

Pell Frischmann		Project No. 102384
		Version No. Draft
TECHNICAL NOTE	Project Cockfosters	Date 16/10/2019
	Subject NCP and car parking survey entry and exit analysis	By [REDACTED]

## INTRODUCTION

Pell Frischmann is commissioned by TfL to provide transport planning advice in connection with the redevelopment of the existing car parks at Cockfosters Station. This note provides a summary of the car parking data including:

- NCP car parking data received for the Cockfosters Car Park during a week in April and November.
- Entry and exit surveys at Cockfosters Car Parks on Thursday 10<sup>th</sup> October and Saturday 12<sup>th</sup> October.

## NCP DATA

The data presented for an average weekday (Table 1) and average weekend day (Table 2). This shows that the highest utilisations of the car park are:

- Cockfosters:
  - Weekday (April) 73% (November) 68%
  - Weekend (April) 61% (November) 77%

The utilisations are calculated based on the number of spaces in the Cockfosters NCP car park. It is noted that the southern car park at Cockfosters is not covered by NCP and therefore ANPR data is not available for this. The NCP data also does not allow understanding of how well utilised the car park was at the start of the day and therefore additional car parking entry and exit surveys were undertaken.

It is noted that the ANPR cameras record the number of entry and exits, and therefore the numbers provided includes those using the staff parking spaces.

## CAR PARK ENTRY AND EXIT SURVEYS

The parking utilisation for the car parks at Cockfosters can be determined from surveys that were undertaken on Thursday 10<sup>th</sup> October and Saturday 12<sup>th</sup> October. The survey data is appended to this note and in summary the car parking utilisations are:

- Cockfosters:
  - Weekday (10/10/2019) Northern Car Park: 91%
  - Weekday (10/10/2019) Southern Car Park: 92%
  - Weekday (10/10/2019) Combined: 90% (it is noted that the peak utilisations occur at different times of the day in each car park)
  - Weekend (12/10/2019) Northern Car Park: 77%
  - Weekend (12/10/2019) Southern Car Park: 66%
  - Weekend (12/10/2019) Combined: 70%

These results show that the surveys undertaken on Thursday 10<sup>th</sup> October and Saturday 12<sup>th</sup> October show higher car parking utilisations on a weekday and comparable utilisations on a Saturday to the data obtained from NCP.

**Table 1: Cockfosters car park weekday profile**

Hour	April (single week)			November (single week)		
	Arrivals	Departures	Accumulation	Arrivals	Departures	Accumulation
0:00 to 1:00	3	11	-8	4	15	-10
1:00 to 2:00	1	4	-10	4	4	-11
2:00 to 3:00	0	1	-11	0	0	-11
3:00 to 4:00	0	0	-12	0	2	-12
4:00 to 5:00	5	1	-7	5	3	-10
5:00 to 6:00	24	3	14	23	4	8
6:00 to 7:00	41	4	51	38	5	41
7:00 to 8:00	56	5	102	55	4	92
8:00 to 9:00	55	9	148	49	2	138
9:00 to 10:00	49	5	192	54	10	183
10:00 to 11:00	49	14	227	41	12	213
11:00 to 12:00	40	18	250	35	17	230
12:00 to 13:00	34	23	261	28	18	240
13:00 to 14:00	25	30	256	22	20	243
14:00 to 15:00	19	39	236	16	36	224
15:00 to 16:00	22	43	215	20	39	205
16:00 to 17:00	27	52	190	22	46	181
17:00 to 18:00	30	59	161	21	54	149
18:00 to 19:00	30	58	133	19	51	117
19:00 to 20:00	9	35	107	14	34	97
20:00 to 21:00	4	19	93	7	30	74
21:00 to 22:00	4	16	81	6	18	63
22:00 to 23:00	3	42	42	6	22	47
23:00 to 0:00	3	44	1	8	41	14
<b>TOTAL</b>	<b>535</b>	<b>535</b>		<b>497</b>	<b>484</b>	

**Table 2: Cockfosters car park weekend profile**

Hour	April (single weekend)			November (single weekend)		
	Arrivals	Departures	Accumulation	Arrivals	Departures	Accumulation
0:00 to 1:00	7	22	-16	4	19	-15
1:00 to 2:00	3	7	-20	4	12	-24
2:00 to 3:00	1	1	-20	4	5	-25
3:00 to 4:00	0	1	-21	2	3	-26
4:00 to 5:00	4	1	-18	4	1	-23
5:00 to 6:00	11	1	-9	8	1	-16
6:00 to 7:00	18	4	6	13	4	-7
7:00 to 8:00	30	11	25	27	3	18
8:00 to 9:00	35	5	55	50	9	60
9:00 to 10:00	53	7	102	57	9	108
10:00 to 11:00	66	13	154	71	13	167
11:00 to 12:00	62	19	197	64	18	212
12:00 to 13:00	46	26	217	60	15	257
13:00 to 14:00	34	31	221	77	57	277
14:00 to 15:00	23	26	218	77	78	276
15:00 to 16:00	31	37	212	52	51	277

Hour	April (single weekend)			November (single weekend)		
	Arrivals	Departures	Accumulation	Arrivals	Departures	Accumulation
16:00 to 17:00	20	48	184	39	61	255
17:00 to 18:00	21	56	149	28	56	227
18:00 to 19:00	20	48	121	28	74	181
19:00 to 20:00	14	46	89	18	107	92
20:00 to 21:00	5	28	66	8	47	53
21:00 to 22:00	8	28	46	6	25	33
22:00 to 23:00	5	30	22	5	26	12
23:00 to 0:00	3	36	-11	6	34	-16
<b>TOTAL</b>	<b>515</b>	<b>526</b>		<b>706</b>	<b>722</b>	

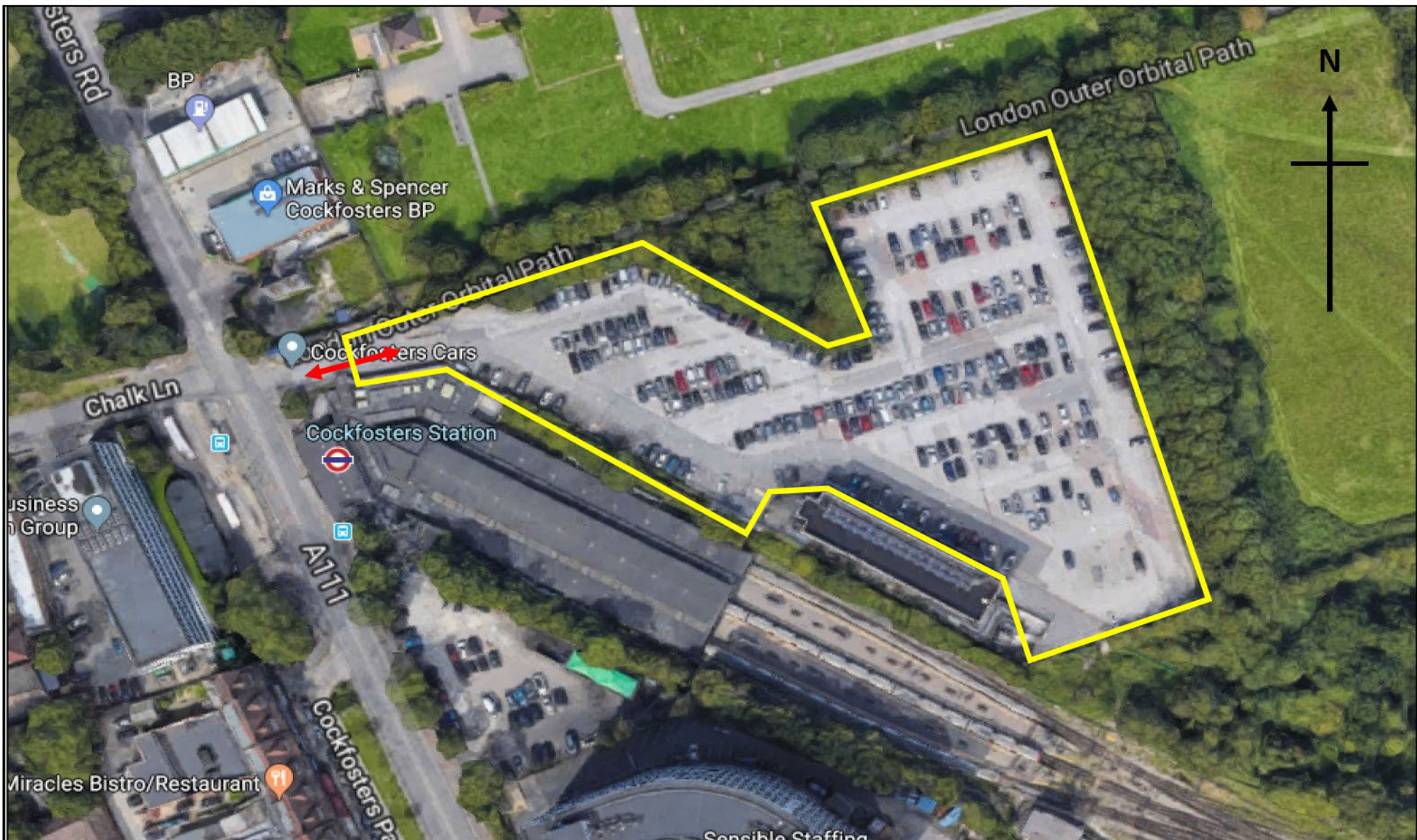
**APPENDIX 1: CAR PARKING SURVEYS (10/10/2019 AND 12/10/2019)**



SITE: Cockfosters Northern Car Park												
Bays AVAILABLE			354						Parking (out of marked spaces)			
Time Period	Date	Day	Standard Bays	Disabled Bays	Staff Bays	Electric Bays	Private Bays	Total	Occ%	Out of Bay	M/C Parked	P/C Parked
00:00	10/10/2019	Thursday	40	1	4			45	13%			
01:00	10/10/2019	Thursday	29	1	4			34	10%			
02:00	10/10/2019	Thursday	30	1	1			32	9%			
03:00	10/10/2019	Thursday	27	1	1			29	8%			
04:00	10/10/2019	Thursday	27	1	1			29	8%			
05:00	10/10/2019	Thursday	28	1	9			38	11%			
06:00	10/10/2019	Thursday	39	1	19			59	17%		1	
07:00	10/10/2019	Thursday	78	2	25			105	30%		1	
08:00	10/10/2019	Thursday	129	5	25			159	45%		1	
09:00	10/10/2019	Thursday	178	3	25			206	58%			
10:00	10/10/2019	Thursday	218	7	22			247	70%			
11:00	10/10/2019	Thursday	252	11	20			283	80%		2	
12:00	10/10/2019	Thursday	280	9	15			304	86%		2	
13:00	10/10/2019	Thursday	283	10	15			308	87%		2	
14:00	10/10/2019	Thursday	298	9	12			319	90%		2	
15:00	10/10/2019	Thursday	275	9	10			294	83%		2	
16:00	10/10/2019	Thursday	253	6	10			269	76%		2	
17:00	10/10/2019	Thursday	212	4	10			226	64%		2	
18:00	10/10/2019	Thursday	165	3	12			180	51%		1	
19:00	10/10/2019	Thursday	140	4	11			155	44%			
20:00	10/10/2019	Thursday	110	4	10			124	35%			
21:00	10/10/2019	Thursday	99	2	9			110	31%			
22:00	10/10/2019	Thursday	82	2	9			93	26%			
23:00	10/10/2019	Thursday	69	1	6			76	21%			
00:00	12/10/2019	Saturday	55	2	6			63	18%			
01:00	12/10/2019	Saturday	49	2	5			56	16%			
02:00	12/10/2019	Saturday	43	2	1			46	13%			
03:00	12/10/2019	Saturday	39	2	1			42	12%			
04:00	12/10/2019	Saturday	38	2	1			41	12%			
05:00	12/10/2019	Saturday	41	2	3			46	13%			
06:00	12/10/2019	Saturday	42	2	10			54	15%			
07:00	12/10/2019	Saturday	45	1	12			58	16%			
08:00	12/10/2019	Saturday	60	2	17			79	22%			
09:00	12/10/2019	Saturday	91	3	16			110	31%			
10:00	12/10/2019	Saturday	121	3	16			140	40%			
11:00	12/10/2019	Saturday	167	4	18			189	53%			
12:00	12/10/2019	Saturday	207	5	18			230	65%			
13:00	12/10/2019	Saturday	245	7	17			269	76%			
14:00	12/10/2019	Saturday	247	7	17			271	77%			
15:00	12/10/2019	Saturday	256	7	11			274	77%			
16:00	12/10/2019	Saturday	250	6	8			264	75%			
17:00	12/10/2019	Saturday	243	7	11			261	74%			
18:00	12/10/2019	Saturday	233	7	9	1		250	71%			
19:00	12/10/2019	Saturday	214	9	8	1		234	66%			
20:00	12/10/2019	Saturday	192	8	8	1		208	59%			
21:00	12/10/2019	Saturday	175	8	8	1		192	54%			
22:00	12/10/2019	Saturday	160	4	6	1		171	48%			
23:00	12/10/2019	Saturday	139	3	6	1		148	42%			



SITe: Cockfosters Southern Car Park												
Bays AVAILABLE			53							Parking (out of marked spaces)		
Time Period	Date	Day	Standard Bays	Disabled Bays	Staff Bays	Electric Bays	Private Bays	Total	Occ%	Out of Bay	M/C Parked	P/C Parked
00:15	10/10/2019	Thursday	7				4	11	21%			
01:15	10/10/2019	Thursday	9				1	10	19%			
02:15	10/10/2019	Thursday	9				1	10	19%			
03:15	10/10/2019	Thursday	9				1	10	19%			
04:15	10/10/2019	Thursday	9				1	10	19%			
05:15	10/10/2019	Thursday	9				1	10	19%			
06:15	10/10/2019	Thursday	11				1	12	23%			
07:15	10/10/2019	Thursday	14					14	26%			
08:15	10/10/2019	Thursday	23					23	43%			
09:15	10/10/2019	Thursday	29				1	30	57%			
10:15	10/10/2019	Thursday	37				2	39	74%			
11:15	10/10/2019	Thursday	37				2	39	74%			
12:15	10/10/2019	Thursday	42				2	44	83%			
13:15	10/10/2019	Thursday	41				3	44	83%			
14:15	10/10/2019	Thursday	41				3	44	83%			
15:15	10/10/2019	Thursday	44				2	46	87%			
16:15	10/10/2019	Thursday	42				2	44	83%			
17:15	10/10/2019	Thursday	36				1	37	70%			
18:15	10/10/2019	Thursday	32				1	33	62%			
19:15	10/10/2019	Thursday	27					27	51%			
20:15	10/10/2019	Thursday	29					29	55%			
21:15	10/10/2019	Thursday	29					29	55%			
22:15	10/10/2019	Thursday	25					25	47%			
23:15	10/10/2019	Thursday	15				1	16	30%			
00:15	12/10/2019	Saturday	7				3	10	19%			
01:15	12/10/2019	Saturday	6				3	9	17%			
02:15	12/10/2019	Saturday	6				3	9	17%			
03:15	12/10/2019	Saturday	6				3	9	17%			
04:15	12/10/2019	Saturday	6				3	9	17%			
05:15	12/10/2019	Saturday	6				3	9	17%			
06:15	12/10/2019	Saturday	9				3	12	23%			
07:15	12/10/2019	Saturday	12				2	14	26%			
08:15	12/10/2019	Saturday	17				2	19	36%			
09:15	12/10/2019	Saturday	18				3	21	40%			
10:15	12/10/2019	Saturday	22				2	24	45%			
11:15	12/10/2019	Saturday	25				2	27	51%			
12:15	12/10/2019	Saturday	28				2	30	57%			
13:15	12/10/2019	Saturday	31				2	33	62%			
14:15	12/10/2019	Saturday	27				2	29	55%			
15:15	12/10/2019	Saturday	25				4	29	55%			
16:15	12/10/2019	Saturday	23				4	27	51%			
17:15	12/10/2019	Saturday	18				4	22	42%			
18:15	12/10/2019	Saturday	18				4	22	42%			
19:15	12/10/2019	Saturday	25				4	29	55%			
20:15	12/10/2019	Saturday	29				4	33	62%			
21:15	12/10/2019	Saturday	29				4	33	62%			
22:15	12/10/2019	Saturday	24				4	28	53%			
23:15	12/10/2019	Saturday	19				2	21	40%			



	<b>Site / Location:</b> Site 3, Cockfosters Northern Car Park	<b>Project No:</b> 10464	<b>Drawing No:</b> 10464-03	<b>Drawn By:</b> <span style="background-color: black; color: black;">██████████</span>
	<b>Survey Date:</b> Thursday 10th and Saturday 12th October 2019	<b>Project Name:</b> Arnos Grove and Cockfosters		
	<b>Survey Times:</b> 00:00 to 24:00 on each day	<b>Drawing Title:</b> Site Layout and Observed Movements		



SITE: 3

DATE: 10/10/2019

LOCATION: Cockfosters Northern Car Park

DAY: Thursday

TIME	ENTRY								TOT	EXIT								TOT	IN before 0000	
	CAR	TAXI	LGV	OGV1	OGV2	PSV	MCL	PCL		CAR	TAXI	LGV	OGV1	OGV2	PSV	MCL	PCL		45	Spaces
	ACCUMULATION																		354	Occ%
00:00	2	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	3	44	12%
00:15	2	0	0	0	0	0	0	0	2	6	0	1	0	0	0	0	0	7	39	11%
00:30	1	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	1	5	35	10%
00:45	0	0	0	1	0	0	0	0	1	3	0	0	1	0	0	0	0	4	32	9%
01:00	3	0	0	0	0	0	0	1	3	2	0	0	0	0	0	0	1	2	33	9%
01:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	32	9%
01:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	31	9%
01:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	30	8%
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	8%
02:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	29	8%
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	8%
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	8%
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	8%
03:15	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30	8%
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	8%
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	8%
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	8%
04:15	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	31	9%
04:30	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	34	10%
04:45	3	1	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	1	37	10%
05:00	5	0	0	0	0	0	0	0	5	0	0	1	0	0	0	0	0	1	41	12%
05:15	3	1	0	0	0	0	0	1	4	1	1	0	0	0	0	0	0	2	43	12%
05:30	12	0	1	0	0	0	0	1	13	2	0	1	0	0	0	0	0	3	53	15%
05:45	7	0	2	0	0	0	1	0	10	2	0	0	0	0	0	0	0	2	61	17%
06:00	5	1	0	0	0	0	0	0	6	1	1	1	0	0	0	0	0	3	64	18%
06:15	17	0	1	0	0	0	0	0	18	2	0	0	0	0	0	0	0	2	80	23%
06:30	19	0	4	0	0	0	0	0	23	1	0	1	0	0	0	0	0	2	101	29%
06:45	6	0	1	0	0	0	0	0	7	1	0	0	0	0	0	0	0	1	107	30%
07:00	16	0	1	0	0	0	0	0	17	2	0	0	0	0	0	0	0	2	122	34%
07:15	17	0	0	0	0	0	0	0	17	1	0	0	0	0	0	0	0	1	138	39%
07:30	12	0	0	0	0	0	0	0	12	5	0	0	0	0	0	0	0	5	145	41%
07:45	18	0	2	0	0	0	0	0	20	4	0	0	0	0	0	0	0	4	161	45%
08:00	11	0	0	0	0	0	0	0	11	1	0	0	0	0	0	0	0	1	171	48%
08:15	19	0	0	0	0	0	1	0	20	2	0	0	0	0	0	0	0	2	189	53%
08:30	15	0	0	0	0	0	0	0	15	3	0	0	0	0	0	0	0	3	201	57%
08:45	7	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	208	59%
09:00	17	0	1	1	0	0	0	0	19	6	0	0	0	0	0	0	0	6	221	62%
09:15	15	0	0	0	0	0	0	0	15	4	0	0	0	0	0	0	0	4	232	66%
09:30	16	0	0	1	0	0	1	0	18	5	0	1	0	0	0	0	0	6	244	69%
09:45	11	0	0	0	0	0	0	0	11	5	0	0	0	0	0	0	0	5	250	71%
10:00	20	0	0	0	0	0	0	0	20	6	0	0	0	0	0	0	0	6	264	75%
10:15	13	0	0	0	0	0	0	0	13	1	0	0	0	0	0	0	0	1	276	78%
10:30	9	0	0	0	0	0	0	0	9	5	0	0	0	0	0	0	0	5	280	79%
10:45	7	0	1	0	0	0	0	0	8	2	0	0	0	0	0	0	0	2	286	81%
11:00	9	0	1	0	0	0	0	0	10	2	0	0	0	0	0	0	0	2	294	83%
11:15	15	0	0	1	0	0	0	0	16	6	0	2	0	0	0	0	0	8	302	85%
11:30	3	0	0	0	0	0	0	0	3	4	0	0	1	0	0	0	0	5	300	85%
11:45	9	0	0	0	0	0	0	0	9	2	0	0	0	0	0	0	0	2	307	87%
12:00	5	0	2	0	0	0	0	0	7	3	0	0	0	0	0	0	1	3	311	88%
12:15	6	0	0	0	0	0	0	0	6	5	0	1	0	0	0	0	0	6	311	88%
12:30	9	0	0	0	0	0	0	0	9	6	0	1	0	0	0	0	0	7	313	88%
12:45	6	0	1	0	0	0	0	0	7	9	0	1	0	0	0	0	0	10	310	88%
13:00	7	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	7	310	88%
13:15	9	0	1	0	0	0	0	0	10	3	0	0	0	0	0	0	0	3	317	90%
13:30	7	0	1	1	0	0	0	0	9	8	0	0	1	0	0	0	0	9	317	90%
13:45	9	0	1	1	0	0	0	0	11	4	0	1	1	0	0	0	0	6	322	91%
14:00	3	0	0	0	0	0	0	0	3	10	0	1	1	0	0	0	0	12	313	88%
14:15	7	0	0	0	0	0	0	0	7	11	0	0	0	0	0	0	0	11	309	87%
14:30	8	0	0	0	0	0	0	0	8	10	0	0	0	0	0	0	0	10	307	87%
14:45	5	0	0	0	0	0	0	0	5	14	0	1	0	0	0	0	0	15	297	84%
15:00	9	0	0	0	0	0	0	0	9	17	0	0	0	0	0	0	0	17	289	82%
15:15	3	0	1	0	0	0	0	0	4	15	0	0	0	0	0	0	0	15	278	79%
15:30	3	0	0	1	0	0	0	0	4	10	0	1	1	0	0	0	0	12	270	76%
15:45	7	0	1	1	0	0	0	0	9	9	0	1	1	0	0	0	0	11	268	76%
16:00	5	0	1	0	0	0	0	0	6	15	0	2	0	0	0	0	0	17	257	73%
16:15	4	0	0	0	0	0	0	0	4	17	0	2	0	0	0	0	0	19	242	68%
16:30	6	0	0	0	0	0	0	0	6	19	0	0	0	0	0	0	0	19	229	65%
16:45	5	0	1	0	0	0	0	0	6	10	0	1	0	0	0	0	0	11	224	63%
17:00	5	0	0	0	0	0	0	0	5	21	0	1	0	0	0	0	0	22	207	58%
17:15	5	0	1	0	0	0	0	0	6	16	0	0	0	0	0	0	0	16	197	56%
17:30	7	0	0	0	0	0	0	0	7	12	0	2	0	0	0	0	0	14	190	54%
17:45	8	0	0	0	0	0	0	0	8	21	0	0	0	0	0	0	0	21	177	50%
18:00	8	0	0	0	0	0	0	0	8	11	0	1	0	0	0	1	0	13	172	49%
18:15	11	0	0	0	0	0	0	0	11	17	0	1	0	0	0	0	0	18	165	47%
18:30	11	0	0	0	0	0	0	0	11	16	0	0	0	0	0	0	0	16	160	45%
18:45	9	0	0	0	0	0	0	0	9	15	0	0	0	0	0	1	1	16	153	43%
19:00	3	0	1	0	0	0	0	0	4	13	0	2	0	0	0	1	0	16	141	40%
19:15	1	0	1	0	0	0	0	0	2	6	0	0	0	0	0	0	0	6	137	39%
19:30	5	0	0	0	0	0	0	0	5	11	0	1	0	0	0	0	0	12	130	37%
19:45	3	0	0	0	0	0	0	0	3	13	0	0	0	0	0	0	0	13	120	34%
20:00	3	0	0	0	0	0	0	0	3	6	0	0	0	0	0	0	0	6	117	33%
20:15	2	0	0	0	0	0	0	0	2	6	0	0	0	0	0	0	0	6	113	32%
20:30	3	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	3	113	32%
20:45	2	0	0	0	0	0	0	0	2	6	0	0	0	0	0	0	0	6	109	31%
21:00	2	0	0	0	0	0	0	0	2	8	0	0	0	0	0	0	0	8	103	29%
21:15</																				







<b>Site / Location:</b>	Site 4, Cockfosters Southern Car Park	<b>Project No:</b>	10464	<b>Drawing No:</b>	10464-04	<b>Drawn By:</b>	█
	<b>Survey Date:</b>		Thursday 10th and Saturday 12th October 2019		<b>Project Name:</b>		Arnos Grove and Cockfosters
	<b>Survey Times:</b>	00:00 to 24:00 on each day	<b>Drawing Title:</b>	Site Layout and Observed Movements			



