Ravensbourne Valley Residents Association, Road Safety Working Group 20/12/22

# Proposal for Ravensbourne Valley Quiet Scheme

# 1. What is the area?

The proposal is focussed on the area of residential streets bounded by London Rd (A21), Beckenham Lane (A222), Southend Rd (A2015, junctions with Foxgrove Rd and The Avenue). The southern boundary is effectively along the Beckenham Jnc to Shortlands railway line. The benefits of the scheme extend beyond this area.

# 2. Why do we need action here?

- a) ever-increasing traffic volumes in the residential streets a 2.8km 'rat-run' route
- b) worsening speeding and driver behaviour
- c) larger vehicles using the streets
- d) increasing dissatisfaction and stress in the community with negative impact on health and well-being<sup>1</sup>
- e) these residential roads were not intended or designed to carry this amount of traffic or act as a major through-route<sup>2</sup>
- f) Sat-nav is greatly exacerbating the problems as drivers seek quicker routes
- g) increasing danger for cyclists and pedestrians
- h) this extensive residential area should be perfect for cycling and walking, but these are increasingly perceived as unsafe
- i) Shortlands area traffic problems need addressing as part of the LIP Liveable Neighbourhood project. This proposal can form part of this<sup>2a</sup>

# 3. What is the evidence that there is a problem?

- a) in a recent survey in the area<sup>3</sup> 59% of residents complained of traffic volumes, 56% of speeding, 35% of excessive noise, 33% of air pollution; in another recent survey in the area<sup>4</sup> almost all respondents mentioned speeding as an issue requiring action and half mentioned traffic volumes.
- residents' statistics of traffic volumes and behaviour in Bromley Avenue and Crab Hill reveal unacceptable levels<sup>5</sup>
- c) the former Cycle Network route (Foxgrove Rd, Crab Hill etc) through the area is one of the routes which has been removed from the national network because the road is now considered too dangerous for cyclists<sup>6</sup>
- d) hardly any cycling in the area compared to number of motor vehicles<sup>7</sup>
- e) the problem reflects a national pattern: between 2008 and 2019, miles driven on A and B roads fell slightly but increased by 72% on unclassified roads, much due to Sat-nav<sup>8</sup>
- f) it is not enough to base safety arguments on KSI statistics: they omit near misses, and <u>experiential</u> evidence as quoted above is now increasingly used in

decision making<sup>9.</sup> The LIP validates this by aiming 'to reduce fear of road danger'<sup>9a</sup>

# 4. Why is it a problem for traffic to go on the residential streets?

- a) Residents' quality of life and health is seriously affected by danger, noise (including car horns in congested streets), pollution and stress.
- b) These residential roads are not engineered for these volumes of traffic; they lack crossings, islands and the other safety features of main roads. This impacts disproportionately on vulnerable adults and children. For example, the lack of traffic islands at Ravensbourne Station and in Crab Hill makes it dangerous to cross, so residents make choices accordingly: they don't take their young children to the park, elderly residents won't travel in the rush hour as they can't cross the road to use the bus stop (both these examples are current ones from residents in Crab Hill).
- c) residents' daily perceptions of risk in the area lead to their choosing the car over sustainable transport choices<sup>9a</sup>. LBB needs to increase sustainable modeshare to 60% by 2041.
- d) On urban roads, driving a mile on a minor urban road is twice as likely to kill or seriously injure a child pedestrian, and three times more likely to kill or injure a child cyclist, compared to driving a mile on an urban A-road<sup>8</sup>

## 4. What are we proposing?

The RVR Group has carefully considered a scheme in the Borough of Hammersmith and Fulham ("LBHF") <sup>13</sup> where former severe rat running has been solved by the installation of a set of ANPR cameras in the centre of the area. These are linked to a database so that everyone who lives in the area can drive past them, but not those from outside the area (with exceptions for buses, Royal Mail, emergency services, railway and other infrastructure staff, taxis, school staff and parents, and residents' friends/family/visitors whom residents can add to the database, retrospectively if necessary).

Note that the scheme <u>does not prevent any vehicle from accessing all the roads</u> on both sides of the camera, nor does it prevent any physical access to the area. What the scheme limits is who can drive <u>past</u> the ANPR cameras positioned in one central location, thereby restricting who can <u>pass through</u> the area. All the roads in the entire area thus remain accessible for all vehicles.

We propose a similar scheme, installing two sets of ANPR cameras: one on Crab Hill near Ravensbourne Station, one on Downs Hill between the junction with Downs Bridge Rd and Ravensbourne Ave, with appropriate signage (in the LBHF scheme, drivers pass 3 warning signs between the main road and the camera). There is no other physical infrastructure. A database is operated, which all residents of the area, school staff and parents can log into and then enter details e.g. of their vehicles.

# 5. What are the benefits?

- a) long term <u>beneficial</u> balance for LBB roads budget, as this solution removes the need for the increasing number of expensive road interventions that will be required across the whole 2.8km area as the traffic problems worsen (Bromley Ave residents are already campaigning for various interventions<sup>10</sup>)
- b) large reduction in maintenance costs otherwise increasingly required for the large mileage of roads in the area, given current growing traffic volumes and weights (more lorries etc)
- c) increase in cycling and sustainable modeshare, both in journeys originating in the area and from beyond
- d) if correctly designed, the scheme could include implementation of the New Beckenham to Bromley Quietway or similar<sup>11</sup>. This could potentially be a corridor to funding or part-funding the project.
- e) reduced traffic flows in Shortlands and surrounding areas (see 7 below)
- f) positive improvements in physical and mental health across a wide residential area which comprises thousands of residents
- g) it could be designed to be part of the Shortlands' Liveable Neighbourhood improvements, which are required to "deliver attractive infrastructure for active travel" (LIP3)

# 6. What are the costs?

- a) design and consultation process
- b) two sets of cameras with installation and set-up
- c) signage
- d) establishment and operation of database
- e) resident information provision

The cost of the scheme will be revenue-neutral for LBB, as the above costs are offset by the following:

- i) revenue stream from fines levied on drivers who are not authorised to drive past the cameras (decreasing over time)
- ii) savings in road interventions otherwise required to deliver safety
- iii) savings in road maintenance in the whole area
- iv)savings from not implementing other schemes (e.g. Quietway) otherwise required to deliver LIP3 and sustainable modeshare targets

# 7. Will the scheme lead to increased traffic on surrounding roads?

- a) In the medium to long term it will <u>reduce</u> traffic on surrounding roads. Counterintuitively, schemes of this kind lead to overall traffic reduction<sup>12</sup> as habits change. There is a mounting body of evidence, from all over the world, that if the project is well designed, simplistic predictions of pushing traffic onto surrounding roads are (in the medium and long term) mistaken. Traffic levels will <u>fall</u>. This is particularly the case here, as most of the traffic originates from outside the area.
- b) over time, Sat-nav algorithms will divert traffic from the surrounding area (e.g. round the A21 and A2218) as the remaining traffic finds a different equilibrium
- c) therefore the combination of these two effects will be, counter-intuitively, to improve traffic flow at Shortlands.

# 8. What are the risks?

Initial reconfiguration of local traffic flows may create political pressure from dissatisfied vehicle users living outside the area (this can be partially mitigated by issuing warning letters rather than fines in the first months, as in LBHF scheme). While in the medium to long term the scheme will deliver <u>benefits</u> to traffic flows in surrounding roads, in the short term (Satnav systems take up to six months to update) there will be pressure as habits change. For this reason it is necessary that the scheme be well designed, well explained to local residents and enjoy strong local support. We have talked to many local residents: this scheme would enjoy strong support in the area included on the projected database. By the time of the next local elections, 2026, the benefits of the scheme even for those living outside the area will have become clear: the LBHF scheme, despite scepticism before installation, now enjoys 91% support from residents<sup>13</sup> and LBHF have now introduced a similar scheme in another area.

# 9. Does the proposal conform to LBB traffic policy?

a) It complies with LBB Traffic and Road Safety Policies para 3.8, as the cameras are not being used to enforce a LTN or to enforce the blocking off of roads. Access remains to all roads for all vehicles. What is changed is the <u>route</u> that some vehicles take to access some areas: this is the same effect intended by other recent Council interventions, e.g. making Westgate Rd railway bridge one-way, or installing the modal filter at the end of Albemarle Rd.

b) The scheme fulfils the criteria for area-wide local neighbourhood schemes and for speed management and road danger reduction schemes<sup>14</sup>

## 10. Is there is a budget for developing plans?

We note that there is a funding slot in the Portfolio Plan for developing bids for future years and we urge the Portfolio Holder to add this project to the list.

# Footnotes

1. *Traffic stress, vehicular burden and well-being: a multilevel analysis* Social Science and Medicine 2004 Jul; 59(2) https://pubmed.ncbi.nlm.nih.gov/15110429/

- 2. Crab Hill was only adopted to facilitate the bus route, which in the end remained in Downs Hill
- 2a. See LIP3 p.148 Liveable Neighbourhood Match Funding
- 3. survey undertaken by Copers Cope Area Residents Association. The relevant statistics in the Ravensbourne area are supplied as a separate file: Beckenham Local Travel Survey\_RVR extract
- 4. Bromley Living Streets Ravensbourne Valley Survey 2021 (see appendix)
- 5. See appendix: residents' vehicle statistics for Bromley Ave and Crab Hill
- 6. <u>https://highways-news.com/hundreds-of-miles-of-roads-removed-from-ncn-as-sustrans-makes-changes/</u>
- 7. see the cycle figures in the residents' statistics
- 8. source: <u>betterstreets.co.uk</u>

9. several London councils now use the <u>perception</u> of risk as a further indicator of safety, and this indicator is validated by Department for Transport guidance: "...infrastructure must not only be safe but be perceived to be safe" (DfT Manual for Streets 6.2.1) 9a. "a programme...to reduce fears of road danger created that negatively impact on the choice to travel actively" (LIP)

10. junction of Madeira Ave/Bromley Ave, where Bromley Ave traffic fails to slow or give way to traffic on Madeira Ave; junction Grasmere Rd/Bromley Ave where traffic cuts the corner at speed; speeding and dangerous overtaking on Bromley Ave.

11. "there is great potential for...cycling in Bromley so the Council will seek to work alongside TfL to deliver high quality strategic cycle network routes in the Borough" (LIP3) 12. evidence of counter-intuitive 'traffic evaporation':

'Proceedings of the Institution of Civil Engineers', Vol 151 issue 1:

https://www.icevirtuallibrary.com/doi/full/10.1680/muen.2002.151.1.13

(eighteen further studies are cited in this article)

https://www.rapidtransition.org/stories/reducing-roads-can-cause-traffic-to-evaporate/ (seventeen further references are cited in this article)

13. http://democracy.lbhf.gov.uk/documents/s118742/

Cabinet%20Report%20061221%20South%20Fulham%20TCPR%20East%20Experimenta <u>I%20Scheme.pdf</u> The company which the Council may choose to handle the scheme may be Marston Holdings, which successfully implemented the LBHF scheme.

14. "Promoting area wide schemes to remove inappropriate rat running and promote the use of safe speeds presents an important opportunity to facilitate walking and cycling for local trips" (LIP3). Here both the school and the park are destinations. Also see LIP p.148

Appendix follows, containing:

- 1) Bromley Living Streets Ravensbourne Valley Survey 2021
- 2) residents' vehicle statistics, Bromley Ave
- 3) residents' vehicle statistics, Crab Hill





# **BLS-RVR Traffic Survey Report**

# Farnaby Road, Ravensmead Road, Ravensbourne Avenue, Bromley Avenue

## **Report Publication:**

- Version 1: March 2022
- Version 2: December 2022

## Summary:

This report presents findings from traffic surveys conducted by Bromley Living Streets in partnership with Ravensbourne Valley Residents. Bromley Living Streets is a local group of Living Streets, the national charity for everyday walking. Ravensbourne Valley Residents is a local residents association.

The report presents findings from two surveys conducted between 2020 and 2022. The first survey covers Farnaby Road, Ravensmead Road, Ravensbourne Avenue. 60 households responded to this survey. A second survey covers Bromley Avenue. The questions used in these surveys are contained at the end of the report (Annex 1).

It seemed appropriate to include these roads in a single survey as they are all part of the same cutthrough. Bromley Avenue-Farnaby-Ravensbourne Ave-Crab Hill-Foxgrove Road is used for rat-running for traffic between Bromley Town and Beckenham, as a cut-through to avoid traffic going along Bromley Road through Shortlands Village. Ravensmead is used by cars trying to avoid traffic caused by narrowness of Ravensbourne Ave between Farnaby Road and Ravensbourne Station. There are several factors which may have contributed to the view (repeated by residents throughout the survey responses) that the situation has become worse in recent years (see 'key context' section, below).

The timing of this report will mean it can feed into assessment of local traffic which Bromley Council intends to begin in April 2022.

## Summary of results for Farnaby-Ravensmead-Ravensbourne Ave survey:

- 1. Considerable concern about speeding, lesser concern about parking and volume of traffic.
- 2. Rush hour is particularly bad.
- 3. Increase in accidents on Farnaby in past 5 years.
- 4. Concern about parking on Farnaby in particular, reduced visibility due to cars or vans parked on road close to driveways, combined with high speeds of vehicles on the road, make it extremely dangerous to pull into or out of driveways.

- 5. Households on west side of Ravensmead Road have Ravensbourne Avenue at the end of their back gardens. Ravensbourne Avenue traffic stops them enjoying their back gardens.
- 6. Considerable interest in speed reduction measures set out in survey. Large number of comments that only physical measures (options E-I in question 4) will make a difference.

2. Are any of the following issues for you on your road?	
Parking	20
Volume of traffic	27
Speeding	58
3. How do you feel about the speed of traffic on your road?	
A significant problem, action is required.	52
4. Would you be interested in considering any of the following speed reduction measures or your road?	on
New signs, lines and other road markings (e.g. painting '30mph' on the road).	42
New vehicle activated signs (e.g. in addition to the one installed recently).	33
Speed indicators and flashing beacons (e.g. a sign that flashes the driver's speed).	44
Virtual speed humps (road markings that look like a speed hump). 31	
Road humps, speed cushions or raised tables.	31
Chicanes.	27
Traffic islands and pedestrian refuges.	24
Narrowing the road along its whole length.	12
Modal filter.	20

## **Bromley Avenue survey**

## Key context:

This section sets out key developments contributing to the current Bromley Avenue-Farnaby-Ravensbourne Ave-Crab Hill-Foxgrove Road (BFRCF) rat-run route, used by traffic between Bromley Town and Beckenham.

- 1. 10 years ago, section of Crab Hill next to Ravensbourne station was surfaced, encouraging use of this route for 'rat-running' to avoid traffic going Bromley Road through Shortlands Village.
- 2. Research indicates 2010 was the key point when GPS and apps such as GoogleMaps became widely used, making rat-running much easier.
- 3. At some point Bromley Council decided to charge for parking on Crab Hill on weekdays. This had the effect of reducing the number of cars parking on the road. Residents believe this increased the volume and speed of rat-running.
- 4. Conservative Cllrs for Bromley Town ward initiated work to improve amenity and traffic flow through Shortlands Village through the Shortlands Friendly Village Scheme. This work

stopped without announcement of a plan of action for the area. Councillors explained this was due to TfL financial situation.

- 5. During the pandemic, a cycle lane was trialled on Albemarle Road. Some residents believe this contributed to increased volume of traffic on the BFRCF rat-run route.
- 6. In April 2022, Bromley Council began examining options for traffic on these roads.
- 7. In 2022 May local elections, all these roads shifted from being part of Bromley Town ward to being part of Shortlands ward.

## Top quotes from survey responses:

"Foxgrove to Ravensbourne Ave and Ravensmead Rd to Farnaby Rd is a high speed rat run. Heavy traffic and speeding is constant between 08.00 and 20.00."

"The speed of cars on Farnaby Road will always be a problem on Farnaby Road as long as the speed limit is 30mph. Bromley Council need to fall in line with other boroughs and make all residential roads 20mph – there will be a fatality due to speeding on this road! Even buses don't adhere to the speed limit on our road, let alone motorcycles or cars."

"Rush hour especially is awful - volume of traffic from the early hours but also speeding - the noise wakes us up and windows can't be opened in the summer."

"Biggest problem is SPEEDING down Farnaby Road. A vehicle activated speeding sign was put up outside our house some time ago and has had absolutely no impact whatsoever. We also have had a free parking space outside our house and regularly have vans parked permanently outside that provides us with zero visibility when we leave our drive. Put together with the speeding issue these two problems present us with a signifacant safety hazard every time we drive out of our driveway."

"The main issues is the parking layout in front of my driveway. We often find it extremely hazardous when driving out of our drive because there are bays on our side of the road to immediate left and right and then bays right opposite. With many vans that park right in this vicinity (sometimes up to 5 very large vans), we have almost no visibility when trying to drive out and with the speeding traffic on this road, it is very dangerous. Sometimes there isn't enough space to turn right or left without extreme stress and fear of an accident."

## Annex 1 – Survey questionnaires:

#### Survey 1 (Farnaby Road, Ravensmead Road, Ravensbourne Avenue)

- 1. Name and address
- 2. Are any of the following issues for you on your road?
  - a. Parking
  - b. Volume of traffic
  - c. Speeding

Please add a comment if necessary.

- 3. How do you feel about the speed of traffic on your road?
  - a. It's fine

- b. Mildly irritating, no action required
- c. A significant problem, action is required

Please add a comment if necessary.

- Would you be interested in considering any of the following speed reduction measures on your road? (Details of these measures can be found here: <u>http://content.tfl.gov.uk/achievinglower-speeds-toolkit.pdf</u>)
  - a. New signs, lines and other road markings (e.g. painting '30mph' on the road)
  - b. New vehicle activated signs (e.g. in addition to the one installed recently)
  - c. Speed indicators and flashing beacons (e.g. a sign that flashes the driver's speed)
  - d. Virtual speed humps (road markings that look like a speed hump)
  - e. Road humps, speed cushions or raised tables (road humps and raised tables go across the whole road, speed cushions allow buses or emergency vehicles to pass unhindered)
  - f. Chicanes (e.g. using islands or physical buildouts, which could take the form of planters, parklets or strategically positioned trees)
  - g. Traffic islands and pedestrian refuges
  - h. Narrowing the road along its whole length (e.g. by introducing median strips, adding cycle paths or segregated cycle lanes, widening footpaths or adding a 'grassy verge' to one or both sides of the road)
  - Modal filter (e.g. adding a gate or bollards, either at one end of the road or halfway along its length, in order to stop all motor traffic using the road as a cut-through addition of a bus gate would mean the only motor traffic able to travel through would be public transport and emergency vehicles)
- 5. Would you be interested in storing your bicycle in a cycle hangar on your road? (A cycle hangar is a safe, covered place to park a cycle. There are over 7,200 spaces across 25 London boroughs.)
- 6. Are there any traffic issues you would like to mention on roads nearby **other** than your road?

## Survey 2 (Bromley Avenue)

- 1. Name and address
- 2. Are you troubled by traffic noise from:
  - a. Cars
  - b. Motorcycles

- 3. If so, are there specific times when you fell that it's worse than others?
- 4. Have you experienced damage to your vehicle(s)? (e.g. wing mirrors)
- 5. Have you witnessed dangerous driving? (please give examples)
- 6. Would you be in favour of traffic-calming measures in Bromley Avenue? If yes, what would you like to see?
- 7. With regard to traffic turning into Bromley Avenue from Grasmere Road: have you seen examples of bad driving at this junction? If yes, please give details.
- 8. If yes to question 7, have you any suggestions as to how this junction might be improved?

## Annex 2 - Maps:



**Fig. 1. The rat run route** we're focused on, shown here courtesy of Google Maps, which is part of the problem (insofar as Google Maps and other SatNavs have enabled more drivers to find and use this route).

Source: https://www.google.com/maps/dir/Londis+Bromley+-+London+Road,+108+London+Rd, +Bromley+BR1+3RL/cakesofbeckenham,+Foxgrove+Road,+Beckenham/ @51.4104505,-0.0108334,15z/data=!3m1!4b1!4m14!4m13!1m5!1m1! 1s0x47d8aa0c3d3f5c1b:0xdc137df00d0585b5!2m2!1d0.0082032!2d51.4131593!1m5!1m1! 1s0x48760114cdbf9c01:0x89d79639091faa6b!2m2!1d-0.0113248!2d51.4123186!3e0



Fig. 2. Ward boundaries in black, borough boundary in green.

Source: https://www.lgbce.org.uk/media/new-political-map-for-bromley-council



**Fig. 3. Local crashes.** Note that not all crashes are recorded here, for example an incident where a car landed on its roof in Farnaby Road in 2018.

Source: https://www.crashmap.co.uk/Search

## **RESIDENTS' REPORTS**

- (a) Junction of Bromley Avenue with Madeira Avenue
  - The volumes may have been impacted by the closure for gas pipe repairs of Farnaby Road just to the south of the junction with Bromley Avenue; some anecdotal evidence that a few more vehicles perhaps using Madeira Avenue to access Bromley Avenue; a repeat survey may be needed to check the position.
  - The numbers show it to be a very busy junction.
  - Several near misses 2 on the first morning.
  - "Give Way" signs totally ignored by a small but significant number of vehicles, both when travelling up Bromley Avenue as well as down Bromley Avenue, which continue across Madeira Avenue with hardly any slowing of speed - huge danger for any traffic travelling along Madeira Avenue but especially for any on 2 wheels.
  - A WhatsApp group comprised of Madeira Avenue neighbours living north of the Bromley Avenue junction commented that:-
    - one person had had their car written off in a collision at this junction;
    - numerous other near misses reported. (Will Harmer, when a Councillor living in this part of Madeira Avenue, commented at an RVR meeting that he too had experienced several near misses at this junction).
  - A couple of incidents this week involving individual vehicles crashing into the fences of properties on the upper part of Bromley Avenue due to the wintery conditions no gritting of this road undertaken by LBB. No apparent personal injuries.

## (b) Junction of Bromley Avenue and Grasmere Road

- The numbers show it to be a very busy junction.
- Of vehicles travelling from the direction of Oaklands Road and turning into Bromley Avenue there is a large percentage (59.7% in morning, 64.2% in evening) which cut the corner, often by a substantial margin. That said, no near misses witnessed during our 2 sessions although a bad accident has previously occurred at this junction.
- The issue of corner cutting is not helped by the topography of the road which causes an adverse/unusual camber at the junction.
- Vehicles travelling from Oaklands Road is forced on to the right hand side of the road due to the presence of car parking spaces on Grasmere Road; this generates the potential for head-on collisions between such vehicles and others turning left out of Bromley Avenue.
- There is a problem with sight lines both right and left for vehicles wishing to turn out of Bromley Avenue into Grasmere Road.

## (c) Crab Hill

- There have been several non-injury collisions in recent years.
- inappropriate speeds make the road hard to cross in rush hour. Park users, often with young children, feel unsafe.

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		an	DOWN	- A		DOWN	an		DOWN		NUME	BER	1	2	
DATE:	17.11.22														
TIME:	08.00 - 08.30														
CARS		55	157	1	Ū.	13	e		19		9				268
COMMERCIAL		7	34		8	2	сı		1		0				48
MOTORBIKES		0	0		0	0	0		0		0				0
CYCLES		0	0		0	0	0		0		0				0
SESSION TOTALS		62	191	1	8	15	4		20		9				316
DATE:	17.11.22														
TIME:	17.00 - 17.30														
CARS		105	115	2	8	4	10		30		4				007
COMMERCIAL			39		0	1	0		2		0				440
MOTORBIKES		1	c		0	0	0		0		0				4
CYCLES		0	1		0	0	0		0		0				1
SESSION TOTALS		196	158	2	8	5	10		32		4				433
DATE:	18.11.22														
TIME:	08.00 - 08.30														
CARS		61	153		6	7	ŝ		37		4				274
COMMERCIAL		20	46		9	0	1		5		0				78
MOTORBIKES		0	2		0	0	0		0		0				2
CYCLES		0	2		0	0	0		0		0				2
SESSION TOTALS		81	203	1	5	7	4		42		4				356
DATE:	18.11.22														
TIME:	17.00 - 17.30														
CARS		161	115	2	9	11	9		23		4				346
COMMERCIAL		16	16		3	0	0		1		1				37
MOTORBIKES		1	3		0	0	0		0		0				4
CYCLES		0	0		0	0	0		0		0				0
SESSION TOTALS		178	134	2	6	11	9		24		5				387
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			TRAFFIC MOVEMENTS AT THE JI	UNCTION OF BROMLEY AVENUE & GF	<b>ASMERE ROAD</b>				
	TRAVELLING UPHILL	TRAVELLING UPHILL	TRAVELLING UPHILL	<b>TURNING INTO BROMLEY AVENUE</b>	TURNING INTO BROMLEY	CONTINUING ALONG	CONTINUING ALONG	TOTALS	TOTALS excl
	& TURNING RIGHT	& TURNING LEFT	& STRAIGHT AHEAD	AVENUE, DOWNHILL, FROM	AVENUE, DOWNHILL, FROM	GRASMERE ROAD	GRASMERE ROAD		Continuing
				OAKLANDS ROAD	HIGHLANDS ROAD	FROM OAKLANDS ROAD	FROM HIGHLANDS ROAD		traffic
DATE: 22.11.22									
TIME: 08.00 - 08.30									
CARS	22	71	0	109	47	7	4	260	249
COMMERCIAL	2	9	0	25	15	2	с	53	48
MOTORBIKES	0	0	0	0	0	0	0	0	0
CYCLES	0	0	0	<mark>1</mark>	0	0	0	1	1
SESSION TOTALS	24	77	0	135	62	6	7	314	298
<u>DATE:</u> 22.11.22									
TIME: 17.00 - 17.30									
CARS	27	82	0	20	25	m	10	206	160
COMMERCIAL	7	30	0	<mark>∞</mark>	5	0	0	50	FOT
MOTORBIKES	0	2	0	<b>-</b>	0	1	0	4	m
CYCLES	0	0	0	0	0	0	0	0	0
SESSION TOTALS	34	114	0	68	30	4	10	260	246
Corner cut (Cars Morning				80 59.70%					
& Commercials) Evening				43 64.20%					

Traffic counts in Crab Hill	
<u>Friday 25th November 2022</u> <u>8.05am - 8.35am (30mins)</u>	
Cars/vans/lorries: Motorcyclists/scooters: Bicycles:	332 (Uphill 243; Downhill 89) = 11.07 vehicles per min 0 1
<u>Friday 25th November 2022</u> <u>4.25pm - 4.55pm (30 mins)</u>	
Cars/vans/lorries: Motor cycles/scooters: Bicycles:	275 (Uphill 124; Downhill 151) = 9.17 vehicles per min 5 1
<u>Saturday 26th November 20</u> <u>1.35pm - 1.55pm (20 mins)</u>	22
Cars/vans/lorries: Motor cycles/scooters: Bicycles:	169 (Uphill 94; Downhill 75) = 8.45 vehicles per min 1 1