE TYPES SHOWN BELOW	**(n.)**
Crossing sign was more prominent/high up	4
Was easier to see green man	4
"It was a zebra crossing"	4
No specific reason/just felt safer	3
The cars had to stop	3
Was more time to get across road	2
Was easier to understand	2

Q10
Base all Puffin users who preferred previous facility (29) NB small base

Those preferring the current facility most often explain that cars are forced to stop there, with some mentioning the presence of traffic lights specifically (table 26).

Table 26 : Reasons for Preferring Current Facility at Puffin Locations	
(UNPROMPTED) MOST COMMON RESPONSE TYPES SHOWN BELOW	**%**
Cars have to stop here	39
It has traffic lights	17
It has beeps/the sound	11
Now more time to get across road	8
Has flashing men/lights	7
Now a controlled crossing/you can control things	6

Q10
Base all Puffin users who prefer Puffin to previous facility (84)

The explanation that cars are now forced to stop is given most often even at locations which previously had Pelican crossings (suggesting that some respondents' memories about what was previously on the site may be inaccurate – the actual previous facilities were **not** described to them during the interview) – see table 27. The presence of pedestrian/traffic lights is another key advantage at ex-Zebra sites, but – in a similar way - is also mentioned by a few respondents at ex-Pelican sites.

Several respondents at ex-Pelican locations point to the fact that they now have more time to get across the road. The beeping sound at Puffin crossings is also cited by some as an improvement on Pelicans. In reality, audible signals are not exclusive to Puffins and not all Puffins have audible signals – once again demonstrating that users often have imperfect recall of the previous crossing facility.

Table 27 : Reasons for Preferring Current Puffin Crossing Facility- by Type of Previous Facility

MOST COMMON RESPONSE TYPES SHOWN BELOW	**Previously Pelican** (n.)	**Previously Zebra (n.)**	**Previously no facility (n.)**
Cars have to stop here	16	15	2
It has traffic lights	5	7	2
It has beeps/the sound	8	1	0
Now more time to get across road	6	0	1
Has flashing men/lights	2	4	0
Now a controlled crossing/you can control things	1	4	0
Q10 Base:	(42)	(30)	(12)

Base all Puffin users who prefer Puffin to previous facility
NB small base sizes for individual types of facility

3.3.4 Puffin vs. Pelican Crossings – Comparison with Nearby Crossing of Other Type

One criterion used in selecting research locations was that all Puffins should be within reasonable distance of a Pelican crossing, and vice versa. These 'comparator' crossings were not necessarily research locations in themselves, and were not examined in terms of vehicular flow, number of lanes, etc. The intention was simply to get respondents to make a very broad comparison, in case a very strong preference emerged either way.

In fact, there is no significant difference between Pelican and Puffin crossing users' views in this respect (table 28), with the largest proportion unable to express a preference.

Table 28 : Safety Compared with Nearby Crossing of Other Type		
LOCATION OF NEARBY CROSSING DESCRIBED TO RESPONDENTS (PELICAN IF PUFFIN RESPONDENT AND VICE VERSA). THOSE WHO EVER USE OTHER CROSSING WERE ASKED WHICH THEY FELT SAFER USING.		
	Pelicans %	**Puffins %**
This one – much safer	20	28
This one – a little safer	12	9
No difference	52	47
Other one – a little safer	8	10
Other one – much safer	8	7
Total this one	**32**	**37**
Total other one	**16**	**16**
Q12 Base all who ever use other crossing	(106)	(136)

Users of more established Puffins are directionally more likely to feel safer at the Puffin (41% at Old Puffins vs. 32% at New Puffins - of those able to make a comparison) – but this difference is not statistically significant.

Pelican users who preferred the Pelican crossing to the nearby Puffin (34 respondents) most often explained that:

- the traffic is not so busy here (at the Pelican)
- the traffic lights stop traffic here
- the traffic has to stop here
- the lights change quicker/better reaction

Pelican users who preferred the nearby Puffin (17 respondents) most often explained that:

- they have more time to cross the road at the Puffin
- the Pelican is located in a more dangerous place (eg near a bend or at the top of a hill)
- the traffic lights stop traffic at the Puffin
- cars are more likely to stop at the Puffin

Puffin users who preferred the Puffin crossing to the nearby Pelican (50 respondents) most often explained that:

- traffic is not so busy here (at the Puffin)
- more time to cross the road here
- traffic has to stop here
- less confusing/more pedestrian friendly
- this is a single crossing rather than a double one

Pelican users who preferred the Puffin crossing (22 respondents) most often explained that:

- the island in the middle of the road allows them to take road in two stages
- can see the green/red men more easily at the Pelican

Overall, then, there is evidence that some respondents were confused about the nature of the comparator crossing, and that some preferences are due more to site-specific differences (eg traffic volume) than to the difference in crossing type. Nevertheless, it is perhaps significant that some respondents are conscious of Puffin crossings giving them **more time to cross the road,** while others report problems with **obstruction of the pedestrian signal**.

3.4 Pedestrian Non-Compliance with Crossing

3.4.1 Recall of Non-Compliance

Similar proportions of Pelican users and Puffin users (four in ten of each) say they ever start crossing outside the green man phase:

Table 29 : Ever Cross Outside Green Man Phase	
Actual Highway Code guidelines about crossing on green/red/flashing green described to respondents first	
	%
Pelican users who ever start crossing on flashing green man or red man at this crossing:	39
Puffin users who ever start crossing on red man at this crossing:	41

Q5
Base all (232 Pelican; 309 Puffin)

At Pelicans, those who admitted to ever crossing outside the green man phase claimed to do this more often during the flashing green man phase than during the red man phase:

- more often during flashing green man: 45%
- more often during red man: 8%
- about the same: 39%
- don't know: 8%

Q6b
Base: all Pelican who ever cross on red or flashing green (83)

Those who reported ever crossing outside the green man phase were asked to estimate how many times they did this ("For every ten times you use the crossing, how many times would you say you start crossing when the red man is displayed/when the red man or flashing green man is displayed?"). Looking, then, at respondents' recall of their own typical behaviour, there is very little difference between Pelicans and Puffins. At each type of crossing:

- a given user, on average, claims to cross outside the green man phase around one in ten times they use it (table 30)
- six in ten say they never cross outside the green man phase (table 30)
- those who do admit it say that on average this happens around three times in ten (table 31).

Table 30 : Frequency of Crossing Outside Green Man Phase – Base All

	Pelicans	**Puffins**
No. of times out of 10 cross outside green man phase (mean score):	1.0	1.2
	%	**%**
Never cross outside green man phase	62	59
Less than 1 time out of 10	16	12
1-5 times out of 10	14	20
6-10 times out of 10	6	6
Don't know/not used it enough to say	3	4

Q5
Base: all (232 Pelican; 309 Puffin)

Table 31 : Frequency of Crossing Outside Green Man Phase – Base All Admitting to Crossing Outside Green Man		
	Pelicans	**Puffins**
No. of times out of 10 cross outside green man phase (mean score):	2.9	3.1
	%	**%**
Less than 1 time out of 10	40	29
1-5 times out of 10	37	50
6-10 times out of 10	15	14
Don't know/not used it enough to say *move this to top of list*	8	10

Q5
Base: all admitting to ever crossing outside green (89 Pelican; 125 Puffin)

3.4.2 Observed Respondent Non-Compliance

Interviewers also recorded the way in which each respondent actually crossed the road before the interview was conducted[3].

Very little difference was observed in this respect, with eight in ten at both crossing types starting out during the green man phase (typically after pressing the button themselves). Setting off during the red man phase typically occurred when nobody had pressed the button. The findings are summarised in table 32 below.

[3] Respondents were asked to confirm how they had crossed the road if the interviewer was unsure

Table 32 : Actual Way in Which Respondent Crossed Road		
	Pelicans %	**Puffins %**
SUMMARY		
All crossing during green man phase	78	80
All crossing outside green man phase	16	16
Don't know/unclear/borderline	6	4
DETAIL		
Started to cross on green after waiting - respondent pressed button	49	47
Started to cross on green after waiting - someone else pressed button	11	14
Arrived during green phase	17	17
Started crossing during flashing green	6	N/A
Crossed during red - after pressing button	1	1
Crossed during red – after somebody else pressed button	1	3
Crossed on red – nobody had pressed button	8	12
Don't know/unclear/borderline	6	4
QB/C Base all:	(232)	(309)

4 Conclusions & Recommendations

There is no evidence in this research that Puffin crossings are not 'accepted' by pedestrian users. Levels of confusion about when to start crossing are no higher than at Pelican crossings, and only a very small minority have any difficulties using them. Although there is clearly confusion about the types of crossing facility (if any) which they have replaced, on the whole Puffin crossings are seen as an positive development.

Around one in eight Puffin crossing users reports having some kind of problem with it in the past – yet this proportion is similar among Pelican crossing users. The specific types of difficulties encountered are also similar for each type of crossing, largely relating to vehicle non-compliance. However, Puffins had caused more problems by being out of order (one would hope that this could be put down to 'teething troubles').

There is no suggestion that either type of crossing is more likely to encourage pedestrian non-compliance. Levels of both reported and observed non-compliance are similar at both types of crossing.

There are some fundamental perceived differences between the two types of crossings. Puffins are clearly rated better than Pelicans in terms of:

- giving pedestrians enough time to cross
- cars moving off before all pedestrians have fully crossed the road.

These two advantages may explain why pedestrians tend to feel slightly safer overall using Puffin crossings to Pelicans.

The key drawback with Puffin crossings when compared to Pelicans is that:

- pedestrian signals are more likely to be obstructed by other pedestrians

It may be relatively easy to correct this problem. It is also worth bearing in mind that Puffin users only express dissatisfaction with this when prompted – it is not an issue which is mentioned spontaneously (in other words, it is not a key top-of-mind issue for users).

Newer Puffin crossings attract similar ratings to more established ones on most key criteria (including overall ease of use, waiting times, perceived vehicle non-compliance, and preferences vs. previous crossing facilities). However, there is some evidence that views on Puffins change over time. Recall of the position of the pedestrian signals is higher at newer sites (suggesting that this may make more of an impression when the facility is first installed). Pedestrian obstruction of the signals is less often seen as a problem at more established sites. Finally, the fact that Puffin crossings allow more time for pedestrians to cross is more keenly appreciated at more established sites.

In summary, Puffin crossings are slightly more likely than Pelican crossings to engender a sense of safety among pedestrians. While neither type of crossing could reasonably be described as presenting any fundamental difficulties of use, Puffin crossings might benefit from a general review of the visibility of pedestrian signals. At some sites, provision of additional signals would solve the problem of obstruction by other pedestrians. Where this is not possible, it will be important to make sure that all Puffin crossings have audible signals as well as visual ones.

APPENDICES

A1 Crossings Where Research Took Place

A1.1 Type and Location of Crossings

Table 33 : Research Locations			
Signal number	**Type**	**Borough**	**Address**
3/189	New Puffin	Islington	Hornsey Rd by Roads Place
9/368	New Puffin	Lambeth	Knights Hill by Dassett Road
26/107	New Puffin	Hillingdon	Botwell Lane by Station Road
29/60	New Puffin	Harrow	High Rd Harrow Weald by Weighton Rd
31/122	New Puffin	Haringey	Westbury Ave by Hawke Park Rd
16/172	New Puffin	Barking	St Pauls Road
11/56	Old Puffin	Hammersmith & Fulham	Parsons Green Lane
3/192	Old Puffin	Islington	Caledonian Road by Tube Station
11/159	Old Puffin	Hammersmith & Fulham	Fulham Road
14/64	Old Puffin	Redbridge	High Rd Woodford by Churchfields
16/68	Old Puffin	Barking	Upney Station
12/200	Old Puffin	Kensington & Chelsea	Sloane Avenue by Makins Street
17/204	Old Puffin	Newham	Barking Rd/Wellington Rd
2/238	Old Puffin	Camden	Mansfield Road by Oak Village
9/349	Pelican	Lambeth	Knights Hill by Chapel Road
29/58	Pelican	Harrow	A409 Station Road by Milton Road
26/98	Pelican	Hillingdon	Pump Lane by Station Road
16/81	Pelican	Barking	Green Lane by Burnside Road
1/119	Pelican	Hammersmith & Fulham	Fulham Palace Road near Kingwood Road/Robert Owen House
11/112	Pelican	Hammersmith & Fulham	Fulham Palace Road near Bishops Ave/Lalor St
31/75	Pelican	Haringey	Tottenham Lane by Harvey Road
2/261	Pelican	Camden	Heath Street by Oriel Street
3/191	Pelican	Islington	Caledonian Road by Brewery Road
16/34	Pelican	Barking	St Pauls Road by Roundabout

‘New Puffin’ = installed less than 12 months before study
‘Old Puffin’ = installed longer than 12 months before study

A1.2 Site Descriptions

Table 34 : Site Descriptions				
Location no.	**No. of lanes excl bus and cycle lanes**	**No. of lanes incl bus and cycle lanes**	**Speed limit**	**No. of guard rails**
Puffins				
3/189	2	2	30	0
9/368	2	2	30	0
26/107	2 *	2	30	4
29/60	2 *	3	30	4
31/122	2	2	30	4
16/172	4	4	30	4
11/56	2	2	30	0
3/192	2	2	30	0
11/159	2	3	30	4
14/64	2	2	30	4
16/68	2	2	30	4
12/200	2	2	30	1
17/204	3	3	30	1
2/238	2	2	20	0
Mean :	**2.2**	**2.5**	**29**	**2.1**
Pelicans				
9/349	2	2	30	0
29/58	2 *	2	30	4
26/98	2 *	2	30	3
16/81	2	2	30	4
1/119	3	4	30	4
11/112	3	4	30	4
31/75	2	4	30	2
2/261	2	2	30	2
3/191	2	2	30	0
16/34	4	4	30	4
Mean :	**2.4**	**2.8**	**30**	**2.7**

* = one-way road

NB: Fieldwork took place during the school holidays (so it is not meaningful to analyse data by the proximity of schools to individual crossings).

A1.3 Vehicle Measures

Vehicles of all types were observed **for half an hour in each direction**. On one-way streets, vehicles were observed for an hour.

Types of non-compliance measured were:

- moving off during red phase
- moving off during flashing amber (Pelicans)
- moving off during red+amber phase (Puffins)
- not stopping during red phase
- not stopping during flashing amber (Pelicans)
- not stopping during red+amber phase (Puffins)

Interviewers also recorded whether pedestrians were actually crossing/trying to cross at the time of the vehicular non-compliance.

The table below shows mean scores across all crossings of each type. Very little difference in levels of non-compliance was observed, although the Pelican locations were slightly busier on average: How do they compare with the levels reported in the behavioural study?

Table 35 : Summary of Observed Vehicle Behaviour

	Puffins	**Pelicans**
Total vehicles (mean per location)	500	547
Non-compliant vehicles (mean per location)	7	6
Non-compliant vehicles as a % of total vehicles	1.4%	1.1%

The most common types of vehicle non-compliance at **Puffin** crossings were:

- moving off during the vehicle red + amber phase (when no pedestrians were crossing or trying to cross). This type of non-compliance accounted for 63% of all those observed
- not stopping during the vehicle red phase, when pedestrians were either crossing or waiting to cross (19%)

- vehicles not stopping during the vehicle red phase, when no pedestrians were crossing or trying to do so (11%)

(Other types of non-compliance at Puffins were rarer – fewer than 10 instances of each were observed.)

The most common types of vehicle non-compliance at **Pelican** crossings were:

- moving off during the vehicle flashing amber phase, when pedestrians were either crossing or waiting to cross. This type of non-compliance accounted for 38% of all observed
- not stopping during the vehicle red phase, when pedestrians were either crossing or waiting to cross (33%)

(Other types of non-compliance at Pelicans were rarer – fewer than 10 instances of each were observed.)

There is therefore some indicative suggestion that non-compliance at Pelican crossings is more likely to be of the kind which is more obviously dangerous to pedestrians.

At both types of crossings, **cars/taxis/minicabs** were the worst offenders (reflecting the fact that they represent the largest proportion of vehicles on the road): they account for 63% of non-compliant vehicles at Puffins and 72% at Pelicans. **Bicycles** were the second worst offenders (more than vans/lorries, buses, or mopeds/motorbikes), involved in 21% of non-compliances at Puffins and 21% at Pelicans.

Full details of different non-compliance by vehicle type are shown in the computer tables.

A1.4 Pedestrian Measures

The way in which each pedestrian crossed the road was observed (again, for half an hour in each direction), either on the crossing itself or on the road but within 10m of the crossing.

At Pelicans, 94% of pedestrians crossed using the crossing itself; 6% crossed on the road within 10 metres of the crossing. Similar proportions were observed at Puffins (92% on the crossing; 8% within 10 metres of it).

Looking at all pedestrians together (whether they crossed on the crossing itself or just next to it), the proportions observed crossing during the green man phase vs. outside it were as follows:

Table 36 : Summary of Observed Pedestrian Behaviour		
	Puffins	**Pelicans**
Total pedestrians per location (mean)	57	82
Starting to cross during steady green man phase	66%	82%
Starting to cross outside steady green man phase	34%	18%

The higher proportion of non-compliant pedestrians at Puffin locations may reflect the fact that these were slightly quieter locations overall (see 'Vehicle Flow' above). In any case, this difference does not undermine the value of comparing the two types of crossing; we were looking here simply for a broadly similar pattern at each. Counting pedestrian behaviour was not in itself a key research objective (had it been, a more thorough approach would have been required, such as that employed in the previous behavioural study conducted by TRL). In fact, the way in which respondents crossed the road was also recorded as part of the **face-to-face** interview, where there was effectively no difference between the two crossing types in this respect (see section 3.4.2 above).

A1.5 Previous Facilities on Site (Puffins)

Table 37 : Previous Facilities at Puffin Sites		
Signal no.	**Type**	**Previous Crossing Facility**
3/189	New Puffin	None
9/368	New Puffin	None
26/107	New Puffin	Pelican
29/60	New Puffin	Pelican
31/122	New Puffin	Zebra
16/172	New Puffin	Nothing
11/56	Old Puffin	Pelican
3/192	Old Puffin	Zebra
11/159	Old Puffin	Pelican
14/64	Old Puffin	Pelican
16/68	Old Puffin	Pelican
12/200	Old Puffin	Zebra
17/204	Old Puffin	Pelican
2/238	Old Puffin	Zebra

APPENDIX 2 – FIELDWORK MATERIALS

A2.1 Pelican Crossings Materials

A2.1.1 Pelican Face-to-face Questionnaire

Good morning/afternoon. I am from Outlook Research Ltd, an independent Market Research company and we are conducting some market research on behalf of Transport for London today. Would you be willing to answer some questions about your use of this crossing? It should only take 6 or 7 minutes

QA. Just before we begin, do you or any close member of your family work in any of the following? (**if yes to any of the following, screen out, thank and close**)

Read out

Transport for London ..... **CLOSE**
Market Research ..... **CLOSE**
None of these ..... **CONTINUE**

QB. **Record how respondent crossed the road (ask respondent if unsure)**

Code one of the following (10)		
Started to cross during green man, after waiting	1	**QC**
Arrived at crossing during green man phase	2	**Skip to QD**
Started to cross during flashing green man phase	3	**Skip to QD**
Started to cross during red man, but after somebody had pressed button	4	**QC**
Started to cross during red man, when nobody had pressed button	5	**Skip to QD**

QC. **Did respondent or somebody else press button?** (11)
Respondent pressed 1
Somebody else 2

QD. **Code one of the following FOR ALL** (12)
On crossing all the way across the road 1
Started on crossing, then veered off it 2
Walked diagonally across road to join crossing in middle of road 3
Not on crossing itself at any stage of crossing the road 4

Q1. Overall, how easy did you find it to use this crossing to cross the road today?
Showcard A

(13)

Very easy.....1 **Q2a**

Fairly easy 2
Neither easy nor difficult .....3 **continue**
Fairly difficult.....4
Very difficult 5

Ask Q2 if codes 2-5 at Q1. Others skip to Q2a

Q2. In what ways was it not easy?
Do not prompt. Write in answer below

.....

.....

..... (14-16)

Ask all

Q2a. Apart from today, have you ever experienced any problems when using this crossing?

(17)

Yes 1 **Q2b**

No .....2 **skip to read-out before Q3**

Ask Q2b if 'yes' at Q2a. Others skip to read-out before Q3

Q2b. What problems were these?

.....

.....

..... (18-19)

Read out to all:

I'd now like to ask you about the way that this crossing works. On this card, there are two descriptions, A and B. I'll read out each one to you. After I have done so, please tell me which one applies at this crossing, as far as you can remember. Please do not look at the crossing while you are deciding.

Position so that respondent looking away from crossing

(20)

Showcard B

Q3. (A) The lights showing the green and red man are on the same side as you when you are waiting to cross 1

(B) The lights showing the green and red man are on the other side of the road when you are waiting to cross 2

Don't know.....3

Q4. Let's imagine you arrive at a pedestrian crossing somewhere and see a flashing green man. Which of these statements would you say is correct according to the Highway Code?

Read out

(21)

(a) You shouldn't start to cross the road 1
(b) It's okay to start crossing the road - but slower walkers might prefer to wait until the next green man.....2
(c) It's okay to start crossing the road – at any time up to when the red man is showing 3

Q5. At a crossing like this one here, the Highway Code advises that pedestrians should only start crossing the road when the steady green man is displayed.

If the green man is flashing, or the red man is displayed, pedestrians are advised not to start crossing the road.

Do you ever start crossing the road here when the flashing green man or red man is displayed?

(22)

Yes.....1 **Go to Q6**
No.....2 **Go to Q7**

Q6a. For every 10 times you cross the road here, how many times would you say you start crossing when the red man is displayed or the flashing green man are displayed?

(21) (22) (23)

Less than one time in ten, but do do it sometimes 1
Never.....2
Not used it often enough to say.....3
Don't know 4

Ask if ever cross on red or flashing green (see Q6a):

Q6b. Would you say you more often cross when the red man is showing or when the flashing green man is showing?

(24)

Red man more often 1
About the same.....2
Flashing green man more often 3

Don't know 4

Showcard C

Q7. I am going to read out a series of statements about this crossing. For each one, please tell me to what extent you agree or disagree with each one, using this card.

	Strongly agree	Tend to agree	Neither	Tend to dis-agree	Strongly dis-agree	Don't know	
a. It is very easy to see the green and red men at this crossing	1	2	3	4	5	6	(25)
b. Sometimes I can't see the red and green men because there are people in the way	1	2	3	4	5	6	(26)
c. You have to wait too long for the green man to appear	1	2	3	4	5	6	(27)
d. Sometimes I am confused about whether or not I should start crossing the road	1	2	3	4	5	6	(28)
e. If I start crossing here when the green man is showing, I have enough time to get across the road before the traffic starts	1	2	3	4	5	6	(29)
f. Sometimes the cars start moving off here before everybody has got across the road	1	2	3	4	5	6	(30)
g. I feel safe using this crossing to get across the road	1	2	3	4	5	6	(31)

NB: no Q8-Q10

Skip cols 32-38

Ask all

Q11. There is another pedestrian crossing near here
(describe location to respondent, making sure they understand exactly which one).
Do you ever use that one?

(39)

Yes .....1 **Go to Q12**

No .....2 **Go to Q14**
Don't know 3

Ask Q12 if 'yes' at Q11. Others skip to Q14

Q12. Would you say you felt safer using the one here, or the other one I just mentioned, or is there no difference?
If preference expressed: is that much safer or just a little safer?

(40)

This one – much safer .....1 **Go to Q13**
This one – a little safer 2
No difference .....3 **Go to Q14**
Other one – a little safer 4
Other one – much safer .....5 **Go to Q13**

Ask Q13 if preference expressed at Q12. Others skip to Q14

Q13. Why do you say that?
Probe fully: why else? why else?
Probe especially for details if refer to way crossing works
Write in answer below.

.....

..... (41-45)

Q14. How often do you cross the road here in a typical week?
Probe to code number of days below (46)
5+ days a week.....1
3-4 days a week.....2
1-2 days a week.....3
About one day a week 4
Between one day a week and one day a month 5
Less than one day a month.....6

Q15. And how long have you been using this crossing?
Probe to code below (47)
Less than a month 1
1- 6 months.....2
More than 6 up to 12 months.....3
More than 12 months.....4

NB NO Q16

Skip col 48

Q17. Which of these best describes your ethnicity?
Showcard D

(49)

British 1
Irish 2
Other White 3

Indian 4
Pakistani 5
Bangladeshi 6
Other Asian 7

Caribbean 8
African 9

White/Black Caribbean 0
White/Black African x
White/Asian v

(50)

Other mixed 1

Chinese 2
Other ethnic 3

Unknown 4

Other (please specify) 5

Q18. Do you have a long-term physical or mental impairment which limits your daily activities or the work you can do, including age-related? problems?
Multicode okay

(51)

No, none 1
Mobility impairment 2
Age-related mobility difficulties 3
Visual impairment 4
Hearing impairment 5

Other (please specify) 6

Q19. Age

	(52)
14-17.....	1
18-24.....	2
25-30.....	3
31-40.....	4
41-50.....	5
51-60.....	6
61-70.....	7
71+.....	8
Refused	9

Q20. Finally, what is the occupation of the chief income earner in your household?
Write in

.....

Probe for job title, industry and qualifications. If retired with private pension, probe for last job held, to code social grade:

	(53)
AB	1
C1	2
C2	3
D	4
E	5

Record details for back-checking:
This information will not be passed onto any other person or organisation outside Outlook Research – nor will it be used internally for any other research projects.

Name: _____
Address: _____
_____
Post code: ☐☐☐☐ ☐☐☐ (54-76)
Telephone Number: _____

CARD TWO

Q21. Record - respondent is (Gender): (10)
Male 1
Female 2

Q22. Code any of the following which apply to respondent:
Multicode okay (11)

Using walking stick or walking frame 1
Crossing in wheelchair or motorised chair 2

Pushing wheelchair 3

Pushing pram or child's buggy etc 4
Carrying small child or children 5
Walking next to small child or children (under 8 years old) 6

Carrying heavy bag/s (shopping, suitcases, etc) 7

Otherwise encumbered or slowed down (**write in how**) 8

None of the above 9

Q23. Location (Location no - Road – Borough) SKIP COL 12-13
(14)
15 - Knights Hill by Chapel Road - Lambeth 1
16 - A409 Station Road by Milton Road - Harrow 2
17 - Pump Lane by Station Road - Hillingdon 3
18 - Green Lane by Burnside Road - Barking 4
19 - Fulham Palace Road near Kingwood Road/Robert Owen House - Hammersmith 5
20 - Fulham Palace Road near Bishops Ave/Lalor St - Hammersmith . 6
21 - Tottenham Lane by Harvey Road – Harringey 7
22 - Heath Street by Oriel Street – Camden 8
23 - Caledonian Road by Brewery Road – Islington 9
24 - St Pauls Road by Roundabout – Barking 0

Q24. PLEASE FILL IN TIME WHEN INTERVIEW COMPLETED
(15)
7:00am - 9:30am 1
9:31am – 12:00 noon 2
12:01 noon – 2:00 pm 3
2:01 pm – 5:00 pm 4
5:01 pm – 7:30 pm 5
7:31 pm onwards 6

Thank and close. I confirm that this interview was conducted in accordance with the Market Research Society Code of Conduct.

.....

Interviewer **Date** **Signature**

A2.1.2 Pelican Crossing Pedestrian Tally Sheet

PELICAN VERSION
PEDESTRIAN TALLY SHEET – LOCATION : (10-12)

Location (write in) .....

FIRST ½ hr starts at (tick one box): 10:30 am ☐ 2:00 pm ☐ (13)

No. who cross....	Phase (starting as pedestrian signal turns green)										TOTAL	
	1	2	3	4	5	6	7	8	9	10		
USING CROSSING												
Wait, then start to cross on green man with or without pressing button												(14-16)
Arrive during green man and start to cross on green												(17-19)
Start to cross during flashing green man												(20-22)
Start to cross during red man (button pressed)												(23-25)
Start to cross during red (no button pressed)												(26-28)
ON ROAD (WITHIN 10m OF CROSSING)												
Start to cross during green man												(29-31)
Start to cross during flashing green man												(32-34)
Start to cross during red man												(35-37)

SECOND ½ hr starts at (tick one box): 11:40 am ☐ 3:10 pm ☐ (38)

No. who cross....	Phase (starting as pedestrian signal turns green)										TOTAL	
	1	2	3	4	5	6	7	8	9	10		
USING CROSSING												
Wait, then start to cross on green man with or without pressing button												(39-41)
Arrive during green man and start to cross on green												(42-44)
Start to cross during flashing green man												(45-47)
Start to cross during red man (button pressed)												(48-50)
Start to cross during red (no button pressed)												(51-53)
ON ROAD (WITHIN 10m OF CROSSING)												
Start to cross during green man												(54-56)
Start to cross during flashing green man												(57-59)
Start to cross during red man												(60-62)

NB: If a person is pushing a pram or wheelchair etc, count as one person (do not include person being pushed)

Interviewer name..... **Signature.....** **Date .....**

NB: continue on separate sheet if more than 10 phases

A2.1.3 Pelican Crossing Vehicle Tally Sheet

PELICAN VERSION
VEHICLE TALLY SHEET – LOCATION ☐ (10-12)

Location (write in) .....
Date .....
First ½ hr count starts at: **11:05 am** ☐ **2:35 pm** ☐ (13)
Second ½ hr count starts at: **12:15 pm** ☐ **3:45 pm** ☐ (14)

FIrst half-hour count

No. of vehicles passing direction A ☐ (15-18)

No. of green light phases ☐ (19-20)

Second half-hour count

No. of vehicles passing direction B ☐ (21-24)

No. of green light phases ☐ (25-26)

Non-compliant behaviour (TALLIES)	Car/taxi/minicab	Van/ lorry	Bus/ coach/ minibus	Bicycle	Moped/ motor-bike
MOVING OFF...					
during vehicle red phase - no pedestrians crossing or trying to cross	(27-28)	(29-30)	(31-32)	(33-34)	(35-36)
during vehicle red phase - while pedestrians crossing or trying to cross	(37-38)	(39-40)	(41-42)	(43-44)	(45-46)
during vehicle flashing amber phase - while pedestrians crossing or trying to cross	(47-48)	(49-50)	(51-52)	(53-54)	(55-56)
NOT STOPPING...					
during vehicle red phase - no pedestrians on the crossing or trying to cross	(67-68)	(69-70)	(71-72)	(73-74)	(75-76)
during vehicle red phase - while pedestrians crossing or trying to cross	(11-12)	(13-14)	(15-16)	(17-18)	(19-20)
during vehicle flashing amber phase - while pedestrians still crossing or trying to cross	(21-22)	(23-24)	(25-26)	(27-28)	(29-30)

Interviewer name..... **Signature**..... **Date** .....

A2.2 Puffin Crossings Materials

A2.2.1 Puffin Face-to-face Questionnaire

Good morning/afternoon. I am from Outlook Research Ltd, an independent Market Research company and we are conducting some market research on behalf of Transport for London today. Would you be willing to answer some questions about your use of this crossing? It will only take 6 or 7 minutes.

QA. Just before we begin, do you or any close member of your family work in any of the following? (**if yes to any of the following, screen out, thank and close**)

Read out

Transport for London ..... **CLOSE**
Market Research ..... **CLOSE**
None of these ..... **CONTINUE**

QB. **Record how respondent crossed the road (ask respondent if unsure)**

Code one of the following	(10)	
Started to cross during green man, after waiting	1	**QC**
Arrived at crossing during green man phase	2	**Skip to QD**
Started to cross during red man, but after somebody had pressed button	3	**QC**
Started to cross during red man, when nobody had pressed button	4	**Skip to QD**

QC. **Did respondent or somebody else press button?** (11)

Respondent pressed	1
Somebody else	2

QD. **Code one of the following FOR ALL** (12)

On crossing all the way across the road	1
Started on crossing, then veered off it	2
Walked diagonally across road to join crossing in middle of road	3
Not on crossing itself at any stage of crossing the road	4

Q1. Overall, how easy did you find it to use this crossing to cross the road today?
Showcard A

(13)

Very easy.....1 **Q2a**

Fairly easy 2
Neither easy nor difficult .....3 **continue**
Fairly difficult.....4
Very difficult 5

Ask Q2 if codes 2-5 at Q1. Others skip to Q2a

Q2. In what ways was it not easy?
Do not prompt. Write in answer below

.....

.....

..... (14-16)

Ask all

Q2a. Apart from today, have you ever experienced any problems when using this crossing?

(17)

Yes 1 **Q2b**

No .....2 **skip to read-out before Q3**

Ask Q2b if 'yes' at Q2a. Others skip to read-out before Q3

Q2b. What problems were these?

.....

.....

..... (18-19)

Read out to all:

I'd now like to ask you about the way that this crossing works. On this card, there are two descriptions, A and B. I'll read out each one to you. After I have done so, please tell me which one applies at this crossing, as far as you can remember. Please do not look at the crossing while you are deciding.

Position so that respondent looking away from crossing

Showcard B (20)

Q3. (A) The lights showing the green and red man are on the same side as you when you are waiting to cross 1

(B) The lights showing the green and red man are on the other side of the road when you are waiting to cross 2

Don't know.....3

Q4. Let's imagine you arrive at a pedestrian crossing somewhere and see a flashing green man. Which of these statements would you say is correct according to the Highway Code?

Read out

(21)

(a) You shouldn't start to cross the road 1
(b) It's okay to start crossing the road - but slower walkers might prefer to wait until the next green man 2
(c) It's okay to start crossing the road – at any time up to when the red man is showing 3

Q5. At a crossing like this one here, the Highway Code advises that pedestrians should only start crossing the road when the green man is displayed.

If the red man is displayed, pedestrians are advised not to start crossing the road.

Do you ever start crossing the road here when the red man is displayed?

(22)

Yes.....1 **Go to Q6**
No.....2 **Go to Q7**

Q6. For every 10 times you cross the road here, how many times would you say you start crossing when the red man is displayed?

(23)

Less than one time in ten, but do do it sometimes 1
Never.....2
Not used it often enough to say.....3
Don't know 4

Showcard C (Skip col 24)

Q7. I am going to read out a series of statements about this crossing. For each one, please tell me to what extent you agree or disagree with each one, using this card.

	Strongly agree	Tend to agree	Neither	Tend to dis-agree	Strongly dis-agree	Don't know	
a. It is very easy to see the green and red men at this crossing	1	2	3	4	5	6	(25)
b. Sometimes I can't see the red and green men because there are people in the way	1	2	3	4	5	6	(26)
c. You have to wait too long for the green man to appear	1	2	3	4	5	6	(27)
d. Sometimes I am confused about whether or not I should start crossing the road	1	2	3	4	5	6	(28)
e. If I start crossing here when the green man is showing, I have enough time to get across the road before the traffic starts	1	2	3	4	5	6	(29)
f. Sometimes the cars start moving off here before everybody has got across the road	1	2	3	4	5	6	(30)
g. I feel safe using this crossing to get across the road	1	2	3	4	5	6	(31)

Q8. If you had come here a few years ago, you would have found a different type of crossing here. Do you remember the old crossing here?

(32)

Yes .....1 **Go to Q9**

No .....2 **Go to Q11**
Don't know 3

Q9. Would you say you felt safer using the old one, or the new one, or is there no difference?
If preference expressed: is that much safer or just a little safer?

(33)

Old one – much safer 1 **Q10**
Old one – a little safer 2
No difference 3 **Q11**
New one – a little safer 4
New one – much safer 5 **Q10**

Ask Q10 if preference expressed at Q9. Otherwise, skip to Q11

Q10. Why do you say that?
Probe fully: why else? why else? **Write in answer below.**

.....

.....

..... (34-38)

Ask all

Q11. There is another pedestrian crossing near here
(describe location to respondent, making sure they understand exactly which one).
Do you ever use that one?

(39)

Yes .....1 **Go to Q12**

No .....2 **Go to Q14**
Don't know 3

Ask Q12 if 'yes' at Q11. Others skip to Q14

Q12. Would you say you felt safer using the one here, or the other one I just mentioned, or is there no difference?
If preference expressed: is that much safer or just a little safer?

(40)

This one – much safer	1	**Go to Q13**
This one – a little safer	2	
No difference	3	**Go to Q14**
Other one – a little safer	4	
Other one – much safer	5	**Go to Q13**

Ask Q13 if preference expressed at Q12. Others skip to Q14

Q13. Why do you say that?
Probe fully: why else? why else?
Probe especially for details if refer to way crossing works
Write in answer below.

.....

..... (41-45)

Q14. How often do you cross the road here in a typical week?
Probe to code number of days below

(46)

5+ days a week	1
3-4 days a week	2
1-2 days a week	3
About one day a week	4
Between one day a week and one day a month	5
Less than one day a month	6

Q15. And how long have you been using this crossing?
Probe to code below

(47)

Less than a month	1
1- 6 months	2
More than 6 up to 12 months	3
More than 12 months	4

Q16. This kind of crossing is called a 'Puffin' crossing. Do you recall ever seeing or hearing any leaflets or other publicity in the last couple of years about how to use Puffins?

(48)

Yes	1
No	2
Not sure/don't know	3

Q17. Which of these best describes your ethnicity?
Showcard D

(49)

British 1
Irish 2
Other White 3

Indian 4
Pakistani 5
Bangladeshi 6
Other Asian 7

Caribbean 8
African 9

White/Black Caribbean 0
White/Black African x
White/Asian v

(50)

Other mixed 1

Chinese 2
Other ethnic 3

Unknown 4

Other (please specify) 5

Q18. Do you have a long-term physical or mental impairment which limits your daily activities or the work you can do, including age-related? problems?
Multicode okay

(51)

No, none 1
Mobility impairment 2
Age-related mobility difficulties 3
Visual impairment 4
Hearing impairment 5

Other (please specify) 6

Q19. Age

(52)

14-17	1
18-24	2
25-30	3
31-40	4
41-50	5
51-60	6
61-70	7
71+	8
Refused	9

Q20. Finally, what is the occupation of the chief income earner in your household?
Write in

.....

Probe for job title, industry and qualifications. If retired with private pension, probe for last job held, to code social grade:

(53)

AB	1
C1	2
C2	3
D	4
E	5

Record details for back-checking:
This information will not be passed onto any other person or organisation outside Outlook Research – nor will it be used internally for any other research projects.

Name: _____
Address: _____
_____
Post code: ☐☐☐☐ ☐☐☐ (54-76)
Telephone Number: _____

CARD TWO

Q21. Record - respondent is (Gender): (10)
Male 1
Female 2

Q22. Code any of the following which apply to respondent:
Multicode okay (11)

Using walking stick or walking frame 1
Crossing in wheelchair or motorised chair 2

Pushing wheelchair 3

Pushing pram or child's buggy etc 4
Carrying small child or children 5
Walking next to small child or children (under 8 years old) 6

Carrying heavy bag/s (shopping, suitcases, etc) 7

Otherwise encumbered or slowed down (**write in how**) 8

None of the above 9

Q23. Location (Location No. - Road – Borough)
(12)
1 - Hornsey Rd by Roads Place - Islington 1
2 - Knights Hill by Dassett Road - Lambeth 2
3 - Botwell Lane by Station Road - Hillingdon 3
4 - High Rd Harrow Weald by Weighton Rd - Harrow 4
5 - Westbury Ave by Hawke Park Rd - Haringey 5
6 - St Pauls Road – Barking 6
7 - Parsons Green Lane – Hammersmith 7
8 - Caledonian Road by Tube Station – Islington 8
9 - Fulham Road – Hammersmith 9
10 - High Rd Woodford by Churchfields 0
11 - Upney Station – Barking x
12 - Sloane Avenue by Makins Street - Kensington v
(13)
13 – Barking Road/Wellington Road - Barking 1
14 - Mansfield Road by Oak Village – Camden 2

Q24. PLEASE FILL IN TIME WHEN INTERVIEW COMPLETED SKIP COL 14
(15)
7:00am - 9:30am 1
9:31am – 12:00 noon 2
12:01 noon – 2:00 pm 3
2:01 pm – 5:00 pm 4
5:01 pm – 7:30 pm 5
7:31 pm onwards 6

Thank and close. I confirm that this interview was conducted in accordance with the Market Research Society Code of Conduct.

.....

Interviewer **Date** **Signature**

A2.2.2 Puffin Crossing Pedestrian Tally Sheet

PUFFIN VERSION
PEDESTRIAN TALLY SHEET – LOCATION (10-12)

Location (write in) .....

FIRST ½ hr starts at (tick one box): 10:30 am ☐ 2:00 pm ☐ (13)

No. who cross....	Phase (starting as pedestrian signal turns green)										TOTAL	
	1	2	3	4	5	6	7	8	9	10		
USING CROSSING												
Start to cross on green man after waiting												(14-16)
Arrive during green man and start to cross on green												(17-19)
Start to cross when red man –before car lights have turned to green												(20-22)
Start to cross during rest of red man - (button pressed)												(23-25)
Start to cross during rest of red man (no button pressed)												(26-28)
ON ROAD (WITHIN 10m OF CROSSING)												
Start to cross during green man												(29-31)
Start to cross during red man												(32-34)

SECOND ½ hr starts at (tick one box): 11:40 pm ☐ 3:10 pm ☐ (35)

No. who cross....	Phase (starting as pedestrian signal turns green)										TOTAL	
	1	2	3	4	5	6	7	8	9	10		
USING CROSSING												
Start to cross on green man after waiting												(36-38)
Arrive during green man and start to cross on green												(39-41)
Start to cross when red man –before car lights have turned to green												(42-44)
Start to cross during rest of red man - (button pressed)												(45-47)
Start to cross during rest of red man (no button pressed)												(48-50)
ON ROAD (WITHIN 10m OF CROSSING)												(51-53)
Start to cross during green man												
Start to cross during red man												(54-56)

NB: If a person is pushing a pram or wheelchair etc, count as one person (do not include person being pushed)

Interviewer name..... **Signature.....** **Date .....**

NB: continue on separate sheet if more than 10 phases

A2.2.3 Puffin Crossing Vehicle Tally Sheet

PUFFIN VERSION
VEHICLE TALLY SHEET – LOCATION ☐ (10-12)

Location (write in) .....

First ½ hr count starts at: **11:05 am** ☐ **2:35 pm** ☐ (13)
Second ½ hr count starts at: **12:15 pm** ☐ **3:45 pm** ☐ (14)

FIrst half-hour count

No. of vehicles passing direction A ☐ (15-18)

No. of green light phases ☐ (19-20)

Second half-hour count

No. of vehicles passing direction B ☐ (21-24)

No. of green light phases ☐ (25-26)

Non-compliant behaviour (TALLIES)	Car/taxi/minicab	Van/ lorry	Bus/ coach/ minibus	Bicycle	Moped/ motor-bike
MOVING OFF...					
during vehicle red phase - no pedestrians crossing or trying to cross	(27-28)	(29-30)	(31-32)	(33-34)	(35-36)
during vehicle red phase - while pedestrians crossing or trying to cross	(37-38)	(39-40)	(41-42)	(43-44)	(45-46)
during vehicle red + amber phase - no pedestrians crossing or trying to cross	(47-48)	(49-50)	(51-52)	(53-54)	(55-56)
during vehicle red + amber phase - while pedestrians crossing or trying to cross	(57-58)	(59-60)	(61-62)	(63-64)	(65-66)
NOT STOPPING...					
during vehicle red phase - no pedestrians on the crossing or trying to cross	(67-68)	(69-70)	(71-72)	(73-74)	(75-76)
during vehicle red phase - while pedestrians crossing or trying to cross	(11-12)	(13-14)	(15-16)	(17-18)	(19-20)
during vehicle red + amber phase - no pedestrians still crossing or trying to cross	(21-22)	(23-24)	(25-26)	(27-28)	(29-30)
during vehicle red + amber phase - while pedestrians still crossing or trying to cross	(31-32)	(33-34)	(35-36)	(37-38)	(39-40)

Interviewer name..... **Signature**..... **Date** .....

A2.3 Site Description Sheet

PUFFINS & PELICANS RESEARCH
SITE DESCRIPTION - FINAL
(TO BE COMPLETED AFTER OBSERVATIONS)

Location (11-12)

Record name of road(s)

.....

Pelican or Puffin

(13)

Pelican : red/green men on other side from waiting pedestrians 1
Puffin : red/green men on same side as people waiting 2

Number of GENERAL TRAFFIC lanes (do not include bus lanes or cycle lanes)

(15)

1 only – one way street 1
2 – one way street.....2
3 – one way street.....3
1 in each direction (2 total).....4
1 in one direction, 2 in the other (3 total).....5
2 in each direction (4 total).....6
Other (write in) 7

Bus Lanes (in addition to general traffic lanes above)

(16)

None 1
1.....2
2 – one on each side.....3
2 – both on same side.....4
3 or more 5

Cycle Lanes (in addition to general traffic and bus lanes)

(17)

None 1
In one direction only.....2
In both directions.....3

Speed limit for this stretch of road (during your observations)

(18)

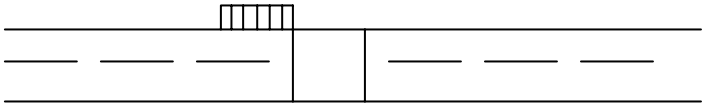
20 mph.....1
30 mph.....2
40 mph.....3
50 mph.....4
Other (write in).....5

Guard rails

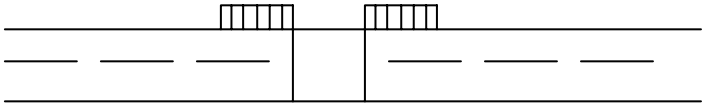
(19)

No guard rails.....1

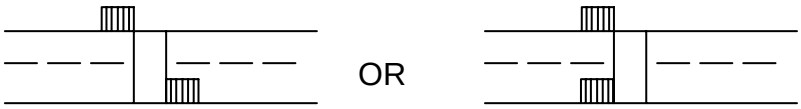
One only 2



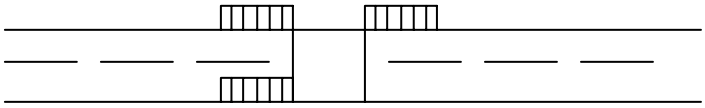
Two – both on same side of road.....3



Two – not on same side of road.....4



Three 5



Four 6